

COMMITTEE FOR CONSTRUCTION AND HOUSING AND UTILITIES OF THE MINISTRY OF INDUSTRY AND INFRASTRUCTURAL DEVELOPMENT OF THE REPUBLIC OF KAZAKHSTAN

COMMITTEE OF GEODESY AND CARTOGRAPHY OF THE MINISTRY OF DIGITAL DEVELOPMENT OF INNOVATION AND AEROSPACE INDUSTRY OF THE REPUBLIC OF KAZAKHSTAN



CREATION AND IMPLEMENTATION OF GIS SYSTEMS IN THE REPUBLIC OF KAZAKHSTAN

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Korea, 2022

Several projects related to spatial data implemented in the Republic of Kazakhstan

- Unified geoportal of infrastructure data of the Republic of Kazakhstan (Automated information system of the state urban cadastre) – GGK.KZ
- National Spatial Data Infrastructure (NSDI) of the Republic of Kazakhstan

The main presentations are very relevant to Kazakhstan, of course, the knowledge and experience of Korea in the implementation of such systems are very useful for us and we are trying to create and implement such systems in our country. We are also glad to learn about ADB-financed projects in other countries and explore the opportunities and support provided by ADB.

Session 1. Introduction of Korea National Spatial Data Infrastructure – Dr. Daejong Kim

Session 2. Introduction of K-Geo Platform (Web GIS platform) for geospatial data exchange and sharing

Session 3 . Spatial Data Sharing and Utilization Mechanism in South Korea - Dr. YoungJoo Leeg

Session 4 . Korea Cadastral Management Information System – LX Corporation Session 5 . Seoul Urban Planning Information System – Dr. Taehyun Kim

Session 6. Global Trends of Land Registration System Korea Land Registration System – Seok Yong Yoon

We also really enjoyed the trip to the NGII Institute

Unified geoportal of infrastructure data of the Republic of Kazakhstan (GGK.KZ)

PROJECT OBJECTIVE: Creation of a tool for continuous urban planning regulation and territorial development processes



OPEN INFRASTRUCTURAL DATA ON THE GGK.KZ PLATFORM

DIGITIZED ENGINEERING NETWORKS OF SETTLEMENTS (up to the level of the district center)

198

64,7%

- Master Plan (up to the level of the district center)
- 700

Detailed Plan (up to the level of the district center)

NECESSARY:

- CONTINUOUS DATA UPDATE
- AUTOMATION OF SERVICES AND FUNCTIONS OF Local authorities
- PUBLICATION OF FREE CAPACITIES AND CONNECTION POINTS



CAPABILITIES

 ✓ Open access to Master Plan and Detailed Plan

3

individual

- Free capacities and connection points
- Access to the services via one window (architect and planning tasks and technical specifications, approval of a preliminary design, registration of an act of acceptance of an object into operation)



- Entity (business)
- ✓ Ability to reserve the capacities for ENGINEERING NETWORKS

CONTROL OF THE IMPLEMENTATION OF URBAN PLANNING DOCUMENTS, EXCLUSION OF ILLEGAL SPOT CONSTRUCTIONS OF BUILDINGS



End-to-end verification (comparison) of documents using unique object numbers



GGK

Online issuance of APT, approval of the preliminary design in the system of city cadaster in accordance with the MP, DP

with elimination of human involvement

Assignment of a UNIQUE NUMBER TO THE OBJECT (UNO) - an analogue of the IIN for construction pro Exclusion of CORRUPTION RISKS when issuing initial permits

CREATION FOR EACH MAJOR CITY OF FUNCTIONAL INTERACTIVE LAND PARTS AND UTILITY NETWORKS

INTERACTIVE MAP UTILITIES DIAGRAM

DIGITIZED





IKI

(333 THOUSAND Hectares)

ACCESS TO SYSTEM



IT IS REQUIRED TO DIGITIZE ENGINEERED NETWORKS

Total

35,3% (181.8 THOUSAND HECTARES) BY THE END OF 2024 IN THE FRAMEWORK OF THE NATIONAL PROJECT TECHNOLOGICAL DRIVE



CHALLENGES IN COLLECTING ENGINEERING COMMUNICATION DATA



project: DEVELOPMENT National Spatial Data Infrastructure (NSDI)

Paragraph 56 of Plan of action of State Program "Digital Kazakhstan" for 2018-2022

Paragraph 123 of Plan of action of

National project "Technological breakthrough through digitalization, science and innovation" for 2022-2025

The project «Building NSDI» consists of 2 components: I. Establishment of a modern state coordinate system

II. Providing the area of the country, including cities and district centers with open maps

Project implementation period: 2021-2024.

For the Development of NSDI nessesary:

- research on gravimetric survey
- define a single format of spatial data, develop standarts
- research on digital terrain model
- measures for the introduction of a single digital map