

## THE LAND CADASTRAL INFORMATION SYSTEM

The author: Gankhuu.Ts /Director General of Agency for Land Administration and Management, Geodesy and Cartography/  
The Co-author: Gankhuyag.R /Head of Administration and Cooperation Department/  
Galmandakh.B /Head of Cadastral Division/

### "CADASTRAL DATABASE ERROR FIXING AND CONVERTING"

#### Cadastral mapping:

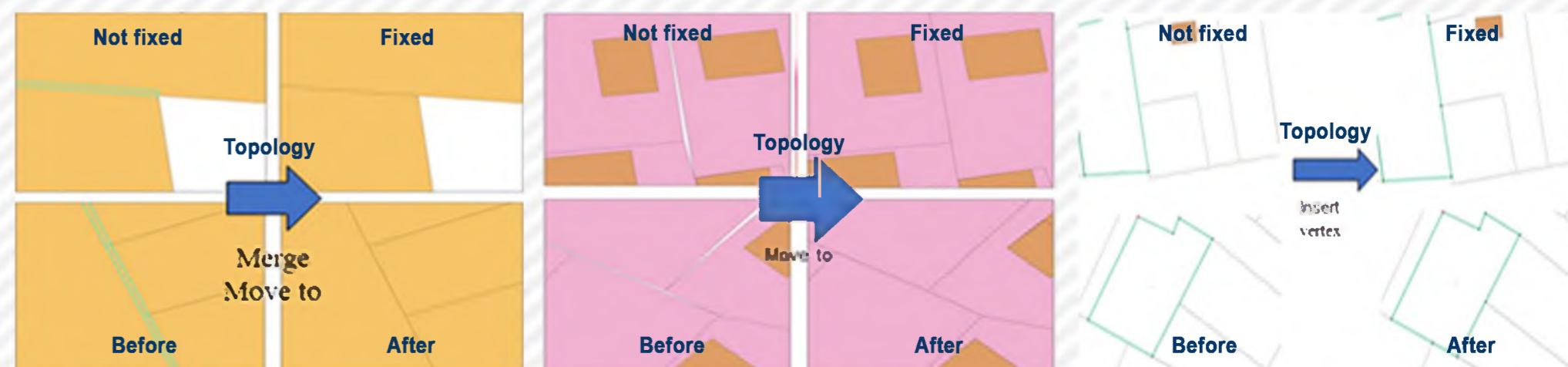
- Produced cadastral mapping for approximately 1 million parcels on World Geodetic System 1984 (WGS84)/ Universal Transverse Mercator coordinate system;
- Established 2321 geodetic control points on national surveying network.

#### The registration of land title:

- Made land title registration on whole Mongolia;
- 1 million parcels are registered into integrated standard.

#### Parcel documents:

- 525823 parcel documents recreated;
- 525823 parcel documents transferred to standardized digital archive.



The registration of land title



Cadastral mapping and parcel document

### "LAND MANAGER" LAND INFORMATION SYSTEM SOFTWARE

#### Database:

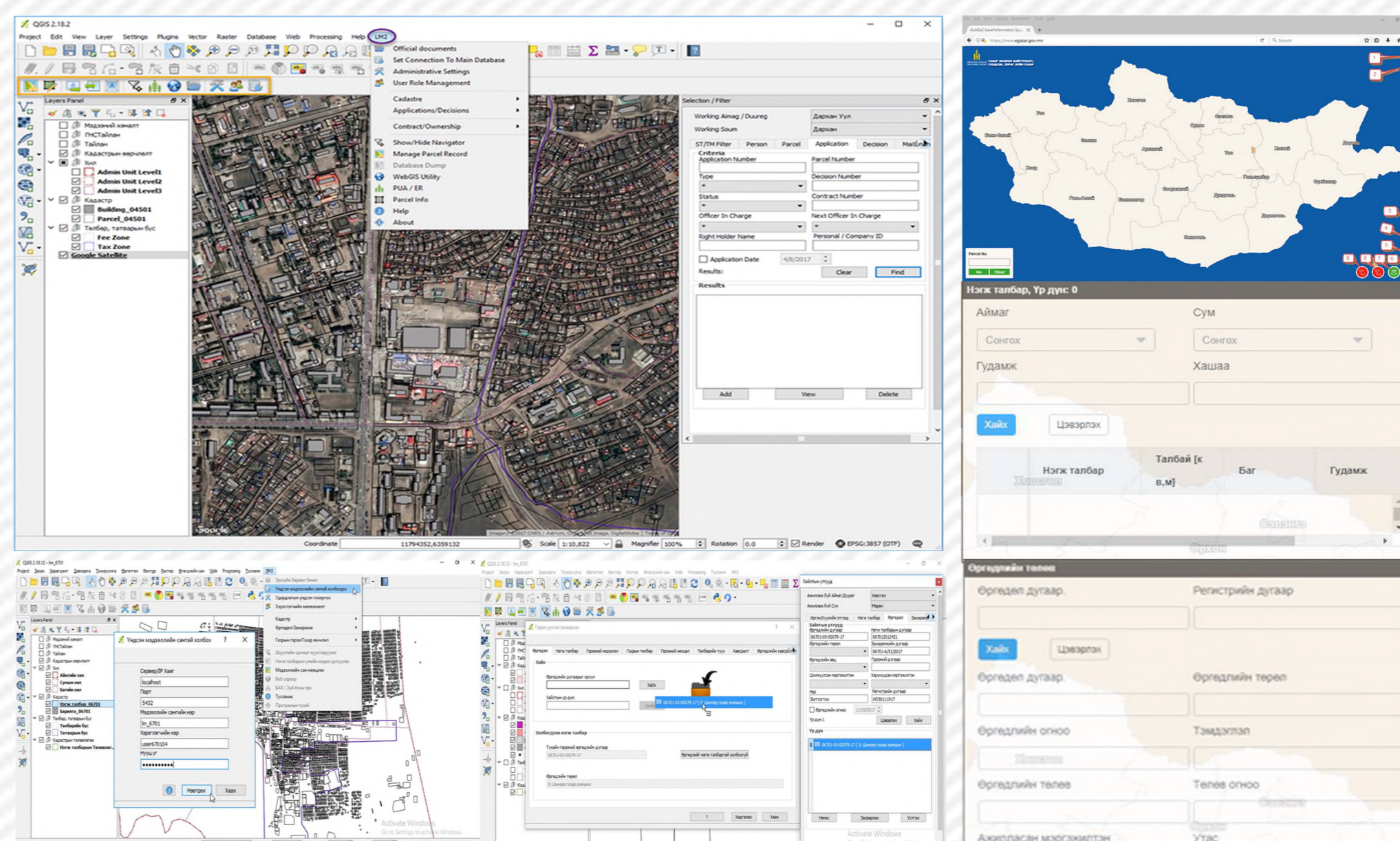
- Centralized, network solution connected 21 provinces, 330 soums, 9 districts by Internet VPN;
- PostgreSQL 80 schemas, 3120 tables;
- Bucardo, replication system;
- Security (Command shell connected private key /SSH/).

#### Hardware:

- 12 virtual servers;
- 4 storages for backup;
- 400 computers were given to local land offices;
- 400 printers, scanners for local land offices;
- Database center server room;
- Python and PHP used for web based application.

#### Software:

- Quantum GIS for using application development;
- "Land Manager" for land offices for land cadastral mapping and registration, within digital;
- www.egazar.gov.mn provide land information to the public;
- Model of application 14 modules (Connection to main database, Administrative settings, filter, personal registration, parcel registration, application registration, decision registration, maintenance case, contract, ownership record, reports, land reports, quality check).



"Land manager" land information software



"Land Manager" software for local land offices

### "LAND CADASTRAL OPERATION SYSTEM"

#### Training:

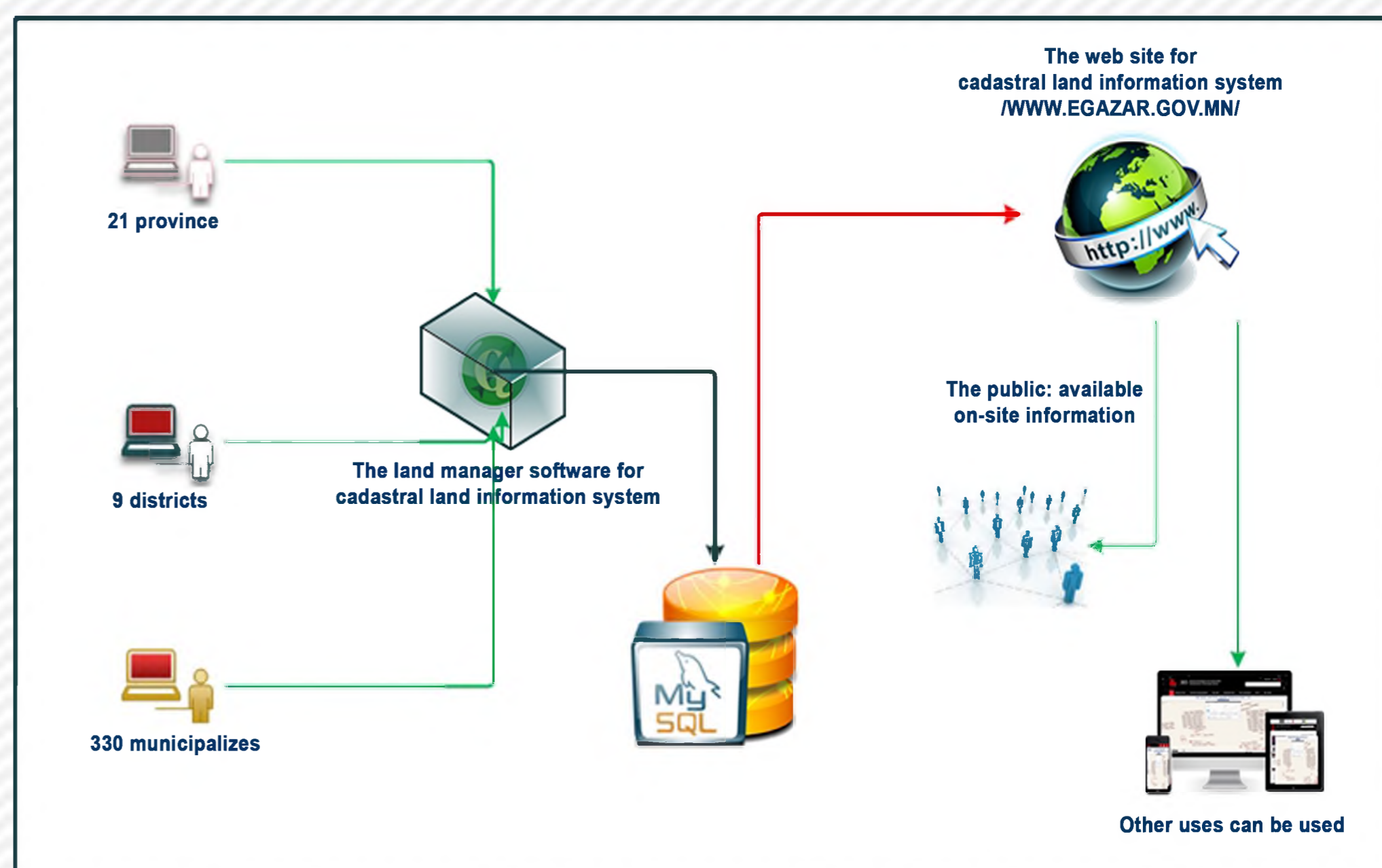
- Covered approximately 1000 staff;
- Fixing cadastral data (mapping registration digital archive);
- Software use;
- Software development.

#### Legal frame work:

- Land law;
- Cadastral mapping and land cadastral law;
- Regulation for Land cadastral information system;

#### Challenges:

- Capacity building for open source;
- Integrated land cadastral system development;
- Inavation implementation;
- Improve infrastructure;
- Develope software development.



Operation of land cadastral structure

#### Editor:

Client 1. Ministry of Construction and Urban Development. 2. Agency for Land Administration and Management, Geodesy and Cartography  
Contractor 1. "Geomaster" LLC. 2. "Topmap" LLC