Development of Cadastral Survey and Land Ownership Registration System in Mongolia

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Background

Mongolia covers a vast territory of over 1.56 million square kilometers and located (double landlocked) between China and Russia. This great wealth of land belongs to only 2.8 million people with 35 million livestock.

The reason for Mongolia’s sparse population is that much of the land is inhospitable Gobi desert and large steppe or high and inaccessible mountain ranges. This hostile terrain combined with a harsh and severe cold climate has allowed only the hardiest of nomadic people to exist in such an environment.
Mongolia
HISTORY

For hundreds of generations in the past, the nomadic people of Mongolia have grazed their livestock more or less at will, depending on the seasons and availability of grassland, pasture and water. The land was like the air and sky for all to use with equal rights within certain territorial limits, which prior to 1924 were known as *HOSHUU* (*smallest administrative units*), meaning banners.

On November 14, 2005 the 60th General Assembly of the United Nations adopted a non-vote resolution recognizing the 800th Anniversary of Mongolian Statehood, to be celebrated in 2006. The resolution welcomed the efforts of Mongolia and other member countries to preserve nomadic culture and traditions in modern societies.
Old (Cadastral) Boundary Map of HOSHUU
TODAY

In recent years tremendous social changes have taken place. Nowadays more than 50 percent of the population has become urbanized (migrated from the rural areas to the city where is developing informal settlements). Cities and settlements have expanded. Reserves and national parks have been established. Areas of arable land have been set aside for farming.

This has resulted in a large reduction in the traditional pasture land. The numbers of livestock have continued to increase and have now almost reached the projected sustainable maximum of 35 million animals. These great herds of animals are now tending to congregate in areas around the settlements in the northern and central Aimagss surrounding Ulaanbaatar (capital city of Mongolia) where living about 1 million people (1/3 total population of the country); an area of hills and plains some 1,500 meters above sea level containing much of the best available grazing and farming land in the country.
YURT (GER) DISTRICT OF THE ULAANBAATAR CITY
Informal Settlements - Mongolia
Digital Aerial photo of Ulaanbaatar city. Courtesy by MonMap Co., Ltd.
The Government of Mongolia considers it crucial to develop an enabling legal and institutional framework to implement its policy agenda for land related issues and the strategic importance of the development of a fully functional and transparent land market economy.

The new Land Law and Land Privatization Law in Mongolia became effective in January, 2003 and their purpose is to regulate ownership, possession, use and other rights to land by citizens, economic entities and organizations. The total area of State-owned land that the new Land Law makes available for privatizing is restricted to less than 3 million hectares (2 million of rural-farm lands and 1 million of urban-city lands) and consists of cultivated farm land and land within the city and settlement limits.
NEW TASKS

The Government of Mongolia recognizes that access to land is a constraint to infrastructure, agriculture and urban development in Mongolia. Investors seeking land for commercial, agriculture, tourism and industrial development are all constrained by the difficult process of securing land title (tenure) and the need for a more efficient cadastral survey and land registration system.
Cadastral Survey and Land Registration System Development

The Development of Cadastral Survey and Land Registration system in Mongolia is creating an institutional environment for the administration of land titles and land-lease certificates, for collection of land fee payments, property taxation and for urban and agricultural (rural) development. A systematic nationwide cadastral survey will provide the basis for the legal description for land title and land registration by Ulaanbaatar City and the 21 Provincial Governments. As the cadastral program proceeds and more cadastral data becomes available it is proposed that this information will be networked to the Central Government where a National Land Information System (NLIS) will be developed.
There are 3 components to the Cadastral program is as follows:

Component A: National Geodetic Reference System

A new National Geodetic Reference System, MONREF 97, globally aligned with the ITRF 2000 epoch 1997/8, has been established in Mongolia.

Component B: Cadastral Survey and Mapping

This component start implementing by the Administration of Land Affairs, Geodesy and Cartography (ALAGaC), the Ministry of Construction and Urban Development of Mongolia in close cooperation with Ulaanbaatar City and Provincial governments.

Component C: The National Land Information System (NLIS)

The NLIS will incorporate each City and Provincial cadastral database (LIS) as this data becomes available under Component B.
A new National Geodetic Reference System
(MONREF 97, based on GPS Technology)
Cadastral surveys and map data acquisition carried out by licensed commercial survey companies, contracted, supervised and financed by the Administration of Land Affairs, Geodesy and Cartography (ALAGaC) under Ministry of Construction and Urban Development of Mongolia in close collaboration with City and Provincial land management departments. The land management officers of these departments accompany the private land survey engineers during their fieldwork and are responsible for providing all the attribute data required for each land parcel, as well as public relations and the settling of disputes.

The duties and responsibilities of the ALAGaC (cadastral survey, land and real estate (buildings) property ownership registration), the Ulaanbaatar City and provincial land management departments is specified in a Memorandum of Agreement (MOA) between the Central Government (the Ministries of Justice and Finance, Central Tax Department etc) and the local governments concerned.
Urban Zoning Map of Ulaanbaatar city

LEGEND
- Administration & Living
- Ger
- Apartment
- Industry
- Industry & Administration
- Industry & Ger
- Industry & Apartment
- Mountain forest area
- Mountain steppe area
- River
- Floodplain
- Don't use land
- Boundary of district
- Railroad
- Road

DISTRICT
1. Chingeltei
2. Ssihun
3. Bayangol
4. Khan
5. Bayantükh
6. Sukhbaatar

Prepared by Monmap Engineering Services Co., Ltd.
The Parcel map of Western part of Ulaanbaatar city

Total: 6500 parcels
GPS RTK Base Station
Parcel Boundary Survey
Marker at the Site
Cadastral Open GIS Database Concept

Workstations for clients

Local Network

Database Server

Relational Database
The NLIS will consist of a central land information system to be established at the ALAGaC. This will be networked to local land information systems (LIS), established under Component C, in the Ulaanbaatar City Lands Department and in the lands management departments offices in each of the 21 Provinces. Detailed NLIS network design, supply of software, hardware, and training will be supplied on a turnkey contract basis, under overall supervision from ALAGaC with advisory assistance provided by the Asian Development Bank under a Technical Assistance project.
National Land Information System Concept

Administration of Land Affairs, Geodesy and Cartography

- Cadastre database
- NLIS database
- Registry System
- Local Land Management Dept.
  - Local LIS Province 1
  - Local LIS Province 2
  - Local LIS Province 21
  - Local LIS Capital City
- Copy LIS Soum
- Copy LIS District

Read only cadastre map data
Read on attribute data
Possible future expansion
THANK YOU