DEVELOPMENT MULTI-PURPOSE DIGITAL CADASTRAL DATABASE
-THE FIRST STEP TO MODERNISE LAND ADMINISTRATION IN VIETNAM

By  Do Duc Doi
Director
Center of Archives and Land Information
GDLA – Vietnam
Website: http://www.dgla.gov.vn
Email: 

JAKATA,, 07 -12 October 2012
OUTLINE

1. Introduction to GDLA

2. Development MPDCDB
General Department of Land Administration
Position and Role:

GDLA:

- Is an organization under the MONRE;
- Advise and assist MONRE Minister in performing the function of State administration on land throughout the country.
GDLA Functions:

- Develop legal documents, mechanism, policies on land administration and land use. Monitoring, inspection, responsibility to organize the implementation after they are issued;
- Implement state management on land in the fields:
  - Land use plan and planning
  - Land registration and statistics
  - Land valuation
  - Compensation, support, resettlement
  - Land fund development
  - Management and development of land use market within the real estate market
  - Land information and achieve
  - Inspection, monitoring, settlements of disputes, complaints, denunciation on land.
**Organisational structure:**

GDLA has 14 belonging units:

- 9 units are performing state administration functions
- 5 units are performing institutional function
Ministry of Natural Resources and Environment (MONRE)
General Department of Land Administration (GDLA)

Director-General
Deputy Directors-General

State Administrative Units
- GDLA Office
- Department of Organisation and Personnel
- Department of Planning
- Department of Land Policy & Legislation
- Department of International Cooperation and Science and Technology

Institutional Units
- Department of Land Planning
- Department of Registration and Statistics
- Department of Economics and Land Fund Development
- Inspectorate
- Research Institute of Land Administration
- Centre of Land Resources Investigation and Assessment
- Centre of Land Archives and Information
- Center for Cadastral Outputs Appraisal
- Center for Land Communication and Training
Land Administration System in Vietnam

Multi-level system:

- **Central**
  - GDLA under the MONRE
  - > 400 staffs

- **Provincial**
  - DONRE - 63 Provinces
  - > 2200 staffs

- **District**
  - SONRE
  - > 5200 staffs 696 Districts

- **Communal**
  - Cadastral officer
  - > 8000 staffs
Why land so important in Vietnam?

- Population More than 80 millions
- 70% Population living in Rural area
- Development of Agriculture – Center of Party and Gov. Policy of Vietnam
- Stable Land policy. = Social Stability
- Land policy – First Priority?
Some Historical Points

- Land Reform 1953
- Cooperativisation 1959
- Nationalisation of Land 1980
- Long Term & Stable land allocation 1987
Turn Point in Land Policy

- Land Law 2003
- Government Degree 181/2004/NĐ – CP on Land Law implementation
- Government Degree 182/2004/NĐ – CP on administrative fine in Land issues
- Government Degree 188/2004/NĐ – CP On land Valuation
- Government Degree 198/2004/NĐ – CP on Land Use Fees
- Government Degree 142/2005/NĐ – CP Land and Water Surface Lease Fees
- Government Degree 88/2010/NĐ – CP Additional Regulation on Issuance Title for land and Improvements on the land
- Government Degree 69/2010/NĐ – Compensation & Resettlement
Increasing Rights of Land Users

- 1987 Right for Use only
- 1993 have 5 rights:
  - Transfer
  - Exchanges
  - Lease
  - Inheritance
  - Mortgage
- 2003 More rights:
  - Release
  - Investment as Capital
  - Change purpose of Use within one Class
  - Mortgage in Foreign Bank in Vietnam
Some Results

- Before 1986 – Not Enough Food
- Present – Third Place in the World on Rice Export after Thailand & USA
- 1999 > 20 Million ton – Exp. 1,4 Million ton Rice, Value 310 Million USD
- 2007 - 39 Million ton – Exp. 4,5 Million ton gạo, Value 1,7 Billion USD
- 2010 – Export 6 Million ton
- Average GDP in Agriculture increase 3,3% annually
- Poverty rate reduce 1,5% annually
Two Issues Remain

- Agricultural Land consolidation
- Compensation and Resettlement
Land Consolidation

- Land Consolidation – Objective
  Requirement of Industrialisation & Modernisation of Agriculture and Rural

- Problem Facing
  Part of Farmers loss Land – Requires Re-training
  Development of Small Scale Farm
Compensation and Resettlement

- Price on Compensation VS Market Price
- Re-Training
- Profit Sharing Mechanism: Investor – Gov. – Land Users
  Security
  Investment by value of Land Use Right
Direct Participation of Land User in Land Use Planning Process

Know, Doing and Inspection
Principles of the development VnLIS

1. Uniform System
2. Multipurposed System
3. Multi-usres
4. General at Central level & Detail at local level
System Design

Country

Province (63)

Districts (696)
Multi Purpose – Multi Users (ArcGIS Solution)

Planning
- Social - Economic
- Construction
- Land Use
- Agriculture…

Public Services

Construction
- Permission
- Planning

GeoDatabase
- Streets
- Parcels
- Address
- Census Utilities
- Elevations
- Aerials

Cadastral
- Land Parcel
- Owner
- Value
- Planning
- …

Fire Protection
- Water sources
- Hot Pots
- Fire Brigade

Police
- Hot pot
- Traffic regulation
- …
- …
Componenets of VnLIS

- An organized collection of computer hardware, software, geographic data, and personnel designed to effectively capture, store, manipulate, analyze, and display all forms of land information

- A component of Geomatics
Hard Ware

Soft Ware

DATA

Personel

Regulations

VnLIS Component
Ground Survey

GPS Surveying

Data Capture

Remote Sensing

Aerophoto
Cadastral map at Scale 1:200 to 1:5000
There more than 80 millions Land Parcels
(Size of the Parcel from 30 Square Meters to some Hectares)
Hard/Soft Ware

ARCGIS
- CILIS
- VILIS
- ELIS
- eKLIS
Training & Education

Personel
Current Status

Hard Ware
No Problem

Soft Ware
Acceptable

Data?
30% in digital form

Personel
No Problems

Policy?
No regulation on Digital data
Policy & Standards

Policy

Personel

Standards

Devp policy Frame woks for L IS

Cernter for Archives And Land Information

CALI

Cadatral Standards LAN, WAN at GDLA Soft Ware policy
Infrastructure: Integrated

Unique Identify on one Secured System

Intelligent infrastructure system

One Land Portal (VnLIS) – Multi Users

One Identity

One Network

One Face
VnLIS

Intel Digital Cities Core Services Framework

Geospatial Imaging System (GIS) Portal

Application & Network Services Bus

Digital City Portal

Single Sign-On Identity Management

Government Employee

Business

Citizen

Government & Employee Services

Business eServices

Citizen eServices

Government & Employee Services

Application & Network Services Bus

Digital City Portal

Single Sign-On Identity Management

Business

Citizen

Government Employee

Intel Digital Cities Core Services Framework

Geospatial Imaging System (GIS) Portal
General Roles of VnLIS

**Use**
- Desktop Explorer
- Web Map Viewer
- Mobile
- Open APIs

- Application user

**Serve**
- Servers

- Data & application server

**Author**
- Desktop

- Data acquisition
- Application development
Common infrastructure (GDLA)

Center for Archives & LIS (CALI)

DATABASE
- Integrated DCDB
- DCDB for Special Purpose
- Updating – sharing in one system
- Land Portal

Infrastructure – SERVERS
- LAN and Server management
- Unique System
- Specialized Personnel and Equipment for IT
PROJECT AT CENTRAL LEVEL

- DCDB Quality of land
- DCDB Land Inventory
- DCDB Land values
- DCDB Planning
PROJECT AT LOCAL LEVEL

- DCDB Land Records
- DCDB Land Inventory
- DCDB Land values
- DCDB Planning
VnLIS Functions

- Updating
- Registration
- Georeference
- Support for Land Use Planning
- Support for Land Valuation
- Land Transaction Management
- Web Services

LAND DATABASE
Some Software product

Module on Land registration
Module on Land Title Issuance
Module on Land Valuation and Planning
Module on Land Inventory
Thông tin chủ đất:
Họ tên chủ: Trần Thị Chân
- Năm sinh: 1922 - CMND Số: 023132632 - Ngày cấp: - Nơi cấp:
- Địa chỉ thường trú: 256/27

Thông tin thỏa đất:
Số hiệu thỏa: 75
Số ban đỏ: 17
Diện tích: 95.8
Hình thức sử dụng: Riêng: 11.3.3
Chung: 0
Mục đích sử dụng: Đất ở tại đô thị
Thời hạn sử dụng:
Nguyên gốc sử dụng:
Sỡ vào sổ: 408
Ngày ký: 2009/10/08
Sổ hiệu GCN: 7977527373408
Current VN Gov. Investment

1. Vietnam Land Administration Project (VLAP) – Total Cost 100 million USD
   1. 9 Provinces, 96 Districts,
   2. Time 2008 – 2013
   3. Total cost now App. 200 millions USD
   4. Status Ongoing (Semi Review will be in November 2011)
   5. WB-VN Project

2. Development Multi-Purpose Digital Land (Cadastral) Database (VnLIS)
   1. 54 Provinces, 600 Districts,
   3. Total Cost Estimate 500 Millions USD
   4. Status: on the Stage of Designing and reviewing Technology
   5. Current Technology: ArcGIS
MINISTRY OF NATURAL RESOURCES AND ENVIRONMENT (MONRE)

Viet Nam Land Administration Project (VLAP)
Objective: Increased access to land information services by all stakeholders through development of an improved LAS in selected provinces in Vietnam
Component 1: C1 Modernization of the Land Registration System

Component 2: C2 Improvement of Land Registration Services Delivery

Component 3: C3 Support project management & M&E
NEED MORE COOPERATION

- Development NSDI for Land Information System
- VnLIS System Design

- Development a On – Line – Land Registration System
  - Land gate (WA), KLIS (South Korea) & Hong Kong examples

- Development Land Use Planning Monitoring System
  Using Remote Sensing Technique
GENERAL DEPARTMENT OF LAND ADMINISTRATION
CENTER FOR ARCHIVES AND LAND INFORMATION (CALI)

CENTER FOR ARCHIVES & LAND INFORMATION

MANAGEMENT BOARD

PLANNING & FINANCING UNIT
ADMINISTRATIVE UNIT
IT DEVELOPMENT UNIT
CENTER FOR IT TRANSFER
CENTER FOR ARCHIVES & INFORMATION SERVICES

- 54 Staff
- 26 Women, 28 Men
- 01 PhD, 05 Masters, 33 Engineers

CURRENT IMPORTANT PROJECT
- Development National Land Database
- Development National Land Portal
- Development VN LIS
- Development NSDI
An Unit under GDLA is responsible for:
- LIS system development
- Effectively capture, store, manipulate, analyze, and provide services all forms of land information
- Provide training, project development, IT transfer
- Address: 78/9 Duong Giai Phong, Dong Da, Hanoi, Vietnam
- Director: MR Do Duc Doi, Email: doducdoi@gdla.gov.vn, Mobile: (+844) 904717515

<table>
<thead>
<tr>
<th>Planning &amp; Financing Unit</th>
<th>Administration Unit</th>
<th>IT Development Unit</th>
<th>Center for IT Transfer</th>
<th>Center for Archives and Information Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development:</td>
<td>Support &amp; Service for all Operation of the Center Development Reports</td>
<td>System Development Project design Training &amp; Education Services</td>
<td>Providing project implementation and Developed Technology transfer</td>
<td>Providing project implementation and Developed Technology transfer</td>
</tr>
<tr>
<td>- 5 years and long term plan</td>
<td>- Supervision for operation</td>
<td>- Quality control</td>
<td>- Data Capture</td>
<td>- Data Archives</td>
</tr>
<tr>
<td>- Operation plan</td>
<td></td>
<td></td>
<td>- Data Archives</td>
<td>- Dat supplying</td>
</tr>
</tbody>
</table>
Thank you Q&A?

Website: [http://www.gdla.gov.vn](http://www.gdla.gov.vn)

Email: [Email](mailto:Email)