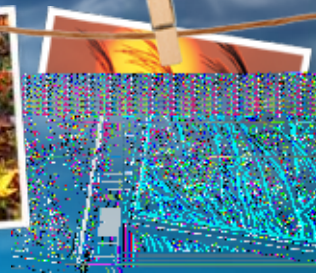


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Advanced Strategies of The Korea Cadastral Resurvey Project

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1 Background

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3 Implementation Strategies

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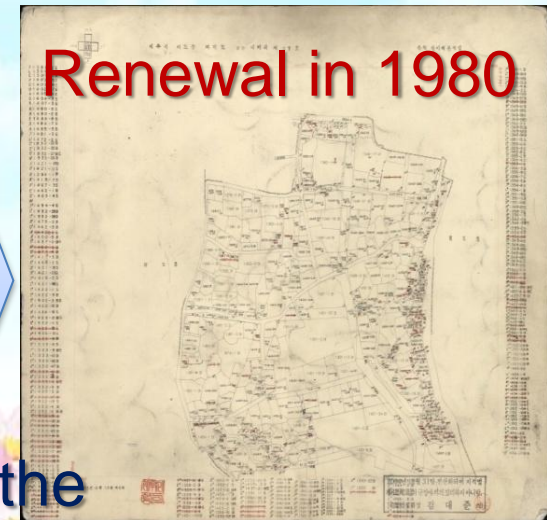
1

Background

Background(1)



Digitized Project
1990's to 2003



Accuracy Issues due to the
repeated renewal & various scales

Background(2)

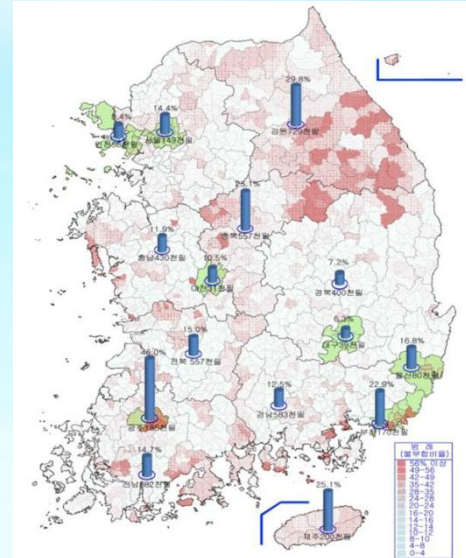
Shift amount : 464m



Difference

Inhomogeneous Parcel

Parcel	Cadastral Non-coincidence	Ratio(%)
37,610,000	5,500,000	15



- Coordinates from Local Geodetic System needs to convert
 - To use other spatial information(Topography, Underground Facilities)
 - To avoid administrative inefficiency

Background(3)

Limitation of Land rights

- In some cases, the use of individual **property rights are limited** until agreement is made among stakeholders.
- In some cases, land boundary and land ownership disputes **go to the court.**

Land Boundary
annual court costs
345M(US\$)



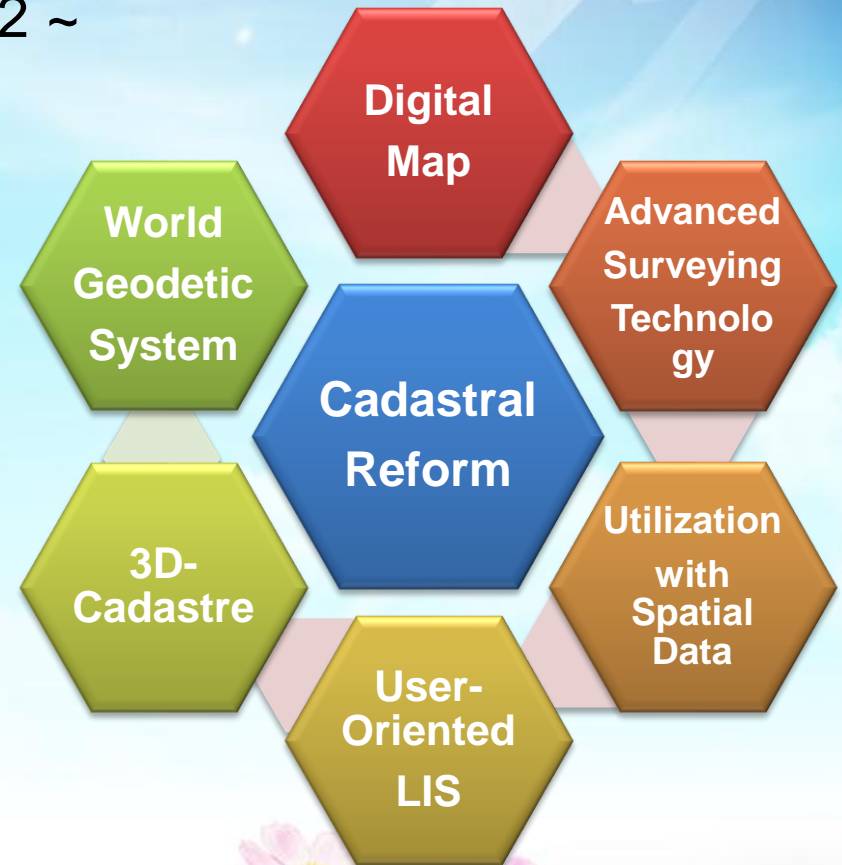


2 Korea Cadastral Resurvey Project

Korea Cadastral Resurvey Project (1)

Overview

- Long-term nationwide project (2012 ~ 2030)
- Project budget : 1,170 Million USD
- Coordinate System : ITRF 2000
- Resurveying 38 million parcels
- Boundary Accuracy : 7cm
- Integrate land information in digital format
- Establish 3D Cadastre
- Easy to access to land information



Korea Cadastral Resurvey Project (2)

Legislative Progress

- Preliminary study on Cadastral Resurvey : 1992~1993
- Case Study Resurvey : 1994 (Changwon city)
- Cadastral Resurvey Special law legislative notice :
1996. 8., failed due to the budget & Complaints
- Cadastral Non-Coincidence area : 2007~2009
- Digital Resurvey Pilot project 1: 2008~2011
- Pre-feasibility study conducted by Government : 2010
- Digital Resurvey Pilot project 2: 2011~2012
- Established the Cadastral Resurvey Special Law : finally in 2012.3
Requests by Government

Korea Cadastral Reform Project (3)

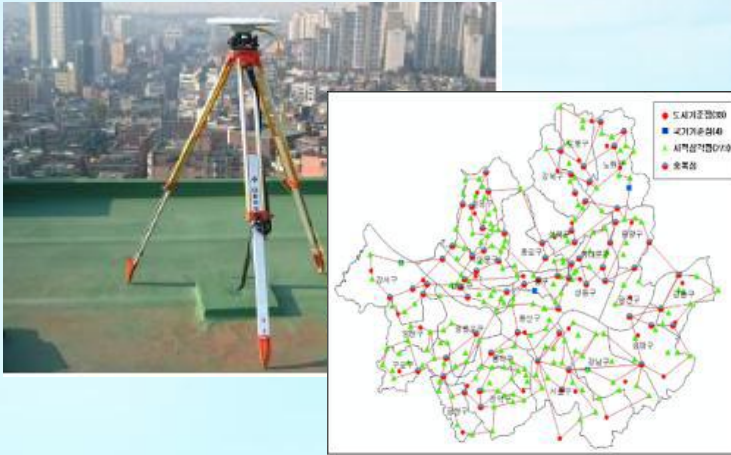
Project Budget

Contents		Budget (Million US\$)					Ratio
		Step 1	Step 2	Step 3	Step 4	Total	
Control Point Surveying		15.5	44.6	3.1	1.5	64.6	6.1
Parcel Surveying	Group Non-coincidence Area	51.8	219.1	179.2	89.6	539.7	78.8
	Individual non-coincidence Area	68.0	230.5	0	0	298.6	
	Sub total	120	450	179	90	838	
ITRF 2000 Coordinate Conversion	Coordinate Conversion	9.6	32.4	0	0	42.1	4.4
	Development area	2.2	3.2	0	0	54.0	
	Sub total	11.9	35.7	0	0	47.5	
System Development		16.6	0	0	0	16.6	1.6
Reserve Fund		16.2	53.0	18.2	9.1	96.5	9.1
Total(except of value- added tax)		180	583	200	100	1064	100
Total(inclusion of value-added tax)		198	641	221	110	1,170	

Korea Cadastral Reform Project (4)

Field Survey Process

Triangulation ($\pm 3\text{cm}$)



Field Survey ($\pm 7\text{cm}$)



Registration online KLIS



Boundary adjustments and agreement





3

Implementation Strategies

S1. Long term planning

***Efficient land use and systematic land management
is the basis for national economic development
(GIM 2012)***

- Fair and systematic allocation to 32 local governments
(budget & manpower, etc.)
- Priority selection by criteria
(e.g. 3/4 land owner agreed..)



S2. Use existing organizations

Organization

**1 Ministry of Land,
Infrastructure and Transport**

Cadastral Reform Planning Division

32 Local governments

Cadastral Reform Support Division

200 City/County/district Offices

Cadastral Reform Team



- With 3400 certified Surveyors

- 50 Researchers

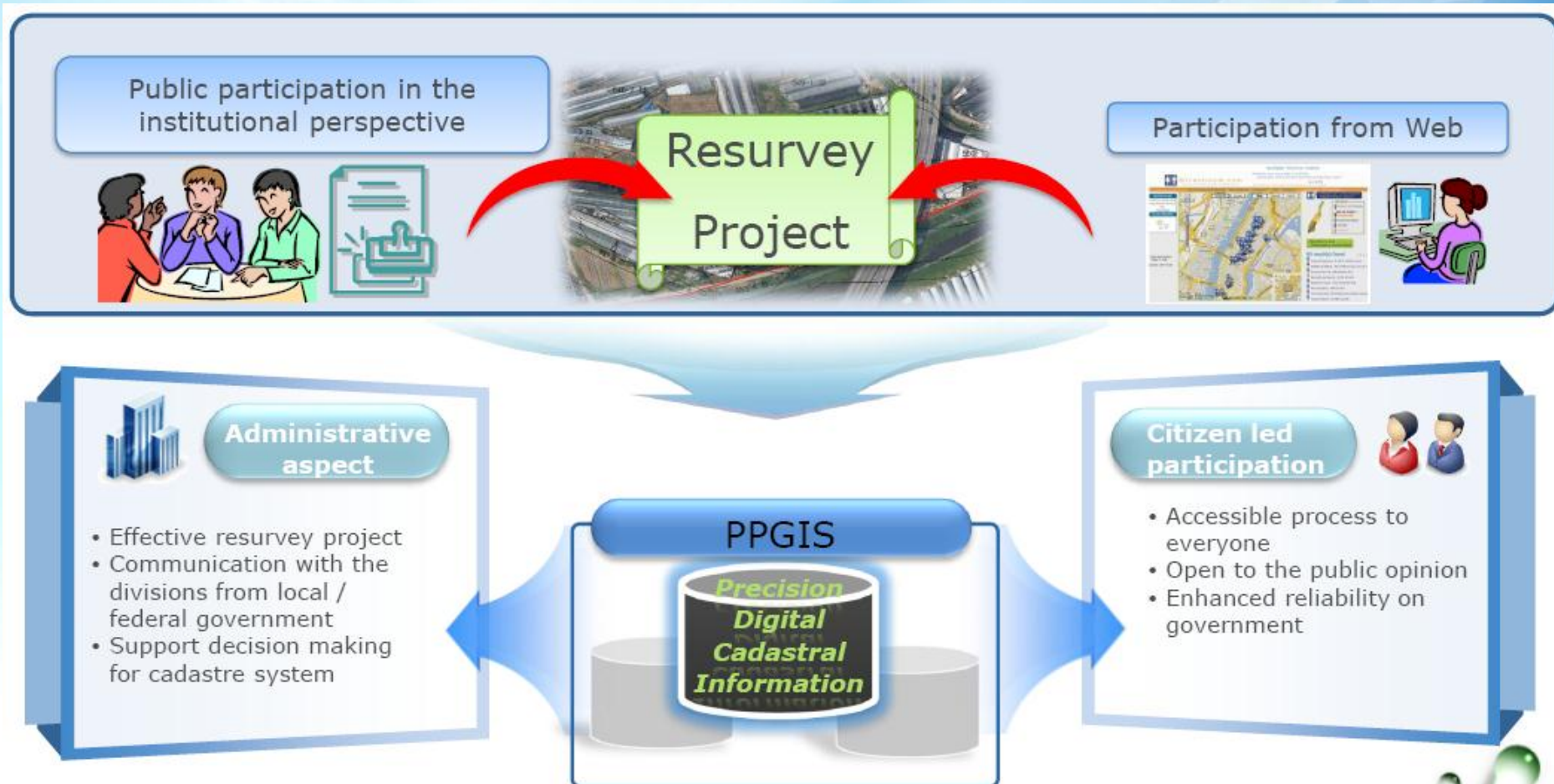
→ KCSC was established by the Cadastre, Hydrography, & Survey Act . (one of a quasi-government)

and other survey companies



S3. Public Participation

Facilitate public participation(on-line and off-line)





4

Future Challenges

Learned lessons

- **Public participation** is a key element for success
- Boundary adjustment and conclude agreement with stakeholders may the **whole project period delay**
- **Up-to-date equipment and technology** should be applied
- **Interoperability** with other spatial data set should be considered.



Things need to do

Accurate cadastral surveying data collection



National Spatial Data Infrastructure(NSDI)

Future planning



**See the video for the
V-World**





Thank you
Very much!