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## Building Fit for Purpose Land Administration Systems - World Bank Experience

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Fit For Purpose – The *only* way to establish a successful land administration system

### Contents:

- Western Europe – an early FFP methodology
- The World Bank and FFP methodology over 50 years
  - 1990's – 2000's Eastern Europe and Central Asia
    - An Example - Kyrgyzstan
  - 1960s - Kenya
  - 1970's - Malawi
  - 1980's – Thailand
  - 2010's – Rwanda
  - Others
- Conclusion



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Register it Quickly

2

## Western Europe – an early FFP methodology



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3

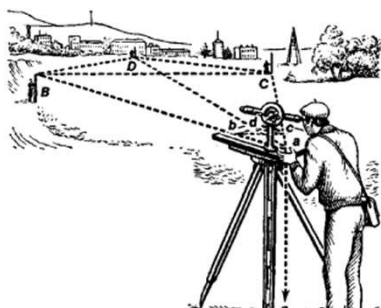
## Fit for purpose cadaster – it started with the French

- Napoleon – established commission in 1807, to survey 100 million parcels – for land tax purposes. Completed in 1850.
- Measured base line, triangulation for control and plane table for recording boundaries.
- Commission request to improve quality of survey in 1905 rejected by parliament because of cost. Left to communes to improve as funds became available.



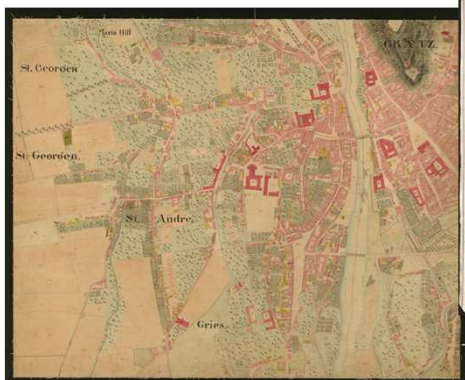
4

## Germany and the Austro-Hungarian Empire followed – during the 19<sup>th</sup> Century



## Produced the graphical cadastre

Extract from old Austrian records



Niederösterreich			
№	Name des Grundbesitzers	Fläche in Quadratfuß	Art des Grundbesitzes
101	Johann Kersch	100	Wald
102	Johann Kersch	100	Wald
103	Johann Kersch	100	Wald
104	Johann Kersch	100	Wald
105	Johann Kersch	100	Wald
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126	Johann Kersch	100	Wald
127	Johann Kersch	100	Wald
128	Johann Kersch	100	Wald
129	Johann Kersch	100	Wald
130	Johann Kersch	100	Wald

No coordinates  
Scales varied according to location – urban, peri-urban, rural

## Changes to Registering Title – Germany

- Commenced in 1900 with change to Civil Code. Adopted the existing cadastre and converted deeds, generally without field work.
- Completed district by district
- One year “public viewing”
- Bavaria took 10 years to convert 12 million records
- All new surveys to be done according to strict guidelines
- Then progressed district by district to upgrade the accuracy of the cadastre as funds permitted



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7

## Changes to Registering Title - Austria

- Similar approach to Germany, but relied on demand driven approach to upgrade quality of cadastre.
- Mostly urban areas and more valuable land upgraded as need arose.
- Retains 4 quality levels:
  1. Graphical
  2. Derived from Transformations
  3. Measurement based on coordinates
  4. Legally and technically accurate with owners agreement
- Up to 50% are still level 1 or 2 to date, but mainly more rural areas.



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8

## Changes to registering title England and Wales

- Followed Torrens approach to boundaries (instead of European) in law of 1862. Included fixed boundaries.
- Complete failure as the approach created disputes where none existed before. Only 349 successful registrations in 6 years.
- General boundary concept introduced in Land Transfer Act of 1875 – fixed boundary was voluntary
- Law of 2002 deleted 'fixed' boundaries and included 'determined' boundaries. Courts can now require boundaries to be 'determined and registered'. The land registry estimate that as of June 2, 2014 there are 23,872,035 registered titles of which 1,176 include an entry in respect of determined or fixed boundaries.



## Interesting case – New South Wales and Part IVA of the Real Property Act - 1967

- Great expansion of Sydney in 1960's and inability to cope with demand for survey and registration
- Allowed simple conversion of thousands of "old system" deeds as 'qualified titles' with a caution.
- Qualification removed after 12 years.
- Similar processes used in other Australian States.



## The World Bank and FFP methodology over 50 years

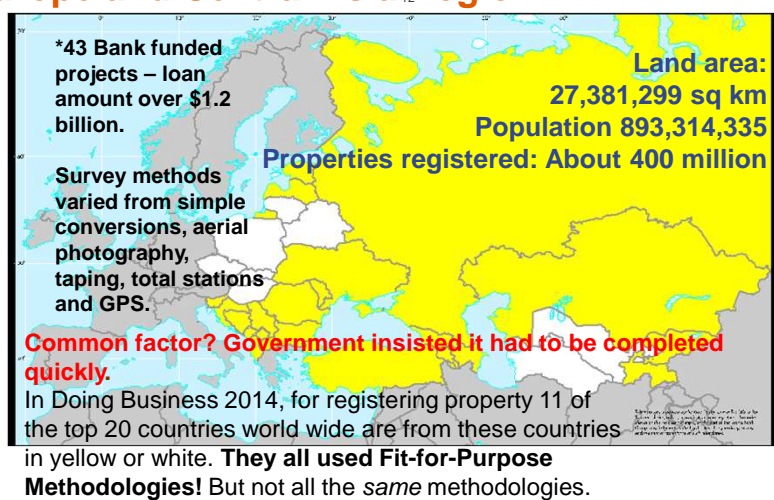


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11

### 1990's – 2000's Europe and Central Asia Region



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## Three Stages of Land Administration in Europe and Central Asia Region (ECA)

Progression of reforms of land administration and property rights in ECA:

1. **Assign property rights** to individuals and companies (farm restructuring, privatization, restitution) ★ Mostly done
2. **Protect property rights and encourage real estate markets** to operate efficiently (est. cadastres and property registers, systematic registration, improve service, legal framework) ★ Mostly done
3. **Efficiency in the management and administration of property** (improve planning systems, municipal finance and property tax, efficient management of state/municipal property, land consolidation, spatial data infrastructure and e-government ) Underway



## An example: Kyrgyzstan

Former Soviet Union Republic (before 1991)  
 All land and property previously owned by the State  
 Population: 5.5 million  
 Area: 191,300 sq km



Map of Central Asian Republics



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14



## Privatization and Systematic Registration

In 1997 president Akiev ordered the breakup of the collective farms and issuance of 600,000 titles by the end of 1999.

- No additional resources provided.
- Photogrammetric methods not available.
- Old farm maps at 1:10K scale were available

Equipment:



## Kyrgyzstan – privatization and systematic registration

1. Project from 2000-2008
2. Hired and trained teams of lawyers, surveyors and assistants for systematic registration. (Same equipment!)
3. Completed 2.5 million real estate objects, including formalizing 661,000 properties that had no supporting documentation. Ave cost \$2.75 per property.
4. Established new registration offices by merging and changing old institutions.
5. **In 2008, 48,000 mortgages were registered with total value of US\$1.3 billion.**
6. **Vibrant property market and registration now takes 6 hours on average.**



## More Examples! Projects using FFP methodology

It goes back a long way ....



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17

### Late 1950's - 1960's - Kenya Hedge planting followed by aerial photography



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## Kenya and hedge planting

1. Owners required to plant fast growing hedges
2. Hedge inspectorate ensured that they complied
3. Junior surveyor identified hedges on aerial photographs in the field.
4. These unrectified records were then used to prepare the cadastre map.
5. Government official noted owners and adjudicated rights
6. Several million hectares simply registered
7. Several hundred thousand owners registered



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19

## 1970's - Malawi – Lilongwe Land Development Project

- Similar procedure to Kenya, but without the hedges.
- Whole area flown and blown up aerial photographs mounted on hardboard for demarcation purposes.
- Concrete markers placed.
- Hired high school graduates and trained them to read theodolites and calculate a traverse.
- Used Subtense bars for traversing.
- 243,825 ha included.
- Over a million owners.



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## Malawi – Lilongwe Land Development Project



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21

## Malawi – Lilongwe Land Development Project



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22

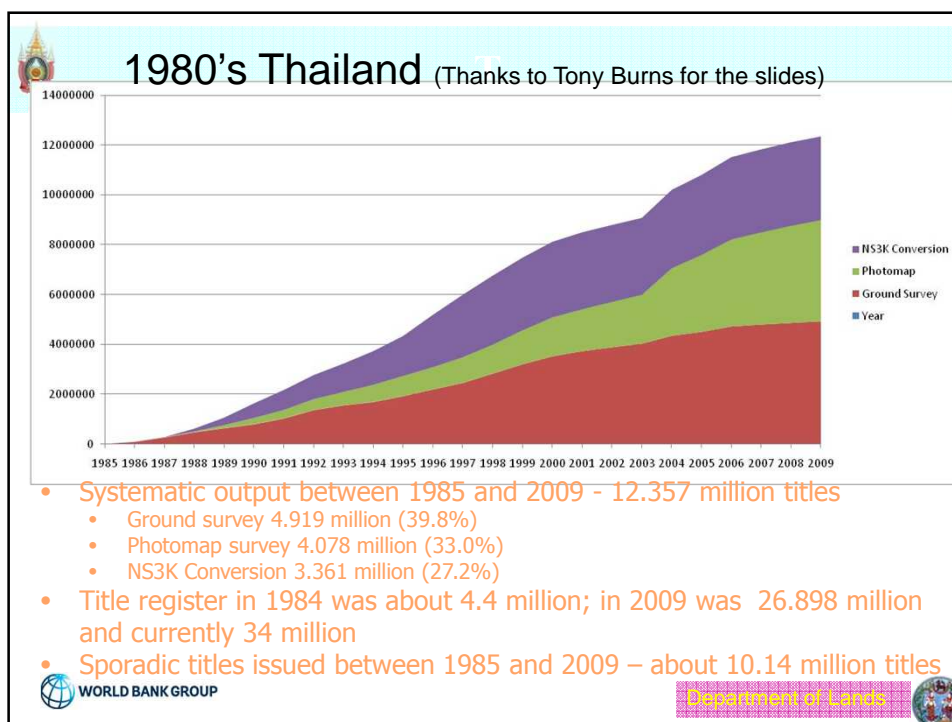
## Malawi – Lilongwe Land Development Project




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23










## Thailand - Land Registration

### Fee and Tax Collected in 2009 Registration 5,618,470 applications


Type	Thai Baht	US\$ m
Fee	11,809,113,175	366.6
Income Tax	15,356,349,849	476.8
Surcharge (held < 5 Years)	2,081,369,121	64.6
Stamp Duty	2,479,867,157	77.0
<b>Total</b>	<b>31,725,867,157</b>	<b>985.0</b>

Average registration time is 2 hours.

### 2010's ? Rwanda – leads the way

- 10 million parcels demarcated and adjudicated in just over three years
- general boundaries system adopted
- efficient processes and good management was key. \$10, per parcel
- close cooperation between donors
- 92 percent of titles include a woman
- 100,000 people trained



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26

## Selected Others:

**Peru** – Over 1 million properties surveyed and registered in 1998 using total stations. Urban area. 75% female ownership!

**Laos** – 770,000 registered properties since 1997 and effective registration system established nationwide. Survey done primarily with photomaps.

**Caribbean** – British Directorate of Overseas Surveys used 'General boundaries' used since the 1950s - In Africa and the Caribbean - Antigua, British Virgin Islands, Turks and Caicos Is, Anguilla, Cayman Is, and St. Lucia. Completed the islands.

**Cambodia** – 1.5 million properties surveyed using orthophotomap interpretation and total stations when necessary.



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27

## Conclusion

### Register it Quickly

1. What do the Public and the Government need?
2. When do they need it?
3. What resources do you have?
4. Develop your methodology to complete the work within the given time and cost constraints.



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Thank You

This was a brief summary – based on a short presentation.

Further discussion welcomed at any time

