



**National Technical University of Athens
School of Rural and Surveying Engineering**

Cadastre and Land Management in Greece

**Prof Chryssy A Potsiou
chryssy.potsiou@gmail.com**

GeoConference 2014, 9 & 10 October, Quebec, Canada

Land registry works in a dual (public/private) system

Deeds registration system since the early 1850's

398 registry offices (18 offices public, 380 certified private)

1995: the Hellenic Cadastre Project was started.

Total estimated cost : ~750 million Euros

Major weakness:

- unclear purpose
- without a parallel legal reform (Peter Dale, 1996)

2014:

- the purpose still remains unclear among some politicians
- **but the legal reform has started and there is political will**



State lands are not defined & recorded, but are >60%. The state has not responded well with its management



Density of property rights

Area:	132,000 Km ²
Population:	10,962,000
buildings:	3,990,970
Residences:	5,475,400
Land parcels:	~15-18 million
Total farming land:	35,832 Km ²
Property rights:	~37.2 million
GDP:	~€180 billion
Per capita income:	~€18,000
Estimated total value of private land:	€750 billion(before crisis)

Progress of the Hellenic Cadastre Project



A' phase of cadastral surveys

- A' Pilot (1995)
- B' Pilot (1997)
- 1^o Main Program (1998)
- area: 6.5%
- Property rights: 17%
- Involved land registries: 24%
- costs: ~300 million Euros
- **completed**

Progress of the Hellenic Cadastre Project



Cadastral surveys of urban areas

B' phase of cadastral surveys (2008)

- Urban & sub-urban areas in the greater Athens & Thessaloniki region
- Remaining capital cities
- area: 5.9%
- rights: ~18%
- Expected delivery period: 2013-2019
- Expected costs: ~250 million Euros

Progress of the Hellenic Cadastre Project buildings are not shown in the cadastral sheets



Density of property rights

Remaining parts to be finished by 2020

- Parnitha mountain
 - costs: ~5.5 million Euros
- remaining settlements
 - costs: ~ 110 million Euros
- land distribution & land consolidation projects have taken place in the past
 - costs: ~185 million Euros
- remaining land
 - costs: ~572 million Euros
- specific areas where cadastral records pre-existed (Dodecanese islands, Kalithea-Palaio Phalero)
 - costs: ~ 5 million Euros

Improvement achieved:

The tender procedure is shortened and simplified based on:

- the qualifying documents of the tender participants, and
- the best price criterion

Progress of the Hellenic Cadastre Project development of infrastructure

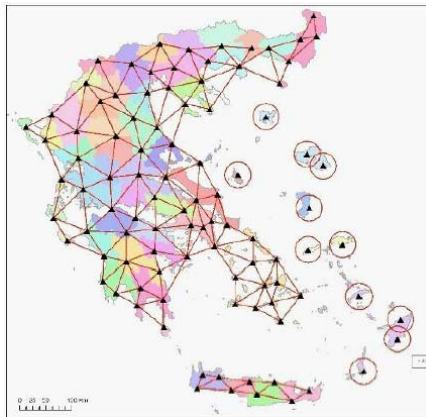


IT center of EKXA

Development of the IT Data Center and of the Web Applications

- IT Data Center of high degree of availability
- Disaster Recovery Center
- Telecommunication networks
- Management Information System (MIS) of HEMCO
- Web applications
- Cost: ~10 million Euros

Progress of the Hellenic Cadastre Project development of infrastructure

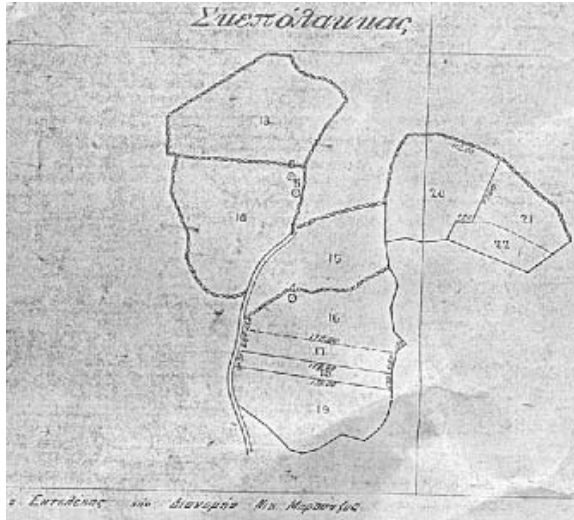


Network of HEPOS permanent GPS stations

Establishment & improvement of the Geodetic Infrastructure: HEPOS

- Number of stations: 98
- Stations in the mainland & on Cyclades islands: 78
- Stations on Crete island: 9
- Independent stations (Eastern Aegean islands): 11

Progress of the Hellenic Cadastre Project development of infrastructure



Scanning & digitization of old land-consolidation & land distribution maps

- Existing in the files of the Ministry for Rural Development and Food
- Coverage area: ~36,000 Km² rural land
- costs: ~1,3 million Euros

Progress of the Hellenic Cadastre Project development of infrastructure



2009:

Very Large Scale colored Orthophotomaps in the urban areas (VLSO)

- scale 1:1,000
- Area covered: ~6,000 Km²
- Pixel size: 20cm
- costs: ~3.2 million Euros

Large Scale colored Orthophotomaps in the rural areas (LSO)

- scale 1:5,000
- Area covered: ~132,000 Km²
- Pixel size : 50cm
- costs: ~6.3 million Euros

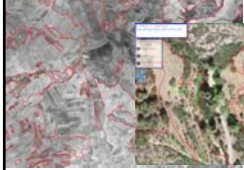


2014:

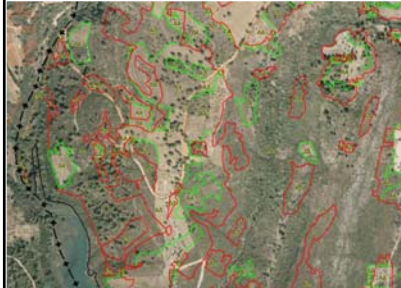
- New project the total country again
- Pixel size: 25 cm , scale 1:1250
- costs: 5.4 million Euros

Progress of the Hellenic Cadastre Project development of infrastructure

1945



Recent



Compilation of forest maps (1997)

Target: to define the forest polygons & to identify the state property

any forest land is claimed by the state unless there are continuous series of private registered original deeds dating from 1884

costs: ~155million Euros

ratified maps: only 1%

Frequent change of Legislation (1979, 2003, 2010)

forest polygon area size < 0.3ha

canopy density 15%

There is an **“unknown”** number of buildings & settlements within the forest polygons

TCG: ~48% of the registered private properties (A' phase of the cadastre surveys) in the areas outside the city plans

Progress of the Hellenic Cadastre Project development of infrastructure



Preliminary definition of shoreline and coastal zone

- Preliminary definition of the shore line
(the coastal zone is state land; its width varies depending on the winter wave line & the local topography)
- Scale ~1:1,000 for the delineation of coast line & the banks of “navigable” rivers & lakes on maps
- Pixel size: 25 cm
- Length of coastal zone & river bank zone: 16,000 Km
- Coastal zone width that will be mapped: 300 m
- Grid size for the DTM: 1m
- costs: 3.4 million Euros

The lack of spatial infrastructure & the inflexible, centrally-driven, expensive zoning & planning led to informal development



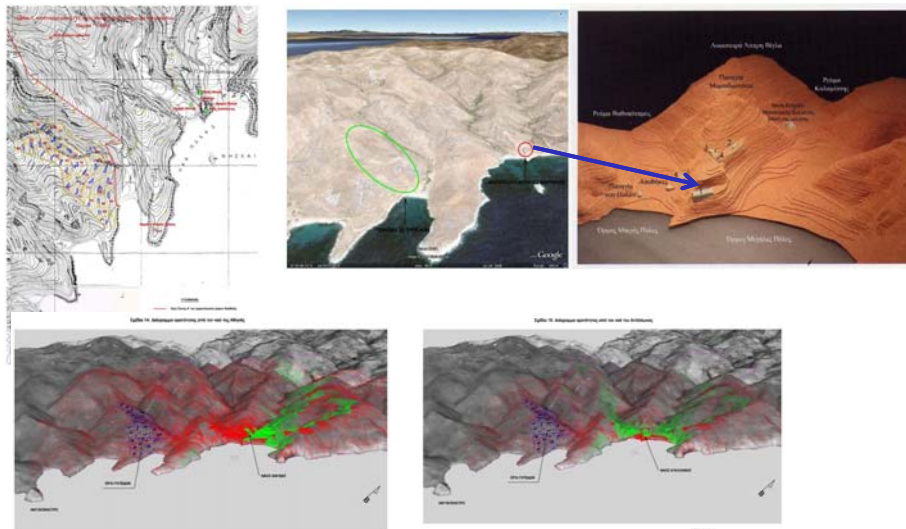
- Unplanned settlements with both formal & informal constructions exist; a *de facto* affordable housing policy; safe constructions-not many slums
- ~1M constructions (1 out of 4) are without a building permit; ~72B Euros dead capital (before crisis);
- ~>1.5M constructions with small informalities (illegal extensions, change of use, etc)
- unknown number within the “protected lands”
- Legalization is possible only through an enforcement of a detailed city plan

Informal buildings are not improved, transferred, mortgaged and taxed: 3B Euros annual GDP loss



- Legislation for temporary formalization (for 30 years):
 - Law 3775/2009; Law 3843/2010;
 - Law 4014/2011; (370,000 declarations)
 - In 2013 Council of the State : Law 4014/2011 is unconstitutional
 - Law 4178/2013; (125,778 new declarations)
- (2009- Feb 2014): ~500,000 declarations; revenue~1.84B Euros
- Weaknesses of formalization:
 - **Insecure**: unproven as to its Constitutionality
 - **Temporary**: formalization max for 30 years
 - **Expensive** to the owners: fees are ~1/3 of the construction costs
 - **Not inclusive**: some large categories of residential real estate are still not included & not affordable to all
- Result: **3B Euros annual GDP loss**

Archaeological sights are protected by Law but the regulations are complicated and not shown on maps. This affects investment.



Property Taxation is complicated & property taxes for the possession are calculated by a progressive system based on the total amount of properties of the owner

- Value added tax (VAT) 23% for newly built residences (Law 3472/2005)
 - Transfer tax (borne by the purchaser) rate was set at 8% for properties up to 20.000 euro and 10% for the excess of this amount. *improvement: 3% since summer 2014*
 - Tax for the possession of real estate 1975-1980, 1982-1993, 1997-2007: tax on large immovable property, 2008: the flat fee on immovable property (ETAK) for a property zone tax value > 300,000 euro, with a fee rate of 0.1%. 2009: ETAK + a special tax a tax scale 0%-0.9% of the total property value, 2010: Special tax + an annual tax on immovable property (FAP) tax scale 0%-2% of the total property value, 2011: Special tax + EETIDE (16Euros/m2, increasing factor for the younger real estate)+ FAP (tax scale for FAP 0%-2%), 2012, 2013: Special tax + EETIDE+ FAP, 2014: EMFIA
- property taxation system is changed every year
 - property taxes are calculated by a progressive system based on the total amount of properties of the owner
 - Taxes are based on the zone tax value without taking into consideration the age of the construction or any other factor
 - Zone tax values are not adjusted to the market values- especially during this period
 - undeclared informal constructions are not taxed
 - Property taxes are unfair –they do not affect equally all real estate

The state of the Greek property market

The main characteristics of the current period (*buyers' market*) are the following:

- The **drop in prices** is accelerating
- **Rent prices decline**
- **Weak Market activity** (uncertainty due to increased and unstable property taxation, foreclosures, decreased credit)
- **Construction Investment and Employment** are in free fall
- **Construction Costs remain high** despite the declining labor costs (the material costs have increased due to the increase of the gasoline price)
- **Credit expansion remains negative** and NPLs (30%)
- Constructors and consumers remain pessimistic
- **registered deeds per year: 1,100,000 (before the crisis), now ~550,000 (of them ~350,000 inheritances & transactions to descendants)**



Challenge :Hellenic Cadastre should be finished by 2020 recommendations

Remaining obstacles

For the cadastre:

- Key registers?
- Well equipped cadastral offices; good linkages with the involved professionals
- Creation of an open cadastre, information to the users?
- Stability within EKXA, less political influence?

For the legal reform:

- Volume of the remaining work: Forest maps, Coastal zone, Informal development legalization, property taxation, valuation, planning & construction permitting reform
- **There is strong political will**
- **The responsible agency has excellent experience**
- **External technical assistance should be continued**

THANK YOU

