


XXIII International FIG Congress
 8-13 October 2006 - Munich, Germany


TS 21 - Coastal Processes, Tools and Planning

Assessing the Development of Hellenic small Islands

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HELLENIC ARCHIPELAGO - GEOGRAPHY / STATISTICS -

- 9,835 islands, islets, rocky-islets & rocks
- 228 inhabited
- Area: 470sq.km (3,6 times the size of the mainland)
- Coastline: 11.242km (73,4% of Hellenic coastline)
- Lodging establishments: 58,5% of total in the country
- Hotel beds: 62,6% of total in the country
- Great political, social, economical & cultural importance
- Fascinating morphology, diversity of landscape, clearness & safety of waters, ideal climate, short distance between ports & coasts

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HELLENIC ARCHIPELAGO - GEOGRAPHY -

- 8 main groups:
NE Aegean Islands, Sporades, Evia, Cyclades, Argo-Saronic, Ionian, Dodecanese & Crete
- Many sole islands
- 3 most distant locations are islands (South, East, West):
 - Gavdos (lat. 34°48'11") - southern border of Europe
 - Othoni (long. 19°22'41"E)
 - Stroggili (long. 29°38'39"E)



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HELLENIC ARCHIPELAGO - DEFINITIONS -

Sea, according to International Law, is every space that contains salty water and can originally communicate to each other.

Island is a physically formatted land mass surrounded by water, which stands over the water surface during the highest flood.

No accurate distinction of island types acc. to the Law of the Sea

- "Rock": total area of less than 0,001sq.km
no human life but can contain sailing infrastructure, as lighthouses
- "Rocky islet": between 0,001 - 1sq.km
can support limited human life
- "Islet": over 1sq.km - *uninhabited but easily populated*
- "Island": over 1sq.km - *inhabited & considered part of the mainland*

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HELLENIC ARCHIPELAGO - LEGAL STATUS -

General Legislation:

- Law 547/48: Commandment of Dodecanese
- Law 3800/57: Protection & commandment of Public R.E. in Dodecanese
- Law 2971/01: Coastal zone

Constructions Legislation:
Same status of building beyond city limits, unless stated otherwise
Exception if characterized:

- traditional settlements (architectural restrictions)
- areas of special beauty (restrictions of activities)
- national sea-parks (Monachus-Monachus seal and Caretta-Caretta sea-turtle), wild-life refuges, archaeological sites, non-hunting areas

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PUBLIC AGENCIES & SERVICES OTHER SOURCES

- Hellenic Navy Hydrographic Service of Hellenic Navy General Staff
 - nautical maps, analytical books, definition of coastal zone and harbors, lighthouse management, consulting on islets transaction
- Hellenic Public Real Estate Corporation
 - owner/manager of 100.000 Real Estate Public properties
 - descriptive data of 634 islands about location, registration info, constructions, flora & fauna, ports, accessibility etc
- Ministry of Tourism, Greek National Tourism Organization (GNTO) & Tourism Development Company (TDC)
 - owner and manager of 9 islets, among 350 other properties (casinos, marinas, hotels, beaches, natural springs, ski resorts, golf courses etc)

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PUBLIC AGENCIES & SERVICES OTHER SOURCES

- Ministry for the Aegean and Island Policy
 - cultural actions, ecological interventions & small harbor constructions
 - GIS: "Aegean islands Geographic System" consisting of digital maps, satellite images, soil & geological maps etc.
- Ministry for the Environment, Physical Planning and Public Works - Law-preparatory section
 - constructions legislation
- National Agricultural Research Foundation (N.AG.RE.F) of the Ministry of Rural Development and Food & Local Forest services
 - characterisation of "Forest" areas
- Body of Sworn-in Valuers of Greece (B.S.V) & Hellenic Institute of Valuation (H.I.V)
 - official state valuations

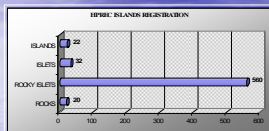
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PUBLIC AGENCIES & SERVICES OTHER SOURCES

- International Real Estate Federation (FIABCI) and Local Real Estate Agents Associations
 - data on islet transactions
- Hellenic Mapping & Cadastral Organization (HEMCO) and Ktimatologio S.A. (Hellenic Cadastre S.A.)
- internet

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PUBLIC ISLANDS - STATISTICS / EXPLOITATION -



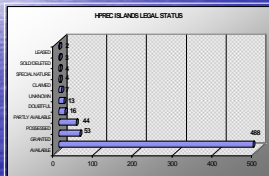
records of 634 islands

88% rocky islets - no exploitation

legal status:

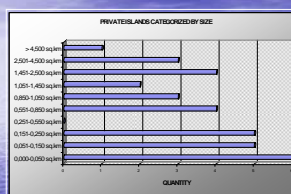
- available (for exploitation) - 77%
- possessed (illegally or arbitrarily) - 7%
- partly available (partial private ownership)
- leased (public service or private investor)
- granted (as of use, not ownership) - 8,3%
- unknown (no data)
- doubtful (no legal status)
- claimed (in courts)
- of special nature
- sold or deleted from records

lease, sell, exchange, PPP/PFI project
public competition / direct agreement



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PRIVATE ISLANDS - STATISTICS / SELLING PRICES -



ISLAND NAME	AREA (sq.km)	SELLING PRICE
St. Athanasios	0,010	814,000 €
Legia	0,128	651,000 €
Renia	2,220	2,000,000 €
Kythros	0,770	2,500,000 €
Asproissi	0,130	6,400,000 €
Skyropoula	4,000	6,500,000 €
NoName (near Itthaki)	0,138	1,170,000 €
NoName (Korinthian Gulf)	0,011	1,450,000 €
NoName (Cyclades)	2,000	5,500,000 €
NoName (Dodecan islands)	0,930	10,000,000 €

smallest: "Gravani" (0,0096 sq.km) / largest: "Dokos" (12 sq.km)



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PRIVATE ISLANDS - TRANSACTION PROCEDURE -

Transaction of islands is generally forbidden, according to Hellenic Legislation mainly due to National Security reasons

- selling islands is not permitted according to Laws 3520/24 & 2148/52
- buying an island is prohibited according to Law 1892/90

- Ownership status must be absolutely clear
- Owner submits:
 - available contracts from previous transactions (sale, grant, donation)
 - certifications from public agencies
 - construction permits and charts of the property

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PRIVATE ISLANDS - TRANSACTION PROCEDURE -

- Selling permit, granted or rejected, from local Prefecture
 - under the condition that it goes public in local press
- Buying permit from Minister of Rural Development & Food, since:
 - State does not claim any rights on the island
 - Hellenic Navy General Staff, certifies no National Security issues
 - coastal zone is defined and excluded from transaction (public property)
 - potential forest areas have been delimited
 - Ministry of Tourism, Ministry of Culture, Hellenic Institute of Marine Archaeology (HIMA) and Hellenic Navy Hydrographic service, do not object

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PRIVATE ISLANDS - VALUATION OF AN ISLAND OR ISLET -

- Development potential
 - "net" area of the island, excluding coastal zone and forest areas
 - indication of construction possibilities (< 4.000 sq.m, cannot be built at all)
 - restrictions (environmental etc) complicating / prohibiting development
 - practically minimum value
- Location of the island
 - distance from nearest land (mainland or island)
 - accessibility options (port, marine infrastructure)
 - land-values of the neighboring land
- Topography of the island
 - physical, geometrical & special features (size, shape, coast, surface, relief) define exploitation potential, mainly construction & infrastructure

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PRIVATE ISLANDS - VALUATION OF AN ISLAND OR ISLET -

- Flora & fauna
 - intense vegetation & forest areas, leave small areas to be exploited
 - rich (and possibly rare) fauna restrict investor's master-plan
- Infrastructure
 - water-supplies for consuming and fire-extinguishing purposes
 - electrification (usually managed with generators)
 - telephony network
- General meteorological conditions & climate (N/A in Hellenic islands)
- Tourism statistical data
 - arrivals, occupancies, season duration etc
- Medical support
 - distance, adequacy & accessibility of nearest first-aid station or hospital

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PRIVATE ISLANDS - VALUATION OF AN ISLAND OR ISLET -

- No substantiated methodology internationally
- General steps to follow:
 - gathering every piece of relative information from local authorities / Prefecture / civil-planning office / tax-office /land-registry office / cadastral office / all Public services mentioned above
 - determination of level of development that can be achieved through
 - calculating the "net" area
 - considering building regulations
 - adding benefits, restrictions & difficulties due to the features of the island
 - calculation through comparable sales of price/sq.m. of other islands, as well as of other nearby coastal properties
 - calculation of total price of land + replacement cost of infrastructure
 - calculation of taxable value, for control reasons

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HELLENIC SMALL ISLANDS - DEVELOPMENT ADVANTAGES -

- Geographic location - crossroad of 3 Continents
- Big number of Hellenic islands
 - many of them well-known tourism destinations
 - small distances between ports
 - relaxing vacation, although very near to mainland or to a resort
- excellent climate especially in summer
 - safe trips & pleasant stays, without extreme meteorological phenomena
- crystal clear swimming waters & beaches
 - most "blue flags" in Europe
 - no risk of industrial disposals or dangerous marine life-forms

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HELLENIC SMALL ISLANDS - DEVELOPMENT DISADVANTAGES -

- Time & money consuming procedures with no certain results
 - heavy bureaucracy
 - complex legal & civil-planning status
 - unclear ownership status
 - involvement of too many Public & Military Agencies in transactions
- Impossibility of selling far-eastern islands near borders to Turkey
 - National Security reasons
 - especially to Turkish investors or to companies with complex shareholding schema
- Lack of infrastructure (docks, water, electricity, lodgments)
- Difficulties in establishing infrastructure (drastically increasing cost)

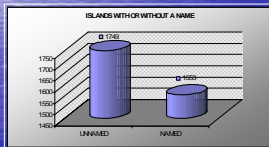
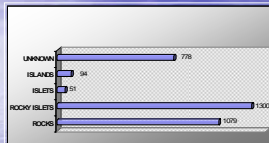
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HELLENIC SMALL ISLANDS - REGISTRATION IN A G.I.S.-

- 9.835 islands, islets, rocky-islets & rocks in Hellenic Archipelago
- 3.302 completely registered in a GIS database
 - main name, alternative name, latitude, longitude, coastline, area, island-complex, Prefecture, Municipality, legal status, type of property, special beauty area, relative legislation, Natura area
- GIS data collection:
 - G.Yagakis books from Hellenic Navy Hydrographic Service (location)
 - Hellenic Public Real Estate Corporation (legal status & property type)
 - internet (restrictions & special areas)

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HELLENIC SMALL ISLANDS - REGISTRATION IN A G.I.S.-



Unknown: no information on area or inhabitants (23,5%)

Unnamed: can only be located by their geographic coordinates

more than half of the registered islands (53%) have not been assigned a name, causing great difficulties to instant and absolute identification & positioning

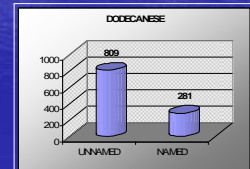
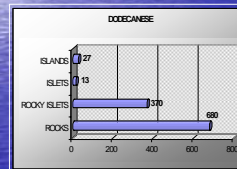
difficulties faced:

- lack of information for many islands
- double records for the same island
- small differences to numeric fields as area and coordinates

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HELLENIC SMALL ISLANDS - APPLICATION: DODECANESE ISLANDS -

- Dodecanese: an island complex near the SW coasts of Asia Minor
- Consists of 1.090 islands
 - mostly rocks (62,3%) and rocky islets (34,0%)
 - 74% have not been assigned with a name
 - Largest unnamed islet: "NoName 128" (0,228 sq.km) !!



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HELLENIC SMALL ISLANDS - EXPLOITATION OF THE DODECANESE -

- 1st criterion: "net" area ≥ 4.000 sq.m.
 - subtract coastal zone & non-exploitable areas from total island area
 - assumption that every island's coastline is a perfect circle
 - estimated coastal zone depth: 20m
 - addition to coastal zone depth: 12m (local Dodecanese legislation)
 - beach zone depth: 50m
 - minimum radius to produce 4.000 sq.m. circle: 35,7m
 - $E_{\text{minimum}} = n \cdot R^2 = 3,14 \cdot (20+12+50+35,7)^2 = 43.500$ sq.m.
- 2nd criterion: exclusion of all inhabited islands (to start from scratch)
 - \rightarrow 100 islands (9% of total) can be developed (87 rocky islets, 13 islets)
- 3rd criterion: application of restrictions (environ. protection reasons)
 - \rightarrow 49 islands (4,5% of total) can be developed (46 rocky islets, 3 islets)

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