Nordic Journal of Surveying and Real Estate Research, Special Series, Vol. 4 (2009) Received December 28, 2008 Accepted after revision June 8, 2009

Informal Development Due to Market Pressure -A Case Study on Cyprus and the Role of Land Administration

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Abstract. Results of a detailed two-year research conducted by the authors are presented in this paper. It is shown that, among other reasons, informal constructions also appear in several attractive European areas due to increased market pressure. In the first part an introduction on the current state-of-the-art of informal development in *Europe is presented and the findings of the research are given in brief* about three Mediterranean countries: Spain, Albania, and Greece. Although the social, economic, administrative and cultural situation and the extent of informal development vary among these countries, current identified major causes for informal development are: migration in search of work and shelter, lack of affordable housing, and increased market pressure combined with inefficient land administration and/or permitting and controlling procedures. In part two of this paper, an in-depth research on Cyprus, a country which had never experienced informal development until recently, is presented. The research aims to focus especially on the risk due to increased market interest, whose economic benefits overwhelm even the long established regulatory systems for the management and administration of land.

This original research shows that informal development is emerging in Cyprus as well. This very new phenomenon is caused by the rapid national and international market pressure in both urban and rural areas of the island. A description of the land administration tools and the procedures regulating land development is given; weaknesses of the system to meet the current needs are identified; and proposals for its improvement are offered. Relevant statistics are derived through a research on the cadastral and planning data. It is proved that recent occurrence of high national and international market interest in popular areas often leads to informal development. Considerations are presented concerning the importance of a continuously upgrading multipurpose and reliable land administration and regulatory system, which is vital for the security of tenure, the support of the emerging market needs, and for providing for sustainable land-uses.

Key words: Informal development, Land administration, Permitting procedures, Real estate market, Land-use control

1 Informal development in the European region

Several European countries have attempted to address the challenges of informal development in the last 5-6 decades by adopting affordable housing policies, strengthening the cadastral and land registration systems to avoid squatting, and applying land-use control and systematic construction inspection. "Informal development" is still a problem in the southern countries.

In parallel, the economic and social change in Central and Eastern Europe, rapid urbanization and migration, the crisis of displaced people and refugees, the lack of affordable housing policies and the emerging social inequality have increased the phenomenon during the recent years. The above combined with the lack of serviced urban land, and the inefficient land administration, are the recognized causes of informal development. Although there are different levels of informal housing, many definitions emphasize informality of occupation and non-compliance with land-use plans as the main characteristics (UN-HABITAT, 2003). An international research started in 2006, by FIG Commission 3, uncovered the fact that recently informal development has become an issue of major importance in Europe (Potsiou, 2008). According to the findings, there are five main types of informal settlements identified: (i) squatter settlements on public or private land; (ii) settlements of refugees and other vulnerable people; (iii) upgraded squatter/informal settlements; (iv) illegal land subdivisions on private land and illegal change of land-use regulations, often on the urban fringe; (v) overcrowded, dilapidated housing without adequate facilities in almost all city centres or densely urbanized areas (UNECE, 2008). European informal constructions vary in terms of standard (from slums to luxurious residences), location (detected in the urban fringe, city centers, or within the countryside and the coastal areas) and size (single units or large settlements, and/or single family houses or multi-story buildings). Similar variations are identified within each country as well (Potsiou & Dimitriadi, 2008; Andoni, 2007; Miron, 2008).

To the above causes a relatively new factor of significant importance should be added: the illegal or semi-legal investment on informal real estates 30

due to the increased market interest; the recent occurrence of high national and international market pressure for secondary houses, recreation, or better living conditions. This paper focuses on investigating informal development due to this factor.

A research on market data shows that market demand has increased land values in several attractive areas dramatically, including places in the European coastal zone. During the last six years the mean annual increase of values of secondary houses in Bulgaria has reached 16%, in Croatia 31%, in Italy 16% and in Spain and Greece 11% according to 2007 data; a decrease is noticed in 2008 due to the economic crisis. The demand is so high that it becomes difficult, especially for the developing economies, to apply strict regulations and control on coverage, floor area ratio, and land-uses both within the cities and in the countryside. It is estimated that the economic revenue from such investments can become a significant proportion (up to 70-80%) of the country's GDP (Tsakiri, 2008).

Savills a British real estate development company announced that the total value of real estate owned by the British outside UK in 2007 was 74.9 billion Euros. Many are secondary houses in recreational areas of Southern Europe (Papastathis, 2007). Besides the British investors, several hundred thousand citizens from Germany, France, Ireland, Belgium, Holland, Denmark, Sweden, Russia, choose Mediterranean areas for second homes which provide permanent residences after retirement. There is a growing interest for investment in countries in transition as well. Statistics by the "Bulgarian Properties" construction company show that major investors in Bulgaria come from Russia, UK, Spain and Poland. The foreign investment in the coastal zone of the Black Sea was one billion USD in 2007 (50% of the total direct foreign investment in Bulgaria after its entrance in the EU) (Papastathis, 2007).

The economic value of secondary housing sector is significant for the local societies. It boosts the economy by strengthening the construction sector, the tourism infrastructure, and in many cases it preserves the existence of small provinces that are threatened by the rapid urbanization and emigration. The impact remains to be investigated. In specific cases the new owners rescue and restore old houses, and respect the traditional architecture and the natural environment. The phenomenon of massive foreign investment, however, encourages developers to proceed with massive informal, unplanned development and to construct informal tourist secondary houses within areas of natural beauty. Increased demand converts forest or rural land into residential use rapidly.

2 Informal and unplanned development in Mediterranean countries

Increased market demand creates additional informal and unplanned develop-

ment in countries like Portugal, Spain (Miron, 2008), Italy (Panunzi, 2007), Croatia (Pahic et al, 2007), Albania (Andoni, 2007), Bulgaria, Cyprus (Potsiou & Dimitriadi, 2008), Turkey (Ozer et al, 2007), Greece (Potsiou & Ioannidis, 2006; Dimipoulou & Zentelis, 2007). Most of the recent international market activity for secondary houses in Europe is identified in Spain, Cyprus and Turkey. In most of the above countries all types of informal constructions can be identified. Examples are given from Spain and Greece, two western countries, and Albania, a country in transition.



Figure 1. Slums in Spain: squatting in public land (they respect private property)

2.1 The example of Spain

In Spain informal settlements can be classified as following (Miron, 2008):

- Squatter settlements on public land Slums (Figure 1): Small spots in the suburbs of big cities or along highways; usually linked to immigration in search of work and better living
- Unplanned or illegal subdivision of rural land in suburban areas: Massive construction of good quality created by low or middle income households; linked to the strong demand for affordable housing but also due to the inadequacy of the planning system. In recent years the construction phenomenon in Spain has reached an excessive volume, especially in terms of cost. The price per square metre has rocketed upwards, and that has made the business most profitable. One consequence of that rise has been to make it difficult for young people to own a home of their own, in a market where rentals are scarce and do not earn tax breaks. The squatter movement, as a consequence of the scarcity of reasonably priced housing, is becoming a problem in cities like Barcelona (Gonzalez, 2007).
- Illegal land subdivision and construction of good quality in the countryside (Figure 2): Building a house with an agriculture permit; these are usually secondary homes and are linked to recreational migration and increased local and international market demand

- Unplanned or illegal construction of good quality in coastal areas (Figure 3): Massive construction due to strong local and international demand for secondary homes and recreational migration, but also due to the inadequacy of the planning system.



Figure 2. Unplanned and possibly illegal construction in Axarquía, Málaga (source: Miron, 2008)

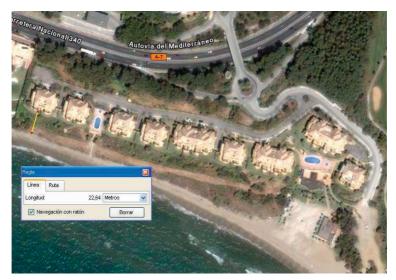


Figure 3. Defiance of regulations referring to the distance from the shoreline (source: Miron, 2008)

Spain has a long-existing land registry, a flexible permitting procedure (a permit may be obtained either by an express act or by failure to act, which is tantamount to permission) to serve the market needs, and a modern cadastral system, which is now available via Google. Preliminary permits are obtained from the city council allowing the building to be classified as legal, and it will only be through a posteriori control that a solution can be found. When edification has been done without a permit or in infringement of the permit that has been given, a posteriori "legalization" is possible. For that, a legalization proceeding must be pursued on the basis of a project and with compliance with the same requirements as in the case of a permit. Legalization will be carried out whenever possible, even if what legalization can be done is only partial. The edification's registrability will at all events be predicated upon legalization (Gonzalez, 2007).

A research on market data shows that in recent years in Spain at least 10,000,000 secondary houses have been sold to tourists, which equates to more than 30 million foreigners.

2.2 The example of Greece

In Greece, informal settlements may also be classified in a similar way:

- Small slums within the city, along the main road network and close to landfills, created by poor economic immigrants, from Pakistan, Afghanistan, Russia, and new Roma immigrants from Albania (Figure 4).
- Massive informal development of good quality in legally owned but illegally subdivided rural land in suburban areas linked to the strong demand for affordable housing mainly created by low or middle income families (Potsiou & Ioannidis, 2006) (Figure 5). Salaries in Greece are low in comparison to other European countries while land values are extremely high. The permitting procedures are bureaucratic and lengthy and the provision of new urban land procedure may take more than eight years (Potsiou & Dimitriadi, 2008).
- Emerging construction of good quality on legally owned but illegally subdivided parcels due to increased demand for secondary houses and recreational migration, but also due to lengthy bureaucratic urbanization procedures. The Greek planning system is not oriented to serve the market needs and the cadastral system is still at an initial phase (Figure 6).

Local and international market interest for secondary houses has increased in Greece during the last 10 years. Greek land development system and land management procedures are not flexible and are not market oriented. For a number of reasons including: complicated zoning regulations, lengthy permitting system, no possibility for legalization (informal constructions cannot be registered unless the area is integrated into a city plan and legalized - if possible - which may happen after decades), high real estate taxation and 34



Figure 4. Small slums in Greece (close to the road network) Squatting on public land

high transportation costs, international market's activity in Greece is not as high as it is in Spain, Cyprus, Turkey, Portugal and other countries. It is estimated that only 50,000 foreigners own vacation houses in Greece, concentrated on particular islands. By example, 80% of real estate buyers on the island of Crete are foreigners most of whom are retired Russian, Scandinavian, Austrian, German and British.



Figure 5. Low income family informal settlements on Salamina island, Greece (source: Potsiou & Ioannidis, 2006)

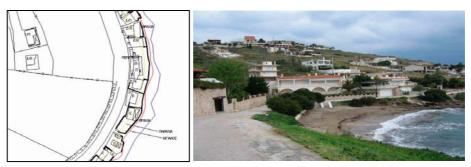


Figure 6. Informal constructions in the seafront area. Construction is not permitted between the yellow (shoreline) and blue (low-wave) line (source: Potsiou & Dimitriadi, 2008)

A research in market data shows that for the period 1997-2005 investment in the "secondary housing" sector was doubled both in value and in number of real estates. However, foreign investment is only 10% of the total. Secondary houses in Greece constitute only 12% of the construction activity; areas with higher supply of secondary houses are the Chalkidiki peninsula and the Greek islands, however 90% of the buyers are local.

2.3 The Example of Albania

In Albania, urban and rural land was privatized after the political, economic transition. However, the population of Tirana doubled during the period 1990-

36

1999, due to internal migration from north-eastern regions of Albania. Incoming villagers would illegally squat on land (either public or private) and start building houses – usually of better quality and size than the existing housing stock-, adding floors and finishing construction over time. Close to 55% of the population lives in informal squatter settlements in suburban areas (Andoni, 2007). Such settlements are characterized by lack of access to fresh water and sewerage services, transportation, education and healthcare. The quality of such settlements may vary from slums (Figure 7a) up to very good constructions (Figure 7b), showing that this phenomenon involves low, middle or higher income families. These cases are linked to migration towards the big cities, lack of affordable housing policy, and to inadequacy of both the cadastre/land registry to legally secure tenure and of planning control.

There is an on-going massive legalization process in place. Government focuses on solving the major housing needs and on attracting investment for a rapid economic growth. For these purposes Albania adopts short-term, simplified, practical planning and construction procedures and regulations, adjusted to its urgent priorities. In Albania as well there is a massive unplanned, informal and illegal construction in popular areas due to strong market interest (Figures 6c & 6d). Development activities involve "negotiation" with the permitting authorities, rather than the application of pre-defined rules and standards, and are thus subject to a wide variety of abuses. Without clearly-defined procedures and criteria for issuing building permits, municipalities often exercise non-transparent discretionary powers, causing serious shortages in urban and social infrastructure in urban areas (World Bank, 2006).

Having investigated examples from popular Mediterranean spots with informal development and having classified the reasons of its creation, it is shown that the main reasons for informal development in the region, are: immigration or migration in search for better living conditions; lack of affordable housing to solve the current housing needs; bureaucracy or inefficiency of land development procedures; and the increased international and local demand of real estate market in combination with its attractive economic benefits.

The latter is a totally new factor that must be added to the traditional causes of informal development in the region. This emerging factor is caused by the increased interest of the globalized market and the current social and economic changes. This led the authors to an in-depth research in order to study this particular problem. For that, a case study was accomplished for an attractive area that had never experienced informal development in the past, with a healthy and strong economy, which does not go through a transitional phase as it is the case in some places of Eastern Europe.



Figure 7. Informal development in Albania: slums (upper-left); houses of good quality for housing needs (upper-right); due to increased market demand (bottom – left & right). (source: Andoni, 2007)

3 The case study on Cyprus

Cyprus was selected to be the case study area for this in-depth research because it is a cosmopolitan, international destination both for residence and tourism with a healthy and growing economy. Some general information about the island is given in chapter 3.1. The objectives are to investigate:

- the institutional infrastructure, permitting procedures and responsibilities in terms of land development, the hierarchy of development plans, and the weaknesses in land development / administration procedures that may encourage informal development, in chapter 3.2;
- the planning and cadastral / market data in terms of the increased interest for acquiring planning permits, and for sales and mortgages; the level of land values, the increased international real estate market interest, the maintenance of cadastral data in terms of constructions' registration, and the existence or non existence of illegal or informal constructions on Cyprus, in chapter 3.3. ,and
- the findings of the research, the reasons of the creation of informal developments and their classification; the impact; the tools used, in chapter 3.4, and
- proposals for improvements, in the final chapter.

3.1 General information

Of the Mediterranean islands Cyprus is the third largest, and lies in the southeastern region of the sea. Its total size is 9.251 km^2 , with a mild climate. Administratively Cyprus is divided into 6 districts named after the island's principal towns: Nicosia, Limassol, Larnaca, Paphos, Famagusta and Kyrenia. Each district is headed by a District Officer who is essentially the central government's local representative, acting as chief coordinator for the activities of all Ministries in that District. Since 1974, the northern part of Cyprus including the towns of Famagusta and Kyrenia, have remained under Turkish military occupation. After over twelve centuries of more or less continuous Roman and Byzantine administration (30BC-1191AD), the island was successively ruled by the Crusaders, the Frankish House of Lusignan (1192-1489), the Republic of Venice (1489-1571), the Ottomans (1571-1878) and finally the British (1878-1960). All these foreign occupiers have left their mark on the culture and traditions of Cyprus, as well as the form and structure of its settlements and landscapes. Cyprus became a member of the EU in May 2004. The population of Cyprus (in the free part) is 778.700 residents (2006). The number of residential units in 2001 was 293.985; 68.2% of those are private residences. Cyprus has a per capita income 19.763 Euros, which is 93.1 % of the mean income in the EU region, and an annual GDP growth rate of 4,4% (in 2007). During the last two decades Cyprus has adopted simplified and flexible land management procedures in order to attract foreign investment.

3.2 Institutional infrastructure, permitting procedures and responsibilities in terms of land development

Land administration is conducted within the national framework of land policies of each country that determine how land should be used to meet social and economic objectives. Land administration infrastructure includes land-related data, policies, responsible agencies, legislation, technical aspects, procedures, etc for recording and disseminating information about ownership (and other legal rights) and value of land, and the rights and regulations to use and profit from the land (UNECE, 2005). The first part of the case study focuses on land development procedures and the relevant land administration infrastructure. It investigates how well the land registry/cadastre and the planning offices are coordinated to serve land development and construction permitting procedures on Cyprus, and whether there are gaps in the process that may allow an extra-legal path in land development.

Economic and regional development policy on Cyprus is based on "indicative planning", exercised through the Planning Bureau, an independent directorate under the authority of the Ministry of Finance, which formulates long-term development policy at the strategic level and exercises control over its implementation through the state budget. The responsibility for spatial planning and urban policy rests with the Ministry of Interior, who has delegated certain of his responsibilities to the larger Municipalities and the Planning Board, an independent body with advisory power over large areas of planning policy. Larger municipalities have been delegated as competent Planning Authorities, responsible for granting planning permissions, ensuring the sustainable distribution of land uses, prohibiting the implementation of projects detrimental to public welfare and quality of life, monitoring conformance to planning system standards and conditions laid in granted permissions, and enforcing their implementation in cases of non-compliance. (http://www.eukn.org/cyprus/urban/index.html).

Under the responsibility of the Ministry of Interior are the:

- Department of Lands and Surveys (DLS) responsible for: maintaining the Cyprus title cadastral system, property and rights registration, cadastral plans and maps production, cadastral surveying, mortgages, conveyance, valuation, acquisition, management of state land, photogrammetry, cartography, GIS, etc (Elikkos, 2007), and
- Department of Town Planning and Housing responsible for the implementation of the Town and Country Planning legislation and aspects of urban policy and spatial planning. The Department is comprised of the Sections of:
 - Housing, responsible for national housing policy, as well as the design and management of public housing, at present almost exclusively serving refugees displaced by the 1974 Turkish invasion
 - Development control, responsible for plan implementation and enforcement, as well as providing the administration for six of the nation's Planning Authorities
 - Spatial Planning, responsible for urban and spatial policy formulation, including issues of land use, preservation, transportation and territorial development.

The hierarchy of development plans includes the:

- Zoning and planning regulations on Cyprus
- "Island Plan", which refers to the national territory and the regional distribution of resources and development opportunities; the plan remains unpublished due to the Turkish occupation of part of the island
- "Local Plans" for major urban areas or regions undergoing intensive development pressures. They include written regulations according to general and specific policies and a broad range of regulatory plans and maps (at scales of 1:25,000, or 1:10,000) for a variety of development types, infrastructure networks, etc, for large urban geographical areas. The types of local plans are: administrative structure, general spatial plan, main

road network, main cycle network, land use maps (Figure 8-left), aircraft noise maps, town planning and zoning maps (Figure 8-right).

- "Area Plans" at the lower end of the hierarchy. They include policies and regulations, at a more detailed level and for smaller and geographical areas of special interest, than the Local Plans.
- The Policy Statement for the Countryside (PSC) for the Sustainable Development of Cyprus refers to all government-controlled territory, except areas where a Local Plan or Area Plan is in place. The PSC is a legally binding document in the form of an adapted regional plan for development control and environmental protection in villages and rural areas.

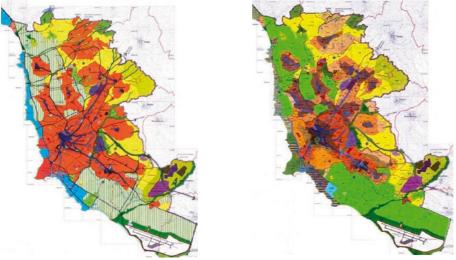


Figure 8. Local Plans of Pafos district: Land-use (left); Town planning & zoning map (right)

Issues of sustainability are broadly addressed by Local Plans in the country's four main urban complexes and several small-town municipalities in quasi-rural settings while these have been enriched and strengthened through the introduction of provisions for the implementation of their strategies and policies. Area Plans refer to smaller areas and are more detailed and specifically project oriented, gradually becoming indispensable tools for addressing sustainability issues and enabling the implementation of planning policy.

The Town Planning Board is responsible for formulating housing policy in Local and Area Plans. The procedure for the updating and revision of Local Plans may be briefly described as following:

- According to Law 90/1972 for Town and Spatial Planning a revision of a local plan may be compiled every 7 years under the responsibility of the

Ministerial Board. Other involved agencies are the Local authorities, the Department of Town Planning and Housing, the Ministry of Interior, the Ministry of Agriculture, the Environment Service, the Ministry of Communications and Works and the Cyprus Scientific and Technical Chamber.

- Once the new plan is revised, the Town Planning Council is responsible for its publication.
- An objection submission, examination and amendment phase follows, and the new version is submitted to the Ministerial Board for ratification. The whole objection procedure should be finalized within 18 months.

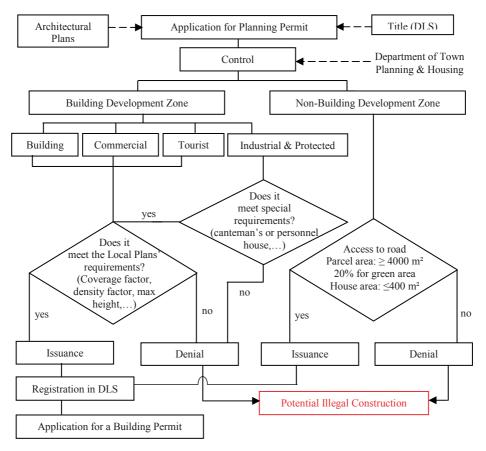


Figure 9. Development Permitting Process in areas covered by Local Plans

By the same Law, the planning permit constitutes the first step of the development process. It refers to the ratification of the architectural study (accompanied by the title of the parcel) of the construction in terms of

volume, land coverage percentage and floor area ratio. A planning permit is not necessary in areas covered by Local Plans within the building development zone for a construction up to 8 units in a parcel with street and utility access. If the parcel is in the non-building development zone and is larger than 4,000 m² a planning permit is issued if the architectural plans are in compliance with regulations relevant to coverage, floor area ratio, etc, and for a house area less than 400 m². In the case the parcel is outside the Local Plan a planning permit for a single family house can be issued only if the parcel is bigger than $6,000m^2$ and the owner has no other residence within the areas of the Local Plans. According to legislation, issuance of a planning permit should be completed within a period of three months after the submission of application. However, in practice it usually takes one year. In case of not compliance with regulations, the responsible agency (the Department of Town Planning and Housing) may ask for a revision of the architectural plans, but some developers go forward without making the requested revision. Figure 9 shows the flow chart of the procedure for acquiring a planning permit within the Local Plans and Figure 10 in areas outside them. In red, it is shown where it is likely for an owner/developer to become extra-legal. Planning permits are registered into the cadastre (DLS).

Issuance of building permit (mainly related to structural aspects) follows the issuance of the planning permit and it is mandatory for any construction. The owner must appoint a private engineer to supervise the construction and declare his/her name at the municipal office; at completion of construction the private engineer must certify the completion of construction. Responsible agencies are either the Municipality or the District Administration Office. Within twenty days after the completion of construction the owner must submit the certificate and an application to the Municipality for a final inspection, issuance of a certificate of compliance and registration of the construction to the cadastre (DLS). If the final construction exceeds the limitations of the building or planning permit the result is an illegal construction, in which case the owner/developer does not apply for final inspection and the construction is not registered into the cadastre, and the responsible municipal office never performs an inspection, lacking an application of the owner.

The analysis of the procedures shows that in terms of available infrastructure, Cyprus has a well established and well maintained land registry and cadastral system, which secures land tenure, eliminates squatting on private or public land and serves the real estate market well. Unlike the Greek situation, Cyprus has a flexible planning and zoning system. The only serious weakness identified in the system is the final inspection for the certificate of compliance, which is only activated by an application of the owner. This weak point allows the occurrence of recent informal development to happen.

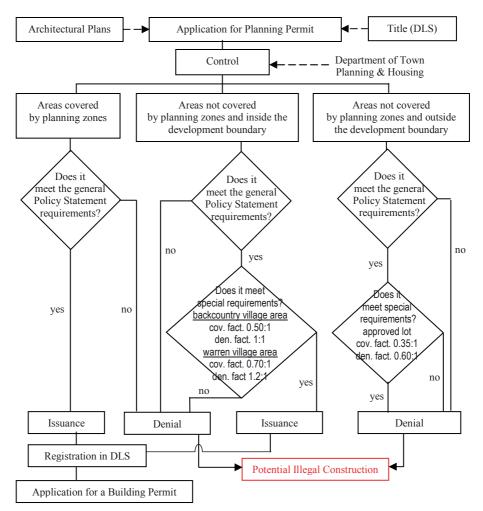


Figure 10. Planning Permitting Process in areas covered by Policy Statement

According to information provided by the Ministry of Interior, the identified major territorial challenges affecting Cyprus today, besides the persistence of the dividing line between the two communities, are the:

- decline and deterioration of historic urban areas due to gradual abandonment and recent influx of migrant workers
- gradual abandonment of mountainous villages
- continued urban dispersal and associated peri-urban sprawl
- lagging implementation of protection of nature and insufficient agriculture restructuring.

These problems are especially evident in the countryside and at the urban fringe, where new development continually encroaches on prime agricultural

land and areas rich in natural and cultural resources. Pressures on land development for secondary houses further complicate the situation, where due to the pleasant landscape and mild climate of Cyprus there is a high demand for the acquisition of holiday houses by overseas owners, notably pensioners from northern European countries.

3.3 Research on planning and cadastral / market data in terms of illegal construction due to increased market interest

Unlike other Mediterranean countries which have dealt with informal development over a long period, Cyprus has never in the past faced such experience, except of the major problem of the illegal Turkish occupation of Cypriot real estate properties in the northern part of the island. This is not within the subject of this paper.

The findings of an original in depth research made by the authors in cooperation with the planning and DLS authorities on existing planning and cadastral information about the increased interest for acquiring planning permits, or for sales and mortgages, the level of land values, the increased international real estate market interest, and the maintenance of cadastral data in terms of constructions' registration, are given below.

Since 2000, there has been an increase in applications for planning permits. This increase was even more rapid during the period 2002-2004, with a peak in 2004, just before the entrance of Cyprus in the EU. It was rumored that real estate taxation would change due to EU policies and fees would be charged for grants. Finally this did not happen but explains the peak in activity. The continuous increase of applications for planning permits which has overwhelmed the agency's capacity and has increased the pending applications is shown in Figure 11.

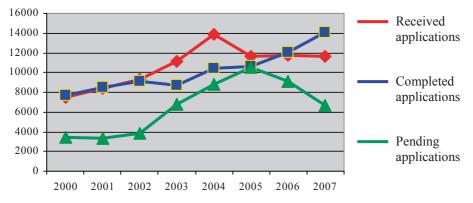


Figure 11. Applications for Planning Permit (by the Town Planning & Housing Department)

During the last ten years conveyances and mortgages have had a rapid increase in real estate market activity. Especially property sales and mortgages have almost doubled during the period 2000-2008 (Figure 12). The number of property sales between 2004 and 2007 is given in Figure 13.

Conveyances & Mortgages	2002	2003	2004	2005	2006	2007
Property Grants/Exchanges	16,076	16,852	27,441	17,347	17,717	24,065
Property Sales	16,696	19,737	17,344	16,359	20,259	23,723
	944 M€	1,304 M€	1,732 M€	1,773 M€	2,890 M€	4,538 M€
Mortgages	31,410	35,297	36,895	40,812	48,847	56,355
	1.85 M€	3.07 M€	3.87 M€	5.04 M€	6.98 M€	11.58 M€





Figure 12. Conveyances & Mortgages (top); property grants/exchanges in 1992-2007 (bottom left); property sales in 1991-2007 (bottom right) (by the DLS)

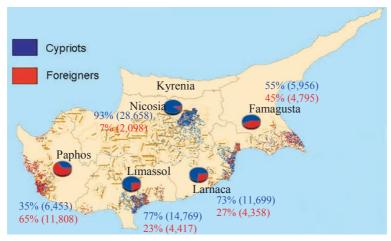


Figure 13. Number of property sales between 2004 and 2007

Although the demand for real estate in Nicosia, the capital, comes from the local people and only 7% from the foreigners, it is clear that in the tourist

46

coastal areas (Limassol, Larnaca, Famagusta and Paphos) of Cyprus the situation is the opposite. It is estimated that over 65% of real estate in Paphos district has been transferred, between 2004 and 2007, to foreigners, mainly British. There is a rapidly increasing international market interest in coastal and peri-urban areas of Cyprus. As a result of the above activity an increase in the market property values is identified. Table 1 shows the market property values as they stand in 2008.

1	Residential plots in urban, suburban or coastal areas (approx. 520 m^2)	280,000 - 3,000,000€
2	Residential plots in rural areas (approx. 520 m ²)	160,000 - 300,000€
3	Two bedroom apartments (approx. 95 m ²)	150,000 - 250,000€
4	Three bedroom apartments (approx. 120 m ²)	180,000 - 350,000€
5	Detached or semi detached houses in urban, suburban or coastal areas (3-4 bedroom)	300,000 - 4,000,000€
6	Detached or semi detached houses in rural areas (3-4 bedroom)	250,000 - 500,000€

Table 1. Market Property Values

The research proved that cadastral data, in terms of registration of buildings, are not well maintained. It is concluded that this is partially due to illegalities that exist in constructions. More specifically, residences on Cyprus may be classified as either condominiums or single-family houses. Condominiums may be registered in the cadastre before the completion of construction because many developers wish to sell before completion. This is considered to be a "preliminary" registration to secure transactions. While 80% of the existing condominiums are preliminary registered in the DLS records before completion of construction, a significant number of them do not get any titles after the completion because the final inspection of the building never takes place due to construction beyond the limitations of building permits. Therefore no certification of compliance is issued and no final registration is done in the DLS; the rest 20% are not registered at all.

In terms of existing single family houses, 60% are not registered in the DLS and only 40% of the single family houses are registered in the DLS. It is estimated that 40% of the non-registered single family houses have small illegalities, while 15% of them have significant illegalities. It is also estimated that 45% of the non registered single family houses remain as such because the owners are not interested to make any transactions (e.g., sale or mortgaging). These houses simply serve the housing needs of their owners. According to information provided by the director of the Technical Services

in the Municipality of Paphos, 40% of the total number of constructions have not received a certificate of compliance.

3.4 Analysis of the findings, impacts, tools used

Research proved that there is no squatting on private or public land. This is so because Cyprus has a well established system for the management of land including legislation, mapping and public administration to secure ownership and other legal rights, cadastral maps, planning regulations and housing policy. Permitting and regulating procedures on Cyprus are not bureaucratic or unrealistic, however due to the market pressure some delays are identified. In order to speed up the development process and meet market and environmental needs the Ministry of Interior is preparing a new Law to introduce urban land consolidation procedures in peri-urban or tourist areas. That way new serviced urban land will be provided in advance of any future development.

In general the Cypriot GDP is high, and there is no urgent affordable housing need for poor families. There is a good housing policy in place, which supports the refugees who came from the northern part of the island, whose houses are illegally occupied; abandoned Turkish properties in the free part of the island are also protected by the Law, so that no illegal occupation will happen to them by any means.

On Cyprus no slums are identified; there are a few dilapidated spots in the city center, linked to immigration. Informal development appeared during the last decade due to the rapid market demand and it may be classified as constructions without a building permit, constructions in excess of building permit limitations and constructions without planning approval. They may lie (i) within the area of the Local Plans, (ii) outside the Local Plans within the greater urban or in rural area in which houses are build illegally where only storage rooms for agricultural products are permitted, (iii) and few houses built within non developable areas. Most common phenomenon are constructions built on legally owned developable land either in excess of building permit limitations or with changes in the issued permits, or without any permits at all although there may have been a possibility for acquiring a permit. Illegalities refer to planning and building regulations. Some examples of illegal constructions are given in Figure 14: informal building extension constructed after the original building permit issuance and final approval (top left); block of apartments in Paphos without a building permit (top right); illegal office build in rural land (center); hotel in excess of building permit limitations (bottom left); good quality constructions-villas without building permits (bottom right).

By legislation applied penalties for illegalities in construction are scalable. In case of inspection and identification of an informal construction a

notification must be made to the owners, at a later stage, monetary penalties and denial of services must be applied; prohibition of transaction and mortgage must also be applied. Legislation even requires punishment of the private engineer responsible for the supervision of the construction. After modifications to the construction and a partial compliance to existing regulations legalization is usually possible; demolition is not applied as it is a very unpopular tool.



Figure 14. Examples of illegal constructions on Cyprus

To the question: "Is it really a weakness of the system or is there no will from the authorities to strictly enforce the law and punish the lawbreakers?" the most likely explanation may be that the economic benefits from the increased market interest are of significant importance. The authors identify as the main motive for informal development on Cyprus the economic profit, due to the:

- Increased international market demand for secondary houses.
- Increased demand in the local market for larger, more comfortable condominiums/houses.
- Increased demand, due to increased land values, for land use change from rural to urban.

For a legal transaction, or mortgage, the real estate must be registered in the DLS records; title, planning and building permits and certificate of compliance are required. An investigation of how real estate market operates in cases of informal construction shows the following.

A transaction is legal only if the real estate is registered in the DLS records. In practice transactions of illegal constructions are possible on Cyprus:

- As mentioned above sale contracts of new condominiums may be preliminarily recorded at the cadastral system before the completion of the construction, providing security to the buyer. Illegal condos, though, cannot acquire title since the certificate of compliance is missing. So any further legal transaction is impossible.
- Registration of single family houses requires a compliance certificate. In case of illegality of construction, only the transaction of the parcel is legal, since there is a title for the land parcel.

For illegal buildings in terms of planning or building regulations, transactions are accomplished by a sale contract between the owner and the buyer, prepared by the DLS agency and signed by the involved parts, but without a transfer of the title to the buyer; the title remains at the possession of the seller. However, there is no possibility that the seller will try to sell the property for a second time since the contract is registered into the DLS records. A risk is identified here that through this practice the cadastral system on Cyprus may be gradually transformed from a titles system into a deeds system.

Property taxes are being paid once a year and are based on the General Valuation value as at 1.1980. Transfer fees are being paid at the time of the sale at the DLS office. Capital Gains Tax is also being paid at the time of sale at the District Income Tax Office. Onsite inspections are made according to the DLS new plan for revaluation of properties, as well as after a new planning permit is sent to DLS by a Local Authority.

DLS does not check for illegalities as such but its duties include inspections of all properties that have new buildings erected on them, as well as a General Revaluation of existing properties when time permits. DLS may suspect a change if their records do not correspond to the planning permit but not necessarily, an illegality. DLS is usually and most of the time informed about a change but it takes time for it to revaluate. For new properties DLS inspects after an application, and collect all necessary data. DLS collects all necessary data for all properties sent by the Local Authority. However, problems exist for the existing properties that change over time without a land permit, since the Local Authority does not usually inform DLS. In the case of a totally extra-legal construction without any planning permit, the DLS will never be informed about the intention to build, so no on site inspection is made.

In the case of an on site inspection valuation is made for the total value (land and construction) so all taxes are paid; in the case of no inspection the estimated value refers only to the land and does not include the value of the

building. As a result extra-legal construction causes a considerable loss of tax revenue to the state. DLS is finishing now a detailed study for the New General Valuation on the island as well as valuation of newly erected properties and soon, it will be send to the Ministries of Interior and Finance for approval.

It is the duty of the Local Authority to collect now data and provide it to DLS. Data collection is very critical and Local Authorities need to be more directly involved in the process.

A mortgage of a single-family real estate with illegalities is possible after an on site inspection. The DLS valuers estimate the real situation on site without checking what is registered and what is not registered in the records. These mortgages are in fact registered into the DLS records and the mortgage loans vary between 60%-80% of the total estimated value. If the property is sold and the title is not transferred to the new owner no further mortgage of this real estate is possible.

The environmental impact of illegal construction in areas where development is not monitored by the state authorities requires remediation. A posteriori environmental studies must be compiled to regenerate the damages. This procedure has an extra economic cost. In many cases, illegal constructions are deprived of the basic public infrastructure like fresh water and electricity connections, and the owners have to find other ways to solve the problem. It is expected that through the new Law for urban land consolidation, more serviced urban land will be available to meet the needs.

4 Conclusions

The research aims to emphasize that in popular areas there is an extra risk for informal development due to increased local or international market pressure. Its impact may be dual:

- (a) It overwhelms regulatory systems and permitting procedures. When the systems and procedures cannot provide the necessary serviced urban land and land-use changes, informal construction appears to cover the market needs. This happens where the flexibility of the system allows an easy a posteriori partial legalization e.g., in Spain, Albania, Cyprus, but in a smaller scale even in places where legalization procedures are lengthy and bureaucratic, e.g., in Greece.
- (b) It causes a general rapid increase in land values and construction costs and thus low or middle income families cannot afford to purchase legal houses; informal constructions of good quality are built through massive illegal subdivision of rural land in Spain and Greece and through massive squatting in Albania in the peri-urban areas.

Expected economic benefits from increased real estate market activity are important for the local societies. Less developed economies may be more

vulnerable. Flexible planning and legalization policies are adopted to boost the economies. However, important environmental regulations are not followed while the costs for regeneration projects are high. Advanced property registration and Cadastre, legislation for inspecting procedures and market oriented planning policies as they exist, e.g., in Cyprus and Spain, are tools of significant importance. Additional necessary legislation which regulates the coordination and correlation among cadastral, planning and construction permitting information is necessary to be adopted and enforced otherwise the infrastructure may be ignored. E-land administration is the tool to facilitate coordination and transparency. It is worthy to further continue this research during the current global economic crisis in order to investigate its impact on real estate markets and how this will affect informal development.

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