

Informal Settlements in Greece: The Mystery of Missing Information and the Difficulty of Their Integration into a Legal Framework

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SUMMARY

According to the rough available statistics, it is estimated that approximately 25% of the housing construction in Greece has informalities. However, informal settlements in Greece are unlike such settlements in poorer countries (informal settlements in poorer countries are apt to be in large "slum-like" communities where the very poor people have established settlements with whatever materials may be available). The most common informality in Greece on the other hand, is construction on small, legally-owned land parcels, in areas having no formal urban plan, which is often accomplished simply by proceeding without building licenses. The existing informalities resulted from various causes, among them insufficient spatial planning, old and complex legislation, lack of housing policy, bureaucracy, and outdated public administration structure. The state attempts to integrate these informal settlements into a legal status by extending the formal urban plans, but this is a costly and time consuming procedure.

This paper investigates the development of informal settlements in the Hellenic state, makes a distinction between the situation in Greece in comparison to other countries, identifies and classifies the causes, the infrastructure, the land policy, and the major problems these informalities create in land management, environmental protection, the land market, and finally to the national economy. A categorization of the informalities and their impact on the modern society is attempted.

Emphasis is given to the close interrelationship between land management and land administration in dealing with this issue. Proposals are suggested for the necessary initiatives to be taken by experts and the government in order to identify new tools, mechanisms, policy, legislation, and the role of the private sector in land management in Greece. Measures must be taken to give a realistic and sustainable solution to the existing problem, to discourage the creation of new problems, to unlock the land market to meet the needs of the local and international environment, and to realize the expected social and economic benefits from the Hellenic Cadastre Project.

The experience derived from the situation in Greece is expected to be of some value to the countries in the broader region of Eastern Europe and North Africa who experience similar situations. An exchange of information and knowledge is encouraged.

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1. INTRODUCTION

Developing countries, and countries in transition from a centrally controlled economy to the free market economy face similar problems as countries within the western economy. Countries of Southern Europe, but also Germany, France, and other had faced similar situations in the past. Greece, a European nation, still faces the impact of its specific informal constructions. The extent and the type of informalities vary from country to country, but the contemporary problem related to informal occupation, by homeless citizens, of abandoned or empty houses in all major cities in the developed world is a new version of informal housing. Living conditions and level of prosperity within informal settlements vary from place to place as well.

The most common forms of informal settlements are:

- “Squatting” on state-owned land and shanty construction, which is the case in many countries of Africa, Latin America, and Asia. This type of housing is extralegal from the beginning and is constructed in violation of a variety of laws. It creates slums and frequently the state authorities are in conflict with the occupiers whenever they attempt to establish controls.
- Purchase of agricultural land, subdivision of it into smaller parcels, and illegal conversion of the land use from agricultural into housing or industrial settlements or conversion from industrial into housing, which is the case e.g. in Manila. In some countries the subdivision could be legal, as it was the case in Greece until 1992, in some others not. The latter results in invalid land titles; as was also the case in many Latin America countries (de Sotto, 2000).
- Construction without permission on legally owned land parcels; making “semi-legal” or illegal transactions mostly without a formal registration (especially those related to inheritance) at the cadastre or the land registry.
- Constructing illegal building extensions, such as to add more stories on a legal one-storey building, which is common, for example, in Egypt due to the high taxation and bureaucracy.
- Illegally subdividing apartments and renting or leasing them at high market prices, which may be the case in some countries in transition, but also occurs in major cities in developed countries where the illegally subdivided apartments are rented to immigrants.

Besides the local particular conditions that vary from country to country there are some basic reasons that lead big groups of citizens out of the existing legal framework. These reasons are more or less common in every situation, such as:

- insufficient, outdated regional planning and zoning regulations,
- an old, conflicting, inconsistent, and complex legal structure,
- a lack of financing mechanisms for low-cost housing,
- special historic, political, social, and economic conditions,
- an inefficient, out-dated and complex administrative structure in land management issues,
- missing spatial information,
- unnecessary bureaucracy,
- insufficient, time consuming and conflicting mechanisms for legalization in cases of illegal settlements,
- a political reluctance to confront the situation, and
- a political reluctance to attract foreign investments.

Moreover, the results from these phenomena are common: outdated maps and records, anarchy, environmental abuse, loss of state income through land taxation or multiple transactions, no security in land tenure, corruption and poor and inefficient land markets. Even in the cases where titles or deeds may exist for the land parcels but the buildings on them have some of the above mentioned informalities, mortgages secured by reliable documentation and information are not accessible for the generation of additional wealth. This is the situation in an unknown number of properties in Greece at present. In fact, most potential assets in these countries cannot be identified or realized and the economy is constrained.

Politicians frequently see informalities in constructions as “criminal” problems with no easy solutions, and in some respects this may be true. Yet instead of making efforts to formalize the illegalities and to seek for new mechanisms that will reduce or diminish the problem, in many cases the state ignores the situation. Since it is hard to find reliable statistics, politicians hesitate to undertake the risk of a political cost in trying to change the well-established situation. In fact, monitoring construction of new buildings is a comparatively easy process by use of air photography and photogrammetric techniques. Digital photogrammetry, the new automated matching and feature extraction techniques, and the easy process for orthophoto or true orthophoto production can help in monitoring environmental development. Recently the use of high-resolution satellite images, instead of airphotos, and the development of techniques such as SAR images, for automatic change detection with a satisfactory accuracy, can contribute to that effort by providing reliable periodic monitoring at a comparatively lower cost (Karanja, 2002; Toutin & Gray, 2000). Comparisons of such products with the digital cadastral maps and cadastral or land registry data could give a reliable estimate of the size of informal settlements.

The usual and easy official means used by many governments do not provide alternatives for the housing need and they have a rather suppressive character, such as to establish even more bureaucratic administration and complex legislation, to apply high penalties, and to increase police inspection, which may even lead to more corruption. At the same time the state itself occasionally ignores the existing laws in the case of public or state-owned constructions. Environmental and spatial planning regulations may apply only to individuals while the state

proceeds to the construction of public buildings, or gives permits to the “selected” private sector for constructions and special land uses, which are contrary to valid legal regulations and procedures. This can be explained in two ways: either that the state avoids following any regulations due to extended corruption and personal interest of the politicians (but this is very unlikely to be true in any country), or that the state itself understands that through several interventions the existing legislation became problematic, old fashioned and complex. In fact legal reform is necessary but instead the state tries to find alternative ways to solve the problems; this seems to be the case in many situations in Greece. Yet, in many cases the needed changes in legalization might be easily misinterpreted or distorted by the political opposition claiming environmental reasons. Each government is seriously concerned, then, about the possible political cost.

This paper is focused on illegal constructions by individuals on their legally-owned land, which in turn has led to the creation of informal settlements in Greece.

Unlike the situation in various other countries, even within Western Europe, informal settlements in Greece do not have the characteristics of slums, and they have never created major conflict or violence with the state. Part of this is because illegal construction is built on legally-owned land parcels (Figure 1). Also, the quality of constructions and of living conditions in these areas in Greece are, so far, of a considerably higher level in comparison to other countries which face similar problems even in the western world. In Greece informal settlements now lie to a large extent in vacation areas, in the suburbs of big cities, and are often used as second residences. Many second residences, however, develop later into primary residences for the younger members of the families. For these reasons this paper supports the concept of legalization of informal settlements of that kind in Greece as a positive social and economic development.



Figure 1. Informal building constructions on legally-owned land parcels in Attika

The aim of this paper is to investigate the situation of informal settlements in Greece, identify the causes, the land policy, the infrastructure that creates that problem, and to consider ways, modern tools, mechanisms, necessary parallel legal reforms, and practical steps that might serve to:

- provide a solution to the existing situation,
- discourage the creation of new informalities, and
- support the land market through a more efficient land administration system in order to meet the urgent needs of local and European land markets in the simplest and least expensive ways.

This approach recognizes the importance of a public – private arrangement.

The experience derived from studying the Hellenic situation may be of some interest to the countries facing similar problems. It seems that the Hellenic situation has very much in common with the present case in several countries in transition, or will have in the near future.

The uncontrolled excessive fragmentation of land that followed the recent privatization procedure in these countries (UN/ECE WPLA, 2001), and the great difficulty of introduction of land consolidation procedures quickly, has had an impact on agricultural planning, land markets, and environmental protection. Very soon this may also result in a change in land-use in the suburban areas in construction of buildings that will not conform to proper urban planning regulations. Increased fragmentation of rural land, possible administrative inefficiency in supervising planning regulations, inadequate environmental state policy, population migration to urban areas and lack of available capital may lead to illegal construction. A decrease of housing and planning quality leads to a decrease in land values. This, together with poorly functioning banking and credit systems, will have a negative affect on land markets and national economies.

2. THE SITUATION IN GREECE AND THE BASIC LEGAL FRAMEWORK

In 1922 there was a massive immigration of Greeks from Asia Minor into the main land of Greece, which started the problem of informal settlements. The problem increased during the last half of the previous century, with internal migration from rural areas to the urban centers resulting in an urbanization of the rural land. Following World War II, due to that disaster and the lack of job opportunities, impoverished Greeks abandoned their villages seeking opportunities in urban areas and established themselves mainly around the major cities of Athens and Thessaloniki. It is of significant historic importance in land management issues of Greece that the first Housing Law was enacted by the Hellenic State in 1923; the Law requiring building licenses prior to construction was decreed in 1955.

The informal settlements created in the broader areas of Athens and Thessaloniki are known as the “first generation of informal settlements”. This problem was of greater extent during the decade 1945-1955, and continued more rapidly following 1960. After 1967 a significant decrease was noticed, due to the seven year military dictatorship in Greece. During that period the procedure for acquiring a building license became a “one-day issue”, since by a new law, the military government transferred all responsibility for construction and its supervision from public authorities to the responsible private engineers and owners, with strict punishment in case of violation. After the political change in 1974, this process was abolished, responsibility

for construction and its supervision reverted to the public authorities, and informal construction returned.

It is estimated that during the period 1945-1966 about 380,000 informal settlements were created in Greece. Until 1974, statistics show that approximately 45% of the population increase in the area of Attika (broader area around Athens), due to urbanization, was sheltered in 150,000 informal housing. It is worth mentioning that approximately half of the total population of Greece (five out of ten million) lives in Attika. The state has tried to legalize these settlements gradually, but the process of legalization is costly and time consuming and informal construction continues. Through the extension of existing urban plans many non-conforming situations are “legalized”. According to data derived from official urban planning authorities, since 1983 approximately 60,000 ha of land, which also included large areas with informal settlements, have been under the process of legalization in Greece (Xinomilaki, 2004).

The “first generation of informal settlements” grew mainly in the periphery of major cities, or close to industrial areas, and also within the coastal zone, in areas that had no formal urban planning regulations. The poor, and other minorities, who did not have access to housing financing could not afford to buy apartments in the city; moreover they could not afford to buy and develop land within the urban centers in accordance with formal urban regulations; and they could not afford to rent apartments since rental rates exceeded their earning ability. Nor was there any state housing policy other than rent control.

Small land parcels (approx. of the size of 150-200 m²) at the periphery of the cities, outside the formal urban plans, were much cheaper and thus affordable to those groups. Purchases were made legally through notaries and usually registered to the System for the Registration of Transfers and Mortgages. Illegality for the owners only began when they started construction on the parcels. Land development in such small parcels in areas where there was no formal urban plan is not allowed; yet that was the only choice they had. Often construction was accomplished simply by proceeding without a building license.

The question is, how were such small, cheap land parcels available outside the urban plan? The first serious illegality was accomplished by “land entrepreneurs”, who could afford to buy large pieces of agricultural land at low prices, then illegally convert their land-use from agricultural into residential simply by constructing orthogonal road networks within the larger properties (TCG, 1974). In fact the fragmentation was made legally by the construction of such “private” road networks. This problem increased to such an extent that finally the state legalized all those “private” roads in 1977. This indirectly meant the legalization of the fragmentation (subdivision). It is estimated that the profit from such investments could reach the 300-1000% level. The paradox was in the fact that according to the existing legal framework the state could punish those who were trying to build on such land parcels, outside the formal urban plan, but it did not punish any entrepreneur who made the original subdivision of the rural land.

That, from one point of view can be characterized as the first inconsistency in the Hellenic state land policy related to the creation of informal settlements, but it can also be seen positively as part of the rule of the free market economy of those days. The government wanted to face the housing problem through the rules of the free market but without any forward thinking related to environmental concern, and without an alternative housing policy.

Construction of buildings was accomplished by the local constructors, who had gradually developed a specific “responsibility” in the particular areas. They undertook the risk of illegality and they developed a particular “relationship” with the supervising authorities. Due to that, and to the fact that they had to work at risk of prosecution, they could claim huge construction profits, totally inconsistent with the quality of their work.

On the other hand the state seemed to be overlooking the situation- deliberately according to some. Within the legal framework all this activity is mentioned as “informal construction” and not as it should be: “informal settlements” or “informal housing”. From time to time, when it does not create public protest (i.e. when an excessively luxurious construction is made on publicly-owned land, or when illegal constructions are build on the coastal zone for the personal profit of the owners), the state demolishes some informal constructions as a public example. (Karavassili, 2004)

When the number of informal buildings increased considerably in one area the owners gained political power, put pressure on the state and demanded legalization. Often, the necessary utility services were made available afterwards. Only then, did the state gradually integrate these settlements into the urban plan, which as mentioned above is always a cost- and time-consuming procedure. In fact the state benefited from this situation, since the housing sector was thus self financed, and no state funding was invested on this activity. Statistics derived from on-going projects in the period 1985-2005 show that integration process needs an average time of 8 years. Common causes which create delay are: inefficiencies of local authorities, poor coordination of the several land related agencies involved, social problems, and so on.

In 1992 the state determined by Law that further fragmentation (subdivision) of rural land was no longer to be allowed to create land parcels less than 0.4ha. In situations that the land parcel of minimal size belongs to more than one owner only co-ownership is allowed. In situations where one person owns two adjoining land parcels outside the urban plan, neither of which is of 0.4ha in area, consolidation for building purposes is required.

Building licenses were not required before the construction (one could apply for a permit even after the construction) until the year 1968, when by law all constructions made between 1955 and 1968 had to be declared, were charged to pay taxation, and were taxed an additional 10-30% of their value as an extra charge. During the period 1967-1973 the issuing of a building license was a one-day procedure, since all the responsibility and the controls were transferred to the engineers, as mentioned above. After 1973, by law, the owner of any building without a license has to pay a penalty equal to its value, even if it fulfils the rest of the valid urban

regulations. In 1974, by an additional decision, the punishment for constructing a building without a permit is one-year imprisonment.

Later, new generations of informal settlements were created in areas outside formal urban plans -such as vacation houses or resorts (the so called second residence areas) without building licenses due to a lack of enabling legislation, difficult bureaucratic and administrative procedures, or an absence of efficient regulatory procedures. The basic informalities in these types of settlements result from no legal way to obtain building licenses, restrictive planning requirements, inflexible zoning regulations in developing areas, violations of general building regulations, illegal or semi-legal fragmentation of land parcels, and illegal conversion of land use, e.g., conversion of agricultural use to residential use.

By the Law 1337 in 1983 the Ministry of Environment, Physical Planning and Public Works began a serious effort to integrate suburban areas into the formal urban plans. Through that Law, the state recognized the actual size of the city, and through the effort to legalize the informal settlements, tried to organize the urban units and neighborhoods and to provide the necessary social infrastructure and technical utility support. This project is still on-going, and it is known as the “Urban Plan Implementation Act”. In parallel to that, an effort was made to encourage the owners of informal buildings to submit declarations for “legalization”. According to special research made for the purposes of this paper, twenty years after the beginning of that project, despite the fact that urban plans have been compiled for 60,000 ha, only for 45,000 ha was the process of urban land consolidation completed, and from that only 25,000ha have completed the legalization process with the land owners of those areas having been registered into the System for the Registration of Transfers and Mortgages. So far, 700 Presidential Decrees and Decisions have been made for this process. The rest of the owners have not been able to see their houses legalized since many of those areas have not yet been integrated. Still, those owners cannot get legal building licenses; cannot make any developments on their informal buildings; cannot register into the Hellenic Cadastre, and cannot mortgage their properties. The Law 1337/83 was the one with the broadest application in the recent Hellenic urban planning history; yet, new informal situations continue to appear.

Until 2003 the state had restrictive regulations related to the connection of utility services to informal buildings. The most vital of these was the restriction for electricity supply. The Law 3212/03, allowed the provision of electricity and water supply to those informal buildings, which lie in areas under compilation of urban planning studies (Figure 2). This law had a deadline (30.11.2003) which was actually not activated in many areas. Applications must be submitted to the local authorities, who prefer to supply services for as many citizens as possible. Statistics show that there have been approximately 12,000 such applications submitted in Chalkidiki, 13,000 in the suburbs of Athens and 6,000 on Crete island. Also, there is another decision, which allows an electricity supply to those who suffer from serious deceases. This again increased the number of informal buildings. Yet, there is a paradox here: on the one hand the state recently provided electricity and water supply to informal buildings, but according to another law these buildings must be demolished!



Figure 2. Area under legalization process (Rafina, Attika); electricity connection is provided

Law 9732 of 2004 introduces an alternative punishment of a high financial penalty instead of demolition for those buildings made after the 31.12.2003, according to the extent of illegality; yet, this is considered to be unconstitutional.

Recently, there is a significant increase of illegalities with buildings that lie within an urban plan and have valid building licenses. These cases were very few in the past and the illegalities referred to small violations, such as to build up a balcony or a semi-open air space of the construction. The cases that frequently appear now are more significant, such as an increase of coverage, e.g. to have a license for 75 m² and to build 200 or 300m², or to change the use of a building floor from parking space into residence, or to add an additional illegal floor to the building!

The reasons for this development are: an increase in land values and the high demand for housing. Also, many areas, which in the past had been considered as second residences for vacation purposes, have recently developed into primary residential areas with very high land value due to better environmental conditions (e.g. no urban air pollution). Such areas are the southeastern part of Attika which was recently improved due to the construction of the new Highway Road Network “Attiki Odos” for the Olympic infrastructure, Chalkidiki close to Thessaloniki, Heraklion in Crete, etc.

Responsible agencies for issuing building licenses are the Regional Urban Planning Offices which today are operating under the responsibility of the Local Authorities. The time-limit to the Urban Planning Office for issuing a building license, if this is legal, is nine months. An additional time of more than a year is needed to obtain all the necessary permissions from approximately ten more involved agencies (archaeology, forest and gas agencies, etc) before the submission of an application to the Urban Planning Office (Fragioudakis, 2004). To that the time spent for the compilation of the development study should be added. The on-site

inspection is made only after a claim of an informal building condition. The procedure is time-consuming, bureaucratic and inefficient. In many cases the procedure involves a judicial process either for typical or for substantial reasons, which process seldom comes to an end.

The real size of the problem is difficult to estimate due to a lack of information, until recently. It is roughly estimated that at least one quarter of the residences recently constructed in Greece are without any building license. In Greece, there are approximately 6,9 million residences for a population of 11 million. There is no technically documented official information about the extent of informality. A rough recent estimation by the general inspector of the Ministry of Environment, Physical Planning and Public Works shows that, in total, the informal settlements in Greece are up to 1,000,000 residences. New generation informal buildings are estimated to lie on an average land parcel size of 1,000-1500m² each. This means that 150,000ha more should be integrated to urban plans. The majority of them lie within 7-10 prefectures (Karavassili, 2004). According to a statistical study (IOBE, 2001) for the period 1991-2001, approximately 93,000 legal and 31,000 informal residences were constructed each year, 40% of them are in the area of Attika. According to the available national statistical data, census 2004 (HSS, 2005), 122,148 legal residences were build in 2004 and 116,963 for the first 10 months of 2005, it can be estimated that approximately 40,000 buildings without building licenses are build every year, 16,000 of them in the area of Attika. This is equivalent to the size of a small town.

3. CLASSIFICATION OF INFORMALITIES AND OF THEIR IMPACT ON THE HELLENIC SOCIETY

In this part, an attempt is made to classify the informal settlements in Greece. According to the existing legal framework, as “informal construction” in Greece is characterized any construction which:

- exists without a building license,
- has any kind of excess or violation to the building license, or
- is in violation of any valid urban and spatial regulation regardless of the existence of a building license.

According to the Law informal construction may be of several types, such as:

- referring to *urban planning regulations*, e.g. increase of permitted coverage on a privately owned land parcel, building construction on land parcels that don't fulfil the minimum size or shape requirements, etc,
- referring to *building construction regulations*, e.g. violation of maximum height requirements, number of permitted stories, or sideline/setback distance requirements, violations referring to structural materials, heating, plumbing, insulation, illumination and ventilation, common space inadequacy, increase of the balcony size, etc,
- referring to *environmental burdening*, e.g. building construction on a public / state-owned land, river / stream routes, pasture land, coastal zone, archaeological areas, forest land or potential forest land, etc.

All these illegalities can also be classified following several other approaches.

By example, a classification can be made according to the motives that created illegality in the Hellenic state; in this case five major categories can be defined:

1. Illegality due to personal interest for profit,
2. Illegality due to ignorance or misunderstanding of legislation, due to the complexity of the existing legislation; (the Hellenic urban planning legislation is consisted of 20,000 pages (Fragioudakis 2004), misunderstanding might frequently happen also among the responsible public employees and engineers),
3. Illegality due to an urgent housing need; high land values, high housing demand, inadequate low-cost housing policy,
4. Illegality due to priority mistakes, i.e. application for a license after construction, and
5. Illegality due to the emerging desire for second houses (for vacation) in combination with the lack of state policy on this issue.

Another classification can be made according to the locations where informal settlements appear; four different categories can be distinguished (TCG 1974):

- Informalities within the formal urban plan or a formal settlement,
- Informal settlements outside the formal plan and within the broad urban plan zone or the city influence zone,
- Informal settlements within the coastal zone (coastal zone in Greece is by Law public ownership), and
- Informal settlements outside these areas, such as in regions of special uses, i.e. industrial use, forest land etc (Figure 3, 4).



Figure 3. Informal settlements next to an industrial area in Astropyrgos - Attika

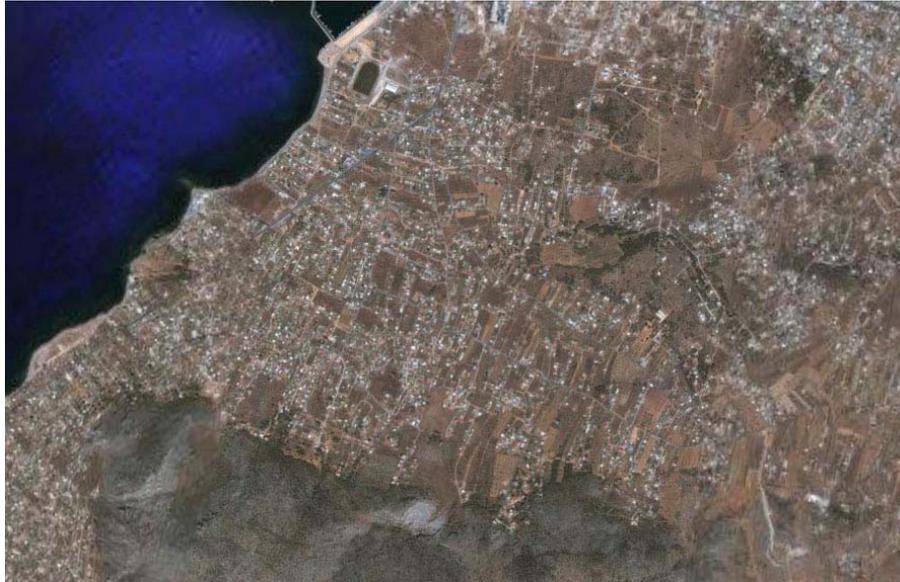


Figure 4. Informal settlement in rural area close to the coast. Salamina island

In order to analyze the costs and impacts informal settlements have to the society, the following approach seems to be more appropriate. Consider:

1. Illegality that is not in violation of any urban, spatial or other regulations, i.e. lack of building license. The motive here is only to avoid bureaucratic procedures and taxation. These informalities have only financial impacts on both sides: the state and the owners.
2. Informal settlements built in excess of the existing planning and other regulations:
 - a. those built on “even” land parcels (either in areas where all kinds of constructions are permitted, or where only non permanent / prefabricated buildings were allowed, etc), and
 - b. those built on “uneven” parcels (those that don’t fulfil minimum size and shape regulations) where construction is forbidden, i.e. outside the urban plan area.These cases have both a financial and an environmental impact; they may also involve a high stability risk, i.e., in the case of earthquakes.
3. Informal constructions built on publicly owned land, land of special societal value: forest, river or stream routes, coastal zone, areas of special natural beauty, archaeological sites, etc. These cases have an even greater social significance for cultural heritage, environmental, and financial impact, plus a high risk for the security of their owners, i.e. in the case of floods or fires (Figure 5).



Figure 5. Informal buildings within forest land;
situation after a big fire in eastern Attika

Informal Settlements have a general “cost” both for the state and for the owners. A more analytical approach shows that informal settlements for the state mean:

- Loss of state revenue through taxation, and the building license fees. Also, there is no clear way that the state will benefit part of the added value on the land in the case of legalization and provision of infrastructure and other services. The state loses revenue from possible transactions, too, since transactions cannot be made on informal buildings.
- The state invests additional funds for developing utility and road networks in informal settlements after integration.
- The state incurs additional expenses for the repair of possible environmental damages in such areas.
- The most important impact is the loss of public acceptance. The owners of illegal properties believe the state is unfair due to lack of social housing policy, while others believe the state is unfair because it does not punish the illegal! Failure of the state to control corruption, protect the poor and monitor environmental development, together with the unfairness of inconsistent legal framework through the years, and of ignoring the similar illegalities of the state, plus the lack of positive effort by the state increases the public mistrust.

For the owners of illegal properties this activity means that:

- They are forced by high demand, high land values, and complex legislation to make financially bad investments. As a result they invest in problematic properties which cannot be further developed or traded in the land market. Moreover their projects are limited since they can never mortgage the construction.

- They are financially misused by the constructors, since they are forced to pay much higher costs for worse products.
- They may be considered as “second class” citizens, so there is a significant social impact on them.
- They lack basic infrastructure, which in many cases means no electricity or water supply, no schools, nursery schools, parks, sport installations, transportation, etc.
- In the cases where second residence areas are developed into main residences, the land values increase but the necessary infrastructure is still missing. Thus the dream of a middle-class Greek for a better life is unfulfilled, due to the lack of efficient land policy.

Even in the cases of integration into the formal urban plan, which of course is important due to legalization, owners cannot enjoy better environmental conditions since it may be very difficult to improve the area after an anarchic development. Long existing land uses are legally difficult to be changed in order to obtain better living conditions in future (Siolas, 2004).

4. THE INTERRELATION BETWEEN LAND MANAGEMENT AND LAND ADMINISTRATION

Beginning in 1995, Greece has attempted to establish a spatial information system for a modern cadastre (Lolonis 1999, Potsiou *et al.* 2001). Much of the delay and increase in cost of the Hellenic Cadastre project is due to the complexity of the existing legislation. An example of that is the necessity for an environmental approach: the compilation of forest maps, which was a significant factor for the delay of the data collection and validation procedures and the increase of the project’s cost . Later, the determination of coastal line, simultaneously with the compilation of the cadastral surveys, appeared to be obligatory. (Potsiou, 2005).

Ten years later cadastral results show that approximately 48% of the property recorded in the system so far is claimed by the state, as “forest land”, although private interests have claimed ownership for several decades. This happened because the state agencies decided to activate a law which defines the land-use “forest land” according to conditions in 1945. According to that law any piece of land, which can be characterized as “forest land” on the airphotos of 1945 should be considered to be publicly owned land unless there is a chain of deeds going back to 1884 that proves that the current owner owns lawfully that piece of land. The reason the government did so was their concern for being accused of negligence and loss of publicly owned land. By this, even areas within the vicinity of Athens, which are long ago densely built, apartments that have been traded several times are claimed to have no legal land title. According to the constitution, there is no usufruct right on any state or publicly owned land. Actually, even legalization through integration into the formal urban plan cannot create a legal land title if the land is claimed by the state.

Areas with more recent generations of informal settlements are also recorded into the Hellenic Cadastre, but despite that the illegalities are still pending. Registers claim that by issuing a cadastral property title to those owners they legalize the properties. So, after thorough consideration the following paradox evolved: Cadastral surveying will continue to include

land parcels and any kind of construction that can be seen at the scale of the airphotos used, according to the technical specifications of the Project. This means that all kinds of buildings, even small storehouses of the size of 5m², should be surveyed. After the cadastral survey is finished the cadastral maps that will be delivered to the public will not contain the layer with the buildings but only the land parcels. And finally when the time of issuing the titles will come, the title will guarantee the ownership of the land but the building will be missing! Once more, this valuable information will be unavailable to the public.

The paradox is that the state tries to adjust the modern cadastre into the old legal framework under the practices of the previous century. According to international bibliography, the basic reasons for establishing a cadastre are:

- first, to secure land tenure, and
- second, to serve the land market (UN/ECE WPLA, 2005).

A land market must operate even in areas with informal settlements, but obviously it is not working properly in Greece. Owners in areas with informal settlements cannot see a single benefit from the new modern land administration system on the contrary they are asked to pay for its compilation while the state continues to lose land taxation revenue. According to recent statistics, Greek citizens support the Hellenic Cadastre project and they believe that in future they will enjoy better its benefits, despite the recent increase of bureaucracy during its compilation period and the transition from the old land tenure system into the new. In areas with informal settlements though, all this costly effort for the establishment of the new cadastral system is condemned to bring no tangible benefit to the national economy and to help problematic areas to have access to a modern land market.

More specifically, when a land parcel containing an illegal structure is conveyed in ownership the notary must ignore the buildings, otherwise by law the transaction cannot take place. Even a private surveyor's plan may show only the land, without the building, in contravention of normal surveying standards. Such illegal situations, which in fact happen to "serve" the present land market, have been "invisible" to the system until now. These situations have been brought to light by the Hellenic Cadastre, but still due to strange governmental decisions remain invisible!

Recording of this valuable information is determined to be impossible, since it might be a form of legalization. But, isn't this the purpose of the Cadastre? Cadastre is supposed to record real properties and according to the Law a "real property" is considered to be the land plus its improvements!

Even further, it has been decided that the Hellenic Cadastre, over the whole jurisdiction, will record the buildings into the titles only when a horizontal or vertical ownership is established by a deed. This means that when an owner has a house on a land parcel i.e. as a single-residence structure (but not an apartment), then he/she cannot have a title including the house. This does not improve the situation and creates more bureaucracy than the previous system.

Furthermore, owners of illegal situations are not able to take advantage of the emerging financing mechanisms, since banks cannot accept mortgages secured by illegal developments. In such cases valuation can be assessed only on the market value of the legally owned land; improvements are not included in assessments and valuable tax revenue is lost.

As a result the social and economic benefits of good land administration (UN/ECE WPLA, 2005 b) cannot be fully realized, despite the estimated high cost for its establishment. This may bring a general disappointment in the public view (owners, banks, state, etc) of the system. In addition, owners are forced to pay high fees as an extra taxation for the compilation of the Hellenic Cadastre, which unfortunately will develop not to be a fully “win-win” situation.

Now these issues must be dealt with, but this may require legal and even some constitutional changes.

5. CONCLUSIONS - PROPOSALS

Despite the irrational situation in land management issues, Greece has managed to deal with informal settlements without much contrast between rich and poor, or social conflict between the legal and the extralegal. No big social differences exist; there are no slums or very poor neighbourhoods. Careful attention should be given to continue to achieve high standards despite the rapid development of the major cities of Greece into large regional centres of South-eastern Europe attracting population from several countries worldwide.

Research indicates that both the state and its citizens are trapped in an old, complex, bureaucratic, inconsistent legal framework. This must not be continued; it serves neither the county’s economy nor the demands of the international land market.

Legal reform is urgently needed. The state must provide for all its citizens easy access to a modern land market while enjoying the advantages of the housing mechanisms and the local and international credit system. This, together with environmental monitoring, are major social demands for a sustainable development.

A series of causes led to the complex situation of informal settlements in Greece. Several of the above mentioned causes have been or are being dealt with:

- Mechanisms for housing financing are developing due to the initiatives of both the public and the private sector.
- The present historic and political situation has changed dramatically.
- Greece is now a member of the European Union and follows most of the new trends in economy and public administration structure.
- Missing information is now becoming accessible due to available technology and to the on-going cadastral project.
- There is a clear political interest in improving the economy and attracting local and foreign investment.

Effective and efficient land and property markets are a crucial component of a successful market economy. According to international experience well-functioning property markets include:

- A legal basis for all operations so that all dealings are safe and secure.
- Regulating institution that:
 1. ensure a stable and transparent framework within which transactions take place,
 2. provide easy access to the market for all participants, and
 3. keep the transactions costs low.
- Participants including landowners, tenants and corporate bodies (banks, lending institutions) and representatives with third-party and minority rights.
- Clearly defined goods and services, such as land, buildings and mechanisms which can be offered for sale or lease.
- Lending institutions, stable tax regimes and access to credit.
- Clear, consistent and environmentally sustainable land policies.
- Speedy and reliable access by the public to land and property information (UN/ECE WPLA, 2005).

European countries are making efforts to improve their land markets through better land administration systems. Greece is making a major effort to establish a modern land administration system. In order to make it as successful as possible parallel initiatives must be made to solve long lasting land management problems.

Legal informalities on buildings are creating a serious impediment to the local land markets. It is the improvements related to land parcels that increase the value of land; and by integrating informal buildings into the legal system the land market will be improved in those areas, more capital will be traded and more transactions and mortgages will be made supporting the national economy. This will be the value of the Cadastre.

But the Cadastre, together with the compilation of spatial planning and zoning regulations for the whole jurisdiction, will also help to reduce the phenomenon of having “informal settlements” in the future. Spatial planning and land use determination will facilitate the monitoring of environmental development. Additional legal framework is needed to avoid the continuation of informal construction.

Accordingly, the state must provide all its citizens and land market participants with equal opportunities for access to the land market, access to housing mechanisms and mortgage and credit systems, access to business, access to information, and so on.

A high priority should be given to a legal reform to solve the existing situation and integrate informal settlements into the system through a low-cost and less time-consuming process. Integration through urban planning and urban land consolidation procedures as it has been applied has proved to be a long, inefficient process. It has been estimated that for the period 1985-2005 an average time for its completion is 8 years.

Where informalities are discovered assessed penalties should be affordable, fair, and consistent with the tangible benefits derived including the provision of infrastructure.

The increasing role of the private sector -entrepreneurs, banks, and insurance companies- will play a role in the housing sector. For this to work well and attract local and international investment a legal reform on real property regulation must be instituted.

Greece must undertake an initiative to modernize its land policy, and to update its land management laws. Coordination between responsible agencies is required to support this effort (Potsiou *et al.* 2002).

The experience gained from Greece may be of benefit to other countries which face similar problems. There is a strong interrelationship between land management and land administration. A modern spatial information system cannot be based on the legal framework and the practices of the previous century. Avoiding excessive fragmentation of agricultural land, legalizing the informal settlements together with the creation of alternative mechanisms for housing can control the problem. Parallel urgent initiatives for improving the spatial planning regulations, removing the unnecessary old and complex restrictions and regulations on land, focusing on land use monitoring for environmental protection and better exploitation of natural resources, and updating the land laws and the administrative structure of the responsible agencies are some of the necessary accompanying measures.

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