# Informal Constructions within a Spatial Development Framework

#### EFI DIMOPOULOU

#### **PANAGIOTIS ZENTELIS**

Professor, National Technical University of Athens,

#### Summary

This paper presents various forms of illegal urban development in Greece, as well as efforts by the Greek state to face the situation. The term "Illegal Constructions" (ICs) stands for illegalities in constructions (e.g. constructions beyond the permissible limits) or buildings not in compliance with current planning and regulations. Illegal Constructions are also considered changes in use of buildings or illegal conversion of public spaces (such as parks, coastal areas, pavements) into more profitable uses, regardless of the common good. Therefore, these ICs occur both on private and public land as well as on common use areas, either by individual developers and construction companies or by the state authorities themselves. In this procedure, the state often plays a negative role by tolerating and accepting illegalities or even acting as perpetrator of illegalities itself.

An analysis of the numerous reasons for the emergence of ICs is also carried out, along with the presentation of planning and building regulations applied by the state in an effort to avoid these illegalities in Greece. The complex and often confusing legislative framework and the inadequate way, planning and building regulations are imposed, allow various degrees of illegalities in the majority of constructions in Greece. The paper includes preventive proposals and suggests corrective measures for the ICs cases.

To illustrate the ICs situation in practise, a case study is also presented, referring to a rapidly urbanised municipality in the East Attica region. The ICs reported in this area for the time-period 2000-2006, are classified by subject category and the fines levied on illegal constructions are evaluated. This represents a typical example of the incompetence of the administration to verify the correspondence of buildings to their permits issued as well as to effectively collect imposed fines.

#### 1. INTRODUCTION

Building informally is a challenge to citizens, since they avoid complex bureaucratic procedures, legal restrictions, expenses and taxes. Furthermore, they ensure the maximum possible exploitation of their real property based on a network of clientelistic relationships with the state, defining the terms of exploitation at the expense of the environment and the

sustainable development (The Greek Ombudsman, 1998). This is the practice so far in many countries, especially when the land administration and planning policies fail to tackle with this problem. These informalities of all kind are expanding rapidly when the public authorities insufficiently apply the housing control mechanisms or when these authorities are vulnerable to corruption. In fact, the type and extend of informalities vary from country to country and even from place to place within the same country, according to local conditions and needs, with regard to the existing planning and land management framework.

In more developed countries, considerable experience has been possessed in applying spatial planning regulations and building permits. The existing interrelationship of land use regulations, records and registration systems offer all necessary tools to prevent informal development. (UN, 2007). Many countries, in order to improve control on territorial development, decentralize land management authority and responsibility to local government, thus improving effectiveness of land policy implementation and more systematic building inspection. Housing policy is strongly supported by existing cadastral registration systems, land use plans and appraisal systems. The role of these land policy tools is important for the elimination of informalities; the authorities provided with the appropriate documentation may easily monitor land distribution and illegal occupation of state land.

They may also detect illegalities in real estate transactions and verify constructions not in compliance with planning and building regulations.

On the other hand, in less developed systems, informal settlements are left out of the urban development planning process, and no land information is officially collected about them. The process of regularisation, relying on the availability of land information, may not work, leading to low security of land tenure and poor living conditions lacking basic urban infrastructure and services. (Lamba, 2005)

## 1.1 Informal Constructions (ICs) – Terms and Definitions

It is rather difficult to define what is legal and illegal in Greece, in relation to the confusing legal framework concerning urban planning. Are the ICs a result of malfunctioning planning processes, in terms of delays and administrative irregularities based on long-established practices, or is it merely the absence of planning, information and decisive decision-making?

According to the UN Habitat (UNHSP, 2003a), the term "informal settlements" is defined as:

- Squatter settlements where land and/or buildings have been occupied illegally, without the permission of the owner or
- ii) Illegal land development settlements where initial occupation is legal but where unauthorized land developments have occurred (e.g. change of land use, building extensions without building permits, subdivisions without regard to services and infrastructure).

However, independently of definitions, the reality, concerning informalities and construction illegalities varies from country to country, largely depending on the local characteristics and needs. Important factors characterizing illegalities are land tenure, quality, and size of construction, as well as access to services and land-use zoning. (UN, 2007) In the UNECE region, particularly in the South-Eastern European countries, Eastern Europe and Central Asia, population increase and migration to urban areas have given rise to numerous unplanned or informal urban developments, resulting in large number of ICs, as defined by the above UN definition.

As the Committee on Housing and Land Management states (UNECE, 2007), major reasons for informal settlements are: the lack of spatial planning and affordable housing for marginalized population groups, the unrealistic zoning regulations, the inconsistent and bureaucratic systems governing land development, and the common practice of ICs on agricultural or forest land. Concerning the legalization process, illegalities concerning buildings constructed for overcoming housing shortages, should be faced differently than those constructed for commercial purposes.

In our study, IC in its broader sense includes illegal constructions and building extensions, not conforming to the existing building regulations. This term does not concern public works and network utilities. A broader term for IC may include, every illegal construction built by legal, physical person or public authority, not in compliance with the housing /building regulations, that structures or encloses space.

The definition is particularized by each country's relative legal framework, since legality varies among societies and no clear category can be classified among

countries (De Souza, 2002). In Greece, where the IC problem occurs in great extent, an unambiguous framework is required, precisely defining formal and informal as well as the harmonization with other European countries facing similar situations.

# 2. INFORMAL CONSTRUCTIONS IN GREECE

Informal constructions occur to some extend in all countries, at various types and forms, depending on different factors as mentioned above: incompetence of land administration services, failure of land policy measures, complicated procedures, enlarged bureaucracy, corruption, poverty, ignorance. In Greece, the problem of illegalities in construction has been rapidly expanding over the last decades.

Housing policies are mainly regulated by the Greek General Building Code establishing standards of constructions, imposing regulations by Laws and Ministerial Decisions about land use and urban planning. Within this legal framework several attempts have been made to address the problem of ICs in Greece, accounting of more than 1000000 cases (Karavassili, 2004). These attempts aimed at legalizing and upgrading informalities with their inclusion into the formal urban plan, or, imposing financial penalties to the owners, thus providing the state with important economic benefit. Concerning constructions in forests, shorelines and protected areas, the law provides a demolition process.

Key factors contributing to ICs are historic, social and economic conditions leading to urbanization, lack of spatial information and planning, complex legislation, excessive bureaucracy, political reluctance and inability to tackle the situation (UN, 2007).

In Greece the endless vicious cycle of illegality, mostly relies on the complex, contradicting and inefficiently implemented planning legislation and on a network of clientelistic relationships between the citizens and the state. Furthermore, information on land property is not comprehensively recorded, since the Hellenic Cadastral project that commenced in 1997, is still in progress.

The legal framework concerning ICs includes several laws, decrees and revisions (such as L.651/1977, L.720/1977, L.947/1979, L/1337/1983, L.1512/1985, L.1577/1985, L.2300/1995, L.2831/200, and L.3212/2003), that produced different "generations" of ICs. In particular, the Law 1337/1983 gave priority to the extension of existing town plans in areas on the urban fringe with unauthorized development, lacking basic urban infrastructure and implementing Zones of Urban Development Control. The basic innovation of this law was that land and money contribution rates could be calculated on a proportional basis with regard to the original area of the plot and not on a uniform percentage as established by previous Law 947/1979 (Giannakourou, 2006). The state tried to

organize and legalize the arbitrarily constructed environment of peri-urban areas, creating thus two categories of ICs: the "old" ones, constructed before 1983, which could be legalized by declaration and financial contribution, and the "new" ones, after 1983, which had to be demolished. These legislative measures so far didn't solve the problem of ICs in Greece.

#### 2.1 Contributing Factors in IC

In order to define contributing factors in IC cases, we have to take in consideration the existing legal framework in each country. Citizens in general do not act illegally, when the authorities are liable and responsible in their duties, within a secure land administration system. Problematic administration and inefficient political practice in Greece, in the area of town planning and environmental protection, present a negative impact on the cycle of informalities.

The Department of Quality of Life of the Ombudsman institution is responsible for investigating cases dealing with the environment, public work and problems related to urban planning misapplications, and the issuance of building permits, all involving all levels of public services (ministries, prefectural, municipal, and local services), as well as public utilities. The important experience gained from dealing with the above cases, led the Department to the conclusion that: "The major responsibility for the aforementioned cases is borne by the administration, which, with its inconsistent and contradictory stance, not only does not correct illegal situations, but encourages similar new problems to develop. This unhealthy situation is being generated by the obvious inconsistency between formal expressions of political will and the practices actually followed. Even the so-called "protective legislation" can act to speed the ruin, since the so-called "victims" rush to act illegally in order to avoid the effects of expected legal decisions. On this issue, it should be pointed out that local government authorities and the administration (regional governments, Ministry for the Environment, Physical Planning, and Public Works, Ministry of Culture) tolerate illegality. This tolerance is evident in the issuance of special regulatory provisions that occasionally bypass judicial decisions made by the Council of State. The same divergence is seen in cooperation between the Ministry for the Environment, Physical Planning, and Public Works and the Ministry of Culture on issues of their shared responsibility (in which, for example, one ministry declares a given building as protected while, at the same time, the other ministry issues a permit for its demolition" (Ombudsman, 1999).

In practice this situation results in a rather unfair situation of people being treated unequally: those taking "advantage" of the existing legislative gaps and opportunities and those acting legally. Other negative consequences are economic and environmental; the state loses significant income when citizens do not follow the required procedures, being charged at the same time with extra costs when creating infrastructures in an already illegally built environment. Additionally, the environmental impact of ICs is also important exceeding the local limits. Aesthetic and ecological deterioration of the urban environment, alteration of the landscape, inadequate infrastructures, and soil erosion are only a few of the ICs consequences.

# 3. INFORMAL CONSTRUCTION TYPES IN GREECE

In this chapter, characteristic IC cases are presented, classified according their type of illegality. The ICs consist of new construction, additions to buildings and changes of use, occurring on private or public land. For each IC type, the state's role is also pointed out and some proposals are mentioned.

# 3.1 Informalities in Buildings Constructed with a Legal Permit According to the Urban Plan

This broad category includes several IC types, such as:

#### 3.1.1 Legal Issues Easily Remedied

This category includes constructions legally built, in reference to the current building and planning regulations. However, these regulations were later recalled by the Council of State, as not being in compliance with constitutional regulations. As a result, a great number of buildings "legally" constructed were later characterized as informal. Two typical cases are presented:

- Building regulations imposed while construction work was underway. In figure 1, an unfinished building (uncompleted floor) is shown, as a result of altering the possibility of transferring the remaining Building Coefficient (Building Coefficient Transfer, BCT) (fig 1).
- Stores and business buildings with permit issued, were later characterized as informal, after the area's land-use changed into residential only, not allowing any commercial business. In figure 2, a building located in a heavy traffic avenue, completed under L.3212/2003, was later characterized as informal, since the Council of State, cancelled that law in 2007, changing this part of the road into "merely" residential area.

Both the above IC cases could have been easily remedied, if the legal framework had not been retrospectively recalled by the state.



Fig 1 Incomplete floor from BCT change



Fig.2 Formerly legal commercial building



Fig.3 First row: Buildings without semi-open air spaces, and second row: buildings with informally closed semi-open spaces

#### 3.1.2 ICs Failing to Comply with Regulations

Thirty years ago, legal buildings, located within or outside the formal urban plan presented few informalities, due to the clear definition of building outline (figure 3, 1st row). After 1985, buildings' informalities were significantly increased due to the new concept of the semi-open air space, officially established by the Building Construction Code.

These spaces are included within the building's outline in the form of a balcony with one open side in a room's size that may easily transform into indoor space. Since 1985, this type of informality has resulted in more than 10 000 000 illegally constructed sq.m. Both individuals and the state are sharing responsibility for this IC type.

The citizens and the state, share a degree of responsibility for this IC type. The state authorities could facilitate the legalization of these ICs by asking the "illegal" owners/constructors to pay for the extra square meters.

In order to avoid such cases in the future, the building control authorities should inspect the construction and make sure that newly built houses correspond with the permits issued.

#### 3.1.3 ICs in Relation to the Building Coefficient (BC) Type

The BC defines the permissible total floor space to lot area ratio. The complete surface that can be legally constructed excludes balconies, terraces, and basement areas.

According to former building regulations, the BC was indirectly defined by the relation to the maximum building height and the permissible space for building up on the ground area (lot's coverage in percentage). This resulted into legally constructed buildings located on e.g. downhill areas. Today the BC is directly defined as a number coefficient, and the permissible total space area is calculated by multiplying the lot's surface with the BC. Built surfaces, exceeding the total floor space thus calculated, are characterized as illegal even if the building was in compliance with the former regulations (giving the maximum height and the lot's

coverage) (figure 4).

This IC type relates to the way BC is defined. Selective cases could legalize, by for example paying additional fees, while others should demolish. The selection by the state is not easy and should rely on aesthetic and environmental criteria.

#### 3.1.4 IC within Roof Slopes

Floor space included within the legally constructed-building's outline is accepted as legal. However, since 1985, lofts under the slope of a roof, are considered illegal by the Greek regulations and are included in the ICs (figure 5).

A meaningful proposal could be that the use of areas within the building's living space should not be considered as IC.



Fig. 4. IC cases exceeding the permissible floor spaces (basements in downhill not included in the surface permissible by the BC).



Fig. 5 ICs including the roofs of newly constructed buildings.

### 3.1.5 Illegal Conversion of Basements and Open Ground-level Space

Basement storage and open ground-level spaces are frequently built up, used either as living or business space. This illegal conversion occurring both in apartment and business buildings, generates a series of problems. More specifically, this violation of building permit supersedes the approved legal building rate, increasing the number of residents and the total floor space of the building not complying with the permit issued (figure 6).



Fig.6 The basement of an office building turned into bureau.

Basements and ground-level spaces (either in the form of storage areas or parking lots) should be used without restrictions, if safety measures are taken and the conversion is legalized by paying for the extra square meters. Alternatively, the owners/ tenants should buy the necessary BC or exchange it with the upper floors 'space. On the other hand the owners could retain the option of returning the spaces to their original purpose (garage, storage space, etc), thus bringing the building into conformity with the building regulations.

#### 3.1.6 Illegal Constructions on Common Open Space

The outdoor part of many restaurants, shops and cafes, encroach on pavements and other common open space. For this outdoor seating a permit is needed by the municipality, and the owner has to pay encroachment rates. Light constructions on these areas, even granted with an operation license, are considered as ICs (figure 7).

It is obvious that the outdoor part of these installations must conform to strict guidelines, taking into account the overall aesthetic value of the area and the required convenience for passers-by.

### 3.1.7 IC cases within the Urban Plan not Falling into the Above Categories

Other ICs not falling into the above categories include illegal extensions, build up balconies and constructions on the



Fig. 7 Encroachments on common open spaces (e.g. squares, pavements)



Fig. 8. *Illegal construction on top roofs (1st row) and built up balconies (2nd row).* 

roof of the buildings not complying with the building regulations. Property owners or tenants want to ensure the maximum exploitation of their property, tolerating administrative procedures and standards implied. These practices followed by the citizens often contribute to gradual degradation of the built environment.

The building authorities should first evaluate all these constructions and make sure that they are safe and do not harm the esthetic of the building and the environment. If they comply with the above, the owners could be given a chance to legalize their already constructed IC through the process of paying for the extra square meters. Otherwise, the constructions should be demolished and the building returned to the original form at the owners expenses. On the other hand, strict legislative measures should be taken and enforced to prevent such cases in the future.

#### 3.1.8 ICs in Out-of-Plan Areas

Although a different category, they share common characteristics with the formerly mentioned cases, occurring outside the urban plan, but also on private land.

Between 1968 and 1982, the building regulations permit-

ted the rise of prefabrication houses on small rural plots, created by subdivision process. This offered cheap and realistic housing alternatives for medium to low income class. Despite the law's intension, that these dwellings would be a temporary housing solution, their size and outward appearance significantly changed, without issuing a building license. Therefore, this easy way of changing rural land use to residential, rapidly expanded, producing a new IC type outside the urban plan, accounting more than 120 000 ha of illegally built land (Figure 9), mainly because of the inaction and tolerance by the authorities.

A possible solution to overcome this problem involves legalization of the existing ICs by including them into the formal urban plan. The state authorities, in order to protect any further conversion of areas classified as forest or agriculture land from becoming residential, should adopt strict measures ensuring the environmental protection.

#### 3.2 ICs on Public Property

These include ICs located on public land / buildings, performed either by the state itself or by individuals who have rent the property.



Fig. 9 ICs consisting of prefabricated houses of high density, in Salamina Island [6].

#### 3.2.1 ICs by Public Authorities

The state as a developer can also proceed to illegal operations, either by creating alliances with private interests, favouring the legitimization of illegal situations or by acting as a perpetrator of ICs itself. The state as owner/ or partner in a corporate alliance has the right to construct beyond the permissible limits, not conforming to existing regulations. When new areas are included in the city plan by public authorities' activity, the state and its partners may not contribute



Fig. 10 Olympic Village, constructed not in accordance to zoning regulations and "the Mall", Department Store (1<sup>st</sup> row) Commercial developments in the area of El. Venizelos national Airport (2<sup>nd</sup> row)

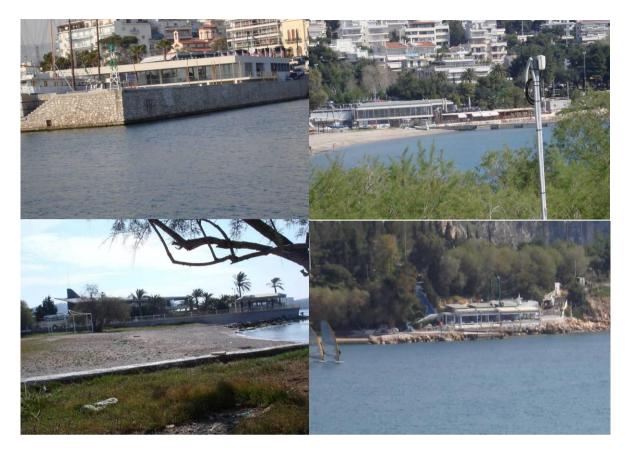


Fig. 11 IC cases as special constructions located on the coastal zone

in land and / or money, thus showing a different application of law. In figure 10, several activities of public authorities are presented: the Olympic village not complying with zoning regulations, a multi-storey commercial department violating the building rules and illegal land use changes, all resulting from the state's direct or indirect involvement in the exploitation of public land.

#### 3.2.2 ICs Located in Coastal Zones

All constructions erected within a certain minimum distance from the coastline are considered illegal and must be demolished. Although the implementation of the law is obligatory, in practice, the administrative authorities are unwilling to proceed to demolitions, either fearing social and political costs, or lacking the necessary funds for demolition crews.





Fig. 12 The luxury restaurant Aegli located in Zappeion Park and a municipal tourist facility located in a square within the formal urban plan.



Fig.13 Illegal constructions in rent public land/buildings located in privileged areas.



Fig. 14 The ground floor is changed to recreation and amenity center.

The problem emphasizes the urgent need for determining the winter wave shoreline and the relative minimum beach zone for the total coastline of Greece, where any construction should be strictly forbidden.

Some characteristic cases of constructions illegally occupying the coastal zone are presented in figure 11.

#### 3.2.3 ICs in Public Open Spaces

These are dealing with common urban spaces (such as squares, roads and sports facilities). Within the city we see that public spaces are "maintained" by encroachers, although not complying with existing urban regulations, often due to special financial agreements with the administrative authorities (figure 12).

#### 3.2.4 Public Buildings/ Areas Rent to Individuals

Public property often is rent to individuals. Unfortunately, it is a common practice that these rent buildings or areas

are subjected to informalities by the tenant, such as illegal extensions, land use changes and encroachment of open spaces, preventing in some cases the citizens from having access to the beach or other services. These ICs are often sanctioned by the state and even legitimately allowed through special unofficial agreements. Planning and police authorities often do not control these cases and no punishment follows the illegalities, tolerating more ICs for private profit (figure 13).

#### 3.2.5 Special Cases

They include constructions made by the state authorities, illegally changing the use of the buildings not conforming to the permit issued (figure 14).

#### 3.3 Classification of ICs

The IC cases can be broadly categorized and presented in a 3-axis system in regard to their location:

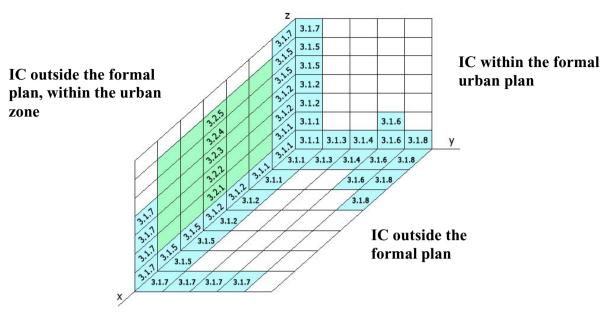


Fig. 15 Classification of IC types in a 3-axis system.

- within the formal urban plan (level yz)
- outside the formal urban plan, but within the large urban plan zone (level zx) and
- outside the formal urban plan (level xy),

The cases are categorized in accordance to the previous chapters' classification. The structure of ICs shows that some ICs occur both within and outside the urban plan, although the provisions of Law are not identical for these areas.

#### 4. ICS AND LAND POLICY MEASURES

Land policy in Greece intends to punish private illegal building activity, without proposing deterrent measures to prevent further expansion of the IC problem (presented in blue color in figure 15). This approach can be summarized as follows:

- Fines and penalties are imposed on ICs after their completion.
- Legal restrictions are applied on ownerships when transferred.
- Restrictions applied when connecting the buildings to utility services (such as the Public Power Corporation, the Water Supply and the Sewage Company)

#### 4.1. Measures for ICs

The IC categories subjected to financial punishment and the legal procedure provided for each case are classified as follows.

#### 4.1.1 IC Classification

The ICs erected before the 31st of December 2003, subjected to financial penalty according to law 1337/1983, are the following:

- Tourist settlements, common use areas, recreation and amenity centers, medical care units, etc.
- Residential buildings, administration offices, commercial and social welfare centers, cultural and educational installations, athletic facilities and other similar uses.
- Industrial installations, agricultural and farming units, warehouses, and like uses.
- Rural warehouses, stockrooms, etc.

According to the ministerial decision 9732/2004, the ICs created after the 1<sup>st</sup> of January 2004, are classified into the following 3 categories:

- (a) Urban buildings without building permit or violating the area's general and specific building regulations.
- (b) Constructions and installations, in excess of legal limits imposed by the general building code.
- (c) ICs within sensitive or environmentally protected areas, such as reserves, streambeds, archeological sites, forest areas and areas to be reforested.

#### 4.12 Fines and Penalties

The financial punishment process includes several steps:

- The urban planning office carries out an on-site inspection in order to verify if buildings correspond to the permits issued and submits a report with its findings.
- Determination of the real estate's value V<sub>IC</sub>:

- o For ICs created before 2003, V<sub>IC</sub> is calculated in relation to the building's classification (see 4.1.1), its use and its total surface E<sub>IC</sub> in sq.m. The prices rate from 15 to 90 euros per sq.m. accordingly.
- For ICs created after 2004, the IC value is defined according to its taxation value V<sub>tax</sub>, ranging from 600 to 8800euros/sq.m and its total surface E<sub>1C</sub> in sq.m. For ICs of (b) category (see 4.1.1) the  $E_{\rm IC}$  is reduced to 1/ 5 and for ICs of (c) category it is doubled. Therefore, fines imposed are calculated according to the following formulas:
  - (a) For urban buildings ICs,  $V_{IC} = V_{tax} \cdot E_{IC}$
  - (b) For constructions ICs,  $V_{IC} = 0.20^{\circ}$  E<sub>IC</sub>
  - (c) For ICs burdening the environment,  $V_{IC} = 2 V_{tax} \cdot E_{IC}$
- Financial penalties P<sub>IC</sub> imposed on ICs, on an annual base, as long as the construction stands:

  - o For ICs created before 2003,  $P_{IC} = 0.10 \cdot V_{IC}$ o For ICs created after 2004,  $P_{IC} = 0.50 \cdot P_{IC}$ , with an annual increase of 2%.
- Immediate demolition of ICs, when illegalities are verified during construction.
- Demolition of ICs, when the buildings are on the shoreline or within forest and other environmentally protected areas. In these cases the social impact and the reluctance of services prevent effective application of the measure and demolition of ICs.
- There is a tendency by the state to further increase fines, to almost another 30%, in order to prevent further illegalities, as well financing local authorities.

#### 4.2 Legal Restrictions upon Real Property

Legal restrictions upon the right of transferring real estate properties:

- If a land parcel is created before the 14.03.1983 and a building is illegally erected before that date, then the land parcel can be legally transferred (e.g. purchased). The building's completion date should be either mentioned on the land parcel's title or certified by the owner's declaration.
- If a land parcel is created before the 14.03.1983 and the illegal building is completed after that date, then the land parcel cannot be legally transferred. The completion date of the IC can not be certified by any authority.
- If a land parcel is created after the 14.03.1983 with an informal building comprised, it cannot be legally trans-
- In case of owner's death, all the above are considered illegal transactions. In this case, although taxes are paid the property can not be inherited, thus creating serious social problems.

#### 4.3 Restrictions Upon the Right to Connect to Services

Since 1985 and according to L.1512/85, for connecting a newly constructed building to water and electricity supply, proofs of legality are required. This acted as a restrictive measure, though not consistently and equally applied. Some owners of ICs took advantage of periods prior to elections, unfortunately related to significant relaxing of principles in our country, to achieve connection to services (El Batran et al, 1998, Potsiou et al, 2006).

Other informal settlers illegally connected their house to the public street lighting and the water networks, thus enjoying free electricity and water supply, overcoming restrictions imposed.

#### 4.4 Conclusions on the Government's Response

- The Greek state's response to the IC problem is mainly based on punishment measures. Financial penalties, imposed on private ICs, are difficulty certified and more difficulty collected.
- Since the state's mechanism for controlling and correcting ICs is rather ineffective and time-consuming. the ICs are identified by the citizens' appeals to the local and police authorities.
- As a result, the IC cases reported present a small percentage of their total number, and therefore the penalties P<sub>IC</sub> and P<sub>IC</sub> imposed and collected are not very significant.
- So far, the measures didn't remedy the IC problem in our country. In the contrary, the illegality increases and the citizens have a strong belief that illegality is not punished and even rewarded.
- The IC cases eventually demolished represent a very small percentage among those not complying with regulations.

#### 5. CASE STUDY - MUNICIPALITY OF **VOULA, ATTIKA**

A case study is presented, in order to illustrate the above with an example: Voula, is a rapidly urbanized municipality located in the greater Attica region. Its population has been rural until the 1960s, when suburban housing begun to emerge, resulting in an area, nowadays characterized as the most populated municipality in the East Attica Prefecture, with a population density of 3,537 persons/ sq. km. Table 1 shows some statistical data for the Voula, obtained from the National Statistical Service of Greece, 2001 and the Ministry of the Interior, 2005.

The area is divided in six urban quarters (sections) all covered by urban master plans,

The urban planning office at Voula municipality received a total number of 251 citizens' appeals during the years 2000 – 2006, many of them including several IC cases. Consequently, a total of 376 IC cases were reported. Their spatial distribution is shown on the municipality's urban map (figure 16). The year flow of the 251 appeals is graphically presented in figure 17.

The reported data are classified as follows:

- 92% of appeals refer to houses, and 8% to business buildings and commercial departments. This in accordance with the character of Voula, being a predominantly residential area.
- Reported 376 IC cases include:
  - o 53% semi-open air spaces turned into indoor/residential space.
  - 40% building's use change (basement storage, parking lots and ground-level spaces converted into apartment space)
  - o 7% illegal use of terrace and roofs.

Table 1. Statistical Facts on Voula Municipality

Year	Population	Change	Density
1981	10,539	-	1,199.4/km <sup>2</sup>
1991	17,998	7,459/70.78%	2,048.3/km <sup>2</sup>
2001	25,532	7,534/41.86%	2,905.7/km <sup>2</sup>

#### Population statistics (as of 2005)

- Population: 31,078

- Area: 8.787 km<sup>2</sup>

- Density: 3,537 /km<sup>2</sup>

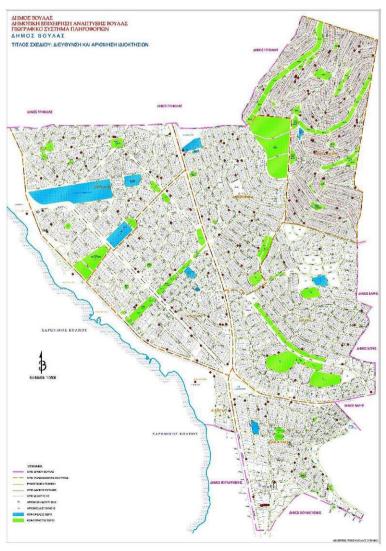


Fig. 16 Spatial distribution of IC cases in Voula unicipality

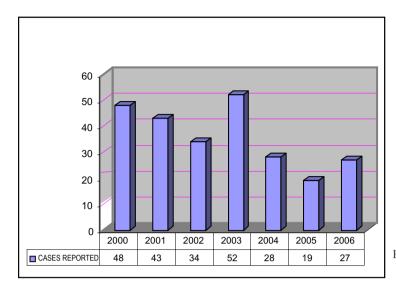


Fig. 17 Years Flow of appeals (2000-2006)

The following table (figure 18) shows the total sum imposed in fines and collected from 2003 to 2006.

Total amount of fines imposed and collected $(2003 - 06)$											
YEAR	R ORIGINALLY IMPOSED DELETED			COLLECTED		RESIDUAL					
	in 1000€	%	in 1000€	%	in 1000€	%	in 1000€	%			
2003	166	100	21	13	62	37	83	50			
2004	131	100	8	6	7	5	116	89			
2005	1527	100	41	3	38	2	1448	95			
2006	1536	100	76	5	9	1	1451	94			

Fig. 18 Total sum in fines (2003 to 2006).

Our study showed how the responsible authorities have failed to apply the legal measures including demolition of ICs and collection of fines according to the law. During the years 2003 and 2004 the fines finally collected were much less than those initially imposed. After 2004, due to implementation of new regulations (ministerial decision 9732/2004), there has been a significant increase on the total IC fines to almost 900%. Despite the fact that, according to the new regulations, the fines imposed on ICs in Voula for the years 2005-2006 were ten times more than previously, the total sum finally collected was even less (46 to 69 million euros). This is an obvious result of the growing bureaucratic incompetence of the authorities and the fact that the laws are often weakened by contradicting circulars issued afterwards.

#### CONCLUSIONS

- The findings of this paper can be summarized as follows:
- The state has a direct or indirect responsibility in the IC expansion, either by its malfunction or by sanctioning illegalities. In particular, public services responsible for urban and environmental policy in Greece are scattered and lack a central intervention in order to deal with planning development.
- The legal framework related to urban planning applied so far in Greece is rather complex, confusing and contradictory, with overlapping regulations.
- The elaboration of the Hellenic Cadastral Project initiated in 1997, although expected to be instrumental for the implementation of land use plans and for the effective enforcement of legislation in case of illegal land development (Human settlement, 2004), is still under its way, practically not contributing to its imminent operation.
- The state, when acting as a private individual constructor by contracting agreements according to the rules of the private sector, takes advantage of its superior position

and violates terms without any risk (Ombudsman, 1999).

 In many cases planning and environmental laws are not followed in Greece and no protective or corrective measures are taken for the built and physical environment, as determined by the EU

It is therefore proposed that the following steps should be followed:

- Residential expansions and incorporation of areas into the town plan must follow central urban planning, taking into consideration the available financial resources and the citizens' demands. Local government authorities and technical services and must organize accordingly.
- Bureaucratic procedures for defining ICs must be fast, to prevent illegal situation from becoming established and work against expectations that illegality will be tolerated. The speed of these procedures is directly associated with preventing illegal construction work from being completed, a fact that would create an irreversible situation and enormous costs that would have to be borne by the state (Ombudsman, 2000).
- Penalties and fines imposed on IC must strictly relate to the value of the land/ or building. Owners of ICs should bear the cost of demolition and pay the related fines. Fines levied should be collected and further used for the remedy of the area damaged.
- The coastline, as well forest land and areas of particular interest must be accurately delineated in order to be protected from potential ICs.
- Buildings constructed illegally to overcome housing shortages should be differentiated from those constructed for commercial purposes. If the latter do not comply with the standards, they should be demolished.
- Further approaches to tackling existing IC and to preventing the emergence of new ones involve the adoption of affordable housing policies, sound land-use planning and the registration of property rights, as well as clear institutional responsibilities regarding land policies on the part of central, regional and local governments (UNECE, 2007).

A case study is also examined, pinpointing the IC cases in a rapidly populated residential municipality close to Athens. The cases investigated showed the state's failure to supervise constructions, to demolish illegal structures and to collect imposed pertinent fines. This is particularly common with local authorities (especially urban planning offices) either because the services provided are inefficient or because of intentional illegal actions caused by political and social pressure or economic reasons.

The local urban authorities, under the state's supervision, should take precautionary measures, monitoring their jurisdiction area for possible violations, verify ICs and collect imposed fines, serving as financial deterrent in the fight against illegality.

Greece, as member of the European community should

gradually harmonize with the European and the UN strategies on Sustainable Development of Settlements and Housing, aiming at a general improvement of housing and environmental quality and infrastructures.

A prerequisite to such improvement is of course up-to-date spatial information and "good governance" which as UN defines, is the sum of ways through which individuals and institutions, both public and private, plan and manage their common affairs [UNHSP, 2003a, Center for Communication Programs, 2002].

#### REFERENCES

- 1. El-Batran M.and Arandel C, 1998. A shelter of their own: informal settlement expansion in Greater Cairo and government responses, Environment and Urbanization, Vol. 10, No. 1, April 1998. 16 p.
- Center for Communication Programs, 2002. Making Urban Areas Work, Published by the Population Information Program, The Johns Hopkins University Bloomberg School of Public Health, Baltimore, Maryland, USA Volume XXX, Number 4, Fall 2002 Series M, Number 16 Special Topics.
- De Souza, F. A. M, 2002. De-constructing urban space in informal settlements: the case of Recife, Brazil, Paper presented at the Annual Conference of the Urban Issues Program Constructing Urban Space Teresa Losano-Long Institute of Latin American Studies, University of Texas at Austin.
- Giannakourou G and Balla E., 2006. Planning Regulation, Property Protection, and Regulatory Takings in the Greek Planning Law. Washington University Global Studies Law Review, Vol. 5:535-557, 2006.
- 5. HUMAN SETTLEMENT COUNTRY PROFILE GREECE 2004. "Decision-Making Programmes, 16p available at www.un.org/esa/agenda21/natlinfo/countr/greece
- Karavassili, M, 2004. Procedure Simplifications to Facilitate Application of Urban Planning and Environmental Legislation Through Control Mechanisms and Inspections, Workshop on Urban Planning and Construction, 20-21 May 2004, Technical Chamber of Greece.
- Lamba A.O., 2005. Land tenure management systems in informal settlements. A case study in Nairobi. Thesis submitted to the International Institute for Geo-information Science and Earth Observation (ITC) Encshede, The Netherlands 118 p., available at <a href="http://www.itc.nl/library/Papers">http://www.itc.nl/library/Papers</a> 2005/msc/gim.
- Ministry of the Interior. 2005. Basic Characteristics available at www.ypes.gr.
- 9. National Statistical Service of Greece (ESYE), 2001. Census 2001 available at www.statistics.gr
- Potsiou C and Ioannidis C, 2006. Informal Settlements in Greece: The Mystery of Missing Information and the Difficulty of Their Integration into a Legal Framework, Promoting Land Administration and Good Governance, 5th FIG Regional Conference, Accra, Ghana, March 8-11, 2006. 20 p., available at <a href="https://www.fig.net/pub/accra/papers/ts03"><u>www.fig.net/pub/accra/papers/ts03</u></a>
- The Greek Ombudsman (Department of Quality of Life), 1998.
  Annual Report 1998, pp. 38-57, at http://www.synigoros.gr/
- 12. The Greek Ombudsman (Department of Quality of Life), 1999. Annual Report 1999, pp. 105-137, at <a href="http://www.synigoros.gr/">http://www.synigoros.gr/</a>

- 13. The Greek Ombudsman (Department of Quality of Life), 2000. Annual Report 2000, pp. 117-132, at http://www.synigoros.gr/
- 14. UNHSP, 2003a. The challenge of slums: global report on human settlements 2003. Earthscan, London and Sterling, VA, 310 p.
- 15. UNITED NATIONS CENTRE FOR HUMAN SETTLEMENTS (HABITAT), 2001. The state of the world's cities, Nairobi, UNCHS, 2001. 125 p
- UNITED NATIONS (Economic and Social Council), 2007.
  Discussion paper on Challenges and Integrated Policy Responses for Informal Settlemets, Geneva, April 2007, 10 p.
- 17. UN Economic Commission for Europe UNECE Weekly, 2007. Addressing the problem of informal settlements in the UNECE region. Issue N° 237 17-21 September 2007. Also available at: http://www.unece.org

#### **BIOGRAPHICAL NOTES**

#### Efi Dimopoulou

Surveyor Engineer, Lecturer, National Technical University of Athens, School of Rural and Surveying Engineering, NTUA, in the fields of "Cadastre", "Land Management" and "Land Information Systems".

Member of the ACTIM (Agence pour la Cooperation Technique, Industrielle et Economique), (1984+), the Hellenic Society of Photogrammetry and Remote Sensing (1987+), the International Federation of Surveyors –FIG, as correspondent member (1998+) and elected member of the Bureau of Hellenic Geographical Information Society -HellasGIs. (1999+) and

Secretary General of the HellasGIs (2006+). Visiting Assistant Professor, School of Architecture, University of Patras (2000-05).

She participated in Scientific Committees of the Technical Chamber of Greece (1986-88) and the Hellenic Mapping and Cadastral Organization –HEMCO (1987+), in 16 Funded Research Projects (1988+) and in 7 seminars as instructor; she has published more than 40 papers on Cadastre, GIS/LIS, Photogrammetry and Remote Sensing in Greek, International Magazines and Congress Proceedings.

#### Panagiotis Zentelis

Surveyor Engineer & Civil Engineer. Professor, National Technical University of Athens - School of Rural & Surveying Engineering, in the fields of "Cadastre", "Land Information Systems" & "Real Estate". He has 85 Publications & Announcements in various national & international scientific magazines & conferences. His academic experience dates since 1970 through teaching in various graduate and post-graduate courses, seminars, diploma theses and Ph.D. theses, along with research activities and vast professional experience in relative fields since 1968. He is a member of the Hellenic Society of Photogrammetry and Remote Sensing, the Association for Geographic Information (AGI), the International Association of Assessing Officers (IAAO), the Urban and Regional Information Systems Association (URISA), the Hellenic section of the International Council of Monuments and Sites (ICOMOS-Gr), the Hellenic Institute of Valuation (HIV), the Urban Land Institute (ULI Europe) and numerous committees, working and task groups.

#### Dr. Efi Dimopoulou,

Lecturer, National Technical University of Athens, 9, Iroon Polytexneiou St, 15780 Athens, GREECE Tel. +30 210 7722679, Fax +30 210 7722677, Email: efi@survey.ntua.gr

#### Prof. Panagiotis Zentelis,

Professor, National Technical University of Athens, School of Rural & Surveying Engineers, 9 Iroon Polytechniou St., 15780 Athens, tel. +30-210-7722681, fax + 30-210-7722677, e-mail: <a href="mailto:zendel@central.ntua.gr">zendel@central.ntua.gr</a>, web site: <a href="http://www.survey.ntua.gr/main/labs/cadast/staff-g.html">http://www.survey.ntua.gr/main/labs/cadast/staff-g.html</a>