

# Regeneration of Informal Settlements towards Sustainability: A Case Study

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**Keywords:** Urban Renewal, Informal Settlements, Spatial Planning, Sustainable Development, Sustainable City.

## SUMMARY

Modern societies are called to confront a number of changes that concern urban conservation and human settlements. One of the areas of sustainable development, with direct influences on human and natural environment, is the management of urban space and the planning policies. Many modern cities have experienced intense urbanization and expanding without the appropriate means to support them, due to lack of planning policies.

In the not too distant past, the term development referred to the expansion of the city seeking for better living conditions. The continuous expansion of built environment, the degradation of the environmental conditions and quality of life, the continuing poverty and the lack of basic needs in a time of crisis, are some of the factors that threaten the contemporary urban environment and hinder progress towards the sustainable city.

Modern societies, especially in Greek countries, are called to deal with the phenomenon of informal urban planning, because of lack of appropriate legislature, socio-economical institutions about urban and suburban space, political will, bureaucracy in land and spatial planning, and the general lack of consistent interrelationship between land management and land administration. One of the most important problems in developing countries is the integration of the informal settlements with city centers and formalizing of the property rights.

The aim of this paper is to investigate the effects of informal urban planning and settlements in modern cities, as well as to propose an approach that would help rehabilitate degraded city areas and connect them with the urban fabric. An attempt is made to evaluate the condition of a city in Northern Greece, Komotini, with rich historical and natural background, which has accepted a great number of immigrants. Due to lack of local authorities, dwelling areas and planning, there are many areas with informal settlements within the city. The paper explores the problems of the site and approaches the prospects of urban revival in the light of sustainability. The ultimate goal is to reorganize the basic factors that compose the function of this urban center, towards the sustainable city.

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## 1. INTRODUCTION

One of the areas of sustainable development, with direct influences on human and natural environment, is urban planning and operation of the built environment. Moving away from the previous model of economic growth towards sustainable development, poses new bases in the structure of socio-economical and political values. Komotini as a case study is a large urban center of Northern Greece, seat of the administrative region of East Macedonia and Thrace with various responsibilities and hub between Greece, Turkey and Bulgaria. The lack of planning, led to deconstruction of the adopted economic and technocratic system and to problems of the urban and rural space.

Informal settlements – or settlements of the urban poor (Huchzermeyer, 2009) – are a common phenomenon in many East European countries, whether in Western Europe is more rare to find land without property rights and formalized land-use planning. Unprecedented growth of informal settlements amidst economic stagnation in many Greek regions generates fears about an urban crisis which might escalate poverty and deterioration of the built urban environment, especially in areas with illegal constructions.

In the present paper the aim is exploring the problems and opportunities presented by a sizeable urban center of Northern Greece, Komotini, with rich natural, historical and multicultural backgrounds. The paper investigates the sizeable problem of informal housing in this area, and more specifically in a slum neighborhood called Alan Kojou, formed by a Roma community, on the periphery of the urban fabric.

Firstly, a general overview of the phenomenon of informal (illegal) settlements is provided, with a focus on the framework in Greece. Next, follows a brief analysis of Komotini's urban form and function, as a significant urban center of Northern Greece with important administrative and socio-economic activity in the wider area. It is interesting to investigate how this city has developed through time, the historic and urban development of the area, and the modern form of the city, with the main problems that faces.

One of the factors that determined the modern city's form is the phenomenon of informal settlements, which first appeared after the Minor Asia Catastrophe in the early 1920's. After this period the city accepted a large number of immigrants and continued to grow and expand without the appropriate means and support. Nowadays, there are many controversies between Komotini's districts and many of them have not even the basic building and infrastructure services. As a case study is presented a Roma slum neighborhood which is located on the northern limits of the city. The main aim is to focus on the prospects of urban revival of the wider area, as well as potentials for sustainable urban development through targeted spatial planning and development policies, towards the sustainable city.

## **2. SUSTAINABILITY AND THE EMERGENCE OF URBAN PLANNING**

Sustainability is a major chapter of humanity's modern history. It is necessary to turn towards a way of living with respect to the environment and natural resources, in order to prevent environmental and quality of life degrade. Land is a dynamic canvas through which human and natural systems interact (Parker et al., 2002). The emergence of informal settlements in Greece is the result of numerous factors, including historical, political, social, economic and urban planning policies. Urban sprawl, and multiple forms of informal settlements were performed in the post-war era and later, due to the inappropriate or absence of the legislative tools on urban planning, properties' restitution and management of the construction sector.

In the early post war period, development itself was defined almost exclusively in economic terms, measured by per capita GDP (Gross Domestic Product). It is no longer believed that it is possible to define development, nor even explain economic development such as capital accumulation, human capital, resource endowments, international trade, or geographic development in terms of one factor. Viewing development and capacity in exclusively economic terms is very limiting. Urban development is consuming land and natural resources at an increasing rate (Wilson & Lindsey, 2005), fact which raises serious concerns about the sustainability of current economic-growth patterns, the quality of urban space and the progress of sustainable cities in the future. It is now understood that sustainable development through urban planning policies, encompasses equity, political development, democratization in processes, gender and environmental issues.

## **3. INFORMAL SETTLEMENTS: BRIEF THEORETICAL APPROACH**

### **3.1 Notion and impact of informal settlements**

In recent decades, the field of urban planning and development, including land uses and cover changes has attracted considerable attention within the scientific community. As a global phenomenon the form of cities and their impact on the environment, has brought up, among other, the problem of land use allocation and more specifically, the problem of informal dwelling and housing.

Modern societies, especially in Mediterranean countries, are called up to deal with the phenomenon of informal urban planning, because of lack of appropriate legislature, socio-economical institutions about urban and suburban space, political will, bureaucracy in land and spatial planning, and the general lack of consistent interrelationship between land management and land administration (Sofianou, 2014). Informal development is a major problem in developing countries 'due to a tendency to secure land and housing without any coordination with zone planning and regulations' (Keçi, 2014).

The analysis of human settlements and the 'identification of adapted legislative and operational solutions for the improvement of living conditions are presentday topics both for international scientific research and for international and national institutions having responsibilities in the field of housing and land management' (Suditu & Vâlceanu, 2013). The

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issue of ‘informal’ or ‘illegal’ settlements is very complex, as well as their definition. Various definitions have been proposed, with the one suggested by the World Bank and the UN Habitat Programme to be the most widely applicable. According to it, informal settlements are: a) residential areas where a group of housing units has been constructed on land to which the occupants have no legal claim or which they occupy illegally; b) unplanned settlements and areas where housing is not in compliance with current planning and building regulations.

More specifically, the term ‘informal’ is used to refer to buildings or building extensions constructed without conforming to existing urban plans and without the necessary building or occupancy permits; buildings constructed prior to current control requirements; buildings constructed on state-owned land and lacking the necessary permission, e.tc. (Stanley, Hamilton, Srinivasan, & Adlington, 2007). Moreover, informal settlements are often characterized as ‘illegal’ residential formations lacking basic infrastructure, security of tenure, adequate housing, e.tc. (United Nations Economic Commission for Europe, 2009).

The typology includes crucial characteristics that have shaped the quality of life in informal settlements, namely socio-cultural, economic and political conditions (United Nations Economic Commission for Europe, 2009). They differ according to their type – from slums to luxurious residences – according to their location – within the city or peri-urban and even on protected areas – and also, according to their size – from small units to small towns.

Although there are different levels of informality, there are some main characteristics such as: lack of tenure and, thus, vulnerability (Tsenkova, 2012), lack of basic infrastructure, squatting on private or public land, even by force, insufficient housing and living structures and conditions. However, the most decayed form is the slums, which are neglected parts of cities where housing and living conditions are appallingly poor. Slums range from high density, squalid central-city tenements to spontaneous squatter settlements without legal recognition or rights, sprawling at the edge of cities (UN-Habitat 2005). Their main characteristics are the lack of basic services, living in inadequate structures and overcrowding, unhealthy conditions and poverty.

The impacts of illegal urbanization are great and pressuring ranging from landscape aesthetic deterioration, biotic diversity threats, desertification, forest and open land “squeeze”, to increased vulnerability to human settlements or even local water contamination. The main problem in countries like Greece is the general illegality in many economic activities including the housing sector. The markets have taken advantage of this fact and gradually, the informal settlement phenomenon has been transformed from an “obtaining a shelter” issue to an act of speculation.

In nowadays, when the notion of sustainable development is severely important on a global level, and the natural resources preservation is urgent more than ever, the impacts of illegal dwellings on the environment raise concerns about the limitation of the phenomenon. Regardless of the type, settlements built with poor security of land tenure and without any planning regulations or building controls (United Nations Economic Commission for Europe, 2009) need upgrading schemes and an appropriate ‘land use planning process to reduce land

invasion pressures' (Polyzos & Minetos, 2009). Especially when found on a massive scale they may pose severe pressure on the environment and natural resources, as the establishment in places of environmental importance or even protected areas without even basic policies can cause irreversible damage to nature.

### **3.2 A brief review of informal (illegal) urbanization worldwide**

Worldwide the informal settlements take various forms and may affect their surrounding areas or entire cities in different ways. They have been recognized as components of the urban landscape in most developing countries for the last fifty years. Where development has been uneven often because of large scale displacement or war, informal settlements have overtaken formal.

In the past, most governments' attitudes toward informal settlements have been either hostility or benign neglect. Some governments applied stringent regulations to exclude informal settlements from infrastructure extension plans, or even demolition. There are various examples of informal settlements where the government has taken certain measures – in many cases with controversial results – for the sanitation and rehabilitation of degraded areas. For instance, in 2009, the state government of Rio de Janeiro announced its decision to enclose eleven favelas, located within the city's elite "south zone," with three-meter-high walls. The policy was justified as a measure to control criminality, allow for the orderly growth of the city, and protect coastal forests by limiting the expansion of informal settlements (Broudehoux, 2010). In other cases, mostly in Southeast Europe, the legalization of informal settlements emphasizes 'the integration of informal land and housing markets into the formal economy and validates ownership through property titles (Tsenkova, 2012).

Informal development is not a new issue for Europe, especially for the Southern and Eastern part of it. A pronounced dynamics regarding the forming and development of informal settlements can be noticed both in the developed countries from Western Europe and in less developed countries in Eastern and South-Eastern Europe. In some cities the forming and development of informal settlements represent a phenomenon associated with an urbanization wave that took place between 1960 and 1970, and the expansion of the phenomenon is closely connected with the rapid economical and political changes in Europe during the last decades and the massive flow of immigrants and refugees seeking for better opportunities in the 90's.

Informal settlements vary from country to country and are the results of different factors, including, 'inappropriate territorial planning, inadequate legislation and unadapted to the territorial reality, housing policies lacking provisions for ensuring affordable housing as well as inefficient structures of public administration' (Tsenkova, 2010). The insufficient physical and social infrastructure and lack of governmental involvement in the improvement of housing conditions for a series of informal settlements are factors leading to extreme poverty, high child mortality rates and precarious urban conditions (UN-HABITAT, 2003).

The topicality of informal settlements' issue is widely recognized in the main European and international strategic documents on housing such as: Habitat Agenda (1996), Declaration on Cities and Other Human Settlements in the New Millennium (2001), Vienna Declaration on National and Regional Policy Programmes regarding Informal Settlements in South-Eastern Europe (2004), Millennium Development Goals, Leipzig Charter on Sustainable European Cities (2007), Report on Housing and Regional Policy initiated by the Italian Member of the European Parliament Alfonso Andria (2007) (Suditu & Vâlceanu, 2013) and the most recent Europe 2020 Strategy. Housing policies must aim to regularize informal settlements and to improve the living conditions. Indicative is the Vienna Declaration, according to which, sustainable urban management requires for the informal settlements to be integrated in the social, economical, legal and spatial network, at local level, in order to obtain long-term economic growth, social equity, cohesion and stability.

### **3.3 Factors that determined the informal settlements development in Greece**

#### **3.3.1 Historical factors**

As it is already known, the history of land management and the first distinction of greek urban and rural space is connected to the reconstruction of Greece after the Greek Revolution. The Minor Asia Catastrophe determined the form of many greek areas, especially of Northern Greece, and was the catalyst for a great flow of immigrants in the urban centers. Combined to this, the numerous job opportunities and seeking for better life conditions forced many inhabitants of the rural areas to settle in near towns or larger urban centers, such as Athens and Thessaloniki (first generation of informal settlements).

Shortly after the Second World War till the early '80s, the economic and organizational conditions which had been created encouraged the rapid growth of a few large urban centres. During the 1950's, many European countries including Greece were called to cope with rapid urbanization, inter alia through formal land development strategies including public housing and service provision. A growing demand for urban (residential and industrial) space was noted, fact that resulted in urban sprawl and informal dwelling construction to the expense of nature. As a result, planning strategies of the past years that led to the urbanization in poverty are no longer potent instruments for promoting planned land use development especially in peri-urban areas.

Urban populations continuously increased and soon, urban sprawl referred to the unplanned growth of cities, particularly around their edges or peripheries. This ceaseless conversion of rural to urban and suburban land in light of insufficient land use planning often resulted in significant negative externalities (Leontidou, 1995). Thus, the emerging land use patterns are usually characterized by lack of public facilities, poor accessibility to existing facilities in the inner city and low build and environmental quality.

During this period, the limited legislative initiatives were only partly-materialized and until recently the construction of residential units was almost exclusively financed by the private sector. During the decade 1971-'81, a rapid population growth and housing needs occurred in

the city so, the need of strategic spatial and urban planning became urgent. The first attempt of this period for a holistic approach of regional planning is the initiative of ‘The Urban Renewal and Reconstruction Project’ (1983-’94) concerning all Greek prefectures (Rodopi Prefecture, 1984). This new project of national scale attempted to organize land uses countrywide and among other goals, to discourage the expansion of illegal settlements. Unfortunately, it did not find the application expected.

### 3.3.2 Socio-economic factors

It is important to underline that settling in areas around the city center without formal planning, is not imperatively connected to economic factors, but also to socio-cultural factors including ethnic and familial ties. The lack of available housing plots in the city centers meant that the population had to settle in areas, usually outside the official city plan boundaries on agricultural or forest land. This trend to outward growth was due to the limited financial resources of the migrants to acquire a proper house within the city plan, the availability of low-cost undeveloped land in peri-urban areas and the loosely established property rights on land (Polyzos & Minetos, 2009). The massive relocation from rural to urban areas led gradually to the congestion of city centers and the construction of low quality buildings, in order to serve the great number of migrants, fact that made the suburbs attractive to the more wealthy social classes.

In modern times, mainly due to the past strategies and the ongoing economic crisis in Greece, the informal consensus is again relate to homelessness and unemployment, as in the beginnings of its’ appearance in the mid-1950’s. Urban centers are congested and many of them developed without an appropriate urban plan (or masterplan). Urban capacity is a major problem, as the cities cannot house all the inhabitants and activities. Without a macro, mesa and micro understanding there will be limits to any truly sustainable lift in capacity, or any successful urban design scheme (Tyrrell, 2008).

## **3.4 The general framework and typologies of informal settlements in Greece**

Despite the fact that the post-war challenge faced by the state in providing minimal housing for their citizens has been met, the informal settlements phenomenon still proceeds. And the main cause is that informal settlements were the only alternative accommodation in the rapidly overcrowded cities. This fact, combined with the ‘dramatic global geopolitical change, redistribution of real income at a European scale to the advantage of core regions, and the persistence of certain biases of European Union policy’ (Leontidou, 1995), augmented the problem.

The informal settlements are defined in Art-22 paragraph3, as amended by the N. 2831/00, which provides that: “Any construction performed a) without the permit or b) exceeds the permit or c) it’s license is revoked or d) violation of the relevant provisions is subject to related to the arbitrary provisions of N.1337/1383 as applicable (Boutou-Lempesi, 2011) .

In modern Greek cities there are many types of informal settlements identified, mainly according to morphological and spatial characteristics and their location in relation with the city center. Also, it is very often the fact that so called ‘informal’ settlements lie alongside and often within ‘formal’ settlement patterns. The most common forms of informal settlements include:

- The new generation of informal settlements; newly built houses in the perimeter of the urban fabric, due to the lack of planning policies around the cities and the urban sprawl. This type of informal settlements is very common in Greece and has appeared mostly during the last decades. These buildings are of good quality and conventional but resistant materials, and often are one or two-story buildings. Can be usually found scattered within agricultural land at the urban fringe of big cities or in coastal zones, mainly due to an increase of the population in the major urban centers, new improvements in the road and railway network that reduce commuting times, and to the high demand for urban land in areas with better environmental conditions (Ioannidis, Psaltis, & Potsiou, 2009).
- Improvised dwellings, built without permit, mainly in areas of the city that according to the city’s masterplan are designed for other uses than housing. The informal settlements of this kind are constituted of improvised and unsanitary buildings as well as ‘ethic categories and economically marginal population and are located in areas that have no functions of housing: natural risk areas, industrial areas, the waste dumps, the protection and safety of utilities area e.tc.’ (Suditu & Vâlceanu, 2013).

#### **4. INFORMAL SETTLEMENTS IN THE CONTEMPORARY ERA**

As mentioned before, the sprawl of illegal dwellings is caused mainly because of the lack of appropriate legislation and monitoring by the government. The process of informal housing is close related to the benefits acquired by individuals and stakeholders involved. In Greece, the process of informal housing has not been monitored in a systematic way. This is a critical issue which may affect the analysis of the phenomenon, the conclusions drawn upon the analysis and, therefore, the policy proposals and the subsequent technical and institutional solutions put in place for dealing with the problem (Polyzos & Minetos, 2009).

Many attempts were made to limit this phenomenon through legislative regulations. The year 1923 was an important mark for the beginning of planning policies in Greece, as it was then that the First Housing Law was enacted by the Hellenic State (Ioannidis & Potsiou, 2006). Nearly 1.000.000 immigrants were settled in Greece and so, many attempts were made for urban and town plans in big centers such as Athens, Patras, Nafplio e.tc. Since then, the law occurring authorized plan before constructing was enacted after 1955.

In economic terms, informal settlements mobilize significant public and private investments, which remain outside of the formal economy (De Soto, 2001). As they often take over public or private land properties, they alter the cost burden for compensation and services to local governments. The inhabitants of these areas occupy public land or land parcels that may have other productive uses; or even protected areas. As a result, there is a great risk of creating areas of ‘dead capital’, mainly because of environmental risks and the prevention of



investments in the occupied areas. In addition to this, the state and local revenue may decrease since these are not registered and as a result, not fully taxed.

Spatially speaking, the urban – rural interface and a number of newly formed, informal industrial areas were the first to experience informal settlements construction processes (Polyzos & Minetos, 2009). The expansion of informal housing continues to increase, with about 3.000 new unlicensed buildings each year getting legalized and integrated into the urban space. Additionally, it extends socially from popular class seeking an economic home – and cannot settle in city centers – to middle class, with the inhabitants seeking a second holiday home or a villa. As a result, the new informal settlements are no longer in peri-urban areas close to the city centers but in areas of environmental value, in most cases in coastal zones or islands. This phenomenon was the result of a general informality and illegality in economic activities, including the housing production.

The two recent important laws, the Sustainable Urban Development Law 2508/97 and the Spatial Planning and Sustainable Development 2742/1999 Law, had as main targets to broaden the scope of urban planning and set the framework of land use strategies. Unfortunately, despite the legislative reforms, informal development continued to expand, mainly because of ‘low political commitment and will, corruption, inadequate administrative structures and failures in the functioning of real estate market’ (Polyzos & Minetos, 2009).

As the government’s policies were insufficient and in some respects, opportunistic, the result was to feed and sustain illegal settlements. In Greece, there are approximately 6.9 million residences and one quarter of these residences were built without building permits (Ioannidis, Psaltis, & Potsiou, 2009). During the last years and since the beginnings of the economic crisis in Greece, there have been attempts to legalize the informal constructions, but without the expected results. The basic step towards this direction was the implementation of the Law 4178/2013 to tackle unauthorized constructions. According to the encyclical, there was a period of 18 months within which, all stakeholders of illegal constructions of small or large scale (pergolas, balconies, barbecues or arbitrary houses) had to register the type of informality and pay a corresponding fee, in order to avoid demolishing. It also excluded the illegal constructions before 1983 from demolition.

From one aspect, this is a disputable legislation with many aspects, layouts and additions up to now. The main target was to capture public revenue and stabilize urban and rural space through future social and infrastructure upgrading programs, in the light of environmental protection. On the other hand, there is the opinion that the result of this initiative is to legalize illegal constructions despite their violation of existing planning legislation. The fee for regularizing the illegal constructions is not preventive for new illegalities, as the stakeholders can build without permission and then pay a penalty to have their property legalized.

Despite the fact that nowadays, the policy for master-plans is more decentralized, democratic, and participatory, the implementation is still dependent on detailed plans with prescribed densities, setbacks, and building-envelope requirements. So, the implementation becomes insufficient especially as far as it concerns informally built dwellings ‘demonstrating that traditional planning practice, couched in terms of neutral technical competence and public interest’ (Tsenkova, 2012), and remains quite similar to that of the previous policies. It is more than obvious that the regulatory framework ought to be deployed in a strategic manner taking into account future public requirements like the introduction of structural guidelines and standards such as minimum allowable plot sizes.

## **5. HISTORY AND URBAN DEVELOPMENT OF KOMOTINI**

Komotini is a very important urban center of Northern Greece. The area combines the mountainous scenery of Rhodope Mountains, with the fertile plains and the seas and lagoons in the south. The Municipality consists of 48.863 inhabitants. Komotini is the seat of the Administrative region of East Macedonia and Thrace (with administrative territorial jurisdiction over five prefectures), seat of the Municipality of Komotini and of the Democritus University of Thrace.

The first residential trace appeared in the 14<sup>th</sup> century on the ancient Via Egnatia (the main axis to the East) with the characteristics of a Byzantine town. In 1362 A.D. surrendered to the Turks, in 1912 during the Balkan wars the city came into the hands of the Bulgarians, and in 1920 was finally liberated. Komotini became the recipient of different tribes and cultures, mainly due to historical and political fermentations.

The city’s core is considered to be the byzantine fortress which was partly demolished in 1920. The first urban arrangement appeared within the fort and through time, settlements extended dynamically among the vital for the region river Mpoukloutza and Via Egnatia. Soon, a multicultural image was formed, with the Christian quarters within the fort and Muslim immigrants among the river sides. The river was vital for the inhabitants and determined the city’s form. In 1933, due to the massive settlement of immigrants from Minor Asia, was organized a town plan that followed the existing oriental tracings with the narrow roads and irregular blocks (Sofianou, Christoglou, & Papapavlou-Ioakeimidou, 2014).

The modernization of the city began after 1950, because of the vast urbanization increase during the second half of the previous century, with internal migrating from rural areas to the urban centers resulting in an urbanization of the rural land. In the 1960’s the river was diverted from the center as it had become a source of pollution. In 1974 the Democritus University of Thrace was founded, with Komotini as the seat and the first facilities in the center (there is also a recent campus at the west suburbs). In the late 1970’s was decided organized extension to the west with the creation of the Urban Control Zone, designed by important construction firms. The first project of regional planning (1982-’84) did not find any application and Komotini remained without a new masterplan. Up to recent years the city developed based on the plan of 1933, but in 1994 the Municipality commissioned a new General Urban Plan, which was completed in 2012.

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## **6. SPATIAL STRUCTURE OF KOMOTINI AND THE ‘FORMAL’/‘INFORMAL’ RESPONSES TO KOMOTINI’S HOUSING PROBLEM**

### **6.1 Specificities of city plan and allocation of central uses**

The modern city imprints all the historical and political facts that determined its development. Through time, Komotini evolved as a multicultural urban center and now presents many contrasts between its districts. The history center is characterized by high-density and labyrinthine narrow streets and blocks. Residents must cope with limited open air spaces, a measurable urban heat island effect, insufficient conditions of sunshine and natural ventilation and high concentrations of traffic pollution that fail to disperse from the numerous street canyons (Sofianou, 2014). Traffic congestion and lack of parking slots is very common, especially during peak hours. There is a great building stock underused, crowding and mix of uses, related to recreation, organized commerce and services.

South of downtown are located the refugee districts, the first example of Ippodamian system plan in the city, with small rectangular squares, dense housing and small public spaces. The massive influx of population arose the need for organized planning (until the 1920’s the city followed oriental patterns with no town plan), and thus introduced new terms of layout. At north side are located Muslim settlements with an introverted image. Labyrinthine blocks and very narrow roads, low houses and lack of common spaces are the main characteristics here. On the west suburbs stands out the Urban Control Zone (designed by important construction firms), which is based on the Ippodamian system, with public spaces in leading role, low dense housing and innovative infrastructure towards bioclimatic architecture.

### **6.2 Masterplan of Komotini**

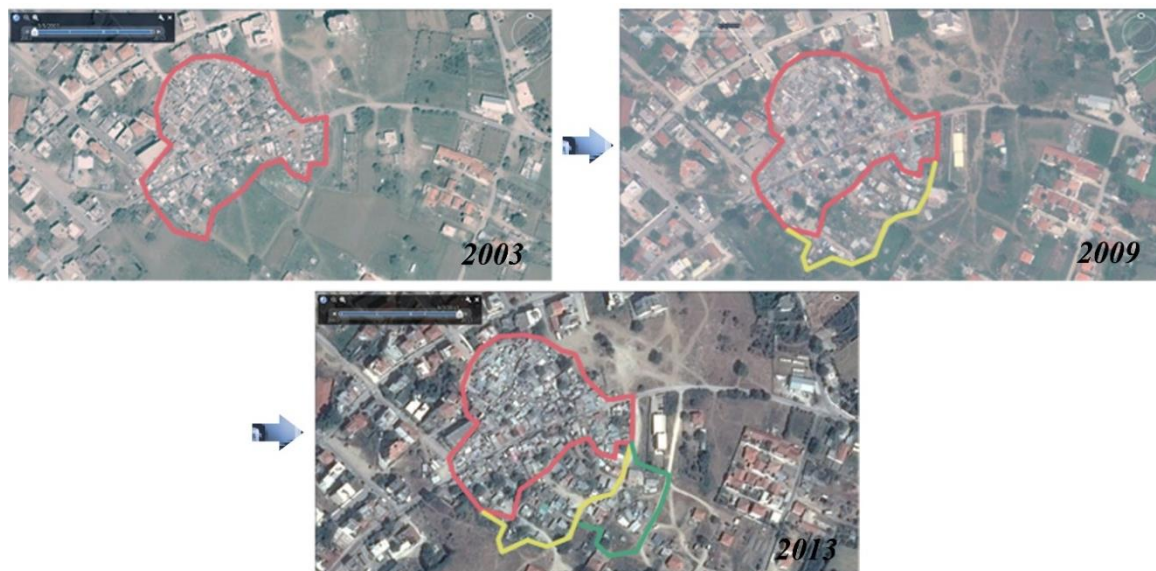
As mentioned above, in 1933 due to rapid population growth, a spatial plan was drafted. Until recently there was no clear urban and regional plan, or an integrated plan about Komotini’s expansions, especially referring to the informal settlements around the city, and land uses. In 1983, a project concerning the development and consistency of the city and the suburbs, began, however, the city’s particularities prevented the accomplishment of this task. In 2012 the elaboration of the new general Urban Development Plan of Komotini was completed, prioritizing the creation of Urban Control Zone in every direction around the city, siting and zoning of industry and wholesale functions at its entrances, management of residential areas in conurbations and new development zones (Sofianou, Christoglou, & Papapavlou-Ioakeimidou, 2014).

## 7. PERSPECTIVES FOR UPGRADE AND SUSTAINABLE DEVELOPMENT IN KOMOTINI: THE CASE STUDY OF ALAN KOJOU

In Komotini, as in many other Greek cities, informal settlements are considered to be a major factor shaping urban growth. The local government's resource capacities for integrating these settlements into the formal urban structure by providing basic community infrastructure services and regulating land management have been persistently insufficient. Regularization of informal land development should be done before a settlement densifies. The state ought to act swiftly and provide this regulatory framework for the sake of sustainability, increased property value and enhanced public health in the informal settlements (Kombe, 2005).

In Komotini the issue of these settlements' insalubrity and marginalization from a social and spatial point of view 'can be found in numerous studies regarding the quality of life in disadvantaged communities, especially Roma communities' (Nae, 2007). In the multicultural city of Komotini there are many controversial districts. As mentioned above, the eastern part of the city is less developed and not according to European standards. These are the neighborhoods of the Muslims and even worse, the impoverished illegal settlements of the Roma. There are two Roma settlements in the city. The main district is called Ifestos, which used to be established in the center up to 1935, and then forced on the west peri-urban area, about 3km out of the city center.

The second one is located on the east suburbs of the city, known as Alan Kojou or Teneke Mahalle – which means tin neighborhood. It is a slum neighborhood almost 400m. away from the city center, located in an area of approximately an acre, on low altitude (about 40m.). Alan Kojou is surrounded by various land uses and activities: the municipal swimming pool and gymnasium, schools, the multipurpose municipal center, other recreation activities, tennis and basketball courts, and every Saturday the municipal street market.



Picture 1: Evolution of the Alan Kojou slum.

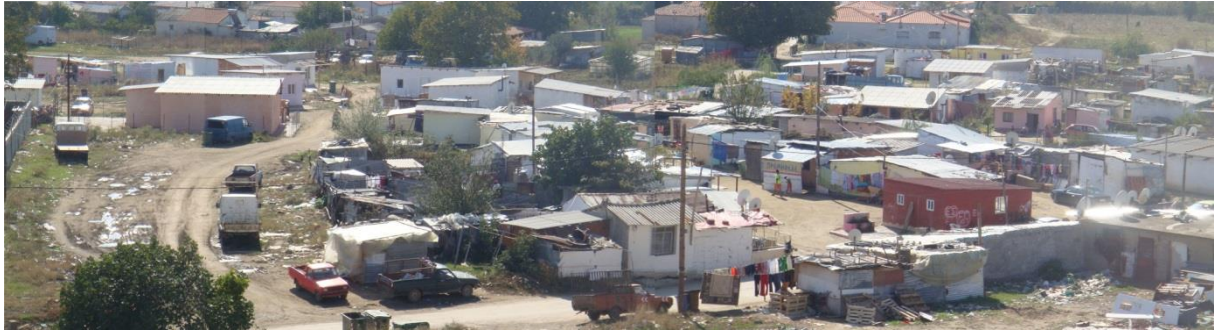
According to the Social Services of the Municipality, the total number of inhabitants is about 700, who live in shacks and corrugated huts. Although is nearby a housing district, is isolated from the rest of the city, because of its image of abandonment and the inhabitants attitude to leave no one trespass the neighborhood's barriers. The situation of the slum has been a scourge for many decades now, as it is not easy to upgrade and integrate it into the urban system. As a result, there are unhealthy conditions, social isolation and environmental decay.

The region was formed after the imposition of Roma families on public and private land within the urban fabric. As they could not be emitted, many citizens lost their properties. This settlement is considered to be a settlement for refugees and vulnerable people (generally are the roma mahalas, refugees e.tc.) and presents poor conditions, shacks built of recycled materials, plastic sheets, and leftover construction materials. It is indicative of this squatter type that it is on the suburbs of the city center, near a waste dump; many of such settlements, especially in the Balkans are generally found in the urban periphery, in pockets of marginal land close to industrial zones, railway lines and waste dumps (Tsenkova, 2012).

It is evident that Alan Kojou faces the common problems of most illegal settlements. For instance, it is not possible many times to define boundaries to these settlements as they rarely exist, and the settlements themselves often merge almost imperceptibly into formal areas of housing, industrial or rural areas. In addition to this, it is also very difficult to estimate the exact number of residents in these areas, as they may not be registered or officially recognized.



Picture 2: Allocation of Alan Kojou in the city.



Picture 3: Aspect of inside the slum.

Over a decade ago, a plan of relocating the families housed in the area in another region on the east periphery of the city was drafted. The project refers to the ‘Rehabilitation of former riverbed Mpoukloutza’ and aims to redevelop the axis of the former riverbed Mpoukloutza. The area is the connecting axis of the northeastern residential districts of the muslims and the Roma. (Manola-Gkountra).

More specifically, it refers to the relocation of the 207 families of Alan Kojou to a region of approximately 95.400m<sup>2</sup>, in order to help them obtain land and houses with all the public spaces and equipment required, as well as a field of 8000m<sup>2</sup> for recreational activities<sup>1</sup>. The basic aim is to create an area of low height structures and open air space with better living conditions and the sanitation and upgrade of Alan Kojou.

Unfortunately, it hasn’t been possible for this project to be realized, basically due to bureaucracy. However, recently has been defined the final unit amount for the expropriation of the land, and the Municipality is called to pay to the owners of the fields almost 930.000euros. The acceptance of the Council of the State to proceed with the acquirement of the new areas by the Municipality of Komotini ‘is the enclosure of the procedure and the project of the relocation to the new region of 100m<sup>2</sup>’ (Simeonidou, 2015).

It is clear that the project consists of two basic parts: the plan and relocation of the Roma inhabitants to the new area and sanitation and rehabilitation of the existing region of Alan Kojou. The phenomenon of isolating specific districts of the city is contradictory to the principles of sustainability and hampers the progress towards the sustainable city. In this climate of upgrade, given the relocation of Roma on the periphery, a proposal of rehabilitation of Alan Kojou could be introduced, based on the principles of sustainable development and tourism. The fundamental criteria of the proposal are to maximize the benefits of the regenerated region with affordable costs.

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<sup>1</sup> Information retrieved from the technical report of the Municipality’s urban study of relocation.

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Komotini is a city of medium size without enough open air green and public spaces. There is also a severe lack of concentrated facilities and a touristic attraction to promote the multicultural identity and the rich natural environment of the wider area. In these terms, is proposed the creation of a peri-urban park of supralocal character. This park could host basically uses of education and recreation, as well as other activities such as flee markets with local products, theatres, sports e.tc.

More specifically, is proposed a park with a technical lake reminding the role of the river Mpoukloutza and its significance for Komotini's life, and many routes and promenades for walking and cycling. There could be also constructed permanent or open exhibition buildings, based on the principles of bioclimatic architecture, as well as small scale indoor-outdoor cafeteria and restaurant. Also, outdoor events could take place in a temporary space nearby the main installations. At the rest of the park are proposed temporary facilities housing small laboratories or exchange of local products. Finally, is aimed the creation of a small music-theater scene, for small-scale events. Landscape design complete moldings based on sustainable design data (Sofianou, 2012)<sup>2</sup>.

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<sup>2</sup> This is a short presentation of a proposal that could be designed in the existing area and further details are not part of the purposes of this paper.

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## 8. GENERAL CONCLUSIONS

Rapid and unplanned urbanization, as well as the incapability to cope with the housing needs in urban areas during the last decades, have contributed to the development of informal settlements. In many cases, are organized dwellings without basic infrastructure, with significant health risks, as sanitation, food storage facilities and drinking water quality are often poor. Also, overcrowding can contribute to stress, violence and other social problems.

Theoretically, the dichotomy between the ‘formal’ and ‘informal’ city is crucial in the land management process. It will continue to influence one another even if the inhabitants belong to different socio-economic groups. These two subsystems are to co-exist in a non-conflicting manner, a number of measures, ought to be taken.

Informal settlements should not be seen as being a problem in themselves, but rather as a part of the solution to the chronic housing shortage (Jenkins, 1987). Since the mid-1970’s when the awareness of the informal urbanization problem was risen, became ‘apparent that the settlement problem cannot be solved without seeking greater participation from the community’ (Olivier, 1989). It is no longer enough for local elites to withdraw themselves from public life while blaming the poor for the instability and insecurities that have resulted from globalization and economic neoliberalism (Broudehoux, 2010).

Within what is now an international framework of reflection on urban conservation and urban planning policies, there is increasing awareness of the new demands. The various forms of illegal settlements are part of the modern cities’ image and the most appropriate means to deal with this fact is to integrate the existing informal areas into the urban fabric and to prevent their development through legislation and new technology tools. There is widespread agreement that resolving the ‘urban problem’ of informal settlements is related to the nexus of improved access to affordable land and housing as well the creation of efficient planning regimes (Tsenkova, 2010).

As far as it concerns greek cities, it is crucial that the state (central and local) ought to take pro-active measures and put in place an institutional framework for regulating land use development, so as to protect future public interests in the rapidly growing peri-urban informal settlements. In Komotini, informal settlements define great part of the city’s form and function. Alan Kojou, the most deteriorated district of the area, is a typical case of slums and needs strategic planning policies and political, economic and social support in order to be regenerated and integrated in the urban system. The idea is to provide public support and a regulatory framework prerequisite for the long-term integration of the informally acquired and developed land into the formal property administration and development system, and help the surrounding area regain its lost land value.



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## **BIOGRAPHICAL NOTES**

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