

## LAND-USE CONFLICTS AND ENVIRONMENTAL POLICIES IN TWO POST-SOCIALIST URBAN AGGLOMERATIONS: BUCHAREST AND CHIȘINĂU

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**Abstract:** We have researched theoretical framework to study land use conflicts in post-socialist countries that use an ecological approach. Our analysis is based on the latest experience of the two big East-European cities, Bucharest (Romania) and Chișinău (the Republic of Moldova), each of them having more or less similar communist past, but its own path to market economy and democratic society. The authors emphasize strong relationship of conflicting environment with land privatization reforms and environmental policies. They propose a conceptual framework for evolutionary analysis of the land-use conflicts in the post socialist period. The paper introduces the new concept of multi-scale land-use conflicts and provides a theoretical framework for conflict classification depending on the significance of the impact at micro-, medium- and macro-scale. Finally, applicability of this approach is exemplified on the Bucharest and Chișinău cities and their surrounding areas.

**Keywords:** Land-use conflicts, urban and regional planning, Romania, Republic of Moldova

### 1. INTRODUCTION

Land-use conflicts inside the big urban agglomerations and their suburban areas have a dynamics that takes into account a large number of factors. These factors experience permanent changes during the evolution that followed after the fall of a totalitarian regime, up to the appearance and consolidation of a democratic society and a market economy (Scott, 2008). If the planning system was an inflexible one in the period of the centralized economy and no spatial actor could go beyond its limits, the power and capital proved to exceed the stipulations of the new regulations in the transition phase (Walker & Hurley, 2011). The collapse of the state ownership of land and the transition to private property over the land outstripped regulations in the spatial planning fields of action as well as the capacity of the local administrations to generate and implement adequate land-use policies. This explains the chaotic urban restructuring and most of all, the chaotic extension of built-up areas (Petrișor et al., 2010). Furthermore, the spatial planning policies

failed to control the elements of land-use, which is one of the reasons why one cannot speak of real governance in the field of land-use (Robbins et al., 2009).

The great changes in using the lands took place without monitoring their conversion phenomena especially that, at first, these changes concerned confined surfaces. The factors of major influence – that led to changes in land-use and, subsequently, to conflicts – were mainly represented by the demographic pressure exerted by the cities and the important economic actors, when the society offered guaranties regarding the irreversible evolution towards the market economy. The institutional building was insignificant as compared with the market effects on the way of conversion and reconversion in land-use. In this context, the land-use was correlated much better with the personal interests than with the urban and collective economic ones (Heimlich, 2001), as the administrations has reduced capacity to efficiently use the controlling, guiding and supporting tools of urban and territorial development (Pascariu, 2011).

On the other hand, planners, generally speaking, have succeeded neither in performing as negotiators of private interests nor in reconciling them with the public ones in a space where, by excellence, different interests confront (Ianăși, 2010).

In such a context, the land-use changes led to diminishing of the biodiversity in the suburban and peri-urban areas, altered structurally the natural ecosystems and affected the social and economic structures of the rural communities (Sieferle, 2003, Jeanneaux & Mann, 2009). The strong impact of the big cities' direct and indirect demand of their suburban and peri-urban spaces have produced a fundamental change of the previous way of using lands and, from there, the emergence of some economic, ecologic, aesthetic, cultural and functional conflicts at the ecosystems' level.

The correct land management means implementing environmental policies that should valorize the basic functions of both the natural ecosystems and those transformed by man in historical times (Peptenatu et al., 2012). These basic functions generate what Egoh et al., (2007) defined as the concept of ecosystem services. These services result from the production, cultural, regulatory and living (habitat) functions of every complex ecosystem (De Groot et al., 2002). In other words, the urban ecosystem is a very complex and multifunctional one, where the first regulatory function is essential for both natural and anthropic components.

On such a general background, in many of the post-socialist states, the environmental policies was directly designed for the protection of natural environment – from noise, water, air and land pollution, coast erosion, wetlands, setting up national parks and natural reserves and was only indirectly aimed at dealing with elements resulted from the land-use changes. Whence, there is the necessity for a specific legislation on the suburban and peri-urban areas. It should intimately include green spaces in the urban development policies, while eliminating the opposition of "natural" land vs. transformed land, in a spirit of sustainable urban and regional planning (Haughton & Counsell, 2004). It is obvious that such legislation, in a first phase, would increase the number of land-use conflicts, but, in future, would assure the observance of clear procedures of transition from a category of land-use to another.

This study focuses on some analyses carried out for two urban agglomerations: Bucharest and Chișinău, which belong to two countries with a different post-socialist dynamics (Romania, respectively the Republic of Moldova). This study aims to define the dynamics of land-use conflicts as

well as the role of environmental policies in decreasing their emergence and aggravation.

## **2. LAND-USE CONFLICTS – AN ENVIRONMENTALIST APPROACH**

The land can be considered as a multidimensional concept that includes several categories of values of economic, spatial-cultural and affective-emotional nature (Abegunde, 2011), materialized and measured by the ways of use, respectively by supplying certain goods and services to the human communities. According to their quantity and temporal distribution, these values put in relation and frequently in competition the local actors (inhabitants, economic agents, social and cultural agents, different NGOs, etc.).

When the written and unwritten rules of the relations between spatial actors are not respected, the competitions related to the use of one value or another could degenerate into conflicts. The written rules belong to the juridical, urban planning standards, to the social, ethic and aesthetic rules stipulated in the documents drawn up at different levels of regulation; the unwritten ones depend on the mutual agreement among partners or neighbors regarding certain kinds of land-use. Generally, conflicts are perceived as states of turbulence (Hettne, 2002) at the level of some infra-local, local and even regional spaces with direct effects on the quality of the environment.

The land-use is the spatial projection of the result of the historical interaction between society and nature. The changes occurred in using the lands bear the mark of the local, regional or global imbalances that, by a trans-scale complex diffusion, take forms which are more or less concordant with the principles of the sustainable development of the human communities. The change materializes a conflict or sets of conflicts at the level of the land-use generated by the necessity to achieve some interests or to solve some problems, to mark certain performances of the human society. Its whole evolution implies an effort of adapting to the conditions of an increasingly fragile natural environment, to its own social-economic environment that is becoming less and less predictable. In this light, the emerging land-use conflicts can be regarded as an engine of the development of the society (Dahrendorf, 1990), inclusively by the improvement of the processes of land management at different scales.

Usually, the conflicts related to the land-use are progressing amid some major changes in the coupled human-nature systems. It is about the

pressure or excessive loosening of the society as compared with the components of the nature, its violent answer to the action or inaction of the society as a result of the cumulative processes and, respectively, the overlapping of the two. This explains the need of having – in the relations regarding the generation and solving of conflicts – adequate environmental policies that should optimize the extent of the societal interventions and guarantee preservation of the environmental goods (Vădineanu, 1998). On the other hand, we must also notice the necessary relationship between the environmental, land-use and spatial policies. At the level of the European Union, the environment is a regulated domain, differing in such a way from the domains of the urban and territorial development. In this context, the prevalence of the environmental policies can also be the source of certain potential conflicts.

To maximize the efficiency of the land resources, a collision of interests occurs: on one hand, the conflicts generated by the competition and cooperation among the actors of a territory and, on the other, those related to the restoration of balances, including the natural ones. Different interests can be found behind each individual actor: the biological existence, achievement of a profit, promotion of an altruist image, etc. These interests have to fit in the local, regional, national, continental and planetary communities. According to these interests, the land-uses are aiming to answer by proportion and typologies to the specific requests of the communities.

Beside the changes experienced by the urban space, those affecting the urban fringe are usually much more radical and sharp. The cities in the post-socialist states have had different dynamics at the levels of the urban and suburban - peri-urban space. These dynamics are differentiated between the two analyzed countries, Romania and Moldova, as Romania passed quickly from communism to capitalism, while Republic of Moldova has a much slower transition. The land-use conflicts are correlated with the dynamics of the market economy and democracy when the capitalist type of relations, specific to the democratic society, did consolidate. But this route was not a linear one; on the contrary, it was strongly infested by phenomena specific to any transition that, however, took anachronistic forms.

The conflicts related to the land-use are new in both countries as the de facto land owner, in the period of the centralized economy, was the State although local communities enjoyed formal ownership of the lands too. The decisions being taken at a central level, they would not have

generated conflicts in such conditions. Certain conflicts existed only in the mountain areas where there were no cooperatives or at their boundaries with the state properties, the latter provoking frequently tense situations that generated local conflicts.

The environmentalist approach of the land-use conflicts assumes an analysis of the way these conflicts are considered in the light of the complex relations both with the natural environment and with the other types of environments: economic, social, cultural and ethic. The state of the inner urban environment and that of the city surroundings depends on the way these conflicts are solved if we take into account the ecological value of the land given by its use.

### 3. CASE STUDY AREAS

The two urban agglomerations comprised in the study refer to the cities of Bucharest and Chişinău, both being analyzed together with their suburban spaces. The two cities create pressure elements on both the internal urban environment and the environment in which they are inserted. This pressure is given by the exerted demographic pressure, of about 2.5 million inhabitants in the case of Bucharest's urban agglomeration and by the almost 900,000 inhabitants in the case of Chişinău's one (Fig. 1).



Figure 1. Localization of the case study areas

The structure of the territory surrounding the two cities is complex and dominated by agricultural lands, fragmented by the emergence of certain lands with other uses, such as those covered by forests and waters or lands with a military destination (forts, shooting ranges, military training, etc.) as well as those used by the big transport infrastructures. In the conditions of an excessive urban pressure, these two categories of lands generate conflicts due to their force of attraction in the real estate field.

At the same time, we have to mention that the process of returning urban buildings and properties, the sale-buying processes that followed, the loss of some properties belonging to the public estate (by judicial decision), the transfer of certain lands from the public estate to the local authorities' private estate (making possible their concession or sale subsequently) were the elements generating the increase of the number of conflicts related to the land-use within the cities and, especially, in the case of Bucharest.

#### 4. CONCEPTS, DATA AND METHODS

In analyzing land-use conflicts, we started from the premises that such type of conflicts can be examined from two perspectives:

a) subjective, generated by a competition between two parts over the same resources, each of them having their own interests or between two parts affecting a third one;

b) objective, by which the general interests of the communities or society on different scales request a change in using the lands in order to conserve the values of the natural environment or those of the built one.

It results that there are land-uses affecting directly two competitors or even two neighbors and other ones endangering by direct or indirect impact the quality of the environment in a territory associated to a bigger community. It is obvious that, behind these conflicts on land-use, conflicts related to the property rights can occur repeatedly.

The data used in this study came from the Ministry of Agriculture, from different judicial services, from processing information provided by mass-media as well as from 50 interviews with the inhabitants of the two cities and the suburb dwellers.

The descriptive and correlative analyses of the information and of the statistical data collected from the above-mentioned sources are the main methods used in this study.

#### 5. RESULTS AND DISCUSSIONS

##### 5.1. Temporally differentiated dynamics of the land-use conflicts

The first category of results is represented by the graphic transposition of the sequence of conflicts in the two cities and surroundings, offering a basis to make a comparative analysis. In Romania, the city of Bucharest and its surroundings experienced the main moments related to the land reform and land restitution. As it can be noticed from figure 2a, there

are two peaks with a maximum of conflicts determined by the implementation of the Land Law in 1991. Such conflicts appeared earlier, immediately after the first measures of distribution of the lands into use, according to the Decree no. 42/1990; they amplified in the years 1991-1993, decreasing subsequently.

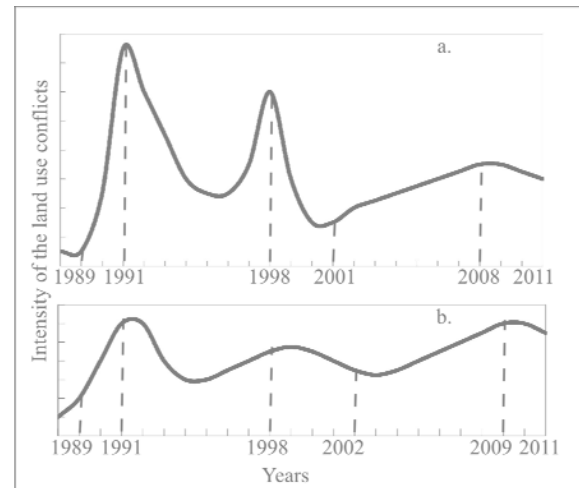


Figure 2. General dynamics of the land-use conflicts. a. Bucharest city and surroundings; b. Chişinău city and surroundings

A second peak is attained together with the appended 1991 Land Law, by which the state agricultural enterprises were dissolved, the lands being returned to the former owners up to a surface of 50 ha (previous limit according to the law from 1991 was 10 ha). It followed a period characterized by the rapid decrease of the conflicts reaching a minimum in 2001, and then increasing gradually as the price of the land went up in the conditions of the urban expansion of Bucharest.

The conflicting situations occurring in the peri-urban surroundings of the capital can be related to the defective way of drawing up spatial development plans (i.e. General Urban Plans), by including big surfaces of agricultural land in the built-up areas and implicitly their transformation in a buildable land. At the intra-urban level, in the capital case, we can notice a reversed situation, namely the tendency to protect and increase the green surfaces. The regulations of the 2000 General Urban Plan taking this tendency into account generated the discontent of some land owners who considered their interests prejudiced (it is the case of Bordei Park, certain areas adjacent to the stream channels of the rivers Dâmbovița, Colentina or to the Tineretului Park, etc.). The conflicts at the intra-urban level also increased after 2000 in the historical areas as a result of adopting urban protectionist regulations that generated the discontent of the owners, but especially of the real estate

speculators. This kind of conflicts caused in 2000 a development of the so-called "derogatory urban planning" that favored private interests in the detriment of the public ones and an unfair and abusive evolution of the built environment contrary to the sustainable development principles (Derer, 2010).

In the case of Chişinău and its surroundings, although their development was somehow similar to those of Bucharest, the intensity of the conflicts was more indistinct due to the different local conditions. One of these is essential: the refuse of ex-property restitution ("Restitution of lands to former owners and their descendants is not allowed"! – Quotation from the Land Code of the Republic of Moldova, 1991, art. 4). Thus, the beginnings of the land-use conflicts in the Republic of Moldova can be related to the USSR framework law on the lease (November 1989) that allowed private persons to lease agricultural lands. The period of independence was marked by land privatization.

The transfer of the properties from the State to the private owners developed in two phases, each of them being correlated with increase of the intensity in conflicting environment (Fig. 2b). The "Small privatization", having its maximum extent in 1991-1992, concerned the transfer of the land plots next to the house, to private property. The plots' area eligible for privatization in this phase varied between 0.3 and 0.75 ha. The "Great privatization" began after the approval of the Land Code in December 1991 and of the Law on the Rural Farms in January 1992 and developed in two sub-phases. In the first sub-phase (1992-1996) privatization started by distributing the landownership certificates were distributed among the potential beneficiaries ("property on paper"). The certificates were designed to prove the right to the landownership prior to physical allocation of the plots that was practically nonexistent at this sub-phase. All the lands, eligible for privatization, were involved in this phase. This process has led to the increase of the potential of land fragmentation and of conflicts. If the Moldova's average surface eligible for a land ownership title was 1.5 ha, around Chişinău, a more dense populated area, this surface was about 1.25 ha. The fragmentation of the properties has to be added to this as 75% of the owners had their properties divided between 3 and 6 plots (Gorton, 2001). In the second sub-phase, starting with the removal in January 1996 of certain legal constraints stipulated in the Land Code, the physical allocation of the land plots was more facilitated, becoming massive in 1998 simultaneously with the development of the National Land Program. This program practically finished the process of allocation of lands to the

peasants by the end of 2000 (Lerman & Cimpoeş, 2006). This second sub-phase coincides with the second peak of the graphic, the intensity being accentuated because of the activation of conflicting potential created in the first sub-phase.

Once the process of allocation of properties ended and due to gradual regularization of the relations in the land estate, the intensity of the conflicts began to decrease and reached a minimum around the years 2002-2003. After this, the dynamics of the conflicting environment in Chişinău and its surroundings is subject to the same rules as in the area of Bucharest, excepting a difference in what regards the impact of the 2008 financial crisis (caused by the phenomenon of the postponed demand). However, in Chişinău the pressure on the lands has never attained a similar level with the one in Bucharest with all the similarities and differences, thus being explained a more reduced intensity of the conflicting environment.

In such a context, it is necessary to make a distinction between the individual conflicts and the collective ones regarding changes in the land-use. The individual conflicts have such characteristics as limited effects and a greater frequency in the residential areas that are not the creation of developers, but the result of the process of densification of the built-up surfaces by building individual houses. The most frequent individual conflicts concerning the land-use were generated by the construction of access roads to properties. This situation is due to the land salesmen who divided land and sold the plots to individual owners without a previous tracing and provision of the access roads to properties. Their subsequent tracing generated numerous conflicts regarding the initial property prejudice. This type of conflicts is also generated by an inadequate land-use policy as well as by the noncompliance with the legislation regarding the division of buildable lands.

The collective conflicts on the land-use have as a basis the aggressiveness of developers or individual owners who obtained the lands included in the community's patrimony in more or less obscure ways. The interests of the communities were affected because of the new uses they gave or intend to give to the new surfaces that belonged, as a matter of fact, to some spaces with traditional uses in the advantage of the communities (parks, forested surfaces, lakes etc.). Civil organizations, citizens or even some local authorities noticed such aggressions with regard to the public spaces (Woods, 2003). The way these conflicts developed shows how important would have been to define specific tools necessary to respect the environmental policies in the process

of the chaotic extension of the city. In Bucharest, such aggressions took place since the first years of the transition – a phase of a relative "legislative void" (1990 – 1995) – by transforming certain green areas (plant nurseries) in residential areas (the French Park – Șoseaua Nordului / Northern Road – "Ion Țiriac" development).

**5.2. The correlation between processes, changes and type of land-use conflicts.**

A deeper understanding of the processes regarding the changes of the land-use that generated conflicts shows us we deal with complex correlations among processes, changes and types of conflicts (Fig. 3).

We can notice in more than two decades of post-socialist evolution a direct correlation among the various processes that were initiated by punctually temporal decisions, land-use changes due to them as well as passing from conflicts on properties to multi-scale ones with great importance at the level of communities.

As one can notice in the above-mentioned figure, the first decade of the transition was characterized by the dominance of the conflicts on

the property, especially in the suburban and peri-urban space of the big agglomerations. Privatization of some state properties also generated land-use conflicts by changing the initial way of use. The frequency of the land-use conflicts was much more increased at the urban level revealing itself especially by the change of the height regime of the new buildings much increased in areas known as being traditionally of a lower height. These conflicts had as a base the incompatibilities between the new uses and their vicinities. In the case of Bucharest, the first regulations in this respect are issued only in 1996. The stipulations of the General Rules of Urban Planning (RGU) refer to the interdiction to exceed with more than two floors the neighboring buildings (RGU, art. 31). However, this condition could be broken by approved documentations of urban planning. But the capital benefits from such specific regulations only after the approval of the General Urban Plan (PUG) in December 2000.

After 2001, the passing from the individual conflicts to a complexity of conflicts developed on multiple scales seemed to be much obvious, hence the categories of multi-scale land-use conflicts are generated by both aggressions and localizations.

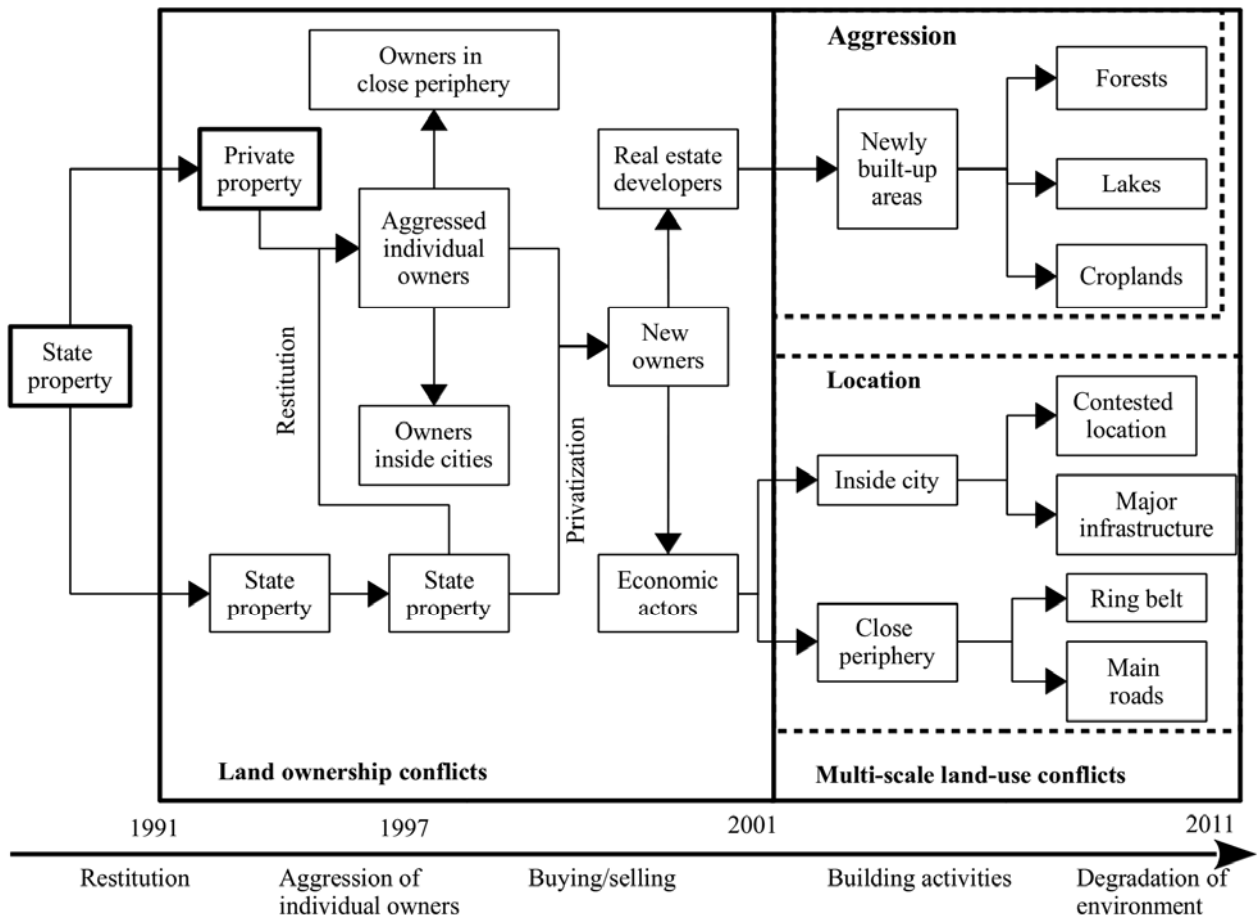


Figure 3. Evolutionary framework of land-use conflicts analysis in the post-socialist space

The aggressions are regarded in correlation with the new buildings that affect the environmental values of the communities while the localizations have a different impact inside the city and outside it. For instance, there were many contested localizations within Bucharest, but also the loss of certain urban values by the construction of some megalomaniac infrastructure developments (Basarab Bridge, artery connecting the north and south of the city – the so-called "diametric" Buzești – Berzei – Uranus) or constructions at a monumental scale (Cathedral of People's Redemption, "Esplanade" Project or Dâmbovița Centre Project, office towers, etc.). We see the same contestation of the localizations in Chișinău, but also the tacit demolition of the architectonic monuments, street enlargement (Izmail Street), etc.

Such conflicts in the spaces close to the city were generated by the change in the way of using the lands along the city road / railroad belt and the city entry roads.

### 5.3. Individualization of the multi-scale land-use conflicts.

The detailed study at the level of the urban agglomerations such as Bucharest and Chișinău has led to the individualization of three categories of multi-scale land-use conflicts (Fig. 4.).

The multi-scale aggressions can also be emphasized in comparison with a certain functional dominant. Thus, at the micro-scale we can observe the conflicts generated by the neighboring relation between residential areas and inadequate services (for instance, car-services, car wash, workshops and storehouses for construction materials), between (high) office buildings and religious buildings or individual residences; at the medium-scale we can identify a series of conflicts at the level of a neighborhood or a suburban settlement generated by the development of big commercial centers and services

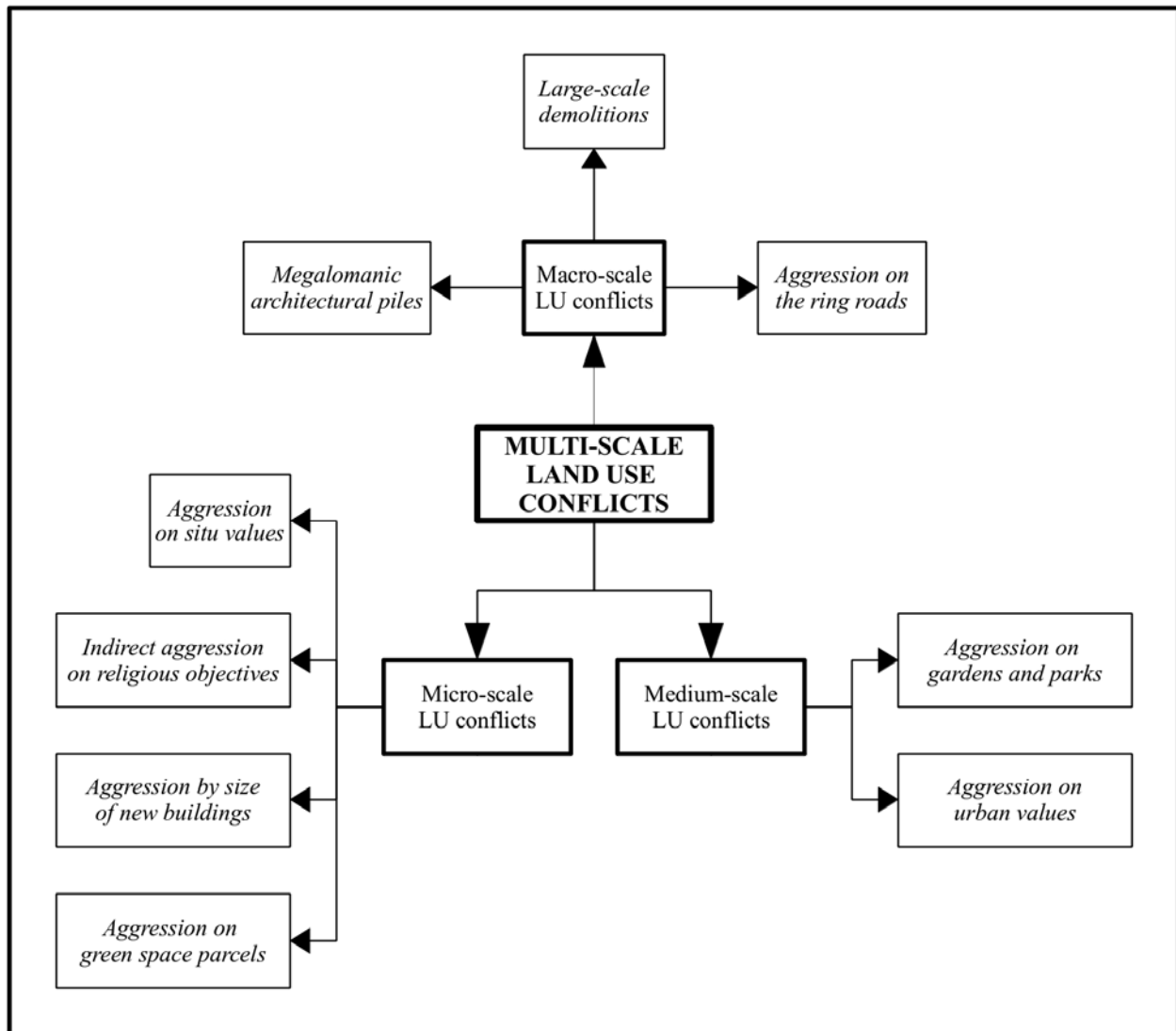


Figure 4. Classification of multi-scale land-use conflicts

or new residential and industrial areas on green fields with agricultural destinations or occupied by plantations; conflicts appear at the macro-scale being generated by big urban and territorial equipment or ample expansions in the vicinity of certain elements of natural environment that alter deeply the landscape (residential invasion in the lake area near the Bucharest: Cernica, Snagov, Mogoșoaia, Fundeni) (Fig. 5).

The three categories of conflicts can be found in the urban and peri-urban spaces of Bucharest and Chișinău, with obvious differentiations related to their size and to the territorial impact they have on these conflicts. In this context, at the level of Bucharest and urban agglomeration, the micro-scale conflicts can be found in the urban space itself, but especially in the rural-urban interface particularly in its South. Those that are inside the city are expressly dominated by conflicts generated because of the exaggerate size of the newly built constructions, by the hiding of certain buildings with public functions, such as the religious ones (Millennium building across the Armenian Church or Cathedral Plaza across the Catholic Cathedral "St. Iosif"). Aggressions that had a reduced (temporarily or permanently) impact on some public gardens (Cișmigiu, Grădina Icoanei) or parks (Herăstrău, Floreasca, Tei, Drumul Taberei, Carol I) were recorded directly or indirectly in other situations (Fig. 5). Among the conflicts with an impact at the medium-scale, some of them are pointed out, namely those generated by the powerful aggressions on the urban space by demolitions and construction of the boulevard on the route Buzzești-Berzei-Pârvan, on the green fields with an agricultural and forestry use in the North of the Capital (e.g. ex-orchard of the University of Agriculture and Veterinary Medicine), on the Văcărești Park) and so on. Such conflicts can also be found in suburban areas, overlapping on the new residential areas near the villages Domnești, Cornetu, Corbeanca, etc., or within certain settlements such as Buftea, Mogoșoaia, Balotești, Măgurele, and Pantelimon (Fig. 5).

The conflicts considered to have effects at the macro-scale level are noticed both in the city and outside it. The most striking conflicts at the macro-scale level inside the city are those generated by the construction of the Basarab Bridge that, beside the disturbances introduced permanently in the relationships among the economic actors in the area, also represents an element of aesthetic distortion. The urban environment is overwhelmed by such a super-dimensioned infrastructure as compared with its function. Another conflict at the macro-scale level in the urban space is the one regarding the construction of the big orthodox cathedral near the

Parliament Palace (even if it is placed near such an element that is already over-sized and in an area with massive constructions).

There are many other elements in the urban space generating land-use conflicts, such as the new surfaces built in the detriment of the agricultural land in the Western part of the city along the A1 motorway, the two big landfills from Glina and Sintești-Vidra, the total transformation of certain spaces by the construction of the A3 motorway (the transformation is also completed by the new residential areas between Pipera and Voluntari), the major space restructuring in the Snagov-Isvorani area and so on (Fig. 5).

All these conflicts accompanying massive territorial planning operations need not only urban planning policies but also policies regarding the preservation of the quality of the natural and built environment (Herea, 2010). The environmental policies have to focus on the urban-suburban couple, thus being avoided the regulation of the issues by each administrative units separately. The current way of monitoring the environmental problems of this complex territory is under the jurisdiction of the Regional Agency of Environment Protection (ARPM) of the 8th Region Bucharest-Ilfov. This approach at the regional level goes back to 2003. Previous to this date the coordination belonged to two major territorial entities: Bucharest-City and Ilfov County. In the case of Romania and Bucharest, the years 2000 represent a phase of intense achievement of a more coherent and more efficient system of applying environmental policies having as a background the preparations to join the European Union. ARPMs have, among others, the role to draw up and to implement the Regional Action Plans for the Environment Protection (PLAM) under the coordination of the National Agency of Environment Protection (ANPM). In the land-use field, the role of ARPM means to participate in the process of notifying the documentations of urban planning and in applying the procedures regarding the environment impact assessment (EIA) and the strategic environment assessment (SEA) for plans and projects. The control of the land policies is emphasized generally by the attention given to the maintenance of the green spaces, assurance of a balanced weight between these and the built-up surfaces, assurance of sunny areas and solving the problems related to water management and to air and soil quality. Unlike in Bucharest, in Chișinău and its surroundings land-use conflicts, even classified according to the same pattern, were more reduced in intensity at all scales. The high buildings in the old center stand out at a micro-scale level, thus being offended the conditions of protecting the city center, which is under the state protection as a historical center.

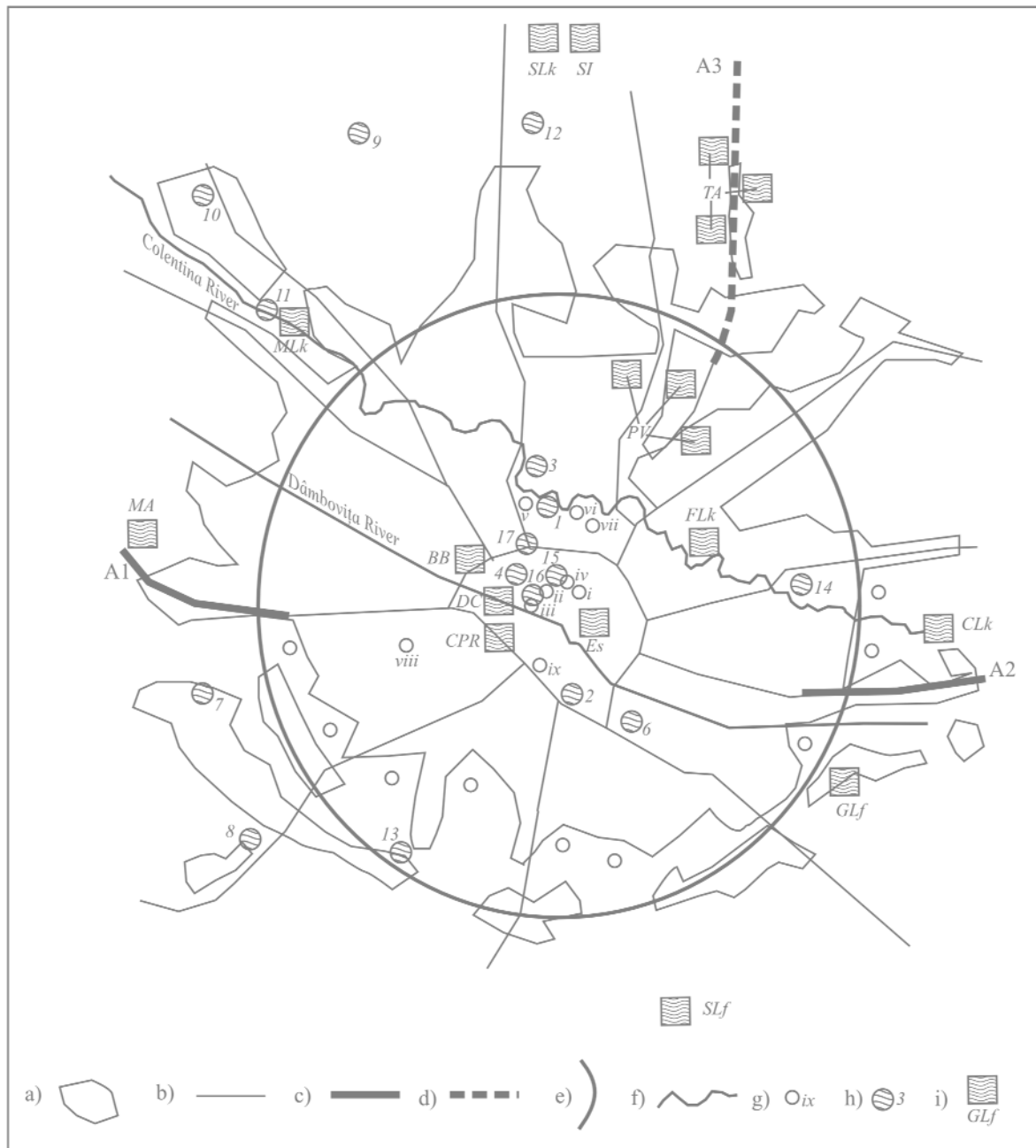


Figure 5. General distribution of the multi-scale land-use (LU) conflicts in Bucharest and surroundings. Legend: a) built-up areas; b) main roads; c) motorways; d) motorway under construction; e) by-pass road; f) river; g) micro-scale LU conflicts, h) medium-scale LU conflicts; i) macro-scale LU conflicts.

**Micro-scale conflicts:** Millenium Building (*i*); Cathedral Plaza (*ii*); Cișmigiu (*iii*) and Grădina Icoanei (*iv*) public gardens; Herăstrău (*v*), Floreasca (*vi*), Tei (*vii*), Drumul Taberei (*viii*) and Carol I (*ix*) parks. **Medium-scale conflicts:** Bordei (*I*) and Tineretului (*2*) parks; French Park – Șoseaua Nordului – ”Ion Țiriac” development (*3*); Buzești-Berzei-Pârvan route (*4*); ex-orchards of the University of Agriculture and Veterinary Medicine (*5*); Văcărești Park (*6*); Domnești (*7*), Cornetu (*8*) and Corbeanca (*9*) villages; Buftea town (*10*); Mogoșoaia (*11*) and Balotești (*12*) villages; Măgurele (*13*) and Pantelimon (*14*) towns; Piața Romană (*15*); Cișmigiu Park (*16*) and Piața Victoriei (*17*). **Macro-scale conflicts:** Basarab Bridge (*BB*); Cathedral of People’s Redemption (*CPR*); ”Esplanade” (*Es*) and Dâmbovița Center (*DC*) projects; Cernica (*CLk*), Snagov (*SLk*), Mogoșoaia (*MLk*) and Fundeni (*FLk*) lakes; Militari – A1 motorway (*MA*); Glina (*GLf*) and Sintești-Vidra (*SLf*) landfills; Tunari – A3 motorway (*TA*); Pipera-Voluntari (*PV*) and Snagov-Isvorani (*SI*) areas.

The progress of the built-up area produces conflicting situations both outside the city and in the suburbs, especially when the green areas (parks, forest-

parks in Rîșcani, Ciocana, and Valea Morilor etc.) from the built-up area as well as the agricultural land from neighboring communes are aggressed (Fig. 6).



Figure 6. General distribution of the multi-scale land-use (LU) conflicts in Chişinău and surroundings.

Legend: a) built-up areas; b) main roads; c) micro-scale LU conflicts, d) medium-scale LU conflicts; e) macro-scale LU conflicts.

**Micro-scale conflicts:** Rişcani (*i*), Ciocana (*ii*) and Valea Morilor (*iii*) forest-parks. **Medium-scale conflicts:** Balkan Road (*1*); Valea Morilor Lake (2), central area (3), the Circus (4) and Izmail Street (5). **Macro-scale conflicts:** National Stadium (*NS*); wastewater treatment plant (*Wts*) and Țiņăreni landfill (*TLf*).

At the medium-scale, we can observe the conflicts having a greater impact and more aggressive actions on the green areas and urban values. Thus, we can quote as examples the aggression of the residential area on the woods along the main Balkan Road in the west of the city; the area of the Valea Morilor Lake, drained for cleaning, abandoned for many years while discussions are focused on the future of the area (reestablishment of the recreation area or creation of a residential and business complex on the lake shore) (Fig. 6).

The conflicts on the architectonic monuments are numerous, however, punctual in the central area of the city. The Circus area has two sensible points: on one hand, the Circus building, a symbol of the city, is practically abandoned and neglected; on the other hand, it was proposed to build a sport complex in the neighboring area (partially a swampy land, partially a young park). The idea was in the meantime abandoned, but the works remained unfinished. Even if we cannot talk about massive demolitions (like in Bucharest), the extent of some reconstructions (Izmail

Street) and amplitude of the conflicts on certain monuments attain high tensions (Fig. 6).

At the macro-scale level, the National Stadium area can be pointed out first of all. The old stadium, built in 1950s, was demolished as another modern one to be placed instead. Demolished buildings cover an extended area; however, the future of this area is uncertain. Another conflict is emerging around the wastewater treatment station. Its localization close to the built-up area generate unpleasant smells felt by all the Eastern part of the city, provokes conflicts with the neighboring commune (where the station leases lands to store solid materials) and hampers the expansion of the city Eastward. We could also add the case of the Țiņăreni landfill. Its localization is related directly to the vicinity of the city, although it is not a part of the urban-rural interface and it is outside the area of analysis. The landfill affects neither the city nor its perspective of extension, but it causes conflicting situations both at the local level and in the civil society at the municipal level. Although its storage capacity has not reached initially planned volume, its operating period ended in 2010 and has been extended by several years. The case doesn't seem to come closer to an acceptable ending (Fig. 6).

These are just a few examples of conflicts meant to show, to argue and to justify the typology this work proposed. The post-socialist reality reveals that any initiative to modify the state-of-the-art generates conflicting situations of variable intensities. The more radical the proposed change, the higher the intensity of the conflicting environment.

## 6. CONCLUSIONS

The land-use conflicts in the post-socialist countries are the phenomena that strictly follow the implementation of the agrarian reforms and of those regarding property restitution (lands, buildings, water objects, etc.). These conflicts reach a maximum immediately after the application of corresponding legislation, subsequently being very sensible to the fluctuations of the real estate market and to the developers' speculative actions.

The spatial planning actors, looking for the construction of an individual environment better correlated with the pursued interests, change the land-use type affecting seriously the fundamental elements of the sustainable development. Animated by economic profit, by winning of certain advantageous positions with regard to the offer of the natural environment, these actors benefit from an inconsistent or even permissive legislation and from

public administrations devoid of an environmentalist culture, interested by fast developments and on short terms rather than by the development of coherent medium- and long-term policies and strategies or by the consequent application of certain principles and rules of sustainable development, maximizing the unexpected opportunities. The consequence is the multiplication of the critical situations that cause conflicts.

The analyses carried out show that the leaders' megalomania (at the local or central level) passes through the political systems and lead to conflicts, usually at a macro- and medium-scale, by large, oversized infrastructural facilities as compared with their role in the urban systems. These facilities affect in a much stronger way the urban space than the suburban one.

In counterweight with the scale public works, the individual ones by the economic or residential actors affect especially the urban outskirts and the suburban-peri-urban areas but they also occur frequently in the central-historical area of the cities, the main aggressions being on the patrimony values. Even if the interventions are individual causing conflicts at the micro-scale level by processes of addition, they change crucially the land-use structure. The generation of the conflicts is not immediate, but in time, if there is no intervention by implementing some correct environmentalist policies that should create discontinuities in the built space and to keep the values of the natural environment, then great distortions will appear with direct effects on the neighboring big cities. As it has been said, the application of the environmental policies and the creation of new protected areas generate conflicting situations in the phase of preparing the interventions, of drawing up land policies and plans of territorial and urban planning. The new tendencies in the recreational activities need a more focused planning, which promote multiple-use trails as an efficient way to reduce the potential conflicts (Jacob & Schreyer, 1980).

Mandatory transparency of the development processes and decisions leads to conflicts between the community and administrations due to the reactions of the NGOs /civil societies that are active in the field. In these conditions and in the last decade, the implementation of the community acquis elements (in the case of Romania and Bucharest) transferred partly the moment of land-use conflict to the phase of preparing the intervention (see stopping of certain interventions especially in the historical center of Bucharest or peri-central area: tower-building in Piața Romană, the tower-buildings from Cișmigiu Park or the tower-building in Piața

Victoriei (Fig. 5)) and not in its course or post-factum, exemplifying a passing towards a functioning of the society closer to the western model. The experience of the two decades of post-socialist evolution shows that the lack of a balanced legislation and of some integrated strategies of spatial development that should exceed the administrative limits and should take into account the optimum insertion of the environmental policies into the territorial development policies can generate conflicts related to land-use. The urban-rural interface requests a special attention taking into account the chaotic urban development, the aggression on the green areas, lake surfaces and agricultural lands (Young, 2003) the effects of amplification of conflicts by the differentiated spatial dynamics with uses that are reciprocally incompatible.

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