

**FORMS OF URBAN  
G R O W T H    I N  
SOUTHEAST EUROPE:**

**TRANSITIONING  
TOWARDS URBAN  
RESILIENCE AND  
SUSTAINABILITY**

**VOLUME 2**

*Edited by*

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Slavka Zeković**

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Miodrag Vujošević and Slavka Zeković

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**THE ROLE OF MARKET AND  
STRATEGIC PLANNING AND  
GOVERNANCE IN URBAN GROWTH  
AND DEVELOPMENT: THE CASE  
OF THE METROPOLITAN AREA OF  
BELGRADE (SERBIA)**

**Compendium of contributions of the  
IAUS team to the Project TURaS**



**T U R A S**

TRANSITIONING TOWARDS URBAN  
RESILIENCE AND SUSTAINABILITY

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## **2.1. Survey of planning documents - standards and regulations, spatial and master plans, plans for regional development**

**Slavka Zeković and Miodrag Vujošević**

This contribution represents a revised version of reports for TURaS. It is comprised of two parts. In the first part, a number of national and local legal provisions on the utilization of agricultural and forest lands, respective conversion into urban (construction) lands and zoning in Serbia is presented. In the second part, the provisions of some national and local (Belgrade) strategic documents with regard to land use and urban construction policy are briefly discussed.

### ***2.1.1. National and local legal provisions in Serbia on the utilization of agricultural and forest land, respective conversion into urban (construction) land and zoning: legal basis and procedures***

#### **2.1.1.1. Introduction**

All key aspects of the utilization and management of agricultural and forest lands, respective conversion into urban (construction) lands and zoning have been defined by a number of national and local legal acts (laws, legal decisions, ordinances, regulations, etc.), which have been passed and subsequently renewed/modified in the more recent period over the past decade or so, e.g.:<sup>1</sup>

- *The Planning and Construction Act* (2003; 2009; 2010; 2011–2015; henceforth: PCA);
- *The Act on Agricultural Land* (2006; 2009 and 2015; henceforth: AAL);
- *The Forestry Act* (2010; 2012 and 2015, henceforth: FA);
- *The Act on National Land Cadastre* (2009; and 2010; henceforth: ANLC);
- *General Regulation on the Parceling-out and Construction of Land Lots* (2011);

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<sup>1</sup> All sources (acts and other legal regulations, strategic documents, etc.) are available at the Institute of Architecture and Urban & Spatial Planning of Serbia, Belgrade.

- *Ordinance on the Conversion of Land-lease to Land-property* (2010 and 2011);
- *Legal Decision on the Land Zoning in the Belgrade City Area* (2009; 2010; 2011; and 2015);
- *The Law on converting the land-use right into the right on property of construction land* (2015).

### **2.1.1.2. Legal regulatory framework defining the conversion of agricultural and forestry land into urban and construction land: general aspects**

The *Planning and Construction Act* (henceforth: PCA, initially passed in 2009, than modified and supplemented in 2009, 2010, and 2011–2015) defined key legal provisions regarding the status and planned use (“planning destinations”) of urban and construction land (henceforth: UCL). A general intention of the Act is to use UCL for construction and other related purposes in legal, regular and rational way, in accord with the “planning destinations”, as defined by respective urban planning documents (Article 82 of the PCA). However, the planning documents in question (various urban plans and regulations) must not change the property status of UCL. What urban development documents may define pertains to the conversion of UCL, from agricultural land to construction land. The Land Cadastre should be informed about this change in due time, so that it may appropriately keep evidence of it (Article 87 of the PCA). The PCA stipulates that a proper compensation ought to be paid for this conversion, by the owner of the property lot, and should be fulfilled prior to issuing the planning use permit. To note, this provision of the PCA does not apply to the changes based on the respective legal acts and development planning documents adopted before 1992. Also, this does not apply either to the “objects” under the procedure of legalization (based on the PCA as well) or to the construction projects of general interest (for the Republic of Serbia, autonomous provinces or local authorities (“local autonomous territorial units”).

In the particular case of the land conversion made possible on the basis of the respective spatial and urban development documents (stipulated by the pertinent legal acts, and based on appropriate by-laws, issued by the sector minister/ministry), usually a new parceling out of land plots is implied, which should be specified by a general and detailed regulation plan (Article 28 of the PCA). The Land Cadastre should keep regular and detailed evidence of these changes (properly mapped) as well, upon which local fiscal authority is informed (Articles 66 and 67 of the PCA). Also, all interested parties are guaranteed access to relevant information on the matter. Regarding this, in legal changes introduced in 2011, a new instrument was promulgated, i.e., redistribution of urban land/ urban land readjustment/ urban land management (*urbana komasacija*), which applies to the conversion of construction land into public property and/or for public purposes. The idea behind introducing this new instrument is to define a more rational utilization of small and fragmented

urban plots.<sup>2</sup> The pertinent procedure is initiated and organized by responsible local authority (*jedinica lokalne samouprave*).

It should be mentioned that the penalty provisions (fines) of the PCA are set forth at a relatively low level, for breaching of more or less all cases, e.g., illegal construction, improper issuing of planning/construction permit, etc. (Articles 203 and Article 210 of the PCA).

### **2.1.1.3. National and local regulations on zoning and land use densities**

In the case of general/master urban plan and general regulation plan, the PCA (Articles 24–26), put in use a number of development planning instruments that apply to zoning, viz.: parcelling out of land for specific purposes, the so-called “compact land tracts” (*posebne prostorne celine*) and zones; major (predominant) use of land within the zoning schemes and compact land tracts; obligatory detailed zoning regulation; and regulations on spatial organization and construction for urban lands for which detailed regulation is not obligatory by law. The preparation of a detailed regulation plan is obligatory for all settlements, or their part. In Article 27 of the PCA, appropriate and detailed provisions are put forward: type of predominant “objects”; categories of “objects” that are not allowed for construction in the designated zones; rules for parcelling out and re-parcelling out of urban plots; allowed maximum construction/occupancy index of plots; major/predominant use of urban land (mostly as a percentage of total area), applying either to single land plots or to compact planned areas; etc. Also, some provisions are defined by a general by-law of 2011 (to denote a rule book, or book of regulations, and similar), stipulating nine (9) predominant types of land use (Table 1), as in the case of maximum construction index and occupancy rate.

Many commentators have been pointing to a number of flaws in the current system and practice of managing urban land in Serbia. In the first place, a large number of pertinent provisions have not been harmonized with the main courses in transitional reform and change. Second, it is still not fully known to which extent would future institutionalization of new norms and instruments affect the realization of strategic sustainable spatial and urban development and land use policy at national, regional, and local levels. The urban land market is undeveloped, and therefore the basic regulatory mechanisms and institutions, as well as more up-to-date ways of financing urban land development are not established yet. In the conditions of an undeveloped market, the mechanism of urban land rent is incomplete and distorted, and it does not contribute to a rational use of urban land and to socially acceptable distribution of costs and profits among various parties. In essence, basic approach is still predominantly administrative. The above has a number of negative consequences, also applying to zoning regulations and land use.

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<sup>2</sup> Regarding agricultural land, this instrument (*urbana komasacija*) is paralleled by another measure, i.e., *arondacija*, which pertains to the redistribution of land around a village so that each farmer’s holdings, formerly scattered, will be in one place.

**Table 1. Maximum construction index and maximum occupancy rate, by predominant (major) land use zones**

Zones and predominant use	Maximum allowed construction index	Maximum allowed occupancy index (as % of total use)
Weekend zones/houses	0.3	25
Rural areas	0.5	30
Family-house zones and areas in low density settlements	1.0	40
Housing areas in medium density settlements (two or more types of housing construction)	1.5	50
Mixed uses in medium density settlements (two or more types of housing construction)	1.7	60
Industrial and other economic zones	1.5	60
General and housing uses in high-density areas	2.5	60
Central urban and business zones	4.0	80

Apart from the above, special provisions have been made for the category of “other specific areas and zones, specific objects, infrastructural objects, etc.”

In effect, in the majority of cities and towns, zoning regulations and pertinent taxing have not been harmonized with broader strategic spatial and urban development aims. Apart from that, zoning regulations and practices only laterally follow the market signals, barometers and instruments. Rather, in the majority of cases, the sole purpose, especially regarding the taxing, goes to generating local revenues. Consequently, the local practices of zoning regulations mostly follow this purpose, and the number of designated zones is determined on the basis of scope and ease of local tax (revenue) collection. Apart from that, the number of zones in urban and town centres of Serbia varies significantly, from only 8 (eight) zones of specific uses in Belgrade, via the medium range bracket of 52 (Velika Plana), 55 (Zrenjanin), 60 (Kraljevo), 97 (Požega), etc., to some extremely diversified zoning specifications, e.g., 423 (Kragujevac). In the cases of the overwhelmingly normative (administrative) zoning regulations, this approach will in general negatively influence the market value of land and related assets, by decreasing them, which particularly holds true regarding the tenders for leasing or purchasing urban (construction) land in public ownership. It should be noted that this practice has almost nothing to do with the planning standards and norms for zoning established

by spatial and urban planners, but basically originates from a lack of political will at national, regional and local levels to introduce new legislative, institutional and organizational adjustments which would direct the course of events to more rational and effective purposes, again, in accord with strategic objectives regarding sustainable spatial/urban development.

#### **2.1.1.4. The utilization of agricultural land and its conversion**

Basic legal act in the sphere of agriculture (henceforth: AAL, 2006; 2009 and 2015) stipulates a rigorous protection of arable land for agricultural and related purposes only, whereby its conversion to other purposes is allowed conditionally, on the fulfilment of a number of preconditions, also formulated and defined by law. This applies to the most productive class categories of agricultural land, i.e., I to IV (Article 3, Article 15 and Articles 22 of the AAL). The exceptions to this are also defined, and non-agricultural utilization is allowed by law for land of inferior quality only, for some specific purposes, viz. (Article 22 of AAL): artificial (cultivated) meadows and pastures; new and ameliorated forests; exploitation of mineral resources and related solid waste landfills; and in other cases of general public interest. For all listed cases, special permits (*saglasnost*) are necessitated, issued by the responsible sector ministry. Apart from that, in all cases of conversion of agricultural land to other allowed purposes, the appropriate compensation (*naknada za promenu namene obradivog poljoprivrednog zemljišta i korišćenje u nepoljoprivredne svrhe*) is levied, following pertinent procedure (Article 24), at the level of 50% of the market value of arable land in question, or, in the case of artificial (cultivated) meadows and pastures, and forests, at the level of 20% of market value of urban construction land (Article 25 of the AAL). Local authorities are held responsible for the implementation and administration of legally predefined procedures. On the other hand, the revenues belong both to the Republic of Serbia (60%) and to the local authority (40%). They should all be directed to the protection and utilization of local agricultural land. The law also defines a number of exemptions to this legal obligation, in total some 10 of them, for specific cases related to: family (small) farming; cemeteries; water regulation and management; local agricultural infrastructure; afforestation; agricultural protection belts; etc.

Penalty provisions have also been defined.

With regard to all the above-mentioned legal instruments, it should be emphasized that there is intention to follow appropriate EU legislation in this sphere (e.g., 2004/35/EC Soil Framework Directive, COM 179/2002, etc.).

This also applies to the issue of the restitution of formerly nationalized agricultural land. This instrument was initially launched at the end of the 1980s, and has now been almost completely implemented. The World Bank estimated in 2004 (*Serbian investment climate*, WB, 2004), that approximately 85-90% of total agricultural land in Serbia is now privately owned, the rest being owned either by the state (public) sector or agricultural cooperatives. The publicly owned agricultural land is managed via the responsible sector ministry and its agencies (Article 60 of the AAL), based on the appropriate programs of utilization and related schemes,

adopted by local authorities. The law also stipulates the leasehold of publicly owned agricultural lands to other parties (Article 61a of the AAL), for utilization purposes other than agricultural (e.g., the utilization of natural resources, energy, etc.), at appropriately defined compensation rates (*naknada za korišćenje poljoprivrednog zemljišta u državnoj svojini za korišćenje u nepoljoprivredne svrhe*).

There is a specific problem stemming from the legal opportunity to convert publicly-owned agricultural land to other property statuses and regimes which was introduced in 1992 and subsequently modified (in 1996 and 2006). This particularly applies to the most attractive sites in the peri-urban areas of the broader Belgrade area. Although the law stipulated conversion at market values (prices), in practice it directed the main course of changes, at first to avoid cheap sale of former agricultural land in public (state) property to private actors, and, secondly, to its subsequent and almost immediate conversion to non-agricultural purposes, mostly to expensive housing and business zones/complexes, and to some other economic purposes as well, within the overall process of “tycoonization” of Serbian economy and society at large. Only in 2009 (Article 11 of the AAL) and 2015 did the law introduce some provisions intending to prevent the selling out of publicly-owned agricultural land.

In the meantime, on at least 27 such sites, out of total of some 50 peri-urban areas, the former agricultural lands deteriorated, often paralleled by illegal construction on the newly converted sites. The scope of this negative trend is tremendous, indicated by the fact that some 20,000 hectares of former agricultural land have been converted to non-agricultural purposes. While the estimated total number of illegal “objects” in Serbia centres around the 1.6 million, around 400,000 of them have been evidenced in the broader Belgrade area (3.224 km<sup>2</sup>).

#### **2.1.1.5. Forest land utilization**

The *Forestry Act* of 2010, 2012 and 2015 defines the propositions on the appropriate utilization of forest lands, based on the pertinent programmes. It also allows for conversion of forestry lands to other purposes, and lists (Article 10), e.g., in the cases of: general public interest; natural disasters; redistribution of land (*komasacija* and *arondacija*, to be applied to agricultural lands); renewable energy; etc. Also, exemptions to this rule are indicated. The financial compensation for the conversion of forest land, to be paid by the interested party, may in some cases reach the value 10 times larger than its current market value. The collected revenues either go to the Budget of the Republic of Serbia or to the Budget of the Autonomous Province.

#### **2.1.1.6. The Act on National Land Cadastre (2009 and 2010)**

The rules and procedures regarding the evidence on urban/construction lands and assets are set forth by *The Act on National Land Cadastre* (2009; and 2010). The Republic Geodetic Authority is the responsible institution/organization in this administrative sphere (Article 115 of the ANLTC). The law insists on keeping

regular evidence on the pertinent changes, based on periodic surveys, performed by the Republic Geodetic Authority, as well as on regular reports provided by responsible national and local institutions and organizations. The ANLTC set forth detailed description of the evidence on legal, physical and other attributes and parameters of the land and asset uses that should be kept on regular basis, also including the evidence on changes. It is the priority to establish a digitalized evidence of geo-spatial data, in the first place for large settlements, i.e., cities and towns, within the integrated and centralized geodesy information system, comprised of a number of mutually related data bases (*geodetsko-katastarski informacioni sistem*). In this regard, practices of the EU have been fairly well followed, with a view to establish and keep the so-called “National infrastructure of geo-spatial data” (NIGD), also on the basis of the EU *Directive INSPIRE (Infrastructure for Spatial Information in the European Community)*, as well as on other related EU standards (Article 160 of the ANLTC). According to Article 161 of the ANLTC, NIGD is comprised of a large number of meta-data, services and sets of geo-data on all key attributes and parameters, for all strategic policy sectors/themes (viz., technical infrastructure, environmental protection, telecommunications, mineral resources and energy sources, water management, cultural and natural heritage, public health and demography, spatial development documents, etc.). The central authority (Republic Geodetic Authority) is responsible for the provision of open access to the NIGD to interested users, via the pertinent geo-site, as well as for some restrictions in that respect and related protection of data (Article 164 of the ANLTC).

There is a need here to point to a certain lack of current legal provisions with regard to the assessment of the market value of land and related assets. Namely, the Republic Geodetic Authority, albeit being in the first place a regulatory body (agency), is also responsible both for defining procedures and rules for the assessment of market value of assets, and for performing the assessments itself (Article 10 and Article 151 of the ANLTC)! This basically reflects a conflict of interests within this agency, which is of administrative, technical and other nature. This provision is paralleled by a related provision of the PCA, and pertinent by-laws, which stipulate that civil (structural/construction) engineers should in the first place act as court experts on the matter, organized via the National Association of Evaluators. This reduces the scope of expertise in a way which is not acceptable, thereby excluding many other relevant experts, e.g., economists, financial experts, tax law experts, mathematicians and statisticians, and so forth, placing to the forefront the interests of the so-called “construction industry lobby”.

### **2.1.1.7. Regulatory framework for the privatization of urban land and the conversion of leasehold on urban land in public ownership into property right**

For some time, at least two possible modes of urban/construction land privatization had been discussed, viz., the so-called “privatization after restitution”,



and the “privatisation now and denationalization in the course of the process”.<sup>3</sup> However, in 2009 the *PCA* was adopted, also regulating the issue of privatization. That is to say, a legal act, which is not *sui generis* for regulating property matters, defines the legal basis for ownership transformation, also regarding urban/construction land, which is the most valuable territorial and economic asset of Serbia (Articles 99–103). Article 101 of the *PCA* enables the conversion of the right to use state-owned urban construction land into the right of private property to private persons, without compensation, via submission of a request within one year of the Act's enactment. Legal entities established by the state, provinces and municipalities are allowed to convert the right to use of urban construction land into the right of public property, without compensation, within the same period. Individuals with the lease right on other state-owned construction land are enabled to remain liable to pay the lease. Article 103 provides that in case of state-owned construction/urban land with right to use held by companies and other legal entities that have reached this status during the process of privatization or are insolvent, the right to use can be converted into property right by reimbursing the market value of the land minus the cost of its acquisition. Article 108 establishes that the Government of the Republic of Serbia stipulates the determination of compensation based on the substitution of rights with compensation, even though it is stated in Article 103 that this should be the market value. The key problem is that the *PCA* does not define regulatory rules, market mechanisms, institutions and instruments for conducting the construction/urban land policies (particularly for land valuation), and administering land transactions. The Act stipulates that the market value (estimate) of this fee is to be determined by the Government (Tax Administration, Ministry of Finance).

In Serbia there is still no systematic data on the estimated value of state-owned land assets, which raises the related question of ascribing the market value of public land subject to the conversion for a fee. An assessments of the value of the entire state-owned urban construction land, as well as of some other indicators, is presented in Table 2.

It is also unknown how much of the state-owned urban construction land will remain in public use, and how much of it the municipalities and the state would take over. The value of construction land considerably exceeds the value of privatized enterprises in Serbia. The estimated volume of profits from privatization through selling the public companies in Serbia is around 4.15 billion Euros. According to the data from the Agency for Privatization, in the 2001–2010 period €2.8 billion was

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<sup>3</sup>Restitution and related issues are complex and challenging to address. According to data published by the Network for restitution in Serbia (*Политика*, 3. август 2009), citizens claim about 6 billion m<sup>2</sup> of land, of which 3 billion m<sup>2</sup> of agricultural, 109-120 million m<sup>2</sup> of construction and 430 million m<sup>2</sup> of forest land. On the territory of Belgrade, 1,018 parcels (2,652 ha) of construction land were nationalized/expropriated, which amounts to about one quarter of the total reported nationalized/expropriated construction land in Serbia.

realized and €1.35 billion was invested in the process of privatizing 2,362 enterprises.

**Table 2. An Assessment of Urban Land Values and Related Indicators for Serbia and Belgrade City, 2005**

Indicator	Serbia	Belgrade
Total urban land (in ha)	695,415	123,673
Share of urban land in the total area (in %)	9.0	38.3
Urban land in state ownership (in ha)	194,441	63,005
Area of urban land outside the municipal boundaries (in %)	47.5	15.3
Share of the real estate sector in GDP (in %)	4.23	8.4
Share of real estate business in employment (March 2008, in %)	3.68	7.35
Urban land for restitution (in ha)	10,900	2,652

*Source: Zeković (2009).*

Thus, the *PCA* of 2009 established the legal basis for a “back door”, i.e., for a non-formalized privatization of construction land to “sneak into” the property system via a non-property regulating act. The land is subjected to blatant “profitization”, which brings the greatest benefits to the most privileged “users” of plots who acquired the right of use either by buying them at bargain prices from the former owners or in the process of privatization of state-owned enterprises. Not only does the new legislation fail to calculate the restitution of construction land (and other real estate), but this also still brings potential investors on shaky legal grounds when buying construction/urban land.

Subsequently, three ordinances (*uredbe*) were issued by the Government (two in 2010, and one in 2011), with a view to determine the market value of urban/construction land liable to conversion from leasehold to property right, defining the pertinent procedure and method of evaluation. Local authorities are responsible to manage and administer this issue. In terms of professional expertise, the entire procedure is based on the pertinent appraisals of court experts, mostly construction engineers and other licensed actors. Secondly, spatial and urban development documents may also establish a basis for the conversion of leasehold to property right, with the exception of “planned destinations” for public uses. Many authoritative commentators have already pointed to a number of flaws in new legal formulas, and especially to the lack of a more substantive professional knowledge to corroborate the new approach, which is basically a sort of “quasi-market” solution. Apart from that, there have been comments from many sides that the role of state institutions and organizations is over-emphasized for that matter.

## ***2.1.2. National, regional and local spatial and urban planning policy documents: land use policy***

### **2.1.2.1. Land use policy at national level**

*Spatial Development Strategy of the Republic of Serbia 2009-2013-2020/Српске стратегија просторног развоја Републике Србије 2009-2013-2020* was adopted in 2009, as a preparatory step for *The Spatial Plan of the Republic of Serbia from 2010 to 2020/Просторни план Републике Србије од 2010. до 2020. године*, which was adopted in 2010 (henceforth: *Plan of 2010*). In the *ex post* evaluation of the implementation of goals, aims and objectives of the previous national spatial plan (henceforth: *Plan of 1996*), it has been pointed out to many negative trends in the overall utilization of space in Serbia (Table 3). In the 1993–2010 period some 53,700ha of agricultural land was lost for other uses. Its conversion to various uses was labelled as “other uses”, however, mostly comprised of urban/construction land. To a large part, this has resulted from a number of current problems, viz.: massive illegal construction; construction of technical infrastructure; conversion of former agricultural land to other uses (ca. 59,400ha); etc. Here, the privatization of state (“social”) agricultural estates (*kombinati*) is of a particular relevance, paralleled by the increase in “brown-field” investments in the peri-urban zones of the largest cities and towns in Serbia. In 1995 “Other uses” increased to more than 1 million ha, out of which 695,400ha (67.4%) of urban/construction land, and 337,000ha (32.6%) of other categories (water surfaces, etc.). Apart from that, and contrary to the planned increase of forest land to almost 30% of total surface area, its share in 2010 was almost the same as in 1993, i.e., 25.5%.

**Table 3. Planned land use in the *Spatial Plan* of Serbia 1996 and its realization**

	Year	Agricultural land (km <sup>2</sup> )	%	Forest land (km <sup>2</sup> )	%	Other uses (km <sup>2</sup> )	%
Planned	1993	51,452	66.4	19,838	25.6	6,184	8,0
	2010	48,350	62.4	23,094	29.8	6,030	7.8
Realized	2010	50,915	65.7	19,781	25.5	6,778	8.8
Planned balance sheet	1993/2010	- 3,102	- 4.0	3,256	4.2	- 154	- 0.2
Realized balance sheet	1993/2010	- 537	- 0.7	-57	-0.1	594	0.8

*Source: The Spatial Plan of Republic Serbia (1996), The Spatial plan of the Republic Serbia (2010), and data of the Statistical Office of the Republic of Serbia, Municipalities and Regions in Serbia 2010 (2011).*

In 2005 the total area of urban/construction land reached 695,41ha, i.e., ca. 9% of the total surface area. Its biggest share was recorded in the broader Belgrade area (regional level, NUTS 2), i.e., 38.4% (Table 4).

The share of the so-called “urban construction land” in total construction land area reached 28.0%, the so-called “construction land in urban areas” comprised 24.6%, and 47.5% went to construction land outside urban areas. In the Belgrade area, the share of urban construction land in the total area is the biggest in Serbia (50.9%). The total surface area of urban construction land in Serbia is 194,441ha, inhabited by 4.22 million people, with average density of 21.7 inhabitants/ha. Out of total of 1994,441 ha of public (state) land in Serbia, the City of Belgrade occupies 63,005ha. The surface of total land in private ownership in the City of Belgrade is 1,972.95km<sup>2</sup> or 61.2% (RGZ, 2013).

**Table 4. The share of urban/construction land in total surface area**

Area	Land (in ha)			Construction land (in %)		
	Total	Construction land	%	Total	Urban	Other
Serbia (without Kosovo&Metohija)	7,747,400	695,415	9.0	100.0	28.0	72.0
Belgrade Region (NUTS 2)	322,400	123,673	38.4	100.0	50.9	49.1

*Source: Documentation of the Institute of Architecture and Urban & Regional Planning of Serbia.*

The *Plan* of 2010 set forth a number of long-term goals (until 2010) for the utilization of land, also in the sphere of urban/construction land use. This plan predicts a further decrease in agricultural land in this period, for another 1,179,300ha, i.e., by 23.3%, as compared to 2010. In the same period, the surface area of forest lands would increase by 928,500ha (41.2%). The biggest increase percentage goes to urban/construction land, i.e., 250,800ha, which is 56.7% as compared to 2010 (Table 5).

**Table 5. Planned land uses in the *Spatial Plan* of Serbia, 2010.**

	Year	Agricultural land (km <sup>2</sup> )	%	Forest land (km <sup>2</sup> )	%	Other uses	%
	2010	50,530	62.4	22,524	29.1	4,420	5.7
Planned uses	2020	38,737	50.0	31,809	41.0	6,928	9.0
Planned balance (change)	2010/2010	-11,793	-23.3	9,285	41.2	2,508	-56.7

Especially, the decreasing share of arable land in total agricultural land will continue, mostly due to its deterioration and/or conversion of the most fertile lands into urban/construction land and other categories.

In recent years two reports have been disseminated, viz., on the environmental situation in Serbia (*Извештај о стању животне средине у Републици Србији 2010*), and on the soils condition and protection (*Извештај о стању земљишта у Србији 2009*), both based on the relevant national data bases (national land cadastres) from the *Corine Land Cover*.

According to the sources of the *Corine Land Cover* (2006), in Serbia agricultural land comprises 58.18% of the total surface area, forest lands 11.82%, the so-called “artificial area” (including also urban areas) comprises 3.4% of the total, this category of land use recording the biggest increase of 3,947ha in the 1990–2000 period, and the rest belonging to the wetlands and water basins. A negative trend of diminishing wetlands started in that period, with the decrease in this category for 119ha. The surface of water basins increased by 2,343 ha, mostly in new artificial lakes (reservoirs). The land use pattern in Serbia is less diversified than in some other countries, comprising 28 of 44 classes (categories) of the CLC list.

**Table 6. Artificial area in Serbia (without Kosovo and Metohija, 2006)**

Category	Surface (ha)	%
Urban (artificial) area	264,235	
Continuous urban area	214	0.003
Scattered urban area	223,953	2.89
Industrial and commercial area	19,232	0.248
Road and railway networks	1,180	0.015
Ports	363	0.005
Airports	1,876	0.024
Mining sites	9,436	0.122
Waste sites	1,677	0.022
Construction sites	540	0.001
Green urban areas	3,469	0.045
Sports and leisure area	2,295	0.03

*Source: Corine Land Cover (CLC), Map for Serbia, EEA, Luxembourg, Evrogeomatika, d.o.o., Belgrade, 2007.*

It should be emphasized that some data from the *Corine Land Cover* considerably differ from official (Serbian) data, especially those on the artificial surface area (Table 6).

In a 2009 report, based on *Corine Land Cover (2007)*, in the 1990–2006 period urban/construction land increased by 11,502ha (at annual average of 719ha). During the 1990–2000 period an increase of 5,923ha was recorded, mostly resulting from conversion of agricultural land (89.3%), forest land (9.2%), wetland (0.2%) and natural grassland (0.2%). In the 2000–2006 period, recorded increase in urban/construction land resulted from the conversion of agricultural land (74.4%), forest land (24.7%), wetland (0.8%) and natural grassland (0,1%). In total, in this period the conversion of agricultural and forest land into urban/construction land was intensified, most probably as a result of increased investments in economic, commercial and urban development. The average annual reclaiming over total period (1990–2006) was 351ha, out of which 127 ha of industrial and commercial uses, 2ha of transport infrastructure, and 239 ha of construction sites and waste deposit sites (according to the CORINE LAND COVER/CLC, Chart for Serbia, EEA, Luxembourg, Evrogeomatika, d.o.o., Belgrade, 2007).

#### **Master Urban Plan of Belgrade 2003, amended 2005, 2007, 2009 and 2014**

The *Master Urban Plan of Belgrade* (henceforth: *MUP*) was adopted in 2003 (published in the Official Gazette of the City of Belgrade: *Генерални план Београда 2021., Службени лист града Београда, 27/2003*), and subsequently amended in 2005, 2007, 2009 and 2014 (also published in the same Gazette). No major changes have been introduced in terms of **key (strategic) direction of urban development** via previous changes. Many of these centred on a more precise formulation of the provisions of the *MUP* of 2003, also including an appropriate modification of the planned urban land use. The urge for changes stemmed from a number of exogenous and endogenous factors, including a necessity to undertake some technical corrections to the initial *MUP*, viz.: a need for a better positioning of the Broader Belgrade Area on the strategic road direction to the Southern Adriatic (Montenegro); harmonization of the *MUP* with new demands regarding some systems of technical infrastructure (energy, transportation, etc.); harmonization of the *MUP* with regard to the construction and/or rehabilitation of a number of inner city traffic routes; conversion of some former economic areas into new usage (mostly commercial, housing and public services); support for a better implementation of previous urban plans (including cartographic and other technical presentation); introducing better construction rules for five key systems of technical infrastructure; innovation pertaining to better protection of cultural heritage; etc.

The *MUP* 2003 covered the area of 77,600ha, within the Broader Belgrade Area of some 3,000km<sup>2</sup> (p. 907). The *MUP* was structured as follows: 1) **Development problems and prospects of Belgrade** (901–913). This part dwelled on a number of issues, viz.: European dimension of development; society; demography (population); economy; urban land use; environment; analysis of the past development of inner urban area (“gradsko tkivo”, that is, “urban tissue”); and

short analysis and *ex post* evaluation of previous urban plans. As for the inner urban area, it was stated that the development in the previous decade was characterized as "...lost control over urban development process" (909), with the following key problems – to cope with in the MUP: poor implementation of urban plans; chaotic and illegal housing construction<sup>4</sup>; semi-legal housing; problem of approved construction, yet not realized (urban land use); sprawl of poor urban areas and slums; decrease and even extinction of the existing industrial zones; increase in the "kiosk economy"; devastation of the transportation systems; insufficiently regulated use of agricultural lands in the broader urban area (to note, contrary to the previous period, when it had been planned-regulated); enormous increase in non-hygienic waste garbage areas; illegal use of utilities; and devastation of urban image of Belgrade. 2) **Legislative framework, goals, method and concept.** As for the **general urban development goals** (913–915),<sup>5</sup> these comprised: development of Belgrade as the capital city of Serbia (paralleled by the so-called "de-metropolization", that is, striking development balance vis-à-vis other parts of Serbia, 908); development of Belgrade as a European metropolis, a multimodal nodal point at the crossroads of European Corridors VII and X; Danubian direction of its development; development in harmony with nature ("Beograd u dosluhu sa prirodom", 914); Belgrade developing in accord with the sustainability paradigm; development with a view to protect and preserve "complex city memories"; a "rounded" outlook of Belgrade; Belgrade as economically vital city; "Belgrade, a city for all people"; a well-connected and accessible city; and developing Belgrade as a city of culture. Also, an improvement of the governance system for the entire metropolitan area of Belgrade was stipulated (901). These goals were further elaborated and detailed within the respective areas which made the scope of the MUP. 3) **The physical scope of the MUP, and its sub-areas and zones.** 4) **Planned land-uses**, for key urban functions/activities (housing; economy – stipulated increase of the total size of economic zones in 17 large economic zones, from 1,159ha in 2001 to 2,949ha in 2021 /p. 936–937/, largely outside the inner urban areas, and a smaller increase, from 436ha in 2001 to 575ha in 2021, in a large number of dispersed areas; commercial activities and inner city centres for Belgrade, Zemun and New Belgrade; public services /education, health, culture, sports and leisure, etc./; green areas; agricultural areas; and water surface areas). 5) **Environmental protection** (space, modern architectural heritage, natural areas, water utilization areas, etc.). 6) **Transportation and other technical infrastructure** (by types, urban functions and activities, also including water management and utilization systems). 7) **Specific spatial and urban areas (zones)** (1000–1039): 9 central city zones, 13 mid-urban zones, and 15 another outer urban zones – description, planned usage and construction and building rules. 8) **Estimated costs of stipulated urban development and reconstruction** (for priority development and reconstruction, by

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<sup>4</sup> Occasionally referred to as "spontaneous housing construction".

<sup>5</sup> To note, these are here presented slightly rephrased, to avoid idiosyncrasies in the verbalization of goals in the MUP, sometimes non-translatable.

key urban activities/urban functions, that is, housing, urban centres, economic zones, public social services, sports and leisure, urban green areas, transportation and other technical infrastructure), approximated at some 11.5 billion € for the 2001–2021 period (1040). 9) **Natural hazards and peace and war defence** – spatial and urban regulation aspects, by specific accidents, areas and zones. 10) **Implementation of the MUP in the first mid-terms period (2001–2006), monitoring, control, and improving the process of implementation.** 11) **Urban construction and renewal rules**, by key urban functions and activities, and by specific areas and zones (urban plots). 12) **Concluding provisions.**

It should be emphasized that in the *MUP* there is **no stipulation explicitly forbidding urban sprawl**. Instead, the accent is put onto better control of this process (1), better equipping of urban sprawl zones with technical infrastructure and public services (utilities, amenities, and so on) (2), better control of spatio-ecological (“environmental”) aspects of development (3), and better control of illegal construction (4). In the recent years, following the introduction of pertinent overall (Serbian) legislative changes, two other aspects have been put high on this agenda, that is, controlled and partially approved legalization of illegal construction (5), and conversion, also controlled and partially approved, of leasehold of urban land into urban land property (6). The exemptions to this were only few specific cases, for example, the case of housing zones, in which, instead of further sprawl of (new) housing areas, the maintenance and improvement of the existing housing stock should come to the fore as a priority (907).

The territory covered by the *Master Urban Plan of Belgrade 2021/Генерални план Београда 2021* (2003)<sup>6</sup> (henceforth: MUP) of 2003 with a few changes (the last one in 2014) amounts to 77,600ha, 84% of which is urban construction land (state owned) and 1% construction land in societal (“joint”/“communal”) property. Over the 2001–2021 the largest decrease went to agricultural land, from its share of 51.1% to 27.8%, mostly for industrial parks along the key transport routes, followed by the increase in green surfaces of various kinds. Consequently, a sharp increase in total green surfaces is predicted. In absolute terms, the largest changes go to economic zones (3,155ha), transport zones (2,269ha), housing zones (1,888ha) and commercial zones and centres (1,336ha), respectively, with analogous rise in their respective percentage shares. In terms of spatial distribution and organization, four broad areas were defined by the MUP, out of total of 77,602ha, viz.: 1) Central zone (3,706ha); 2) Intermediate zone (8,532ha); 3) Outer zone (21,962ha); and 4) Fringe zone (43,902ha). This also pertains to the conundrum of illegal construction, as some 400,000 buildings of the kind have been placed so far (in 2016). The total number of ca. 1.6 million of illegal “objects” is estimated for Serbia. Basic data and indicators are presented in Table 7.

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<sup>6</sup> The *Plan* of 2003 (henceforth: UMP) was amended in 2005, 2006, 2007, 2009 and 2014 (henceforth: AUMP).



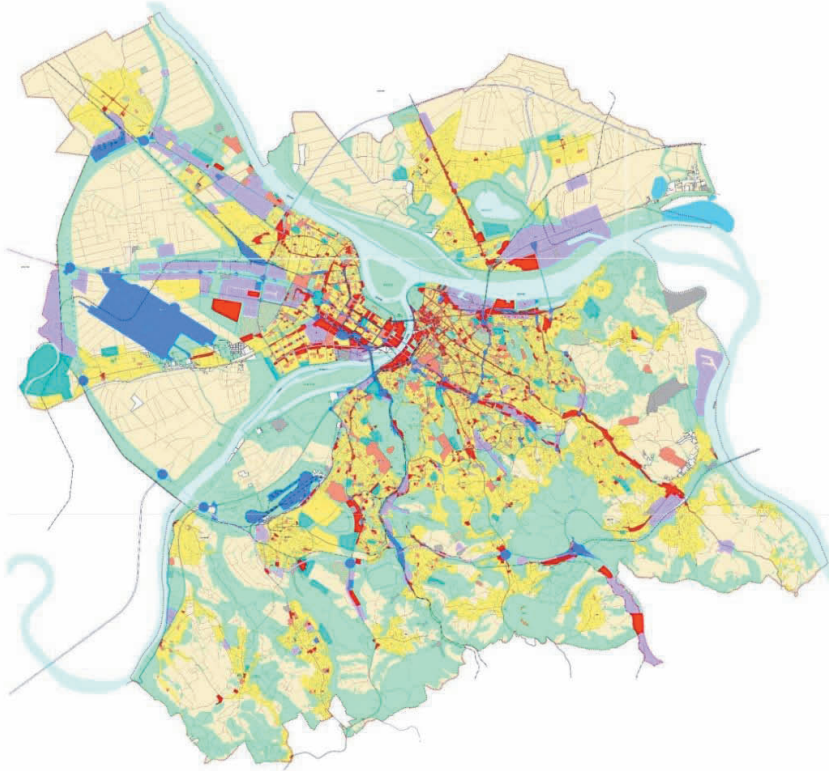
**Table 7. Planned land uses (Urban Master Plan of Belgrade, 2003, and Amended Urban Master Plan of Belgrade, 2006)**

	<b>Current use (2001)</b>	<b>Planned increase (UMP 2003) 2021-2001</b>	<b>Total (UMP 2003)</b>	<b>Planned increase (AUMP, 2006/2) 2021-2001</b>	<b>Total (AUMP 2006/2) and change of its share (in %)</b>
Housing	12,571.65	1,570.25	14,141.90	318.10	14,460 (16.2; 18.64)
Economic zones	1,595.22	1,929.35	3,524.57	1,226.43	4,751
Commercial zones and centres	667.98	1,147.60	1,815.58	188.42	2,004 (2.6; 6,12)
Public services and centres	1,123.10	275.04	1,398	47.86	1,446 (0.86; 2.58)
Sports and leisure zones	685.87	502.01	1,187.88	-90.88	1,097 (1.45; 1.86)
Green surfaces	11,365.27	9,044.64	20,409.91	-357.91	20,052 (14.65; 25.85)
Agricultural zones	39,657.32	-15,904.12	23,753	-2,173.20	21,580 (51.1; 27.82)
Water surface	4,071.05	101.16	4,172.21		4,172 (5.25; 5.38)
Cemeteries	344.69	144.51	489.20		489 (0.44; 0.63)
Transport zones	4,424.15	1503.56	5,927.71	765.29	6,693 (5.70; 8.62)
Public amenities and utilities	345.30	436.40	781.70	76.30	858 (0.44; 1.08)
Undeveloped land	750.39	-750.39	0.0	0.0	0.0 (0.97; 0)
<b>Total</b>	<b>77,602.00</b>		<b>77,602.00</b>		<b>77,602.00</b>

The MUP points out the main development directions till 2021 for suburban areas along “Ibarska magistrala”, highways to Niš and Zagreb, in direction to: Zemun, Batajnica, Avala, Pančevo, Smederevo, and Zrenjanin (Figure 1).

The MUP of Belgrade (2003) also defined a number of specific urban parameters regarding the occupancy rates and construction indexes, urban regulations, etc., by planned land (urban) uses, compact urban zones (*urbanističke*

*celine*), and key urban functions (housing, economic activities, transport, commercial zones and urban centres, etc.). These are based on standard gross and net densities, with a view to ultimately determine the spatial capacity of construction for specific uses.



**Figure 1. Master Urban Plan of Belgrade 2003, amendments 2005, 2007, 2009 and 2014**

Source: [http://www.urbel.com/default.aspx?ID=uzb\\_GeneralniPlanovi&LN](http://www.urbel.com/default.aspx?ID=uzb_GeneralniPlanovi&LN)

Another strategic document dealt with the issue of diminishing agricultural land in the broader Belgrade area, viz., *Стратегија развоја пољопривреде Београда до 2015./Agricultural Strategy of Belgrade until 2015 (2009)*. It has been found that, despite the volatilities of privatization and market from the beginning of post-socialist transition, Belgrade succeeded to keep the key agricultural estate in this area (*Poljoprivredni kombinat Beograd*) in public property, reflecting the fact that out of 223,128ha of total agricultural land, 43,354 ha (19,43%) are still publicly owned (in year 2006). Only ca 1000ha of arable land is still disputed regarding its ownership status. Data from two sources on the agricultural land in the area of the City of Belgrade are different. According to the data provided by official statistical office of Serbia (RZS, 2012), in 2011 the size of agricultural land in the City of Belgrade was 212,000ha (or 215,414 ha, according to the *Opštine i regioni u*

*Republiki Srbiji*, 2012), and 130,000 ha, according to the Agricultural Census (2012). According to the Republic Geodetic Authority (2013), the size of total agricultural land in the area of the City of Belgrade was 136,214.07 ha, that is 79,200 ha less than according to the former source. This indicates a dramatic decrease in the size of agricultural land, as well as an intensive urban sprawl.

Based on the above data, the *Strategy* developed an elaborate approach and complex predictions with regard to future development trends, covering all relevant aspects of agriculture (product, investments, impact of endogenous and exogenous factors, etc.). As pertains to the size of agricultural land in the future, two alternative scenarios have been applied, the former focusing on the expected further decrease in total agricultural land, to the interval from ca 215,742 ha to 220,000 ha in 2015 (i.e., depending on the forecast technique applied).

The second alternative was elaborated starting from the assumption that the size of agricultural land until 2015 will match the so-called “technological potential”, market at ca 222,308 ha. This would however imply undertaking a number of policy measures, with a view to prevent the further decreasing of agricultural lands, covering all relevant aspects, viz.: concept of privatization of large agricultural estates; rational utilization of publicly owned land; improving market mechanism and instruments for agricultural land; etc.

The strategic aim in the sphere of urban land management is establishment of a new governance model, based on market principles and on correcting their imperfections, by means of embedded general public interests. Some goals of the MUP related to urban expansion and urban renewal contradict each other. For example, urban renewal is strongly stipulated for, in parallel to the increase of ca. 50% of built urban land which is predicted at the same time. The MUP aims to promote the available advantages and enhanced competitiveness of the city to attract foreign investments. The MUP foresees large structural transformation of river waterfronts, with an important market dimension. The application of conventional instruments in land-use policy (development fees, taxes) illustrates a weak connection with market. A direct impact of market and investor interests is, for e.g., present in urban rezoning of the Port Belgrade proposed by the MUP Amendment (2006), and “Belgrade Waterfront” project (2014). In the competition for European cities and regions of future, organized by the Financial Times in 2006, Belgrade was announced as the “City of future of the South Europe”.

Specific strategic aims referring to the development of suburban areas were defined as: 1) denationalization of both the ownership and management of urban (construction) land, correction of marketization, mainly in social respect and 2) de-metropolization putting into effect more dynamic development of other parts of Serbia than the Belgrade metropolitan area, and thereby lessening its population and economic burden. The importance of the following aims should be emphasized: 1) urban reconstruction, 2) registration of illegal construction, 3) completion of built residential areas in terms of their function, 4) provision of new areas for housing, 5) enabling distribution of the planned activities and jobs in suburbs, etc.

Regarding the large-scale illegal housing construction, Belgrade MUP presents the spontaneously developed settlements and areas in the category “housing and housing tissue”, as well as “economic activity and economic zones”. The MUP envisages further sprawl and enlargement of existing and creation of new economic zones. In suburban areas the MUP envisages an increase in the surfaces under the transport infrastructure by 39% (from the existing 2,319.7 ha to 3,216.65 ha). The MUP does not propose substantial improvement of access to suburbs by public transportation. Due to the global economic and financial crisis the implementation rate of strategic directions and projects defined by the MUP is slowed down.

The MUP foresees measures for stopping semi-legal and illegal upgrade and construction of illegal buildings.

The provisions of the MUP (2003) were more precisely formulated in Amendments (2006, 2009, 2014), especially on strategic urban development and planned land use.

### **2.1.2.2. Land use policy and administration in Belgrade area**

Data on the size of urban land in the City of Belgrade (Republic Geodetic Authority) are different from those provided by the Republic Land Cadastre. According to the Republic Land Cadastre (2013), total surface area of urban/construction land of the City of Belgrade is 111,260.72 ha (1,112.6 km<sup>2</sup>), out of which 46,919.9 ha in the area of 10 urban municipalities, and 64,340.84 ha in the seven suburban municipalities (Table 8, and Figure 2).

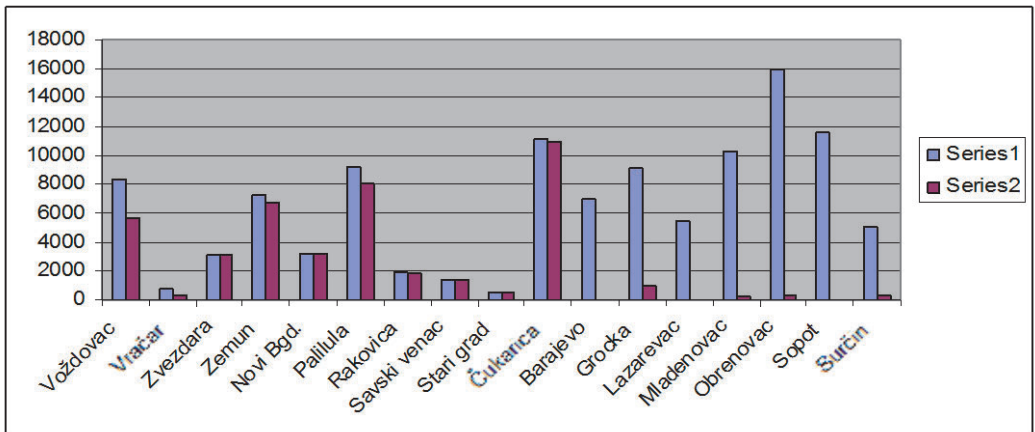
It is of particular relevance to emphasize that the above findings contradict supplemented data. For example, it has been indicated that the size of construction land for the City of Belgrade was 360 km<sup>2</sup> in 2001 (Republic Geodetic Authority), and 359.95 km<sup>2</sup> in 2011. This process is paralleled by the increase in Belgrade population in the same period by 4.2%. According to the data provided by the Statistical Office of the Republic of Serbia the size of construction land in Belgrade was some three times less than that provided by the Republic Geodetic Authority /Republic Land Cadastre (2013).

As in other parts of Serbia, the land policy of Belgrade is based on the *Planning and Construction Act* (2010). Specific to Belgrade is the City’s *Decision on Construction/Urban Land* and *Decision on Criteria and Standards for Determining the Fees for Land Development* (2015). As is the case in other parts of Serbia, Belgrade’s land policy has not been substantially transformed in the transition period. It is managed via zoning of construction land and determining initial amounts for compensation and lease by employing criteria and standards. These criteria and standards are established in an inconsistent way and do not correspond to actual real estate value at the Belgrade’s market. Similarly to other places in Serbia, zoning systems and differentiation for certain purposes are not based on relevant market factors, monitoring of transactions and prices of land and real estate, planned solutions, standards, information systems, and relevant modern fiscal, economic and market instruments and institutional arrangements. Construction land policy in Belgrade practically does not exist and the partial

changes in the institutional framework that regulates this area, as well as in organizational adjustments, have not introduced the necessary reforms to this policy that would be crucial for further development of the city.

**Table 8. Total construction land in the City of Belgrade (in ha), 2012**

Urban Municipalities	ha	Suburban Municipalities	ha
Voždovac	8,359.01	Barajevo	6,933.53
Vračar	748.64	Grocka	9,078.88
Zvezdara	3,107.18	Lazarevac	5,513.69
Zemun	7,259.16	Mladenovac	10,260.92
Novi Beograd	3,198.85	Obrenovac	15,932.94
Palilula	9,191.49	Sopot	11,555.26
Rakovica	1,963.37	Surčin	5,065.62
Savski venac	1,408.91		
Stari grad	537.98		
Čukarica	11,145.23		
<b>Total</b>	<b>46,919.9</b>	<b>Total</b>	<b>64,340.84</b>
<b>Total urban and suburban</b>		<b>111,260.7</b>	



Series 1: Total construction land (total, all uses)

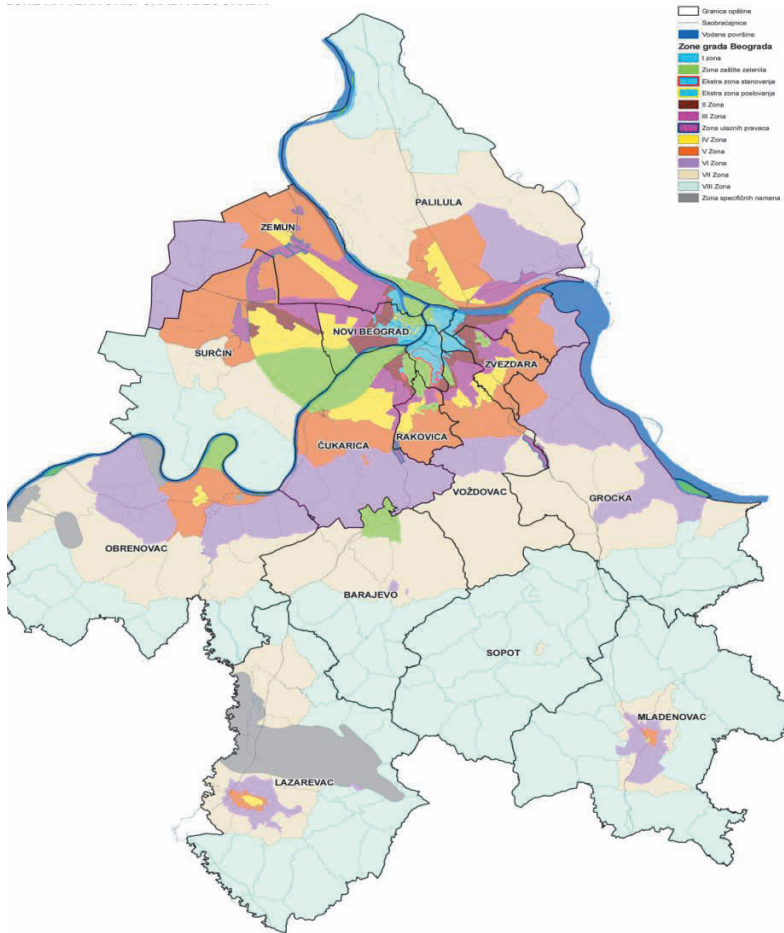
Series 2: Urban construction land (urban construction land)

**Figure 2. Total construction land and urban construction land in the City of Belgrade (in ha), 2012**

Undeveloped state-owned construction land is subject to lease for a fixed time period up to 99 years, which is estimated based on the purpose, area and the amortization period of the structure. The leasing procedure is conducted at a public auction for facilities up to 10,000m<sup>2</sup> of gross construction area (*bruto građevinska površina*), where the minimal amount of lease and the lessee's obligations (payment of state-owned infrastructure) are determined in the announcement for an open tender. Initial value of the lease is determined by zone (5 zones and an extra zone in 2010) and purpose of the object (objects of public services, housing-individual, buildings, commercial-manufacturing, business-service and business-commercial): I (central) zone covers 3,706ha, II (intermediate) zone 8,532ha, outer zone 21,962ha, and fringe zone covers 43,902ha. In 2001 the size of total urban construction land was 45,692ha (or 63.005ha, according to the Republic Geodetic Authority. In total, 57 urban compact zones (*urbanističke celine*) have been defined, 22 in I and II zone, 15 in III, and 20 in IV zone. The boundaries of zones coincide with statistical territorial units. The largest initial lease amount is paid by business-commercial objects if located in the so-called extra-zone (20.48 RSD or 20 euro cents/m<sup>2</sup> of useful area). Lease prices range from 1:3.3 for structures for public services to 1:6.31 for individual housing structures. For business-service facilities the range is 1:4.29, and for business-commercial it is 1:5.33. The widest range is in Zone I, i.e., 1:7.26.

From the standpoint of urban sprawl and the policy of urban/construction land, specific regulations for Belgrade are the City's *Decision on Construction/Urban Land (2015)*, *Decision on Criteria and Standards for Determining the Fees for Land Development (2015)* and *City's Decision on determination of zones in territory of Belgrade City (2015)*, with 9 zones. The development fee for construction land for commercial buildings in 2015 (236.6 €/m<sup>2</sup>) was up to 37.5 times higher per m<sup>2</sup> in the zone I (CBD) in relation to the price per 1m<sup>2</sup> for housing in the peripheral zone of Belgrade (6.3 € in zone VIII). From 2015 there is no land development fee for the economic/industrial zones. Initial value of the land development fees is determined by the purpose of the object and the zone (the above-mentioned central, intermediate, outer and fringe zones - ca. eight zones and zone of specific purpose) – see Figure 3. New land development fees range from 1:25 for commercial structures to 1:30 for housing and public services (in 2015).

Now, the built/developed state-owned construction land is subject to lease for a period up to 5 years, which is estimated based on the purpose, area and the market value. The lease agreement of construction land in public ownership can be concluded for a period up to 99 years. The law provides the conversion of the land leasing into property right in accordance with the PCA and by-laws. Compared to the market value of the site/location, one can cast doubt on the mechanisms of their determination by local and republic administrative methods derived from regulations. For example, currently, along highways and other development corridors of Belgrade there is no single square meter of land open for construction. Construction land is being sold at prices ranging from 50-1500 EUR/m<sup>2</sup>. This situation could have a discouraging effect on potential investors.

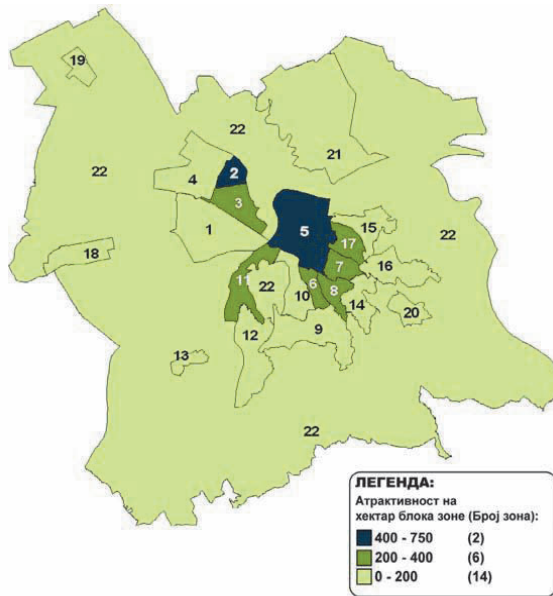


**Figure 3. Urban Land in Belgrade – Zones (I-VIII and the zone for a specific purpose)**

Source: [http://www.beoland.com/images/zemljiste/propisi/Odluka\\_o\\_odredjivanju\\_zona\\_dec\\_2015.pdf](http://www.beoland.com/images/zemljiste/propisi/Odluka_o_odredjivanju_zona_dec_2015.pdf)

Zone boundaries, which are also used for the purpose of determining the initial rental fee, are established (by municipal ordinance) based on the market value of the location, which is defined by “attractiveness and business, traffic coverage and accessibility, scope and diversity of supply within the zone, number of users visiting the zone, special benefits for certain purposes...” (Figure 4 and Figure 5). This reflects a general intention to harness land development policy for more strategic purposes, viz., to improve position of Belgrade metropolitan area in a broader geographical context (cf. *Стратегија развоја трговине Београда 2015/Strategy of Belgrade Commerce Development 2015*), based, first, on its geostrategic position at the crossroads of European Corridors VII and X, and, second, on the

attractiveness of this area and its commercial zones. The Port of Belgrade is a linchpin of the territorial capital of Belgrade metropolitan area, and also has a prominent role in the utilization of overall territorial capital of Serbia. According to the UMP and AUMP (2003; 2006), a further conversion of some 200ha of the port-transportation function is scheduled for business, housing, commercial and other purposes, with a view to develop a new urban centre in this area.



**Figure 4. Belgrade’s zones ranked by the degree of attractiveness – current status**

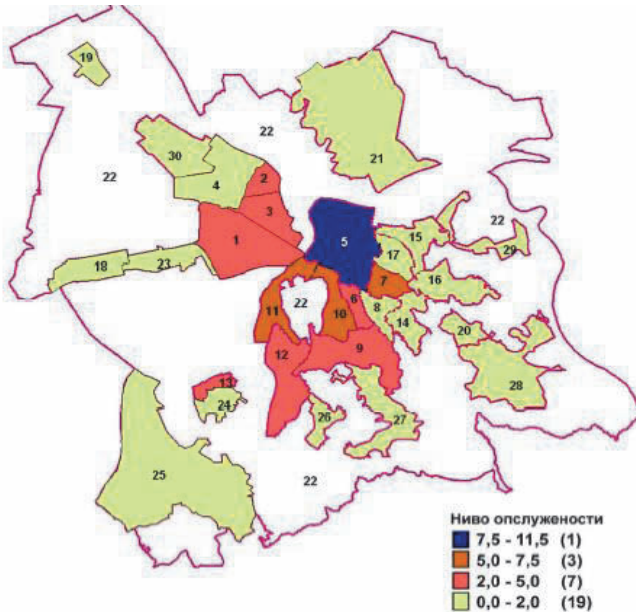
*Source: Strategija razvoja trgovine u Beogradu do 2015, 2008.*

Compared to the market value of the site/location, one can cast doubt on the mechanisms of their determination by local and republic administrative methods derived from regulations. For example, locations within the urban construction land of Belgrade will not depend on turnover, i.e., they are driven by market mechanisms of supply and demand. The turnover of land is collateral and related to the buying and selling of facilities. The location market operates informally, i.e., through transactions of structures only. Currently, along highways and other development corridors of Belgrade there is no single square meter of land open for construction. Construction land is being sold at prices ranging from 50-1,500 EUR/m<sup>2</sup>. This situation could have a discouraging effect on potential investors.

The total area of office space in Belgrade amounts to 2.85 million m<sup>2</sup>, 253.784 m<sup>2</sup> or about 9% of which is owned by the City of Belgrade. By the year 2015 it is planned to build new areas covering about 0.53 million m<sup>2</sup>, mainly by development of the shopping malls. All office space is classified by the business benefits in four zones, namely: extra, I, II and III. Office space lease rates have been decreasing



since 2004 from 23 EUR/m<sup>2</sup> to about 7 EUR/m<sup>2</sup> in 2010, and 10-13 EUR/m<sup>2</sup> in the centre, 14–17 EUR/m<sup>2</sup> in New Belgrade in 2015.



**Figure 5. Area of Belgrade ranked according to accessibility to public transport**

*Source: Strategija razvoja trgovine u Beogradu do 2015, 2008.*

### 2.1.2.3. Concluding remarks

- Urban/construction land policy in all parts of Serbia suffers from a number of insufficiencies, legal, procedural and substantive. System and practices are inferior to better standards, albeit in recent years a strong effort has been demonstrated to introduce better practices, in accord with EU norms and standards. On the one hand, the promulgated system has a number of “in-built” flaws. On the other, the practice has been lagging behind with regard to many more innovative stipulations. Particularly, urban land market is undeveloped, and therefore basic regulatory mechanisms and institutions, as well as more up-to-date ways of financing urban land development, have not been established yet. Essentially, basic approach is still predominantly administrative. That has a number of negative consequences, directly and indirectly influencing the key course of developments regarding many specific issues, viz., zoning regulations, traditional economic tools of urban land policy (development fee, land-use fee, local utilities taxes), which proved as particularly vulnerable and of no benefit for limiting urban sprawl. Zeković (2009) pointed to the following key characteristics of the current situation:
- Weaknesses of the current information system;

- Inefficient use of urban land;
- The administrative way of determining the user of land by decision of a competent agency of the local authorities;
- Unfavourable political dimension of the land management system in the period of transition, as well as its unfavourable social dimension;
- Basically non-transformed land policy in many cities and towns of Serbia, including Belgrade land policy;
- Limited construction and investment;
- Decrease in local land revenue, deficiency of locations and other related problems, mostly resulting from reduced fiscal effects due to less efficient use of urban land, dependency of fiscal revenues on market values of real estate (as a tax base), and similar – by means of which state and local communities lose enormous potential tax revenues in land transactions;
- Still unresolved numerous problems regarding determination of urban rent;
- A considerable lack of locations with regulated and furnished infrastructure that are suitable for commercial and industrial purposes (“productive investments”) in the majority of Serbian cities, thereby favouring the development of “green-field” investments, and neglecting the use of “brown-field” sites, as well as favouring development of new housing in the urban fringe (peripheral urban and suburban areas) along the Pan-European corridor X;
- The enacted legislation itself presents problems as well. The Planning and Construction Act (2009, with amendments from 2010–2015) and the Ordinance on conversion of right of use into right of ownership (2010) enable the holders of privatized land to convert their rights of use into the right of ownership. This legislative solution would be economically acceptable if the Government had not adopted the aforementioned decree which includes the overall cost of capital and property under expenses of acquiring the rights of use;
- The lack of appropriate policies and instruments influenced the process of the suburbanization in the City of Belgrade which continued incessantly in the years after the promulgation of the MUP 2003/2009 (as well as escalation of urban sprawl from the 1970s till the 1990s. By the end of the 1990s the spontaneous suburbanization had ended. But, during that time, due to large refugee inflow, sprawl has continued through massive construction of illegal buildings in a new speculative way, sometimes with the support of local governments (e.g. in the municipality of Zemun in Belgrade, see Zeković, et al., 2016);
- The politics play the main role in the land policy situation. There seems to exist a lack of political will, as the main reason for the delay in the privatization of urban land. The system “defect” in the rules and regulations regarding construction land management has in fact “caught on” very well to the fertile

ground of privatization of location-wise attractive enterprises, complexes, and zones;

- A lack of a more innovative and complex approaches regarding ex ante, ex post and ex continuo evaluation of decision making (e.g., RIA/Regulatory Impact Assessment, TIA/Territorial Impact Assessment, etc.);
- A lack of more innovative and flexible urban land policy tools, e.g.: contemporary urban rezoning, tradable development rights, trading density for benefits – density bonus policy, contemporary models of infrastructure financing, viz., municipal bonds, governmental bonds, financial derivatives – CDS, etc., regulatory arrangements of the Public-Private-Partnership, effective models for reinvesting, land value capture tax as a funding source for urban investment, as well as potential introduction of the Global Land Tool Network, GLTN, etc.
- Dramatic decrease of the size of agricultural land in the Belgrade City Area, paralleling intensive urban sprawl and massive illegal construction, as dominant form of urban sprawl (Zekovic et al., 2015), equally in the Belgrade Metropolitan Region and elsewhere in Serbia;
- The MUP does not identify suburbanization and sprawl as specific issues and does not explicitly stipulate any respective measures. Widespread illegal housing development in suburbs has been studied by the plan and measures have been outlined. The policy of the MUP concerning suburbs comprises (1) better control of this process (sprawl), (2) better equipment of peri-urban zones with technical infrastructure and public services, (3) better control of environmental development, (4) better control of illegal construction in the MUP, (5) legalization of illegal construction, and (6) conversion of land ownership and leasehold, as well as conversion of rural to urban;
- The MUP zoning does not serve as a basis for determination of development fees or any fiscal instruments although the zoning was the main instrument of the master plan to regulate the development of suburban areas, but, in case of Belgrade with insufficient success. The implementation of the MUP is made by elaboration of planning documentation (Detailed Regulation Plans/DRPs). Approximately 1/4 of DRPs will be finished till 2017, while elaboration of 1/4 of DRPs for suburban and peripheral areas can be expected till 2025-2030. Urban zoning is not correlated to zoning for determining land development fee and property tax. Low development fees along road corridors and in suburbs directly support urban sprawl and limit financing the new infrastructure. These tools can help to solve, at least partially, some conundrums between key objectives, measures, planning solutions, urban land policy and its instruments in limitation of urban sprawl in Belgrade;
- The legislation/regulations have strong influence on urban expansion in Serbia and Belgrade and sprawl-induced consequences;
- Legal framework stimulates inefficient and ineffective usage of land resources in the Belgrade area. In Serbia, the legislation pertaining to spatial development,

land use and settlements regulation does not directly address urban sprawl. Urban sprawl is characterized by spontaneous urban expansion followed de facto by ex-post massive legalization or passing of legislation. Planning apparatus is based on the Planning and Construction Act with poor regulation of buildings' illegality, methods of conversion of land-use rights into property rights/ownership (privatization) and conversions of lease into property rights, loss of agricultural land, land consumption, while the key role is carried by ordinances; etc.

### **Acknowledgements:**

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## **2.2. A brief review of the Serbian legal and regulatory framework (spatial regulations and planning instruments) related to urban growth/sprawl and the land market applied to Belgrade**

**Slavka Zeković and Miodrag Vujošević**

This is a brief review of the current legal framework which relates directly to urban sprawl and traditional planning tools, as well as to the tools of land-use control (zoning regulations, development fees, urban growth boundaries, green belts, infrastructure financing, land deposits, public-private-partnerships, etc.), and the conversion of agricultural land to urban land. We have listed and analyzed the main legal acts, regulations and some spatial/urban plans and planning instruments that have strong impacts on processes related to urban expansion and the land market in Serbia (applied to the Belgrade Metropolitan Area – BMA)<sup>7</sup>. The analysis indicates some existing spatial planning/urban management policies (tools, instruments), as well as their current role, and probable gaps related to the land market and to guiding and controlling urban growth/sprawl. The impact of current (or potential) laws and other regulations which regulate fields of urban sprawl, development and urban land policy can be measured and/or controlled in different ways which require a cross-sectoral approach (e.g. RIA/Regulatory Impact Assessment, indicators, C/B methods, evaluation methods, innovation projects, etc.). The expected impacts can support the scientific underpinning for the implementation of planning/urban land tools by strengthening the knowledge base for decision-making and its effectiveness, and for managing the costs and the effects of related measures and tools on limiting urban sprawl. The results should help policy makers to adapt the current tools and involve more flexible tools, increase the alignment of supra/national research and urban innovation programs, overcome current regulation gaps and identify effective policies for the transformation of suburbs to acceptable forms.

The current system and practice of managing urban land in Serbia have not been harmonized with the main courses of transitional reform and change. A great number of basic, conceptual problems have not been solved yet, even though their predictable institutionalization affects the implementation of sustainable spatial and

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<sup>7</sup> Wayne Batchis (2012) has argued that sprawl is less a reflection of consumer preferences and more a result of legal structures and court decisions that have encouraged sprawl development.

urban development and land use policy. The urban land market is undeveloped, and therefore the basic regulatory mechanisms and institutions, as well as more up-to-date ways of financing urban land development, have not been established yet. In the conditions of an undeveloped market, the mechanism of urban land rent is incomplete and distorted, and it does not contribute to the rational use of urban land and to the socially acceptable distribution of costs and profits among various parties. Essentially, the basic approach is still predominantly administrative. This leads to a number of negative consequences that also apply to zoning regulations, traditional economic tools of urban land policy (development fees, land-use fees, local utilities taxes) which have proved to be particularly vulnerable and powerless to limit urban sprawl.

Substantive and procedural aspects of the utilization of agricultural and forest lands, conversion into urban (construction) land and urban zoning in Serbia have been defined by a number of national and local legal acts (laws, legal decisions, ordinances, regulations, etc.), but without any mention of the urban sprawl process, and related instruments and measures. The general intention of the *Planning and Construction Act, 2009* (amended in 2011 and 2012) is to use urban and construction land for construction and other related purposes in a legal, regular and rational way, defined by urban planning documents. This Act, which is not *sui generis* for regulating property matters, defines the legal basis for ownership transformation (privatization of urban/construction land), i.e. 1) the conversion of the right to use state-owned urban construction land into the right of private property to private persons, without compensation, as well as legal entities established by the state, provinces and municipalities; and 2) in the case of state-owned construction/urban land with the right to use held by companies and other legal entities that have reached this status during the process of privatization or are insolvent, the right to use can be converted into a property right by reimbursing the market value of land. The Government of the Republic of Serbia legislates the determination of compensation based on the substitution of rights with compensation according to the “market value”, without defined regulatory rules, market mechanisms, institutions and instruments for conducting the construction/ urban land policies and administering land transactions. The *Act* stipulates that the market value (estimate) of this fee should be determined by the government (Tax Administration, Ministry of Finance), but the *Ordinance* (2011), and *Property Law* (2013) delegate this task to municipalities. In Serbia there has been a lack of appropriate legal provisions for assessing the market value of land and related assets, despite there being 28 laws, many ordinances, instructions, and town and/or local decisions, etc. There is still no systematic data on the estimated value of state-owned land assets, which raises the related question of ascribing the market value of public land subject to a conversion fee.

The *Planning and Construction Act* stipulates a number of development planning instruments for zoning, viz.: parceling out the land for specific purposes, so-called “compact land tracts” and zones; major use of land within the zoning schemes and compact land tracts; obligatory detailed zoning regulations; and

regulations on spatial organization and construction for urban land for which detailed regulation is not obligatory by law. The issue of the maximum construction index and occupancy rate has been regulated by a general by-law from 2011 and by ordinance (for 9 predominant types of land use). In the majority of Serbian cities, zoning regulations and pertinent taxing have not been harmonized with the broader strategic spatial and urban development aims and zoning regulations, and practices only laterally follow the market signals, barometers and instruments. In the majority of cases, especially regarding taxing, the number of zones in urban centers in Serbia varies significantly (9 zones in Belgrade). In the cases of the overwhelmingly administrative zoning regulations, this approach will generally have a negative impact on the market value of land and related assets, which particularly holds true regarding tenders for leasing or purchasing urban land in public ownership. This practice has almost nothing to do with the planning standards for zoning established by spatial and urban planners, but basically originates from a lack of political will at all territorial levels to introduce new legislative, institutional and organizational adjustments which would direct the course of events to more rational and effective purposes in accord with the strategic objectives of urban development.

### ***2.2.1. Conversion of agricultural and forest land to urban land and urban sprawl***

The *Forestry Act*, 2010, allows the conversion of forestry land to other purposes in some cases, with financial compensation which may be 10 times larger than the land's current market value. Following the *Act on Agricultural Land*, in cases where agricultural land is converted to other permitted purposes, the compensation is determined at a level of 50% of the market value of arable land. Special permits are requested, issued by the responsible ministry. The proper compensation should be paid for conversion from agricultural land to construction land by the owner of the property lot, and should be fulfilled prior to issuing the planning use permit. This provision does not apply to the changes based on legal acts and development planning documents adopted before 1992, to "objects" under the procedure of legalization or to construction projects of general interest (for the Republic of Serbia, provinces or local authorities). In the period 1993-2010, some 53,700 ha of agricultural land was lost, i.e. converted to other uses. This conversion was mostly to urban/construction land due to: a) massive illegal construction; b) construction of technical infrastructure; and c) conversion of former agricultural land to other uses (59,400 ha),<sup>8</sup> all within the privatization of state (social) agricultural estates (*kombinati*), paralleled by the increase of green-field investments in the peri-urban zones of the largest cities in Serbia. The restitution of formerly nationalized agricultural land, launched at the end of 1980s, has now been almost completed but the restitution of urban land is still ongoing. In 2009 the law

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<sup>8</sup> This number applies to the category "other uses", which explains the difference between 53,700 ha and 59,400 ha.



introduced some provisions intended to prevent publicly-owned agricultural land being sold off. In at least 27 such sites, out of some 50 peri-urban areas in total, the former agricultural lands deteriorated, often paralleled by illegal construction on the newly converted sites. In 2006, 43,354 ha (19.4%) out of 223,128 ha of the total agricultural land in Belgrade City was still publicly owned. The scope of converted land is tremendous in the Belgrade area. According to the *MUP* of Belgrade and Land Registry data there was large-scale illegal construction of residential buildings in 2015 amounting to ca. 400,000. The majority of informal residents live in the compact type of housing, scattered over 34 zones and in 18 low density informal settlements in the surroundings. According to UNECE (2009), in the broader Belgrade area these settlements represent the key form of urban sprawl, covering 22% of the land for construction and taking up to 40% of residential areas. Land for the expansion of suburban housing is usually purchased from farmers.

From 4.69 million buildings in Serbia in 2015, there are 1.5 million (31,2%) illegal objects, and around 400,000 of them are in the broader Belgrade area (as a consequence of urban sprawl). In the period 1990-2013 three laws on the legalization of massive illegal buildings were adopted, but they have failed to regulate sprawl.

Out of all of the relevant legislative acts, regulations and planning documents, probably those dealing with the issues of privatization have had the greatest impact on urban development, especially on the development of peri-urban territories in Serbian towns and cities, particularly in Belgrade. In general, their impact has been negative. The *Planning and Construction Act* of 2009 might have made things even worse with its stipulations enabling the conversion of leasehold on urban (construction) land into property rights – without applying the proper tool of market pricing and other market instruments. From the standpoint of massive urban sprawl and the policy of urban/construction land, specific regulations for Belgrade are the City's *Decision on Construction/Urban Land* (2015), *Decision on Criteria and Standards for Determining the Fees for Land Development* (2015) and *Decision on determination of zones in the territory of Belgrade City* (2015), with 9 zones. The development fee for construction land for commercial buildings (576.6 €/m<sup>2</sup>) is up to 67 times higher per m<sup>2</sup> in the extra zone (CBD) than the price per m<sup>2</sup> for housing in the peripheral zone of Belgrade (8.6 € in zone VIII). Belgrade's land policy has not been substantially transformed in the transition period. It is managed via the zoning of construction land and determining the initial amounts for compensation and lease by employing the necessary criteria and standards. These criteria and standards are established in an inconsistent way and do not correspond with the actual real estate value on Belgrade's market. Zoning systems and differentiation for certain purposes are not based on relevant market factors, the monitoring of transactions and prices of land and real estate, planned solutions, standards, information systems, relevant modern fiscal, economic and market instruments or institutional arrangements. The partial changes in the institutional framework that regulates this area, as well as organizational adjustments, have not introduced the necessary reforms that would be crucial for further development of the city.

Locations within the urban construction land of Belgrade do not depend on turnover, i.e., they are not driven by market mechanisms of supply and demand. The turnover of land is collateral and related to the buying and selling of facilities. The location market operates both at a formalized and non-formalized level, i.e., through building-site transactions only. Currently, along the highways and development corridors of Belgrade, there is not a single m<sup>2</sup> of land open for the construction of industrial and commercial buildings.

***Master Urban Plan of Belgrade.*** The *Master Urban Plan of Belgrade 2021* (2003, 2006, 2009), *MUP* (City Official Gazette, No. 27/2003, 63/2009) covering 77,600 ha addressed the problem of accelerating suburban development, mostly by the occupation of land for housing purposes in peripheral locations. Around 84% is public (state-owned) urban construction land, 1% has mixed ownership, and the rest (15%) is “non-construction land”. The indicated size of the *MUP* total area should be considered reliable and veritable, because at around the same time as it was written (2006) the Republic Bureau of Geodesy provided official data on the size of urban construction land at the *NUTS2* level (BMA) of 63,005 ha, which fairly well approximated the former data.

For the period 2001-2021, the *MUP* predicted a further decrease in agricultural land (by 18,007 ha, from its share of 51.1% to 27.8%) and an increase in green surfaces, as well as economic, commercial and industrial zones. To assess the scope of urban sprawl in the City of Belgrade, one should take into account the circumstances of unreliability and controversial data. In 2011 the total amount of agricultural land in the City of Belgrade was: 212,000-215,000 ha (according to statistics), 130,000 ha (*Agricultural Census*, 2012) or 136,214.07 ha (Republic Bureau of Geodesy, 2013), that is, some 79,200-85,000 ha less than total number of agricultural surfaces. All data indicate a dramatic decrease in the size of agricultural land in this area and intensive urban sprawl and/or urban growth. Some goals contained in the *MUP* are contradictory, i.e. related to both urban expansion and urban renewal/ reconstruction. For example, urban renewal was strongly stipulated, with a parallel increase of ca. 50% of built urban land which was predicted at the same time.

The other findings in the urban land policy are: weaknesses in the current information systems; inefficient use of urban land, a dramatic decrease in the size of agricultural land in Belgrade City and intensive urban sprawl; insufficient construction and investment; a decrease in local land revenue; a lack of supply locations; etc. There is a need to introduce a new evaluation approach, i.e., to estimate the effects of urban land policy in the city, as well as urban sprawl and the impact of laws and other regulations which regulate these fields. This can be measured and/or controlled by introducing sophisticated approaches in the management of construction land, with a view to stop, or even to redirect, the now mostly uncontrolled massive process of urban sprawl.

Corresponding provisions have not been followed by appropriate specific policies and instruments, or the redirecting of urban development into the BMA. The lack of appropriate policies and instruments resulted in the process of

suburbanization in the BMA continuing incessantly in the years after the promulgation of the *MUP, 2003/2009* (as well as the escalation of urban sprawl from the 1970s until the 1990s in accordance with the *MUP, 1972* and *1986*). By the end of the 1990s spontaneous suburbanization had ended. However, in the 1990s, due to a large refugee inflow, sprawl continued through the construction of illegal buildings in a new speculative way, sometimes with the support of local governments (e.g. in the Belgrade municipality of Zemun). The Belgrade *MUP* channeled sprawl in a few different directions: the Zemun, Batajnica, Kaludjerica, Zrenjanin route, the Ibar route, highway corridors, and so on. Infrastructure-driven urban sprawl is evident along the highway corridors of Belgrade-Novı Sad, Belgrade-Zagreb, the Ibar route, and along the airport corridor, in new industrial zones, commercial zones, in mixed peri-urban zones, and so on. Peri-urban growth was initiated by new housing, new SMEs, the dislocation of some capacities, etc. Some state-owned plots (under the ownership of earlier state/social companies/agriculture's "kombinat") have been privatized and used for housing, or commercial or industrial purposes. Sprawl and peri-urban transformation are mainly a combination of "ribbon", "leapfrogging" and "cluster" types, as well as "green" sprawl and "urban island in the green sea", compacted urban forms and dispersed low density urban forms. In the inner core of Belgrade there is "implosive" sprawl, and so on.

Analysis of the impact of the legislative framework on urban sprawl suggests that laws and regulations on the national, metropolitan and local level have a strong influence on the territorialization of urban growth/sprawl in Serbia and Belgrade with sprawl-induced consequences. We have assessed that some legal regulations for spatial planning/urban growth management policies (tools, instruments) are the main sources of urban sprawl (e.g. urban zoning and rules, land-use ordinances, the setup of urban boundaries, infrastructure regulations and the construction of new infrastructure, the cost of public transportation, etc.), which is also caused by the reduced possibility of having a local budget for the new common urban equipment. Those regulations are verified on a national or metropolitan/local level and their role is inefficient and ineffective in guiding and controlling urban growth/sprawl in Belgrade. In accordance with many models of urban growth, as the distance from city centre or key node of accessibility increases, the prices of urban land and housing (and often urban densities) are lower. The transportation costs (or costs of accessibility) are often higher, but, sometimes also lower (if there is public rail transportation, etc.). If the cost of transportation is lower, we can conclude that it is the main reason for urban expansion into the surroundings areas, as well as lower urban densities (and lower land prices).

Legal regulations and urban land policy are the main ways to influence the land market or to decrease/increase market demand by locking or limiting urban sprawl on account of the acceleration of urban growth or urban renewal/reconstruction as more acceptable processes.

The influence of infrastructure construction and finance on urban structures and the impacts of urban development on infrastructure costs (the so-called cost of

sprawl) have to be included in any urban sprawl analysis. In general, the level of infrastructure costs (including utilities) and costs of public services are mainly in correlation with urban densities: lower costs include a higher development density (urban, demographic, etc.), and vice versa. A number of cities/municipalities have introduced land construction fees for the construction of new buildings. *The Serbian Constitution* (2006) and *The Planning and Construction Act* (2009) set up a development fee (with the obligation of cities/municipalities to determine its value) as a tool which reflects the actual relationship between the costs of the utilities and public services and the level of the development fee. Due to considerable differences among cities/municipalities in Serbia regarding their fiscal capacity, the conditions for better urban planning and governance may well deteriorate, as may the possibility of managing urban sprawl.

Finally, we can conclude that the legal framework stimulates the in-efficient and in-effective usage of land resources in the Belgrade area, as well as the irregular and informal status of many settlements (in the suburbs and urban tissue). We recognize that both the legal framework and current metropolitan/urban planning and governance are keystones of urban (as well as national/regional) policies and their own sprawl-inducing results. In Serbia, the legislation on spatial development, land use and the regulation of settlements does not directly address urban sprawl. The laws and institutional changes made during the transition period have been poor, or they are the result of urban sprawl (massive illegal, irregular and informal construction) rather than the precondition/prevent framework. Urban sprawl has characterized spontaneous urban expansion followed *de facto* by ex-post massive legalization or passing of legislation. The planning apparatus is still based on *The Planning and Construction Act*, with poor regulation of: the legality of buildings, the methods of conversion of land-use rights into property rights/ownership (privatization), the loss of agricultural land, the evaluation of urban land, land consumption, etc., while “decisionism” has an important role via different ordinances (more than 25 in this *Act*). The strong effects of the following are also present: earlier urban growth boundaries in Belgrade *MUP*, urban zoning, building rules, land-use regulations, development fees, government and metropolitan regulations on both urban structures and urban sprawl (e.g. lower densities, loss of agricultural land, lack of infrastructure, lack of land-use control in the metropolitan area).



**T U R A S**

TRANSITIONING TOWARDS URBAN  
RESILIENCE AND SUSTAINABILITY