



**T U R A S**

TRANSITIONING TOWARDS URBAN  
RESILIENCE AND SUSTAINABILITY

**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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**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**



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# 1.

## **SOME GUIDELINES ON LIMITING URBAN SPRAWL**

Slavka Zeković and Miodrag Vujošević



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## 1.1. Introductory remarks

Not including the reference section, this contribution consists of two parts. In the first part, some comments are extended on the respective roles and contents of two key international documents in this area, viz., *International Guidelines on Urban and Territorial Planning* (Draft, UN Habitat, 2015), and the *Leipzig Charter on Sustainable European Cities* (2007). In the second part, some guidelines for the transformation of urban land policy and tools for limiting urban sprawl are presented and briefly interpreted, both traditional instruments and tools, and some which are more innovative and flexible. At the end of the paper we suggest that all of the documents mentioned (guidelines, charters, strategies, etc.) may fairly easily be implemented in the areas which are our main interest.

## 1.2. Two international documents

The document *International Guidelines on Urban and Territorial Planning* (UN Habitat, 2015, from now on: *IGUTP*) belongs to a larger group of international documents that should serve as the general directions for guiding urban and territorial planning, along with parallel documents from national governments, local authorities, development partners (e.g., World Bank, OECD), research institutions, academia, civil society organizations, etc. The *IGUTP* complements two other sets of UN Habitat guidelines, that is, the *Guidelines on Decentralization* (2007), and the *Guidelines on Access to Basic Services for All* (2009), which have been used in many countries to catalyze policy and institutional reforms (see Zeković et al, 2015a).

Twelve (12) key principles of the *IGUTP* are categorized into four groups, which are:

- Urban policy and governance;
- Urban and territorial planning for sustainable development;
- Urban and territorial components; and
- Implementation of urban and territorial planning.

The *IGUTP* intends to constitute a global framework for improving policies, plans and designs for more compact, socially inclusive, better integrated and connected cities and territories that support sustainable urban development and urban resilience under the impacts of climate change. Also, the *IGUTP* supports complementary activities and their national adaptation, the adjustment of legal and regulatory frameworks, and the application of the adapted guidelines to a particular city. To that end, national governments should, inter alia: first, promote urban and

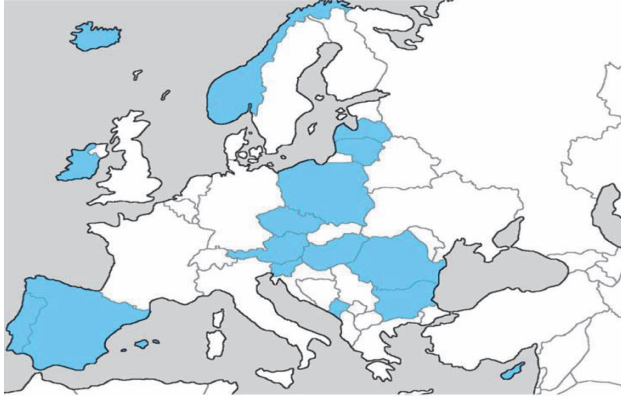
territorial planning and synergies, and link urban planning to regional development to ensure territorial cohesion at the city/regional level; and second, promote compact cities, regulate and control urban sprawl, develop progressive densification strategies combined with land market regulations, optimize the use of urban space, reduce the cost of infrastructure and the demand for transport, and limit the footprint of urban areas, in order to effectively address the challenges of climate change. The *IGUTP* also has another set of goals comprising the following: first, the development of a universally applicable reference framework to guide urban policy reforms; second, to capture universal principles from national and local experience that could support the development of diverse planning approaches adapted to different contexts; third, to complement other international guidelines aimed at fostering sustainable urban development; and fourth, to raise the urban and territorial dimensions of the development agendas of national, regional and local governments.

So far there have been a number of evaluation papers concerning the implementation of some UN Habitat and related documents. For example, Sietchiping (2014) analyzed the *IGUTP* vis-à-vis the *UN Habitat Urban Planning and Design Strategy 2014-2019* (which discussed urban sprawl vs. compactness), and some national urban policies. When applied to Kosovo and Serbia, the document *Guidelines on Access to Basic Services for All* (2009) shows that these areas have the lowest access to basic services in isolated rural areas, peri-urban areas and slums. Consequently, a number of specific policy instruments are needed, specifically for complex and under-serviced territories (viz., rural areas, fast-growing cities/urban areas, slums, urbanized areas at risk, and so on), in order to cope with the lack of basic services and territorial planning gaps.



**Figure 1. Countries with comprehensive national programs of integrated planning of urban development (for parts of urban areas or deprived zones)**

*Source: Beckmann D., The European Perspective – Integrated Urban Development as a new planning approach in the European Union – an overview, BBSR-Bundesinstitut für Bau-, Stadt- und Raumforschung, Studie “5 Jahre Leipzig Charta – Integrierte Stadtentwicklung als Erfolgsbeinung einer nachhaltigen Stadt”, presented at the Urban Energies congress in Berlin, 2012.*



**Figure 2. Countries with national or regional programs or national guidelines for integrated urban development (for parts of urban areas or deprived zones)**

Source: *ibid.*



**Figure 3. Countries implementing integrated urban development (for parts of urban areas or deprived zones) at the local level**

Source: *ibid.*

Another document, the *Leipzig Charter on Sustainable European Cities* (2007) shows that the European plan to strengthen citizen participation in urban design should support the integrated urban development strategy as a tool for improved city management, based on the principles of competitiveness, and social and territorial cohesion. The Strategy for the development of European cities should be based on strengthening the policy of integrated urban development in line with the *Lisbon Strategy (Europe 2020)*, the *EU Sustainable Development Strategy* and the *European Employment Strategy*, altogether putting stronger focus on deprived city areas and making better use of the integrated urban development approach. In this respect, there are considerable differences among European countries in relation to the approach used in integrated urban strategies, as depicted in the following three figures.

### 1.3. Guidelines for the transformation of urban land policy and tools for limiting urban sprawl (traditional and more flexible)

According to UN Habitat (2013), large urban or metropolitan areas have now been emerging in Europe's transitional countries. Their typical feature is uncontrolled urban sprawl. The outbreak of world economic and financial crisis, growing economic uncertainties and risks, the spread of "the real-estate bubble", housing boom and the switch from the urban land bubble to urban doom (urban sprawl) have all contributed to a drastic decline in the real-estate value in cities and expansion of urban sprawl. Limiting urban sprawl (or the "urban growth machine") is not merely a part of integrative planning practices, instead it should be part of a realistic approach based on national/strategic policies, market trends and governance, and it depends on policy tools (Zeković et al. 2015c). In this respect, perhaps, new theoretical approaches would be needed with regard to development planning and market policy. For example, Davy (2014) defined a multi-rational theoretical concept (poly-rational theory), based on a more ramified understanding of dominant types of land use, each type needing its own kind of property rules. The eight types of land use are: insular; opportunistic; kinship; collaborative; corporate; structural; container; and environmental. This approach marks a departure from standard planning versus market dichotomies.

#### Some traditional planning tools

Here, some traditional planning tools and tools of urban land control will be briefly described, viz.:

- **Zoning regulations** (also comprising regulation of the maximum construction index and occupancy rate for eight predominant types of land-use) will be kept for their essential role in the urban (city) planning. They help to determine the function of properties in specific locations in order to ensure the city is well-planned. A property may be zoned for commercial or industrial use, or for residential use. Sometimes properties like "live/work" spaces contain multiple zones, some for residential and some for commercial use. When a city government or a property owner wishes to change the terms of property use, they may need to go through the process of rezoning physical property, which may be simple or complex depending upon the city's demands and requirements. Zoning and other land-use regulations, especially when adopted at the local level, tend to result in lower overall urban densities and encourage urban sprawl. Pogodzinski and Sass (1991) indicate that the effects of zoning depend on several factors, including: a) *what* local governments control through zoning; b) *how* strictly zoning regulations are enforced; c) *who* controls the zoning process, and d) the metropolitan context in which the zoning takes place. The elements of zoning ordinances and the subdivision of regulations can be classified into three types: a) regulations that are regional or spatial in orientation; b) regulations that are process-oriented or transportation-oriented and c) regulations that shape the individual development sites. The regulations strongly prescribe what is permitted and what is forbidden,

and their rationale is the so-called ‘command-and-control’ approach. Many countries have different regulations on land-use, and usually the public sector intervenes more in the construction of urban areas than elsewhere. In some countries, the government retains a discretionary power, e.g. in Serbia, the recently adopted *lex specialis* for the project ‘Belgrade Waterfront’, see Zeković et al. (2016), while in the overwhelming majority of European countries government power is limited by the constitution and laws.

- Analogously, mechanisms for **controlling urban growth boundaries** will keep their prominent role.
- As for **infrastructure investments**, they are not expected to lose relevance during urban (city) growth, for the simple reason that the pressure to improve services and provide essential infrastructure can be enormous. Because land cannot be moved, it can be a unique opportunity and basic resource for generating local revenues. Land-based financing should cover land valuation, land and property taxation and other means of creating revenue through land and over land. Here, of the utmost importance is the redistribution of the costs of public infrastructure among all stakeholders (within various approaches of planning-cum-market/market-cum-planning, predominantly non/administrative, etc.).
- Controlling **green belts** will similarly be kept as a fundamental tool of the anti-sprawl growth policy (Pond, 2009). This also applies to another phenomenon, i.e., the leapfrogging phenomenon, which can emerge as development jumps in the green belt boundaries in the search for cheap land available for rezoning (Bimbaum, 2004).

**Urban land policy with price mechanisms**, including, inter alia, development fees, property taxes, etc., will keep their relevance as well. For example, the land development fee will be kept as a local public revenue instrument which is of crucial importance for financing infrastructure development in the BMA, according to the *Building land development program*.<sup>25</sup>

Here, one should observe some important conclusions of the UN Habitat<sup>26</sup>, based on vast empirical experience, e.g.: urban development should be financed through capturing increases in land value resulting from public investment or broad urban trends, tools and policies which should be implemented under local conditions; land valuation methods

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<sup>25</sup> The level of the land development fee in the BMA is: for housing from 8.6 EUR/m<sup>2</sup> (VIII zone) to 358.48 EUR/m<sup>2</sup> of floor space (in I extra zone); for commercial assignment: from 13.37 EUR/m<sup>2</sup> (in VIII zone) to 576.65 EUR/m<sup>2</sup> of floor space (in I extra zone); for industry: from 11.04 EUR/m<sup>2</sup> (in VIII zone) to 411.89 EUR/m<sup>2</sup> of floor space (in I zone). All prices are calculated in accordance with data from 2014. The fee levels are regulated by ordinance (I-VIII zones) in Belgrade City. The fee is determined in accord with the following criteria – the degree of infrastructural equipment, the program of construction land, urban zones (there are eight zones in BMA), and the type of land-use and building surface.

<sup>26</sup> Research for the Reduction of Land Consumption and for Sustainable Land Management, cf. <http://www.refina-info.de/termine/termin.php?id=2239>, accessed 10<sup>th</sup> March, 2015.



should also be implemented within the local administrative capacities; and so on. In addition to property tax, which may include the market price of building land, the most important fiscal tool is **land value tax** on the increased value of building land/property as an *ad valorem* tax. Taxes/fees on the increased value of urban land should capture its extra value resulting from public sector investments. (To note, here land rent corresponds to an annual discount rate.)

### **Some more innovative and flexible urban land policy tools**

Besides the traditional planning tools, there is a need for alternative, adaptive or complementary approaches to the current “command-and control” regulation. Common law, public and private agreements, and market-based tools, as contemporary regulations, enable the development of the hybrid “smart regulation” approach. Such regulations may predictably exert a positive impact on the changing urban sprawl and planning. The introduction of more innovative and flexible urban land policy tools would support the new role of planning in creating a more resilient city, viz.:

- **Urban rezoning**, as adaptation, adjustment or deconstruction of densities and zone rules. Rezoning is the term used for any change in zoning by-laws and zoning urban plans. Since the beginning of the 21st century, the concept of mixed urban land-use has become quite popular. Many cities have embarked on rezoning campaigns, labeling the resulting areas as “mixed use”. Rezoning is the act of changing the terms of property use for an area of land. When a property owner wants to use *land* in a way that is not permitted by the zoning of his/her property, the owner must request to *rezone* the property to a classification which permits the desired use. *Rezoning* is a legislative action which is considered through a complex process. Rezoning may occur in either of the three following ways: a) To change the current zoning of a site or to accommodate other uses or forms of development; b) To change the current zoning of a site from one standard zoning area to another; and c) To change the text of the by-law on zoning and development.
- **Tradable development rights, trading density for benefits - density bonus policy**. Cities have used the density bonus as a policy when rezoning has been applied as a tool to capture the increased land value created by the rezoning (Moore, 2012; Baxamusa, 2008). The liberal policy instrument is the Purchase of Development Rights (PDR) or Transfer of Development Rights (TDR) programs. The former is similar to the conservation easements which are an established regulatory tool, while the latter bears some resemblance to the density bonuses provisions. The PDR and TDR tools are voluntary and require direct funding.
- **Infrastructure financing** (capital infrastructure, utilities) may have to be adapted to new needs relating to its influence on the urban form and vice versa.
- **Regulatory arrangements of the Public-Private-Partnerships (PPP) for the capture of the increased urban land values**. PPP includes different types of legal acts/tools, viz., community development agreements (e.g., the program of urban re/development), community benefits agreements, planning agreements, negotiation, covenants, and easements – as types of servitudes. Covenants are tools for the management of urban growth, as well as land-use changes which include environmental protection. An easement is a non-possessory right to use the real

property of another for a specific purpose without possessing it. The use of covenants and transferable/tradable development rights is a part of land-use management. Regulatory mechanisms provide the indirect capture of increased urban land value, usually through the synergy of PPP, urban propositions and planning arrangements. In recent years, social impact bonds have often been applied, which means that an investor who builds on an exclusive location has to finance the construction of the social services and social housing at that location, without the financial participation of the local community. This instrument is different from the so-called “bonus” urban zoning, which implies that the investor may obtain a permit for a higher additional floor space index than allowed, parallel with the requirement to invest in the social services.

- **Implosive and inclusive zoning** is one of the complementary tools, especially in the revitalization of brown-fields. In some countries, the protection of human rights and social inclusion in urban renewal involves inclusive zoning, i.e. the rights of the “caught up” land owners/users. Those who invest in attractive locations have an obligation to build housing for the “domicile” citizens (e.g., the poor).
- **Land tenure** is a form of participation of the private land owner in strategic projects (e.g. infrastructure) that provide income to the owner (Mittal, 2014). The introduction of development land in the periphery is a tool for the conversion of agricultural land for urban uses. (Zeković et al, 2015b). A very important instrument is the introduction of so-called urban land management/readjustment. This urban land instrument was introduced in Serbia by PCL (Planning and Construction Law) in 2011 (see Müller et al., 2015).
- The introduction of **governmental or municipal bonds** for the purchase of land for public purposes and infrastructure construction, as well as the introduction of financial derivatives (CDS-Credit Default Swaps, and others), management models, and the improvement of public participation and decision-making in urban planning, the introduction of various PPP arrangements, etc.
- The introduction of transparent approaches, principles and methods of urban land evaluation (see Müller et al, 2015).

In accordance with the rule of law, how can new instruments contribute to more efficient planning? For example, the *Global Land Tools Network (GLTN) work programme* offers land tools as a practical way of solving problems in land administration and management for the next 10 years. Land tools are also a way of enforcing principles, policies and legislation for limiting urban sprawl. They include many approaches and methods: legal means, a set of software, the accompanying protocols, guidelines, etc. Land tools may be complementary or may offer alternative ways of working. According to GLTN (UN-Habitat, 2013), land tools should be affordable, equitable, prone to subsidiarity, sustainable, systematic and large scale. Governance as a process of tool development should provide access to land and the use of land, the implementation of decisions, and reconciliation of conflicting interests in urban land affairs. According to UN-Habitat, urban governance provides a lot of ways in which institutions can organize the daily management of a city, by realizing the short-term and strategic decisions of urban development. According to GLTN the development of 18 land tools is divided into five themes, and cross cutting issues: 1) Access to land and tenure security (i.e. tenure security, land rights, contracts; socially

appropriate legal adjudication, statutory and customary methods, the land management approach); 2) Land administration and information (spatial units, the land agencies budget approach); 3) Land-based financing (land tax for financial and land management); 4) Land management and planning (urban and spatial planning, regional land-use planning, land readjustment); and 5) Land policy and legislation (regulatory framework, legal allocation of assets; expropriation, eviction and compensation); and cross cutting (capacity development, conflict/ disaster, the environment, land governance). Urban land governance requires clear legal frameworks, and efficient political, managerial and administrative processes, as well as guidelines and tools for limiting urban sprawl (Zeković et al., 2015b). This is a process of decision-making which includes a lot of stakeholders who have different priorities for land-use or development. Hartmann and Needham (2012) find that planning approaches are rooted in the activities of making, implementing and enforcing property rights over land and buildings, i.e., “planning by law and property rights” and they are unavoidable in a society with the rule of law.

We conclude this contribution by putting forth two issues still open for further discussion, viz.:

- How to prepare the planning and development regulations of urban sprawl in a situation which lacks some guidance for uncertainties, disturbances, and limitations in complexity contexts; and
- How can the more traditional tools be adapted to improve their compatibility with the current trends of urban sprawl and global challenges – under economic and financial uncertainties?

## ***List of References***

- Baxamusa, M. (2008) Empowering Communities Through Deliberation: Community Development Agreement, *Journal of Planning Education and Research*, 27, pp.261-276.
- Birnbaum, L. (2004) *Simcoe County: the new growth frontier*. Toronto: Neptis Foundation.
- Beckmann D., The European Perspective – Integrated Urban Development as new planning approach in the European Union – an overview, BBSR-Bundesinstitut für Bau-, Stadt- und Raumforschung, Studie „5 Jahre Leipzig Charta – Integrierte Stadtentwicklung als Erfolgsbeispiel einer nachhaltigen Stadt“, presented on Kongress „Urban Energies“, Berlin, 2012.
- Davy, B. (2014) Poly-rational property: rules for the many uses of land, *International journal of the commons*, 8(2), pp. 472-492.
- Hartmann, T., Needham, B. (eds.) (2012) *Planning by law and property rights reconsidered*. Farnham: Ashgate.
- International Guidelines on Urban and Territorial Planning, UN Habitat, Nairobi, Kenya, 2015.

- Mittal, J. (2014) Self-financing land and urban development via land readjustment and value capture, *Habitat International*, no. 44, pp.314-323.
- Moore, A. (2012) Trading Density for Benefits: Toronto and Vancouver, Institute of Municipal Finance and Governance, Munk Centre, University of Toronto.
- Müller H., Wehrmann B., Čolić R., Fürst A., Begović B., Jochheim-Wirtz C., Božić B., Ferenčak M., Zeković S., *Strengthening of Local Land Management in Serbia. Module 1: Urban Land Management* (Ed. H. Müller), Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, GIZ Office, AMBERO Consulting Representative Office Belgrade, Republic of Serbia Ministry of Construction, Transport and Infrastructure, 2015
- Pond, D. (2009) Institutions, political economy and land-use policy: greenbelt politics in Ontario, *Environmental Politics*, 18(2), pp.238-256.
- Pogodzinski, J.M., Sass, T.R. (1991) Measuring the effects of municipal zoning regulation: A Survey, *Urban Studies*, 28, pp.597-621.
- Sietchiping, R. (2014) Towards development of International Guidelines on Urban and Territorial Planning, First meeting of the UNECE Task Group on Urban Planning, UN-Habitat.
- Zeković S., Vujošević M., Bolay J.C., Cvetinović M., Živanović Miljković J. and Maričić T. (2015a) Planning and land policy tools for limiting urban sprawl: the example of Belgrade, *Spatium*, International Review, No. 33/ /2015, pp. 69-75., ISSN: 1450-569X (Print), ISSN:2217-8066 (Online)
- Zeković, S., Vujošević, M., Maričić, T. (2015b) Spatial regularization, planning instruments and urban land market in a post-socialist society: the case of Belgrade, *Habitat International*, 48, pp. 65-78.
- Zeković S., Vujošević, M., Maričić T. (2015c) Planning and land policy tools for limiting urban sprawl under the economic uncertainty: example of Belgrade, Book of Abstracts of the International Conference on “*Changing Cities II: Spatial, Design, Landscape & Socio-economic Dimensions*”, Department of Planning and Regional Development, Porto Heli, Greece, 22-26 June 2015., University of Thessaly, p.157.
- Zeković, S., Maričić, T., Vujošević, M. (2016) Megaprojects as an Instrument of Urban Planning and Development: Example of Belgrade Waterfront Project, 2016 UNESCO Chair Conference on Technologies for Development: From Innovation to Social Impact, 2-4 May 2016, EPFL, Lausanne, Switzerland.
- UN-Habitat, (2013) *The state of European cities in transition 2013. Taking stock after 20 years of reform*. Nairobi/Krakov: UN-Habitat& Institute of Urban Development.
- UN-HABITAT, [www.unhabitat.org](http://www.unhabitat.org) <http://unhabitat.org/urban-themes/land/> accessed 1st March, 2015.



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