LAND USE SYSTEM TRANSFORMATION IN A POST-SOCIALIST CITY
(USING KYIV AS AN EXAMPLE)

Alexander Drapikovsky, Iryna Ivanova
The Center for Organization and Economics of Urban Land Use, Kyiv, Ukraine
a_drapikovsky@hotmail.com; i_ivanova@hotmail.com

Abstract. Urban land use because of its externality always carries some potential conflict. In fact, the normal development of any city is a chain of recurring local conflicts and their solution. However, the conflicts that arise today in the field of urban land use are systemic in nature, in which simultaneously crossed private, public and state interests. They involve all the actors of urban development, from designers and developers to the city government and individual citizen.

The phenomenon of a city in geography has numerous interpretations. One such interpretation considers a city to be a system of land use that forms material and spatial preconditions for human activity and through which such conditions are realised.

Traditionally the subject matter of research under such an approach includes regularities of functional and territorial division of types of urban land use. Such regularities are usually stable and continual in their nature. Thus of particular interest are the turning points in societal development when within a relatively short time, significant restructuring of land use takes place.

The change in the systems of economic activity in ex-socialist countries may be defined as such a turning point. This has stimulated research in functional and spatial land use structure, especially in capital cities that may be viewed as having a stronger initial position for market change to take place. Geographers have been attempting to build transition models for cities of state-regulated socialism that have moved to global capitalism, in order to explain the nature of the reorganisation of urban space under new conditions of labour and residential markets [1-4].

The authors of research on Berlin, Budapest, Warsaw, Prague, the Baltic capital cities, Moscow and Saint-Petersburg, stating the general nature of land system transformation tendencies in post-socialist cities, at the same time stressed the geographic specifics of this process. This makes it relevant to consider the same process in Kyiv. The article offers the results of the research of changes in the functional and spatial land use structure in Kyiv over the past twenty years.

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1. The land use system during the socialist period. To a significant degree, the land use system of modern Kyiv is the result of urban development policies of the socialist era. Almost 80% of existing development was accomplished in accordance with the concept of planned structure and functional zoning of urban territories dominant at that time.

The first concept was based on decisions by the Central Committee of the Communist Party of Bolsheviks on socialist restructuring of the mode of life and provided for the development of workers’ settlements around urban enterprises within a network of cultural and municipal establishments. This resulted in urban development as a conglomerate of relatively autonomous industrial and residential settlements. In practice this concept dominated until the middle of the 1950s and resulted in territorial development along major roads where enterprises tended to be located.

Another concept was based on the decision of the Central Committee of the Communist Party of the Soviet Union in 1955, on the introduction of industrial residential construction which started the formation of residential and industrial estates in areas that were free from any development. This stimulated active development of areas between major roads, pushing the city boundaries further. The latter was also related to attempts to solve the problems of the lack of food and residential premises by allocating land plots for residential construction and gardening, and the incorporation of nearby villages into the territory bounded by the city boundary, while preserving the extensive land use forms at the same time.

Both concepts were based on the administrative character of access to land resources. This combined with the policy of minimal expenditure, absence of the principle of competitiveness and free use of urban land resulted in the radial functional system that was specific of socialist cities. Such a radial system is characterised by the accumulation of obsolete types of land use requiring big territories within the central part of the city, concentration of residential estates at the outskirts and the augmentation of the density of population the further away from the centre you are.

Thus we may state that socialisation of land resulted in the formation of a specific type of land use. Its features include unbalanced factors of location and intensiveness, unjustified use of big territories and high energy intensity. The dynamics of such a land use system did not show a tendency for saving resources and did not display the preconditions for intensification of urban land use.

2. The change in the conditions and factors of urban development. The transition to new market-oriented forms of economic activities coincided with Kyiv acquiring the status of a capital of an independent state which had a crucial impact on the economic and social life of the city, making it more dynamic. The number of legally and economically independent business enterprises quickly grew. Such entities required certain levels of material and spatial environments for their operation. This resulted in the development of the real estate market as one of the mechanisms to regulate land use.
The laws on privatization of state property, introduction of multiple forms of land ownership and payment for its use ratified in 1992, have become the preconditions for the formation of the above-named market.

With the context of the drastic diminishing of the volumes of construction, including National budget-financed construction, the real estate market basically developed through redistribution of the existing residential and non-residential property, where not only the owners changed, but also property functionality. This cycle in the development of the real estate market has almost no influence on the spatial structure of land use in Kyiv, though it started the rebirth of High Streets as a focus for commercial activity. The effect of this cycle was to form market prices for real estate and to realise the ineffectiveness of the instruments of land use and development control inherited from Soviet times.

Starting September 2001, demand for real estate grew, and well as its prices. At this time the second cycle in the development of the real estate market began, which showed substantial quality changes. New home and commercial property sales grew, new big property appeared. Multi-functional residential and office and trade centres appeared, the quality of construction improved. Legislation was improved, in particular the law on planning and development which provided for a set of zoning rules for urban land use.

Simultaneously, Kyiv as the capital became more attractive in terms of finding a job, career growth, and private business development. This resulted in a population increase and a shift towards non-industrial employment.

The rising demand for residential and commercial property within a context of insufficient supply, stimulated real estate market growth. It was characterised by a dynamic growth of prices and rental rates, which by the middle of 2008 had grown by almost ten times. This made real estate more attractive for investment, and stimulated offer of newly built properties. On the other hand it stimulated the speculative motivation for purchasing property, which became one of the principal factors for “warming up” the market.

It must be noted that such a growth in prices had as an important component not so much construction costs, but the developer’s profit - more than 40% on average. Such growth in prices did not correlate either with households’ and businesses’ income, or with income from the property, thus making mortgage payments impossible. In reality, property was bought at prices that did not correspond to the purchasing power of buyers. This could not help but lead to a crisis.

The financing of construction with a high level of completion recommenced only in the beginning of 2010, and even then, the financing of new construction was subject to such construction being realistic in size, highly competitive and attractive for users.

On the whole, the market repeated the same stages of development that we saw in the first cycle. Although the second cycle took place under differing social and economic conditions, and had principally different market parameters, both cycles demonstrate the general tendencies of changing parameters that describe the state of the market, the latter starting to dominate urban development more and more [5].
3. Principal agents in the changes of a land use system.

3.1. Residential Complexes. Residential construction is the principal driving force during changes in a given land use structure. Though in the first decade of the post-socialist period the volumes of new residential construction completed have significantly dropped (in certain years up to 400,000 sq.m.), residential estates at the outskirts of Kyiv continue to be build: on the left bank are Vyhirivschina-Troyeschina, Posnyaky, Osokorky, on the right bank are Obolon, Svyatoshyn, Akademmistechko, Bilychy, and the completion of a small residential estate on vul. Staronavodnitska in Pechersk.

The second decade showed an increase in residential construction and diversity in the projects undertaken. Along with residential construction, traditional for the socialist period, there is also residential construction going on in Teremky, Levoberezhna, and the DVRZ, with the density of construction of built-up areas in central Kyiv being increased. Here individual residential complexes of average and above average standards are being built. They have an autonomous infrastructure and professional management. Areas with private detached houses are being reconstructed in addition, where condominiums, town houses and individual developments are being built to match new standards of living for families with high incomes.

During this period, land plots formerly belonging to manufacturing enterprises, located mostly in central Kyiv, are started to be built-up with residential development, such as the housing estates of Holosiyivsky, Novopechersky Lypky, Comfort Town, Parkovi Ozera, Park Avenue, Crystal Park, and Fountain Boulevard.

Perhaps for the first time in the real estate market a demand has arisen for secondary residences located beyond the city boundary. The highest demand is for housing located within a 30-kilometre zone of the capital. A new kind of residential estate has appeared, that of gated communities with a developed infrastructure and guarded territory.

3.2. Office Centres. Office centres have become another important agent in the changes of land use structure. In the first decade of the post-socialist period, developers gave preference to relatively inexpensive projects that upgraded and brought into use existing administrative and laboratory buildings at locations easily accessible by public transport places. Later, from 2004, there appeared a tendency to construct professional office centres of categories A and B, which tend to be located in the Central Business Area of the capital, the size of which is restricted.

Later with the saturation of the Central Business Area with office space, office centres of categories A and B started to be built in areas neighbouring the Central Business Area, such as Podil, Pechersk, Nova Zabudova, Lukyanivka, and Solomenka. This has effectively returned these areas to those of concentrated employment within the historical city centre.

3.3. Shopping and Entertainment Centres. Shopping and Entertainment Centres that require relatively large areas for construction have become yet another important agent in the changes of the land use structure. It was only natural that they began with the reconstruction of substantial industrial buildings, turning them into...
shopping centres with incremental entertainment units, such as those of Megamarket on Horkoho St, Karavan on Luhova St., and Promenada on Bohhovutivska st.

In the very centre of Kyiv, commercial functionality was acquired by a street-retail format and started to use subterranean space, examples including Metrohrad, Kvadrat, and Hlobus.

Newly constructed professionally-designed shopping and entertainment centres with shopping malls, alongside a few principal lessees, usually food supermarkets and hypermarkets, together with food courts and entertainment areas, started to rapidly compete with the previously-described shopping centres. Such centres were built mostly along general city arterial routes, near Metro stations and on big residential estates in the central and peripheral zones of the city, thus forming both a linear and a hub structure for commercial real estate.

The development of commercial real estate created the so called ‘doubles’ for the city centre in areas with a high density of daytime population.

4. Spatial land use structure. Processes that took place on real estate market influenced the change of spatial land use structure.

The area of the city is growing due to the development of peripheral areas with basic economy-class residential developments. At the same time, elite residential developments and commercial property require more advantageous locations within the city. This results in the intensification of the development in the central part of the city, and in the pushing out of uncompetitive functions that require big territories, such as industrial and transport enterprises. At the same time, integration of dominating functions with those that have an ancillary and service character is taking place. Thus the tendency for unipolar spatial land use structure is strengthened.

Simultaneously, the expansion of the Metro network and local spatial and time characteristics of the population behaviour help to single out additional centres of the second and lower levels in the structure of land use. The principle of monocentric organisation is applied to such centres as well.

In other words, polycentric multi-level systems of land use are being formed with enhanced differentiation by degrees of function of concentration in the general city centre and additional centres. At the same time the importance of the city centre as the principal system-forming factor of land use on the whole is being strengthened.

The above stated may be proven by the dynamics of property prices, which tend to differentiate more and more in central and peripheral areas, on the left bank and the right bank of the city, as well as in the areas with different levels of development of social and transport infrastructure.

Conclusions. The above analysis enables us to state that changes in land use within the city boundary were in many ways determined by the spatial structure that was formed in the previous period, and the process of spatial transformation itself must be viewed as the result of the interaction of the previous conditions and ongoing processes.

In the post-socialist period, urban development is dependent on real estate market cycles. Residential and commercial properties that guarantee a quick return
on investment for investors have become the principal agents in the transformation of the functional and spatial land use structure. The balance in the city territory changes is in favour of residential and public property. Land plots with the highest rent potential have become the spatial transformation points. This, in its turn, drives the restructuring of the city area, in particular the strengthening of the function of the general city centre, appearance of new public centres in areas with high densities of daytime population, and intensification of land use along general city arterial routes. The degree of compactness of the city is increasing, as well as the degree of interconnection of all its structural elements.

At the same time this period of development of the land use system is characterised by the features of unregulated markets. In particular, the discreptional approach to decision-making in access to resources for development, the narrowing down of the circle of persons who create effective demand in real estate, and losing a comprehensive approach to development.

Thus, while the system of land use creates the conditions for urban development, the system itself is subject to development. Thus, we must understand the essence of the on-going processes and apply adequate instruments for its regulation.

REFERENCES