Urban regeneration vs. urban sprawl – problems and prospects in the post-socialistic cities

1. Introduction

Contemporary processes of urban development in various part of the world depend on a number of reasons, among which one can name globalization, previous development history, general economic and social situation of the particular city etc. On this basis it is possible to define an array of various situations, among which the separate case can be associated with the post-socialistic cities. These urban areas are located in the countries that since the end of World War II (or – in some cases – since the end of World War I) were facing the development of the economic command and control system, frequently associated with non-democratic socialistic political regimes. After the collapse of these systems in the end of 1980-ties and political and economic transformation these countries started to develop in a way resembling the West-European and North-American patterns. But due to their history and heritage of previous economic and political systems patterns of their development differ from the highly developed countries, and one can even note the development of the specific type of the post-socialistic city.

This paper deals with the major problems and challenges that these post-socialistic cities are facing – which are urban sprawl and urban regeneration. First of them seems to be the outcome of the aspirations of newly-born middle class of the post-socialistic countries, while at the same time it contributes to the de-urbanization processes of the weak urban structures of the cities themselves. But growing suburban structures are only in few cases accompanied by development of proper social and technical infrastructure. Therefore, urban regeneration tendencies – already present in the practice of these countries – seem to be an alternative, as one can note a huge potential for urban regeneration in the historic parts of these cities and growing interest of investors and consumers. When stimulated in a proper way, this can be developed into a form of market-based compact city development process.

2. Characteristics of the situation of the post-socialistic cities

After the political and economic transformation of the end of 1980-ties in Central and Eastern European countries a new situation in the field of urban development has emerged. It is possible to define a few basic features of the urbanization process.

First group of the general features of the current model of urbanization in these countries is associated with general economic change. As the effect of the economic and political collapse of the socialist system, one could observe the rapid transformation from industrybased to service-oriented economy. Also the new industries appeared, such as computer and bio-technological ones. This influenced heavily the structure of the cities – as many old industrial sites become obsolete, and numerous housing estates (especially ones which were constructed as the homes for large-scale industry working force) started to face major degradation processes. At the same time the new urban spaces started to be captured by emerging service companies. This has also created new transportation needs, usually met by car-based transportation.

This new economic situation also influenced the situation in the field of urban program. The old "socialist" community faced major transformation into the consumption-oriented society, with increased demand for new service facilities (shopping, entertainment, leisure). At the same time, along with economic development of the society, the new demand for housing appeared, especially that post-socialist countries still face a housing shortage.

All these changes were not accompanied by careful and thought-through urban development policy, both at national, regional and local levels. In fact, only in some cases regulatory planning documents were employed as a tool in steering the processes of urban development. Therefore, one can say that post-socialist countries now face urban development process under free market forces without any major public intervention. And what seems to be even more dangerous, there is observed the domination of large-scale growth plans (especially in metropolitan areas) without any coordination at the regional level. This leads to fragmentation of the urban structures, and dispersion of new urban program.

It is also possible to describe a number specific reasons for this situation. Some of them are described in the following paragraphs.

2.1. Lack of cooperation between public and private sectors in urbanization processes

Due to the policy of the state governments and most of the local municipalities, the private sector activities are not influenced in any major way by public sector. It means they are not influenced with financial participation that can change the program or character of the development – but of course each of the project needs to follow the planning regulation concerning the size of the building or the complex of new dwellings, the type of land use and other building regulations.

This situation is associated with the fact that the public sector – again, thanks to the money shortage – is not able to play the active role in the real estate market. Unlike many West European municipalities, only very few local governments in Central and Eastern Europe (CEE) are able to develop and maintain a large amount of public housing stock. And if they are able to do so, usually they focus on a hundred percent municipal housing, constructed to house the poorest and homeless families. This means that a great majority of new housing, and nearly all other developments are being built with private money only. And of course the buyers have to pay the market price for this. In fact, these municipalities used to have a lot of public housing stock – but during last decade most of it was privatized or is under privatization. This happens because the buildings are usually in bad condition and need major improvements. And the municipalities have no money for it, so – they usually to transfer it for almost nothing into the hands of current users. This shifts the maintenance and up-keep problem to the building communities.

At the same time, all public infrastructure – like schools, roads and so on – are being built with the public money only. There is very little experience with public-private partnerships, and only in few cases private developers of the large-scale projects contribute some money for infrastructure improvement. But this happens only when a new road connection has to be developed in order to connect the site of the project to the existing road network.

2.2. Housing needs and market responses

Central and Eastern European cities – on the contrary to the West European ones – still face huge housing needs, although not accompanied either by immigration of natural growth. On the contrary, these needs come from very poor situation in this matter inherited from the socialist system. This relates both to the standard of existing housing and to the amount of flats available per capita. This means that both the quality and quantity of apartments need to be tremendously increased. Such a situation is the outcome of the not sufficient amount of housing constructed in the post-war times and lack of major modernization efforts in the prewar housing stock. Therefore, there is a market for all kinds of housing, but still the price of the square meter of new apartment plays the key role. But the developers have to pay the market price for the land and for all materials and services. In result, the potential customers have to pay full price for the newly purchased apartment, which – according to the income of the families – is very high.

At the same time there is some market for the upscale apartments, which is limited to the big cities or to the popular summer resorts. Some of these apartments are purchased by rich as the second or summer apartments. But the regular inhabitants of these cities are not so often the customers of the developers building these projects. And what is characteristic to the city-center projects, they are developed on the empty plots and still not too often utilize the degraded areas – like post-industrial ones. These sites are also costly, and the potential developer has to pay – among others – also for the clean-up of the area, which – until recently – in many cases was making the project problematic from the financial point of view. This situation recently slightly changed due to overwhelming boom on the real estate market.

2.3. New challenges – emerging types of urban program

Besides housing, there is a whole variety of new types of urban program, that appeared in post-socialistic cities after 1989. The most important part of these are new shopping facilities. Besides them, one should mention offices as well as new leisure and office facilities.

As far as shopping is considered, it is necessary to remember about on-going differentiation of the clients and market offer. In the mid of the 1990-ties the customers were looking for the cheap offers, which were provided by large-scale supermarkets, located usually outside the cities. It was necessary to have a car to go there. They were offering cheap products, although at the beginning seemed to be attractive also for the more demanding clients. In time, this offer was also differentiated, and the cheapest segment of the market appeared. The offer for more rich people started to move to inner areas. And – in the end of 1990-ties – the new shopping gallerias started to appear in the central cities and in their close vicinity. As they gathered the offer for the middle class, their owners were able to meet the costs of running their businesses in the city centers.

The same situation can be observed in the case of offices and leisure and sports facilities. New office centers of different standard arise, and the most expensive ones locate in the hearts of the cities, while the lower classes facilities – in the outskirts. At the same time the new phenomenon arised – which is the connection between the development zones and transportation nodes. New office complexes arise in the close proximity to airports or major transit roads.

Unlike offices, new leisure facilities tend to fulfill empty spaces within the existing city centers. The attempt to locate large portions of such the program outside city structures was not successfull. Both new hotels and multi-screen cinemas are being constructed in the already urbanized areas, usually in association to existing centers or other cultural facilities.

And – finally – there are not many new sports facilities, but they also tend to locate in the existing urban structures. This comes out from the close proximity of their clients – inhabitants of the city. And still the population of the suburbs is not so numerous to provide a strong clientele for such the facilities.

2.4. Problems with degradation of inner urban areas

As the effect of the urbanization processes, and of the de-industrialization of the cities (which started to take place in the mid of the 1990-ties) – the inner cities started to suffer from some degradation and urban blight. But – what is interesting – this did not mean lowering the prices for the land. The market still indicates that inner city areas are most expensive ones, even besides the fact that most of them need major clean-up process. Also, in some cases the land titles are not clear, or the plots need major infrastructure upgrade. The best example of this is the Granary Island in Gdansk, Poland – the most attractive building site in the whole

agglomeration, also very expensive – but nobody will invest there unless there is a new infrastructure connection to the plots.

Besides those post-industrial sites – there is a shrinking amount of the un-built areas, which are the effect of war-time destruction. The best case is the area around the Palace of Science and Culture in Warsaw, Poland, which – once a vibrant city district – is now a huge empty site. But this is one of the few sites like this left – all around one can see popping up new office and hotel towers. But this building boom happens only in selected capital cities – all other municipalities are still waiting for their chance.

3. Urban sprawl as the leading problem of contemporary urbanization processes of the post-socialistic cities

Similarly to other parts of the developing world, one of the major problems of contemporary urbanization processes in case of the post-socialistic cities is urban sprawl. What makes it different from other parts of the world is the fact that it started at the beginning of 1990-ties along with the political and economic transformation. Also the reasons for its development, current dynamics and limits seems to be different to other parts of the world.

3.1. Reasons for development of urban sprawl in the post-socialistic cities

One of the reasons why suburbanization happened in Central and Eastern European cities is the tradition of socialistic urbanization. It was based on massive construction of entire housing districts, with no respect to such the things like land cost or efficient use of space (Bertaud, Renaud, 1994, p. 4-13). This policy was also included in the planning documents, which constitute the basis for contemporary urbanization. This happened due to a number of reasons – but the major thing is that there were no major forces (both at the municipal and state levels) interested in stopping dispersion of urban program. Therefore, the regulations included in the planning documents reflecting the "spatial growth" model as the necessary policy were not regarded as wrong or improper.

Another reason for development of suburbanization was associated with the fact that no local forces interested in undertaking costly regeneration projects under free market conditions. One has to remember that until 2004 (which is the year of EU accession of a number of CEE countries) there were no funds or state subsidies available for urban regeneration projects. As there is no municipal or state intervention in the urban development process, the whole decision process is in the hands of private investors and developers. And – as they usually build new houses or urban complexes for external clients – they have to cut the costs, as the price of renting and/or buying new space is in most of post-socialistic countries the key factor deciding about the consumers' choice.

As the price is still the key issue, the developers try to offer a suffcient product for the customers. In order to make the offer attractive, they try to cut down the costs. And the only way they can do it is to buy the cheaper land. This means that majority of cheaper housing projects are located far away in the suburbs of the cities, and – in many cases – in the areas of the surrounding municipalities. And what is characteristic, these are usually multi-story houses, not the single family houses. Unfortunately, the clients of these do not take into account other costs of living in the suburbs – like transportation to the centers (there is usually no public transportation), very low quality of roads, lack of social infrastructure and no public facilities – like schools. All of these are in the inner cities or large housing districts developed in the 70-ties and 80-ties.

High cost of land in the inner cities makes building new city-center housing costly, and available only for some potential buyers. Therefore, if anyone would like to buy a modest flat there, he or she has to look for the second-hand apartment. This means that most of the

people, interested in buying the new flat, have to go to the suburbs – or take the risk of costly renovation and decide for the second-hand offer. The same relates to single-family housing. Most of the new constructions are in the process of planning or initial development and are of high-quality character.

3.2. Outcomes of urban sprawl for the post-socialistic cities

Urban sprawl seems to be far more dangerous to the post-socialistic cities than to the well developed West European ones. This comes form the fact that the scope of the urban program and attractiveness of the urban centers is far more smaller in case of CEE cities. Also one has to mention that development of suburbia I n many cases is associated with flow of current inhabitants out of the cities, not with reception of new ones. This makes existing urban structures much weaker than similar areas in Western Europe and give way to their fast functional degradation. This degradation is associated with physical decay, as – as it was already mentioned above – the existing housing and commercial stock in many cases was not renovated for last fifty years.

But the development of new suburban districts – in many cases incomplete and lacking many elements of social and recreational infrastructure – does not contribute to the creation of the high living standard. In fact, it only offers more decent place to live, and not a high-quality living environment.

In result, existing city centers and urbanized areas are on the way to the degradation and no new complete urban structures are created in the suburban locations. This lead towards complete loss of urban quality of the post-socialistic cities.

3.3. Limits of development of urban sprawl

The factors that decide about the development of contemporary suburban structures in the post-socialistic cities also contribute to the lowering of attractiveness of these structures in the longer perspective. New suburban districts attract only these who look for cheaper housing offer. Everyone taking into account the high quality of living environment, identity of the site and presence of technical and social infrastructure in many cases decides about locating in the older parts of the cities. This is also the reason for development of new urban regeneration projects with large share of housing program.

4. Urban regeneration as the alternative concept of urban development for the postsocialistic cities

Urban regeneration is the world-wide phenomenon, associated with reuse of the distressed urban areas and structures. Its history starts in the late 1960-ties, when the first attempts to urban renewal were made in the United States of America. Along with on-going degradation of urban structures, this concept was imported to Europe and other continents in the lat 1970-ties and at the beginning of the 1980-ties. In CEE countries some theoretical discussions were held in the 1980-ties, but first actions were undertaken not earlier than in the mid of 1990-ties.

4.1. The concept and goals of urban regeneration

Urban regeneration means coordinated actions leading to improvement of the material state of the structures (modernization, revalorization) combined with the improvement of economic and social situation. Therefore, it is necessary to remember about different goals of urban regeneration efforts (Lorens, 2004, p. 15):

- urbanistic and architectural ones – associated with physical renovation of the distressed structures, both buildings and public infrastructure. Physical

regeneration of these structures usually goes along with consciously defined policy on shaping and altering the cultural townscape of the sites,

- technical ones associated with upgrading the technical state of the urban infrastructure, which also includes roads;
- social and economic ones associated with economic revival of the distressed areas and restructurization of the society along with providing better chances for social groups that are for this or that reason excluded from the regular life;
- environmental ones as bad environmental situation is in many cases the major problem in distressed urban areas. Urban regeneration programs help in providing modern technical solutions to the problems of environmental pollution of different sort.

Therefore, urban regeneration – according to the definitions of sustainability – can be regarded as the element of the "sustainable city" and "compact city" concepts.

Although urban regeneration – by definition – has to be regarded as a way of achieving sustainability (as this is a form or reuse of the very precious resource – free, undeveloped space), in some cities – i.e. in Kolding, Denmark – the special "sustainable urban renewal" programs are prepared and implemented (van Vliet, Gade, 2000, p. 310).

4.2. Types of urban areas being subject of regeneration efforts

When discussing the problem of urban regeneration, it is necessary to highlight the great variety of areas that become a subject of such the efforts. These include such the different sites like post-industrial (and similar) ones, housing estates(from XIX-century and later), city centers etc.

Among the housing structures, that become of interest for the municipalities undertaking the urban regeneration efforts, one can define at least four major categories (Lorens, 2004, p. 16-17):

- originating from XVIII century and from earlier times among which one can find historic urban centers, which – in general – need very costly revalorization efforts;
- originating from the XIX century and first decades of the XX century which usually include mostly low-quality town houses, which – in many cases – need major infrastructure improvements;
- constructed during the interwar period, according to the idea of providing a decent housing for the poorest – these are the structures built as so-called social housing, with low-quality materials and very low standard. The – in many cases – need major intervention, but they also constitute the important part of urban heritage;
- developed after the II world war usually in a form of huge housing estates, which now suffer from social and economic problems, and which are not able to offer a high standard of living.

Of course, these problems are only few from a large number, which can be defined for each of the groups.

The separate set of distressed areas is associated with run-down industries and transportation structures, and they include:

- post-industrial sites like i.e. relicts of the heavy industry, which once were the driving force of urban development;
- post-harbor sites (so-called urban waterfronts) which become now the attractive locations for new housing, shopping and urban entertainment;
- post-military areas, like old barrack complexes, as well as disused fortifications;

- post-railway and post-airport areas, which are parts of disused infrastructure systems.

Each of above mentioned types of distressed or disused areas has its own specifics, and offers different opportunities for hosting new urban program. In many publications (i.e. by Ian Colquhoun, Ann Breen and Dick Rigby, Rinio Bruttomesso and others) one can find a number of different examples of regeneration projects located on such the sites, as well as discussion of problems associated with such a process.

Quite different problems are associated with regeneration of city centers and central parts of large cities – they also need different approach, as their structure and problems are very different from the sites specified above.

4.3. Different modes and models of urban regeneration

Besides the great variety of areas that become the subject of urban regeneration efforts, also the ways this process is prepared and implemented can be very different. At first, one has to remember about the basic difference between to major approaches: "shallow" and "deep" regeneration. The term "shallow regeneration" describes the situation, when only technical improvement is made in the subject areas. On the contrary, the "deep regeneration" – besides technical improvements – is also associated with social and economic change, that lead to achieving the permanent and – "sustainable" – effects in certain area.

There can be also different models of both "deep" and "shallow" regeneration. A numer of classifications is available, although the most interesting one is based on the way the process is organized and implemented. This approach takes into account both the level of involvement of local community, approach to the heritage, and way the capital improvements are made. On the basis of analysis of these factors one can define three basic urban regeneration models (Zuziak, 1998, p. 31-103):

- i. based on community organization
- ii. based on large-scale investment scheme
- iii. based on cultural regeneration

Each of them can be used in different set of situations – and the choice depends – among others – on the effects that are expected to be achieved.

4.4. Urban regeneration as the alternative to urban sprawl in the post-socialistic cities

The whole described above variety of possible types of decayed urban areas in need of major redevelopment effort is present in most of the post-socialistic cities. Economic and political transformations left behind the whole array of different sites, made available for reuse over the very short period of time. This creates the huge land potential for new development – i.e. in some of the CEE cities one can note that more than 50% of the inner city areas call for redevelopment. This share is even greater in traditionally industrial regions. And most of these areas were just recently made vacant, which means that in many cases in these sites one can identify various heritage buildings and other objects of historical and/or symbolic value. As the example can serve the city of Gdańsk, Poland, where within the borders of the 800-ha city centre one can identify over 350-ha of decayed land including over 75-ha site of former Gdańsk Shipyard.

This potential – if properly used – can become an alternative to suburban locations. Due to infrastructural problems in the edge areas these – although decayed – inner city locations can become far more attractive for potential buyers. But due to the fact that most of the development is based on the market rules only, it seems to be necessary to stimulate this process as far as possible, and – through it – develop a new urban paradigm for the post-socialistic cities.

5. Towards a new urban development paradigm for the post-socialist cities

5.1. Sustainable spatial development paradigm

According to the historic background of the discussion on the issue of sustainability, one should stress the environmental issues as key element deciding about the necessity of sketching the new way of urban development. The best example of such approach is the most complex set of sustainable development principles, which includes three major postulates (Baranowski, 1998, p. 47):

- limiting the use of resources,
- harmonizing the environmental, societal and economic goals of development, and
- long-term approach to analyzing, planning and implementing of the development goals.

As one can note, all of them (to some extend) relate to the problem of urban development. But – first of all – they relate to the way we use the environment and its resources.

After almost twenty years since the concept was formulated also other issues than just environmental ones have to be taken into account in the discussion on the future of the city. These include: lack of population growth in the developed countries, increased mobility of people, and growing competition between cities and regions. These factors – in many cases – decide about the pattern of urban development, and have even higher importance to the shape of the cities than just environmentally-based concepts (Lorens, 2002, p. 10).

But the concept of "sustainable city" – although understood in many different ways – is still very viable, and gets even more attractive to the cities which intend to develop or strengthen their position on the "market" of cities. In the times of globalization they have to compete – for skilled labor, investment capital, business activity etc. And it seems that also the concept of "sustainable city" can be employed to serve as factor increasing the city's competitiveness – just as well developed business environment, cultural facilities or public infrastructure (van den Berg, van der Meer, Otgaar, 1999, p. 8-9).

5.2. Key features of the sustainable urban development

The great notion of the term "sustainability" leads to its degradation – as these days each city calls itself "sustainable" (Thomas, Cousins, 2000, p. 53). This happens without any reflection on the meaning of this term, and what it takes to make the city a city sustainable. Unlike the debate on particular concepts and issues, only few theoretical and practical works regard this problem. One of them was formulated in 1990 in a form of "Green Paper on Urban Environment" and published by the Commission of the European Communities. But for the purpose of defining the basic elements of the sustainable urban development it seems to be easier to employ the different approach: the approach based on specific *rules* that have to be followed rather than specific *features*. This can be justified by the fact, that – due to the huge differences in the level of development, geographical, demographical and economic situation, is seems impossible to come out with the complete set of features. World, or even European cities are just too different to use the unified measurement tool to describe their situation. This can be possible only for some general descriptions – like i.e. *Urban Audit* initiative. This regards also the problem of sustainability indicators.

Therefore, when speaking about the rules that the city planners and managers have to follow, one can propose the following set of six principles (Baranowski, 2001, p. 88-89):

- careful management of the resources (including the not-urbanized space),
- minimization of the functional and spatial conflicts,
- promotion of the mixed type of land-use,
- combining the complimentary types of land use,

- defining the urban development directions with respect to the environment,
- shaping the identity of city and its parts.

From this set of rules one can derive the set of sustainability indicators, although they have to be strongly tied with the specifics of national, regional, local or site condition and problems (Borys, 2003, p. 258). It is also possible to define on this basis a set of principles for urban development policy, which can lead to creation of sustainable urban structures. One of them is associated with the concept of "compact city" (Lorens, 2003, p. 137).

5.3. The idea of "compact city"

The idea of "compact city" can be derived form the above stated principles of sustainable urban development. In short, it assumes that the term "sustainable city" has to be associated with spatial cohesion, and limitation of the spatial growth (Welbank, 2000, p. 78). Also the level of urban density – or maybe rather intensity – has to be taken into account (Scoffham, Vale, 2000, p. 66). What is often forgotten, such the way of thinking about the form of the city calls back the theories associated with the Garden City Movement and first modern planning exercises from the end of XIX century (Breheny, 2000, p. 13).

In order to describe this concept in greater detail, it is possible to formulate the set of three features of such a "compact city":

- high density of space usage and relatively small area occupied by urban structures
- well developed systems of public transport and limitations in car usage
- reused ("recycled") urban areas and structures

It is also possible to summarize this as "economic growth without the spatial growth". And – when speaking about sustaining urban structures – this concept of "compact city" can be regarded as a model of contemporary urbanization (Pęski, 1999, p. 133). But it seems necessary to analyze patterns of urbanization and its possible alternatives in order to conclude what this concept really means and how it can be implemented.

5.4. The applicability of the compact city model to post-socialistic countries

The idea of compact city is becoming a part of sustainable city concept (Williams, Burton, Jenks, 2000, p. 83). As stated at the beginning of this chapter, the "compact city" means intensification of existing structures (including the re-use of decayed ones) and limitation of spatial growth of the cities. Therefore, as there is still a high demand for new city spaces, there is a necessity of looking for an alternative to suburbanization direction of urban development. And regenerated urban areas can become such the alternative (Heath, 2000, p. 337). Therefore, it is possible make an equation:

compact city = urban regeneration + elimination of urban sprawl

It seems obvious, that – when all costs are calculated – that the models of "compact city" and "dispersed city" can not be regarded as a real alternative in the age of globalization and increased competitiveness between cities. But introduction of the compact city model needs a lot of effort – both in terms of financing, planning, and social communication. And we have to remember that it can work – this is proved by a number of "success stories".

6. Conclusions

In case of the post-socialistic cities the concept of sustainable urban development – phrased as the "compact city model" – seems to have many more chances for implementation than other developing countries. This is thanks to the limited population growth, lack of large-scale immigration and urbanization tendencies and – finally – growing attractiveness of the regeneration projects.

As described in previous paragraphs, urban sprawl and urban regeneration in post-socialist cities are driven mostly by market forces. This means that – in the reality of limited public intervention possibilities – introduction and implementation of such a paradigm shall be based also on these tendencies and no major effort should be made to promote sprawl. On the contrary, there should be made some policy adjustments leading to the promotion of the regeneration projects. And the free market – driven by the consumers' desires – will do the rest of the job.

References

- Baranowski A. (1998) *Projektowanie zrównoważone w architekturze*. Gdańsk: Wydawnictwo Politechniki Gdańskiej
- Baranowski A. (2001) *Kształtowanie zrównoważonych struktur przestrzennych gdańskiego* obszaru metropolitalnego. [in:] W. Szydarowski (ed.) *Województwa nadmorskie w Inicjatywie Wspólnotowej INTERREG*. Gdańsk: Urząd Marszałkowski Województwa Pomorskiego
- Van den Berg L., van der Meer J., Otgaar A. (1999). *The Attractive City. Catalyst for Economic Development and Social Revitalization*. Rotterdam: European Institute for Comparative Urban Research
- Bertaud A., Renaud B. (1994) *Cities without Land Markets*. World Bank Discussion Papers 227. Washington D.C.: The World Bank
- Borys T. (2003) *Wskaźniki zrównoważonego rozwoju badania i implementacja*. [in:] T. Borys (ed.) *Zarządzanie Zrównoważonym Rozwojem. Agenda 21 w Polsce – 10 lat po Rio*. Białystok: Wydawnictwo Ekonomia i Środowisko,
- Breheny M. (2000) *Centrists, Decentrists and Compromisers: Views on the Future of Urban Form.* [in:] M. Jenks, E. Burton, K. Williams (ed.) *The Compact City. A Sustainable Urban Form?* London: E&FN Spon
- Heath T. (2000) Achieving Sustainable Urban Form through the Adaptive Re-use of Buildings for Residential Use. [in:] K. Williams, E. Burton, M. Jenks (ed.) Achieving Sustainable Urban Form. London: E&FN Spon
- Lorens P. (2002) *Dlaczego system zarządzania przestrzenią?* [in:] P. Lorens (ed.) *System zarządzania przestrzenią miasta*. Gdańsk: Politechnika Gdańska Wydział Architektury
- Lorens P. (2003) *Zrównoważony rozwój a gospodarka przestrzenna*. [in:] T. Borys (ed.) *Zarządzanie Zrównoważonym Rozwojem. Agenda 21 w Polsce – 10 lat po Rio.* Białystok: Wydawnictwo Ekonomia i Środowisko
- Lorens P. (2004) Rewitalizacja urbanistyczna jako narzędzie w ochronie krajobrazu kulturowego. [in:] I Konferencja Ekologia i Architektura. Poznań: Fundacja Twórców Architektury
- Pęski W. (1999) Zarządzanie zrównoważonym rozwojem miast. Warszawa: Wyd. Arkady
- Scoffham E., Vale B. (2000) *How Compact is Sustainable How Sustainable is Compact?* [in:] M. Jenks, E. Burton, K. Williams (ed.) *The Compact City. A Sustainable Urban Form?* London: E&FN Spon
- Thomas L., Cousins W. (2000) *The Compact City: A Successful, Desirable and Achievable Urban Form?* [in:] M. Jenks, E. Burton, K. Williams (ed.) *The Compact City. A Sustainable Urban Form?* London: E&FN Spon,
- Van Vliet D., Gade T. (2000). Sustainable Urban Renewal: Kolding, Denmark. [in:] K. Williams, E. Burton, M. Jenks (ed.) Achieving Sustainable Urban Form. London: E&FN Spon
- Welbank M. (2000) The Search for a Sustainable Urban Form. [in:] M. Jenks, E. Burton, K. Williams (ed.) The Compact City. A Sustainable Urban Form?. London: E&FN Spon

- Williams K., Burton E., Jenks M. (2000) Achieving the Compact City through Intensification: An Acceptable Option? [in:] M. Jenks, E. Burton, K. Williams (ed.) The Compact City. A Sustainable Urban Form? London: E&FN Spon
- Zuziak Z. (1998) *Strategie rewitalizacji przestrzeni śródmiejskiej.* Kraków: Politechnika Krakowska

Piotr Lorens Gdańsk University of Technology, Faculty of Architecture