

## Current Trends and Management of Urban Development in Lithuania

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### 1 ABSTRACT

The history of Lithuanian urban development is closely linked with the West European culture. In the recent socialist past of Lithuania, these links had weakened, while after the regaining Independence in 1990, Soviet territorial planning and management system lost its force. The new planning system came into force in 1995 after the adopting the Law on territory planning. New system was applied on the developing market and democracy conditions, why it is not fully developed till nowadays. The impact of a new planning system on the physical environment became obvious after 2004, when the economic growth and the possibility to use the EU funds started. The main engine of the development was construction of the housing, cheap debts provided by commercial banks and people hopefulness. The result of this time is seen in the new aesthetic urban forms, also in the appearance of monofunctional land-use, separate buildings without the infrastructure required and new life style in “sleeping districts”. Rapid development of green field on the suburbs participated in creation the real estate property bubble (2006 – 2008).

Sustainable development is based on long-term vision, nevertheless, till the year 2009 not all municipalities had Master plans. The development was performed by detailed plans, where citizens or investors had their parcels and own vision. Due to the prolonged restitution and privatization process, city territories that were planned for multistory apartments development, had shown high land prices, burdens on infrastructure. It has brought Greenfield investments to the suburban areas. Suburbanization also was foreseen in the Master plans of municipalities, insufficiently motivated by developers to enhance the local economy. While the population was decreasing the huge need of land for new developmet had been planned. The spread of urban structures to the rural areas had raised the need and price of infrastructure and public services, it induced inhabitants dependence from own cars, enhanced environment pollution and consumption of energy resources. The sprawl is seen as more state or public, but not individual, interest. A house in the countryside is still Lithuanian’s ideal. People are happy living in surrounding of natural landscapes.

European countries had turned to the suburbanization after the World War II. Current EU policy documents and the expert organizations the suburbanization are describing as „urban sprawl“ which does not meet the principles of sustainable development. Urban sprawl is a matter of concern, but only few cities (notably in Northern Europe) are coping well In Europoe. They have strong planning systems that are able to achieve contained growth without sprawl. The sprawl in cities of Eastern Europe illustrate the developmet of “free for all” of 1990 and impact of transition from socialist to free-market economy with its effect on local economies, social patterns and planning system. The growth of suburbanization, when the local economy and population decline, in Lithuania had occurred not long ago, urban dictionaries do not include the precise equivalent for the term above. Local specialists call it as “urban chaos” or “spread of compact urban structures”, etc.

The contributors think that management of cities and territorial planning system shall be based on more realistic social, economic forecasts and sustainable, coordinated urban & rural developmet polisy. The State and municipalities shall take legal, financial and support measures in order to manage and use effectively the inner territories of cities, existing public infrastructure and to stop the growth of energy consumption, use of own cars and environmet polution.

### 2 URBAN DEVELOPMENT TRENDS

In Lithuania, as in many towns of Eastern and Central Europe, the level of urbanization is growing. About 70 % of population lives in human settlements, but the total number of inhabitants is shrinking. Lithuania inherited compact cities and landscape diversity after regaining independence. Lately, rural areas around the biggest Lithuanian cities where occupied with the valueless “suburban landscape”, without urban infrastructure, public spaces and with degraded relief, forest, hydrological systems and etc. However, the

objectives of the sustainable development have been investigated thus far at an insufficient theoretical and practical level.

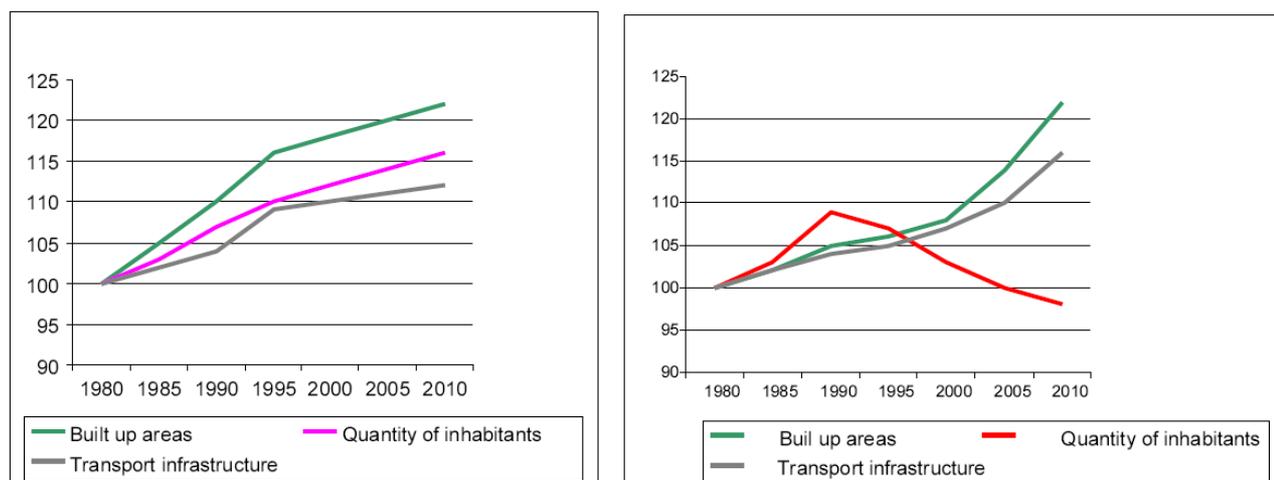


Fig. 1. Trends of the population, build-up areas and traffic infrastructure growth in the EU (Left figure) and in the Lithuania (sources: EEA report, 2009; in the left part results of the investigation, performed by the authors, 2010)

The spread of urban structures to the suburban areas has consequences on social-and-economic environment. Figure 1 provides the comparison of build-up territories, traffic infrastructure and demographical trends of the Lithuania and the same trends of the EU countries (Belgium, Czech Republic, Denmark, France, Germany, Latvia, Lithuania, The Netherlands, Poland, Slovakia and Spain). It can be stated, that Lithuania and other European countries meet the increasing need for build-up areas and traffic infrastructure. Yet, Lithuania can't explain the growth of the need of land and traffic infrastructure because of the decrease in population. Certainly, present results are gained within the macrolevel, they show the necessity of deeper elaboration, but the fact is, that decisions to expand cities into greenfield areas shall be strongly based on the demographic trends.

In case if the Eurostat predictions come true, till the year 2060 population in Lithuania will reach its postwar level – 2,5 millions (Figure 2). Presumption that cities will be able to hold citizens when suburbs and their infrastructure grow is unsophisticated. Predictions show that the state had faced social problems of the aged community. Number of elderly people of the retiring age had grown greatly - the dependence on the factor will increase for three times and possibility to use public funds for infrastructure development will be continuously decreasing. Present demographic situation is like the one, which was in the year 1945, although, trends of the past was compensated by the immigration from the Soviet Union.

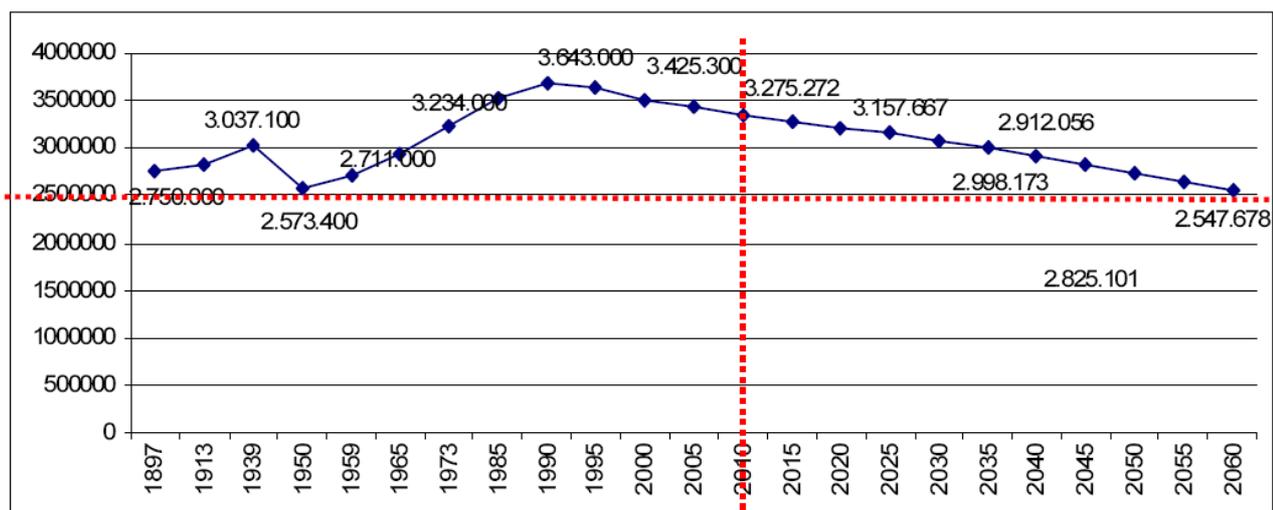


Fig. 2. Demographical trends in Lithuania (source: Eurostat, 2009)

Sphere of the housing estate shows the paradox – facing the population decrease till the 2045 Lithuania will reach the European average equal to 30 square meters per Citizen, yet without building new housing. If the



construction rate will be the same as it was in the year 2009, this factor will be reached till the year 2035 (Figure 3). It shows that in the future the main task for the state, municipalities, developers and designers will be the reconstruction and renovation of the present housing fund.

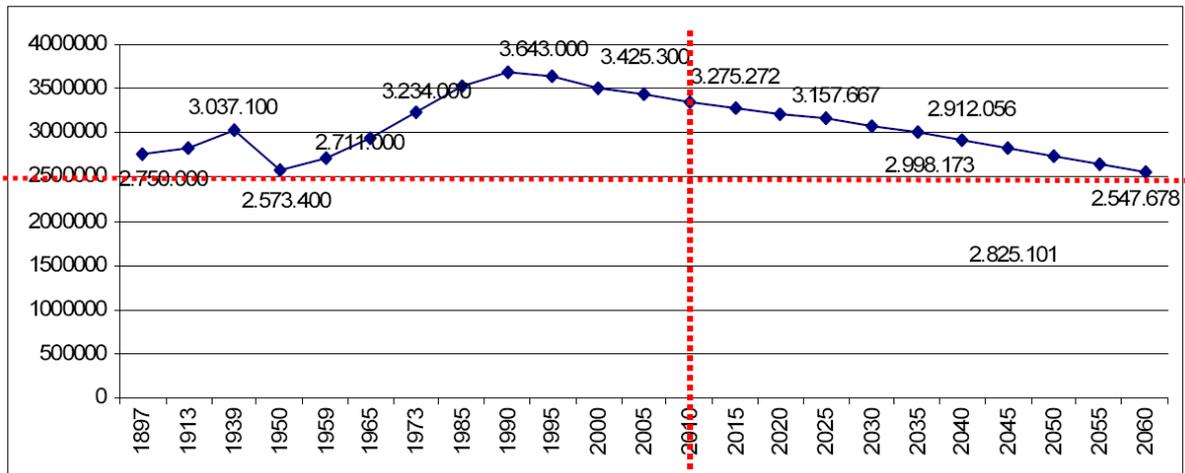


Fig. 3. Predictions of the housing need according to the demographical predictions of the Eurostat 2009

Only one of the biggest cities in Lithuania – Vilnius holds the unchangeable number of the inhabitants. Remain cities show decreasing trends (Figure 4). For sampler, decrease percentage in Kaunas in 2001-2009 was equal to 8 percents it is about 27400 citizens, thus the number of the suburb inhabitants had been increasing.

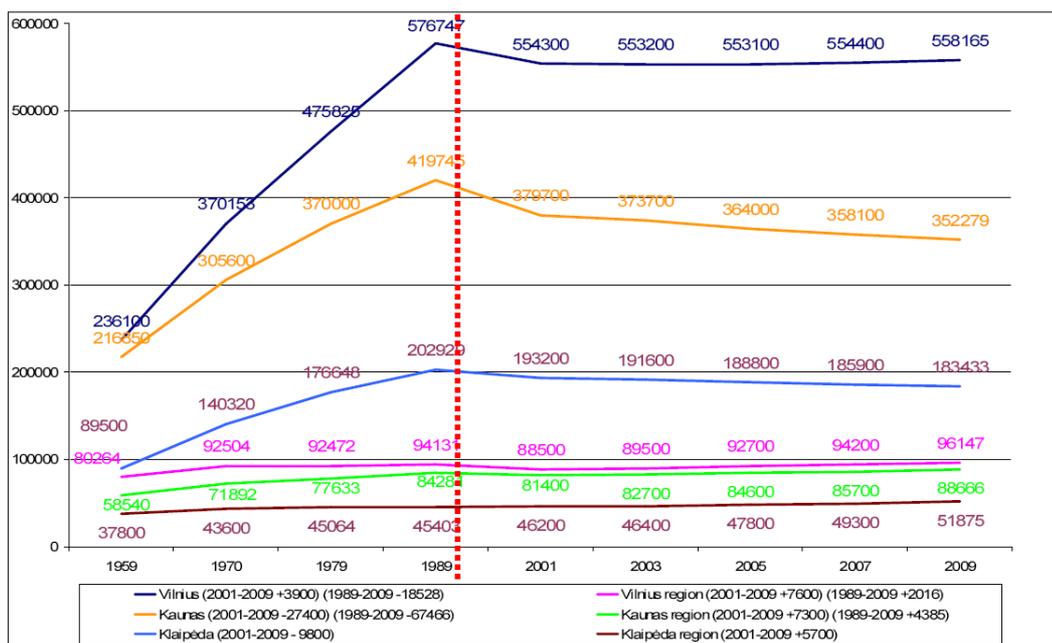


Fig. 4. Migration of citizens from the cities to the suburbs in 2001- 2009 (source: Lithuanian Statistical office, 2009).

Migration of citizens from the cities to the suburbs is induced by the open market and “ad hock” territory planning. Territory planning helps to “pump up vital forces” from cities and towns, to occupy suburbs with new villages and to raise up the infrastructure need, public services costs and to pollute the environment. The In order to solve the problem, Lithuanian urban planners suggest the Government to establish coordinated urban and rural planning and to support it by the transparent urban policy.

### 3 PREDICTIONS AND REALITY OF MASTER PLANS

While looking for the reasons of the urban sprawl in Lithuania, the need of a new territories was analysed in the Master plans of city and rural municipalities of Vilnius, Kaunas, Klaipeda and their compliance with demographic and housing estate trends, also relation with costs of the housing property. Analytically

calculated territories, intended for the new development and which are already urbanized in Master plans of Vilnius, Kaunas and suburban municipalities. Examples of the Master plan drawings are shown on Figure 5.

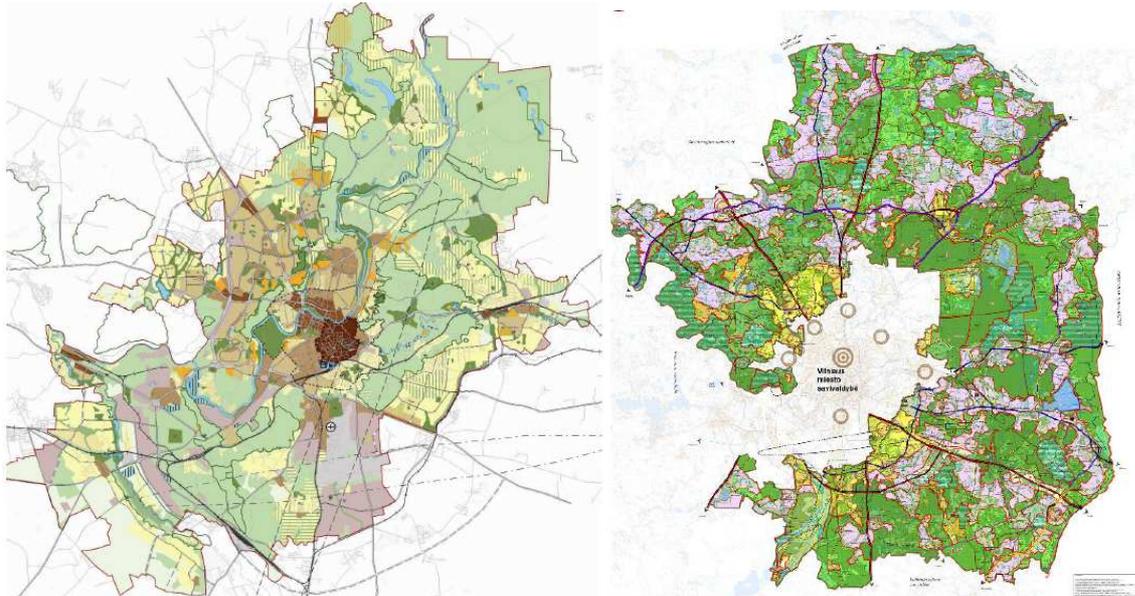


Fig. 5. Master plans of Vilnius and Vilnius region (sources: Master plan of Vilnius, 2005 (left); Master plan of Vilnius region (right), 2009)

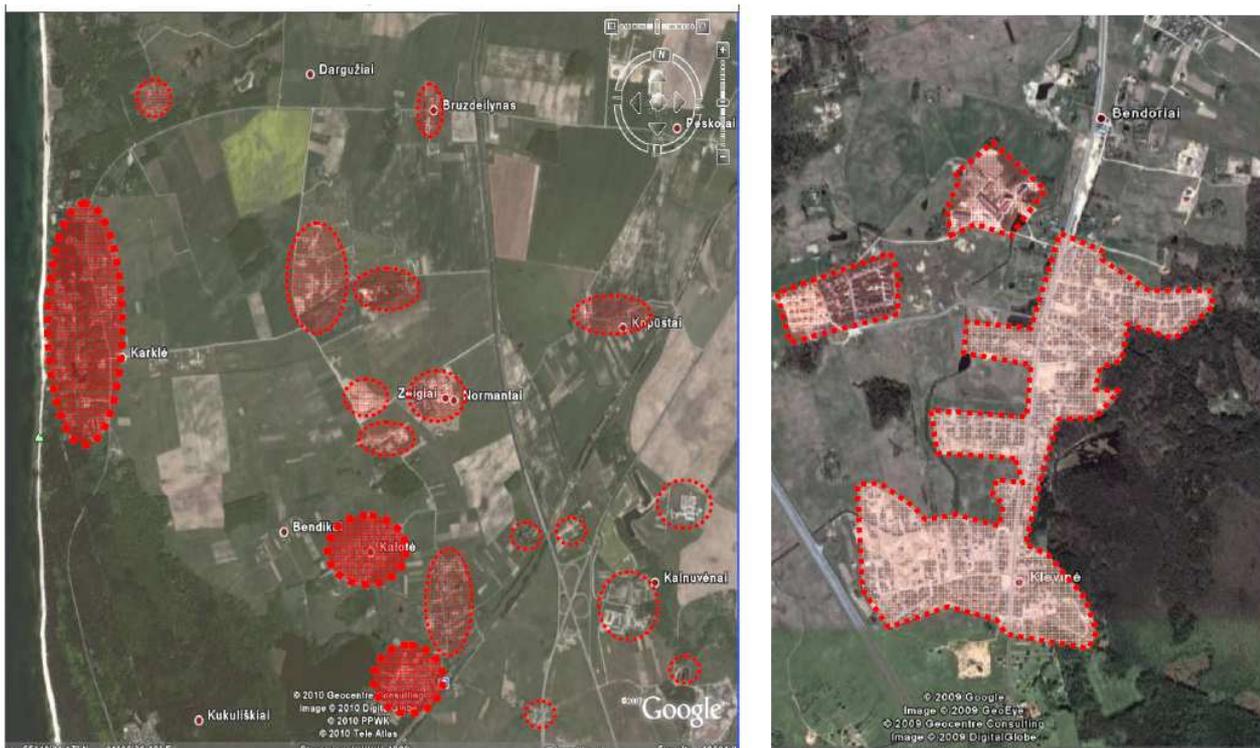


Fig. 6. Chaotic urban formations near Klaipeda (in the left) and near Vilnius (in the right) are developed according to the „spot“ master plans (source: Google, 2010)

While applying population density, which is typical for European cities (1 ha/30 inhabitants), it can be said, that Vilnius can settle twice as much people as it has now, in Vilnius region the number of people can be quadruplicated, in Kaunas it can be bigger for 1,4 times, in Kaunas region for 2,5 times. Such hopeful plans do not indicate the demographical reality and are under the permanent changes process. Although, there is not an easy task to reject the foreseen “hyper – development” due to the landowners who think that it is a “legal expectation”. Moreover, intention to use the land for construction is being considered as the perfect investment in comparison with the agricultural use. This shows the insufficient investigation of the demographic trend, performed by the developers, who just “draw the settlements”, gratify expectations of



municipality heads and citizens to have as much territories as they want for their bare land investment. That is why cities are surrounded by chaotic urban structures (urban sprawl) and poor landscapes (Figure 6).

Klaipeda suburbs show active distribution of the separate households and new settlements. Construction of the single family houses in Klaipeda suburbs was related to the estate property bubble and to the will of the citizens to have the “second home” near the Baltic Sea. Near Vilnius there are separate households that are already interconnected and form the “road settlements” without public infrastructure, as it happens in America. Urban sprawl is induced by the following pragmatic factors: high costs for the land and accommodation in cities, low costs for the land and accommodation in rural areas, prevailing trend of choosing a house with a yard and to live within natural surroundings. The trend is supported by the opportunity to take a cheap loan and buy the second, or even the third house. Maps of Vilnius and Klaipeda registers of household in the suburbs and housing cost variations in Vilnius and Klaipeda were analyzed while looking for pragmatic reasons of the urban sprawl (Figure 7).

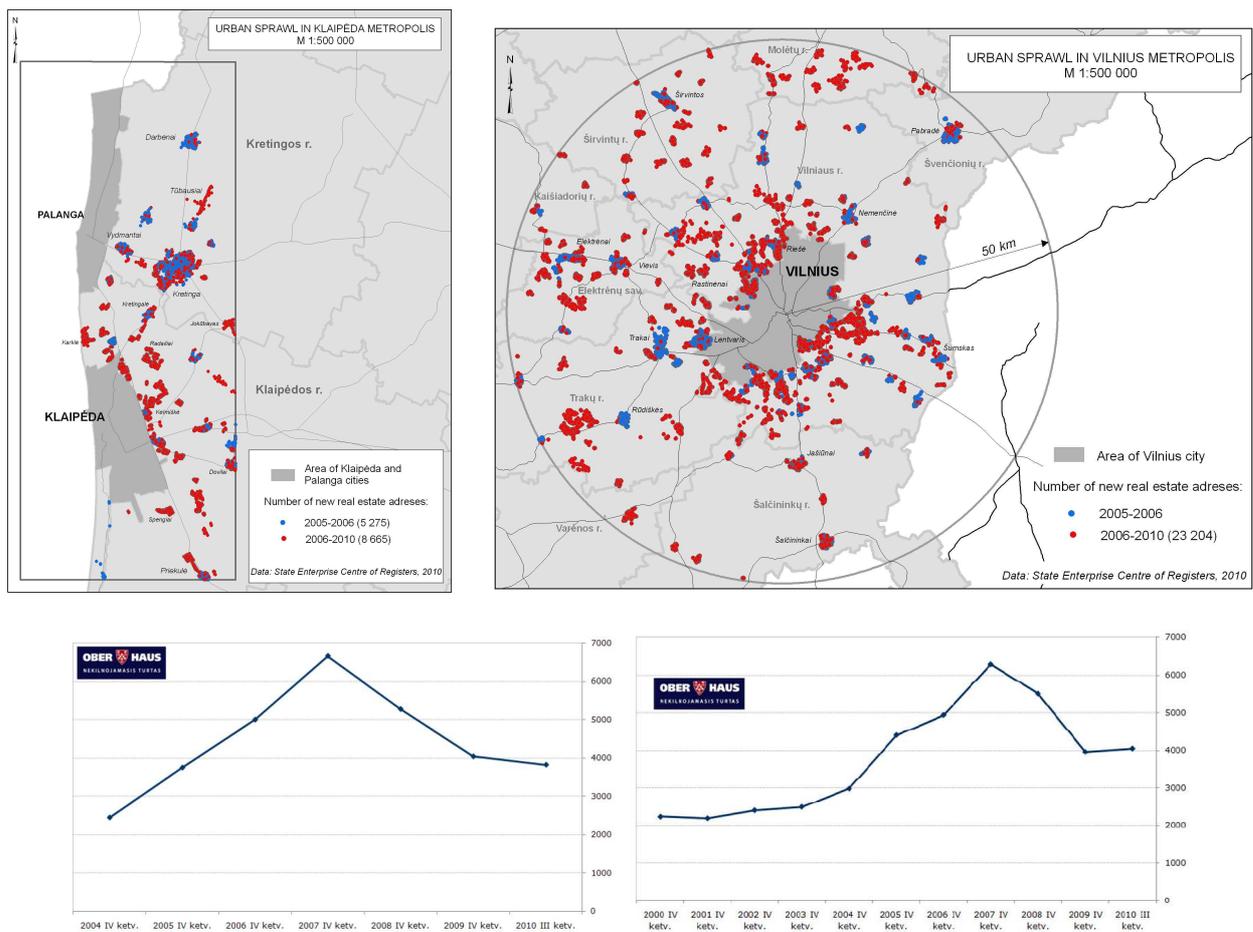


Fig. 7. Urban growth in Klaipeda (in the left) and in Vilnius (in the right) metropolises and accommodation prices in Klaipeda and Vilnius (source: SE Register center, 2010; source: Ober house)

It could be stated - the main engine of the urban sprawl in Lithuania is the housing property bubble which appeared in 2006 – 2008. Analysis of the distribution of the households among the suburban areas and housing prices in the cities shows that in Vilnius and Klaipeda region, in 2006-2008 there was built more households than it was done by the year 2006, when the overbalance between city and the suburb was not as obvious as it is now (Figure 7).

#### 4 ENERGY CONSUMPTION IN VILNIUS

There are different densities of cities in the World: rear (American) – with obvious centers and extensive suburbs up to 25 inhabitants/ha; high (Asian) densities – more than 150 inhabitants/ha; and European (balanced) densities –30-100 inhabitants/ha. Density in Lithuanian cities are comparatively low, for sample, Vilnius city is equal to 48 inhabitants/ha, but, while moving from the center to the suburbs it can be noticed

that by the sixth kilometer the density reaches less than 30 inhabitants/ha and that means the increased transport costs and overspent energy (Figure 8).

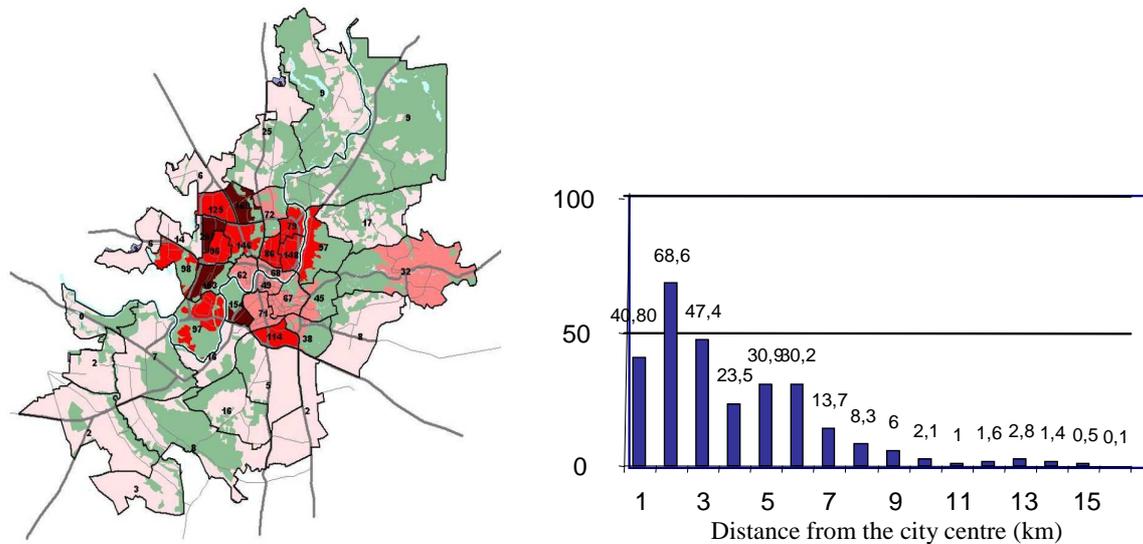


Fig. 8. Population density per hectar in Vilnius city (source: Master plan of Vilnius city, 2005)

The low density is identity and aesthetic feature of green Vilnius, but in other hand it has it cost. For sampler, the transport in Vilnius consumes 20,6 GJ/inhabitant. Comparing the energy consumption in transport with other cities of the world it shall be noticed, that Vilnius is getting closer and closer to the cities which are oriented to the cheap fuel and individual transport and do not possess historical places isolated from transport and public areas that are distinctive for Europe.

## 5 CONCLUSION

Sustainable management and territorial planning deals with understanding of current urban trends and land-use changes. In case of current social and economic trends, Master plans of municipalities shall provide the renovation of the existing urban potential and most sufficient multifunctional land use. Renovation of the city centers, existing housing areas, public transport and energy saving shall be considered as the priority task of the State urban policy, managemnt issue of the municipalities also for EU supporting funds and other inducements. Modern technologies and databases ensure the possibility to monitor urban growth and provide adequate development strategies.

Challenges of the creation of sustainable city and creation of rural and urban aesthetic standarts are still acute to towns of Eastern and Central Europe. In Lithuanian public organizations of urban experts, united by the Urban Forum movement (conferences are regularly organized from the year 2007), play a key role in the monitoring of urban situation and the improvement of the present city management and territorial planning system. Due to the Forum resolutions a new version of the Law on territorial planning and the urban policy outline are under development taking into consideration recommendations of public concerned. It is forecasted those measures will help to solve current development tasks raised for Lithuanian cities.

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