**ESSAY**

**Urban growth and environment: the role of institutions**

*“During the latter part of the twentieth century, the nature and scope of the urban community has changed. The metropolis has replaced the city as the dominant community mode, and the community itself has been transformed by the automobile” (Gory M., 1978, p. 602).*

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ABSTRACT. *Economic and cultural changes of past decades, and the growth of a neoliberal market economy based on oil extracting, among large corporations, are affecting the transformation of the political structure. Strong lobby and political influence of large corporations imply a process of active interaction between the different components of the political system; their interaction, in order to achieve mutually beneficial goals, is keeping the status quo, and forgetting the relevance of the environment in the big cities. This work presents analysis of interconnected processes of entrepreneurship and urban environment. According to actual data in most of the cases, it is affecting negatively to urban environment.*

Keywords: *Formal and informal institutions, urban environment, Institutional entrepreneurship, Institutional theory, Green Urbanism*

Economic and cultural changes of past decades and the growth of a neoliberal market economy in automobile producing and oil extracting among large corporations that affecting to the transformation of the political structure. Strong lobby and political influence of large corporations imply a process of active interaction between the different components of the political system; their interaction in order to achieve mutually beneficial goals to keep status quo of present situation. It may be noted that in the world are ongoing process of degradation of ecological systems.

The cities are changing and the meaning and perception of cities are changing also. The cities of the beginning of XX century are different from the ancient cities of past epochs and, of cause, it differs from contemporary mega-polices. “This continual change and evolution of urban structures makes static analysis difficult and equilibrium concepts almost irrelevant other than as counterfactuals in policy evaluation exercises” (Button, 2002, p.217).

Tendency of urbanization have enormous rapid cities growing around the world. Every year the percent of urbanization is rising. If in 1950-s we had 30 % of urbanization, so now according to the United Nations World Population Prospects (*World Urbanization Prospects. The 2001 Revision. Data Tables and Highlights*, 2002) we will have more than 60 % of urban population (Golden, 2004).

This research uses a comparative analysis of the views of scientists on this issue, given the ecological forecast development trends and prospects in the urban ecology, based on different scenarios evaluated by different scientific communities and ecological organizations. Thus, this investigation is motivated by the following question: **what is the impact of institutions to urban environment?**

To answer this question, the theory and previous empirical findings of Klein Woolthuis et al. (2013) suggest as working hypothesis that the institutions positively affecting the urban environment, because the effective entrepreneurship and economic activity generates sustainable urban development.

Urban planning does not answer adequately to ratio of required living resources for inhabitants. The development of social infrastructure goes several times slowly than overspeeded increasing the amount of population in cities that can bring economical, social and political collapse. “Urban areas are by definition concentrations of economic activities and this geographical concentration, by its nature, results in a concentration of pollutants” (Button & Pearce, 1989, p. 149).

Thousand exhaust gases pollute fresh air caused using fuels daily by huge amount of automobiles, toxics wastes go to river and make water dangerous to use and destroy fragile ecological bio-diversity of area that required to sustainable survival of bio-organisms. What kind of water we want to drink, what kind of food we will eat, and what kind of air we will breathe depends on environment, on our living conditions, if we will survive.

Let’s imagine that there is a park with green area somewhere in the center of megalopolis. This park is very important for local inhabitants and guests such a resource of piece of nature in that urbanized area. People walk there, play with children, relax and make sport. But for potential investors this area is as a polygon for creating new business complex with area of luxury hotels and apartments and new trade molls and large amount of parking places for extremely expensive cars. Such project of park’s reconstruction to prof they “efficient city plan” can bring for shareholders billion dollars per year and also bring taxes to city budget with only one requirement – demolish the park. But people do not want to have farewell with their park and want to keep it. There is a strong conflict of corporations’ interests and public interests. But if there is a potential possibility to make gain and they do not take into account the interest of people who lives there and environment. Who care about them? Nobody. This is a story of every big city that had particular strategy of protection of interest of business elites. That is why now in big cities we have a lack of green areas and there are total destruction mechanisms of bio-balance of natural processes.

The increasing role of cities in state economy leads to expended agglomeration growth. Urbanization requires additional infrastructure expenditures to support sprawls growth that also affecting negatively to environment: “Probably the most agreed-upon source of encouragement to sprawl lies in our favorite mode of transportation. Sprawl would not be possible without the car. And, “motor vehicle use in metropolitan areas is vastly underpriced," says economist Edwin Mills” (Wasserman, 2000, p.3). This daily transportation people and cars to suburbs and back make huge pressure to surrounded cities eco-systems:

Use of the car also imposes costs not covered by drivers such as air pollution and traffic congestion. People who choose to live farther out from the city and drive to work suffer some of the congestion consequences of that decision. But they do not pay for the cost they impose on other drivers, as each additional car lowers the travel speeds and increases congestion for everyone on the road. Similarly, drivers do not have to pay for the pollution that they create in the air everyone breathes. (Wasserman, 2000, p. 4)

Big cities do not reduce their size because it dangerous to ecology, conversely, big cities are becoming megalopolises; megalopolises are becoming agglomerations. Such situation of emerging of city center with suburbs concerns the most megalopolises such as Tokyo, New-York, London, etc. These examples once again show that dynamics of cities growth around the world not stopping and only rising:

“… density in itself raises important questions about the environment’s capacity to accommodate the concentration of waste and pollution brought by density. Natural ecocycles, especially those for water, are being disrupted by a lack of natural soil and wetlands. The scarcity of land within cities creates pressure for an uncontrolled expansion outside the city cores driven by price rather than environmental considerations. Waste generation leads to land being used for landfills”. ( Callataÿ & Svanfeldt, 2011, p. 27)

Who will buy oil, if all cars will use elecro-charge or solar-energy, such alternatives do not accepted by large-corporations, which not only do not care about environment, but also send troops to military conflicts and bog in oil-wars. The endless striving of profit making without taking to account required natural bio-balance between anthropologic factor and urban eco-systems make urban environment unappropriated for normal standards of living. In urban studies such approach was called “Urbanomics”.

The main ideologist of Global cities was Milton Friedmann and his “main theses that link urbanization processes to global economic forces. The world city hypothesis… is primarily intended as a framework for research. It is neither a theory nor a universal generalization about cities, but a starting-point for political enquiry” (1986, p. 69). According to his theory “World cities are major sites for the concentration and accumulation of international capital” (Friedmann, 1986, p.73). The first figure illustrates The Hierarchy of Citiesof capitalistic world, where he define primary secondary cities in core and semi-periphery regions.

Urbanomics interprets cities as major centers of world market economy, when economic interests have the most priorities under something else. Milton Friedman includes next criteria for identifying the World cities; “major financial centre; headquarters for TNCs (including regional headquarters); international institutions; rapid growth of business services sector; important manufacturing centre; major transportation node; population size” (1986, p.72). Emergence of such forms of cities is caused by direct impact of globalization to city functions when they concentrate in their areas the majority of world capitals.

Urban planning belongs to priorities of these functions and cities serves only for gain extracting and capitals’ multiplying. The concept was urbanomics was evaluated in 80-s of XX century and now it should go to garbage-can of the history. The antagonistic concept was developed in the frames of *Critical Urban Theory* and has its own history:

… his phrase is generally used as a shorthand reference to the writings of leftist or radical urban scholars during the post-1968 period – for instance, those of Henri Lefebvre, David Harvey, Manuel Castells, Peter Marcuse and a legion of others who have been inspired or influenced by them (Katznelson, 1993; Merrifield, 2002). Critical urban theory rejects inherited disciplinary divisions of labor and statist, technocratic, market- driven and market-oriented forms of urban knowledge. In this sense, critical theory differs fundamentally from what might be termed ‘mainstream’ urban theory – for example, the approaches inherited from the Chicago School of urban sociology, or those deployed within technocratic or neoliberal forms of policy science. (Brenner, 2009 p. 198)

Saying by other worlds: “critical urban theory involves the critique of ideology (including social–scientific ideologies) and the critique of power, inequality, injustice and exploitation, at once within and among cities” (Brenner, 2009, p. 198). Critical Urban Theory is a brunch of Critical Theory that based on works Frankfurt School philosophers as Adorno, Horkheimer, Marcuse, etc. Methodological and epistemological debates among critical urbanists started from the beginning “the construction of this field in the early 1970s (see, for instance, Saunders, 1986; Gottdiener, 1985; Soja, 2000; Brenner and Keil, 2005; Robinson, 2006), it is essential not to lose sight of these broad areas of foundational agreement” (Brenner, 2009, p. 204). The conception of critical theory represented in four main propositions:

● they insist on the need for abstract, theoretical arguments regarding the nature of urban processes under capitalism, while rejecting the conception of theory as a ‘handmaiden’ to immediate, practical or instrumental concerns;

● they view knowledge of urban questions, including critical perspectives, as being historically specific and mediated through power relations;

● they reject instrumentalist, technocratic and market-driven forms of urban analysis that promote the maintenance and reproduction of extant urban formations; and

● they are concerned to excavate possibilities for alternative, radically emancipatory forms of urbanism that are latent, yet systemically suppressed, within contemporary cities. (Brenner, 2009, p. 204)

Today urban critical theory stands in front of new challenge of reconceptualization in times of post-fordist capitalism: “the acceleration of geoeconomic integration, the intensified financialization of capital, the crisis of the postwar model of welfare state intervention, the still ongoing neoliberalization of state forms and the deepening of planetary ecological crises (Albritton et al., 2001; Harvey, 2005)” (Brenner, 2009, p. 205).

As during previous phases of capitalist development, the geographies of urbanization are profoundly uneven – but their parameters are no longer confined to any single type of settlement space, whether defined as a city, a city-region, a metropolitan region or even a mega-city-region.

Consequently, under contemporary circumstances, the urban can no longer be viewed as a distinct, relatively bounded site; it has instead become a generalized, planetary condition in and through which the accumulation of capital, the regulation of political–economic life, the reproduction of everyday social relations and the contestation of the earth and humanity’s possible futures are simultaneously organized and fought out. (Brenner, 2009, p. 206)

One of representatives David Harvey issued recently this book “Rebel cities: from the right to the city to the urban revolution” (2012) that reflects of urban theories and apply this approach Critical Urban Theory to contemporary conditions of urbanized world. One of the main theses of this work that city a as class phenomena. We can understand them as two antagonistic groups of interests that what to be dominated in decision-making process. But of this groups accepts environment protection and do not take in account importance of nature care, that is why after victory in scenario of this group there is a threat for all urban eco-systems, for endemic species and for human itself.

The cities around the world from the West to the East as New-York to Deli, from the North to the South as Moscow to Jakarta have the same challenges and environmental threats in new millennium. We reached the 50%-level of global urbanization in 2000 earlier that it was forecasted (2007-2008). Today 95 % of world population is concentrated on 10% of earth surface. “Altitude affects geophysical hazards for humans. The location of 11 of the world’s 15 cities with more than 10 million people (Tokyo, New York, Bombay, Shanghai, Los Angeles, Calcutta, Buenos Aires, Seoul, Lagos, Osaka, and Rio de Janeiro)” (Cohen & Small, 1998, p. 14009). Until 70-s it was still invisible the emerging of “atmospheric pollution, crime, visual blight, effluent discharge, etc. in older cities”(Button & Pearce, 1989, p. 141).

Urban economic base theory distinguishes “between basic-non-basic industries. Basic activity involves the non-local oriented industries in a community-that is, "…the production and export of goods and services to other communities in exchange for money" (Thomlinson, 1969:123)” (Gory M., 1978, p. 591). According conventional neo-orthodox models “regions which are highly urbanized and have relatively stable or even stationary growth are not very predictable” (Gory M., 1978, p. 600). It means that cities are growing chaotically and unevenly distributed. It also depends on economic growth of the state: the outsourcing economics made cities of developed countries less urbanized than decades years ago, at that time the cities of developing countries has accelerated industry development inside.

We can hear arguments to rebuttal the statement institutions of entrepreneurship affecting negatively to urban environment and that urban growth do not leads directly to increasing level of GDP, rising economic growth, etc. Here are a lot of myths that urbanization brings to society economic prosperity and welfare and that is why ecological problems are not taken to account in *laissez-faire* states. The analysis of growth “questions the proposition of a happy marriage between urbanization and economic development in the country since the rapid urban growth in many of the less developed states can be attributed to the push factors operating in the rural economy” (Kundu A., 1993, p. 1352).

We need emphasize why it is important to study particular urban environment deeply and precisely. The enormous urban growth arise a big challenge in front of ecological systems about appropriate environment living conditions. The triangle of interests of society, business and politics have unequal configuration of power and effect to urban environment negatively. The nexus between nature and society go to tough alienation and have really small amount of mechanisms to regenerate harmonic relationship among all stakeholders.

 “Urban highways and motorways were doing to cities” (Button & Pearce, 1989, p. 141). Non-proportional growth of cars can affect urban environment for next hundreds years. “Environmental concern and new technologies in urban-traffic management are expected to increase efficiency and diminish pollution. The Apollo project in Athens, for example, comprises environmental monitoring, continuous monitoring of traffic flow, regularly updated short-term meteorological forecasts and air-quality models” (Mega, 1994, p. 453).

Apart from production facilities located in cities there many other factors that affect negatively to urban environment. The impact of air pollution is very high and it is growing daily. The automobile production facilities are developing day by day and produce variety cars for every automobile-user around the world. “Environmental problems in metropolitan areas do not stem mainly from production; they are the result of consumption patterns and urban traffic. Urban transport is a major contributor to acid rain and the greenhouse effect (“Urban environment. Green paper. Commision of the European communities,” 1990)”(Mega, 1994, p. 453).

It is very important in city’s transport management to have dominant position of public interest against private. But usually oil-companies and automobile producers have large impact and lobby among local authorities that public interest has insignificant role in decision-making process. If we assess ecological damage between bicycle and car, transport without producing carbon dioxide obviously has no dangerous impact to environment pollution. In spite of this city administration in urban planning make strategy to increase the amount and quality of roads and highways. Usually local authorities do not want to pay money for developing bicycle infrastructure; because it is has no concern main stakeholders.

Despite vast technological improvements and various political control strategies, air pollution is still a major concern in urban areas worldwide. It is not only a hazard to the environment but also to human health. Annually, approximately 1.3 million people worldwide die prematurely due to outdoor air pollution (WHO, 2011b), for which car traffic is acknowledged to be a major source. Quantifying those emissions caused by traffic and the subsequent exposure of the population is therefore crucial for potential mitigation of health risks, such as asthma prevalence (HEI, 2010)… Urban forms requiring high emissions of transport modes are criticized for their lack of sustainability. Alternatively, evaluating the exposure of citizens to emissions can affect the health and attractiveness of a city and its urban form. (Schindler & Caruso, 2014, p. 13)

The increasing number of automobilists on the road of big cities is calling greater awareness of health risks caused by urban air pollution. When steam engine was invented, it was very big break in technical revolution and changed historical direction of further development. Steam engine and first automobiles were as a light of hope and infinity belief to human progress. Science became as a guaranty source of human prosperity and mechanism of solving problems. But today we can see that not all inventions and technical devices have only positive side without harmful affect to society.

Apart from unacceptable level of mortality there is high percent of diseases that can also make harm to people health and wellness. Data of The WHO air quality guidelines show us that “for PM10 is 20 micrograms per cubic metre (µg/m3) as an annual average, but the data released today shows that average PM10 in some cities has reached up to 300 µg/m3” (WHO, 2011a). The risk of heart and lungs diseases appear on the first days from birth in urban area. And it can be serious barrier to realize personal life potential and also such diseases can have social dangerous character and be reseals of pestilence.

 WHO estimates more than 2 million people die every year from breathing in tiny particles present in indoor and outdoor air pollution. PM10 particles, which are particles of 10 micrometers or less, which can penetrate into the lungs and may enter the bloodstream, can cause heart disease, lung cancer, asthma, and acute lower respiratory infections. (WHO, 2011a)

Big cities have no enough facilities to self-recreation of air-sphere, because there are not enough green areas only concrete and mirror buildings. Deforestation processes around the world also do not allow refreshing air pollution globally. The same situation has the most of the big cities. For example in New-York when you are walking along Wall Street You can see only trees in big bough-pots and, of cause, it has only decorative effect not functional.

We can see examples in such cities where public and environmental interests are higher that private ones. In Grenoble since 1987 were established alternative tram-lines that increased twice efficient public transport. Tram mentions very often as transport for future: “Nantes, where a modern French tramway was first introduced in 1985, the public-transport network is based on two lines of light tramway, the reorganization and extension of bicycle and pedestrian routes and the restructuring of urban spaces” (Mega, 1994, p. 453). Beside this the Swiss public transport system in Zurich is case to estimate:

…the political will of the citizens in demanding public transport; of the compatibility between economy and ecology; and of the possibilities of urban traffic management. The system has a record in trips per person per year (470) and is as rapid and reliable as underground systems, which are ten times more expensive. The system was based on the reorganization of the existing routes and achieved zero waiting time for trains and buses. (Mega, 1994, p. 453)

Commission of the European Communities on "A City without Cars" Research analyses a harmful effect of cars and tries to work with our imagery and think about idea suggesting “a city for pedestrians. A city without cars could be composed of various small units, interconnected by high-speed public transport means. A city without cars is not only ecologically efficient, but also economically efficient” (Mega, 1994, p. 453).

Such environmental friendly of city planning also has an economic impact assessment. The evaluation effects of cycling were evaluated in Groningen and show that ecological safety concept brings also economic efficient dimension: “For trips to and from home and work in the years 1987-88 in Groningen, the modes of transport used were broken down as follows: 50 % of trips were made by bicycle and 22 % by car” (Schollaert, 1999, p.17).

The calculation of savings which cycling permits in trips from home to work in Groningen has clear evidences to prove the hypothesis that there will be rising of share of trips made by car from home to work and author took to the account “the argument to an absurd extreme, the author assessed the negative effects which would result from a situation whereby only 5 % of trips from home to work would be made by bicycle” (Schollaert, 1999, p.18). The suggestion of killing cars is not new and had claimed by André Gorz (1973) and calculated the benefits and disadvantages of cars using. He described the cities for new millennium:

These new cities might be federations of communities (or neighbourhoods) surrounded by green belts whose citizens-and especially the schoolchildren-will spend several hours a week growing the fresh produce they need. To get around everyday they would be able to use all kinds of transportation adapted to a medium-sized town: municipal bicycles, trolleys or trolley-buses, electric taxis without drivers. For longer trips into the country, as well as for guests, a pool of communal automobiles would be available in neighbourhood garages. The car would no longer be a necessity. Everything will have changed: the world, life, people. And this will not have come about all by itself. (p. 5)

The quantity of cities is growing and urban inhabitants already more than in rural areas and they for often should have a deal with city management. This is long-term process with involving to participation majority of population. Another important thing is non-violation ecological culture and save-environment education in schools and in families to grow up generation with “green” values. “What is becoming clear from European research is that the quality of the urban environment will be one of the assets for the future competition and one of the important fields of collaboration. Cities are the laboratories of the future and they are trying to reinvent the art of planning with the objective of becoming sustainable (32-35)” (Mega, 1994, p. 454).

In conclusion, we can say that the impact of institution of entrepreneurship on urban environment has negative effect. We cannot accept hypothesis and should reject it. The process of urbanization has huge impact on environmental situation in urban eco-systems, which is strengthened by contacts among ruling elites and large corporations with cooperation to achieve common goals to keep their status-quo. Consequently, the working hypothesis is not rejected.

Formation of a market space in the integrity of the economic and political interests, which involves not just approval, but also common economic policy that legitimize the continuing of wide range of productions which affecting negatively to urban environment;

- Formation of a new multinational subjects of international economic and political relations helps to creating a collaboration among trans-national corporations, who act on national and global levels;

- Urban growth is long-term process that was generated historically and the impact to urban environment affecting huge amount of people, because in our days we have more that 50 % population concentrated in urban areas.

- Alternative urban planning is able to reach mutually beneficial interests with environmental safeness for all beneficiaries involved in it.

The transformation of quality of urban environment goes on multiple stages and it goes worse day by day. During past decades, the stages of ecological degradation were determined by a complex of diverse domestic economic factors, external economic factors, and political system. Besides, the practice that existing in actual processes of urbanization has its own internal contradictions and cannot be so straightforward and progressive.

Today comes the understanding necessary to find new formats in city management of air, water and energy issues that address the problems of its pollution, consumption and redistribution. Perhaps we should consider the issues of forming new actors in structure of political system that is responsible for the solution of air, water and energy issues.

Thus, the contradiction between economic interests and public good:

- Support for engineering ecological infrastructure, which requires resources and participation of different actors as well as compensation for the costs for the accumulation, development and release of such policies in urban areas.

- Problems associated with differences of access and availability of water resources in the cities in different regions of the world.

- Environmental problems associated with resistance ecosystems under water scarcity and inefficient water management. Inefficient and wasteful use of water taking in to account a high percentage of irrigation networks, which leads to water losses during transportation and irrigation.

Dynamics and the environment degradation in megalopolises can be evaluated from different perspectives and reflected in varies reports and academic papers. One side says that integration cities development is did not work: the cities are too far removed from each other in the political economic sense and integration issues remain closed in this case.