



Towards Sustainable Urban Development: the Ukrainian situation

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Abstract

The continuing process of urbanization sets up urgent issues of environmental degradation resulting in disrupting opportunities to enhance quality of life of the population. In Ukraine, the anthropogenic and human impacts on the environment are several times higher than in developed countries. Thus, life expectancy in Ukraine is on average around 68 years (e.g. in Italy – 82, Sweden - 80, Poland - 74) which is largely due to the environmental pollution which is the result of production activities of mining, metallurgy, chemical industries, fuel and energy complex. Therefore, there is a strong need in the Ukrainian society to address the consequences of powerful external forces as environmental pollution and climate change, and internal forces as socio-economic development. These forces play a role at all levels but are prevalent at urban levels. Cities are not isolated entities; they interact with their surroundings, economically, socio-politically and environmentally. Urban development toward sustainability has to consider the capacity of the entire ecosystem to support such development including the prevention and mitigation of adverse environmental impacts of the outside urban areas. Hence, cities are unique territories to implement green economy opportunities to ensure the development of sustainable societies. Exploring different dimensions of sustainability should be connected with the exploration of urban processes and developments on a global level. This connection shows how sustainability can be destroyed or ensured. Sustainability should be based on social cohesion in local urban areas and contribute to sustainable urban development.

Key words: *Sustainable urban development; green economy; urbanization; urban development; social quality*

JEL Classification: R11, Q01, M14

1. Introduction: the global trends of urbanization

The contemporary human civilization is characterized by the rapid pace of urbanization caused by two major factors - the “baby boom” of the second half of the XX century and scientific and technological revolution in all spheres. In 2007, the United Nations Population Fund forecast rapidly rising levels of urbanization over the next two decades. It is for the first time in history when more than half the world’s population resides in urban areas. By the UN World Urbanization Prospects report, two-thirds of all humans will be living in cities and urban areas by 2050 (Fig. 1).

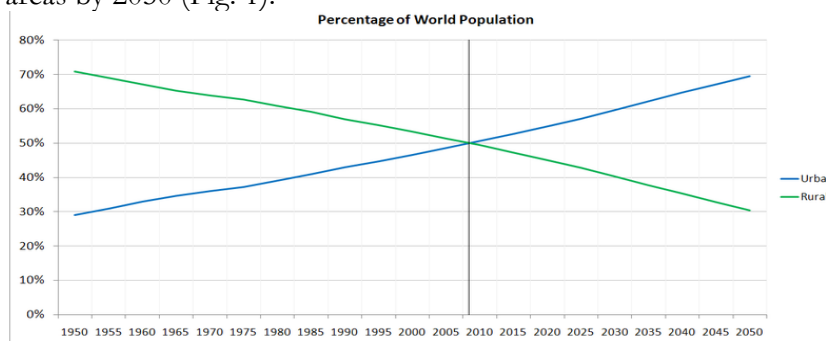


Fig. 1. The UN World Urbanization Prospects report

Thus, these are the cities that have become the points of concentration of human and financial resources, major intellectual and industrial potential, which are the development drives of innovation and competitiveness as well as infrastructure and public services (Gazzola, Dymchenko & Panova, 2014). It is what makes them the "poles" of regional development and engines of nations' competitiveness. The city is not only a separate major population center surrounded by other settlements but it is the system that creates the major surplus value and the largest share of gross regional product.

It is noteworthy that the major GDP share in the developed countries of the world is created in cities – one hundred largest cities of the world accounted for 30 % of global GDP in 2008 (PricewaterhouseCoopers UK Economic Outlook, November 2009). For example, New York covers only 0.2 % of the U.S. territory but provides 11 % of the GDP of the country. GRP generated by 7 % of the

population of Moscow accounts for 23% of GDP in the Russian Federation. Seoul accounts for 66 % of GDP in South Korea.

In Ukraine, as of 2012, 68.7 % of the population lives in urban areas whereby third of the population lived in large cities. 20 % of the population lives in the 10 largest cities of the country. There almost 40 % of investment in fixed assets, 60 % of foreign direct investment, 40 % of the national total industry sales, 48% of retail sales is concentrated, and more than half the volume of services is provided. More than 40% of employed persons work in small businesses that have obtained a state registration in the 10 largest cities of Ukraine, as well as 47 % of Ukraine's total volume of products and services are produced by small businesses in these cities. The share of students in higher education institutions of the I-IV accreditation levels estimates 58.61 %. Over 80 % of Ukraine's GDP is accounted for cities and suburban areas.

Overall, these data indicate the importance of cities for the national economy and highlight the global trend of raising the role of cities as the facilitators of national, regional and local economic development as well as competitiveness of regions and national economies. (Fig. 2)

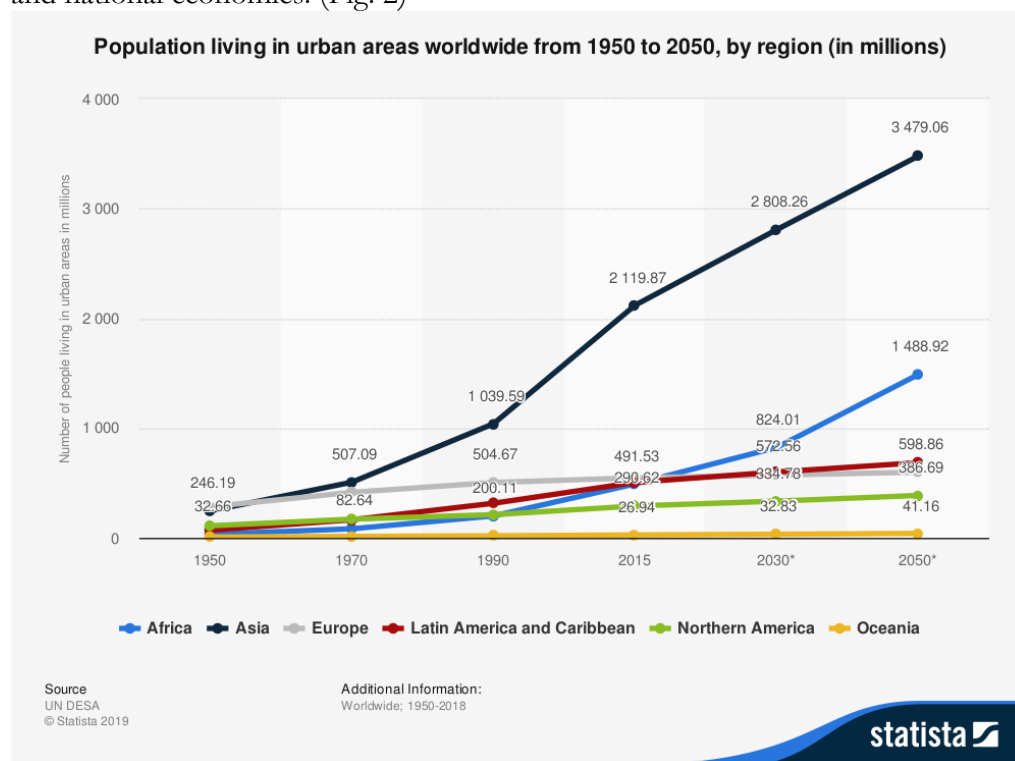


Fig. 2. Population living in urban area (United Nation, 2018)

2. The global challenges of sustainable urban development

The anthropogenic hazardous consequences of continuing urbanization has urged the vital issues of the transfer from the consumerism social values towards sustainable development patterns. The world's urban areas account for 67 percent of the global primary energy consumption and contribute around 80 percent of total global greenhouse gas emissions.

The first definition of sustainable development was introduced in the Brundtland Commission report in 1987: "Development that meets the needs of the present, without compromising the ability of future generations to meet their own needs." It was further developed at the World Environment Conference in Rio de Janeiro in 1992 with Agenda 21 and Local Agenda 21 (Gazzola and Querci, 2017). An increasing number of cities in countries of the world has considered the Local Agenda 21 concept. Twenty years after the first Earth Summit, in 2012, in Rio + 20 was discussed the key directions of green economy development and poverty elimination. They revised the concept of sustainable development emphasising the ecological and economic pillars. In 2015, the United Nation, launched the 17 goals for a better world by 2030. With these goals they want to end poverty, fight inequality and address the urgency of climate change. The Goal number 11 is "Sustainable cities and communities". To achieve sustainable development goals we need to change the way to manage the urban spaces. the increase of populations and the rise of migration is creating a rapid growth of the cities and of the mega-cities.

The discussion on sustainability is connected on one side on environment, such as waste and recycling, water resources (Papagiannis, Gazzola, Burak, & Pokutsa, 2018), energy efficiency, carbon emission, on the other side it's connected with social equity. This pillar include economic prosperity with human development. Environmental issues cannot be separated from the wider challenges of social, economic and institutional issues. Thus, environmental improvements need to be developed as an integral part of urban development policies by embracing the prevailing economic, social and cultural conditions and being based on good governance principles.

Sustainable development contributes to the improvement of quality of life through justice, education, recreation and community participation (Beck, van der Masesn, Walker, 1998). The social pillar of sustainability is one of the main resources of sustainable development to improve human rights, labor rights and corporate governance (Walker, van der Maesen, 2003). This is the social sustainability, the well-being maintenance and improvement of the current and future generations (Chan & Lee, 2008) (Mak, Peacock, 2011)(Davidson, Wilson, 2009).

We can summarize that the sustainable development has three perspectives: development-oriented, environment-oriented, and human capital-oriented. It contributes to sustainable urban development because sustainability should also be based on social cohesion in local urban areas, as well as social inclusion, socio-economic security and social empowerment of citizens (Voss, Bauknecht & Kemp (Eds.), 2006).

Thus, sustainable urban development is defined as: "Improving the quality of life in a city including ecological, cultural, political, institutional, social and economic components without leaving a burden on the future generations which is the result of a reduced natural capital and an excessive local debt. Our goal is to follow the principle that is based on the equilibrium of material and energy and also financial input/output, and it plays a crucial role in all future decisions upon the development of urban areas." (Urban 21 Conference, 2000).

3. The prospects of sustainable urban development for Ukraine

The issues of sustainable development are of the highest urgency for Ukraine. The inconsistencies in economic development and environmental safety requirements, the dominance of resource and energy consuming obsolete technologies, raw materials export orientation, lack of work culture and consumption have led to the formation of the technogenic type of economic development in Ukraine. As a result, the current human pressure on nature is approaching (and in some regions of Ukraine has already approached) the limits of environmental sustainability that might bring to crises and catastrophic changes in the environment that will inevitably affect the livelihood of an individual and the society on the whole.

The root causes of the technogenic type of economic development in Ukraine (Kamensky & Boev, 2015; Figus, 2016) are:

- the economic structure inherited from the Soviet period with the dominant share of resource-and energy-intensive industries which negative impact has been enhanced by the rapid transition to market conditions;
- the depreciation of fixed assets of the industrial and transport infrastructure;
- the existing inefficient system of public administration in the field of environmental regulation of natural resources, the lack of the clear distinction between environmental and economic functions;
- lack of the civil society development;
- insufficient social awareness of the priorities of environment conservation and the benefits of sustainable development;
- non-compliance to environmental laws. At the planning stage of policies, plans and programs of socio-economics development accounting for the future

environmental impact is not legally binding in Ukraine in contrast to the EU legislation.

It should be emphasized that the technogenic type of economic development that dominated the world and Ukraine till the 70-ies of XX century, is in fact still predominant in Ukraine even nowadays due to the highly industrialized technological structure of the national economy. It is an environment consuming (environment ruining) type of development that is based on the use of artificial means of production created without environmental constraints. The characteristic features of the technological type of development are the rapid and exploitative use of non-renewable natural resources and over-exploitation of renewable resources at the rate that exceeds the capacity of their reproduction and restoration. By the Environmental Performance Index, in 2010 Ukraine took 87th position among 163 countries of the world, in 2008 the EPI of Ukraine was 75 among 149 countries of the world and in 2006 – 52 among 133 countries of the world that shows the aggravation of the environmental situation in Ukraine (Environmental Performance Index (EPI), Sedac socioeconomic data and applications center).

On December 21, 2010 the Strategy for the state ecological policy of Ukraine till 2020 was adopted. It defines the sustainable development vector of the society and economy of Ukraine in compliance to the internationally recognized sustainable development programs as to the elaboration of the mechanism of the access of the population to the ecological information based on the principles of Aarhus Convention (1998); increase of the role and responsibility of local government in providing solutions to ecological issues of the urbanized society as well as elaboration of ecological system approach in accordance with directives of the European Union (United Nations Environmental Programme (UNEP, 1972), Aalborg Charter: Sustainable Cities & Towns Campaign (1994), the Millennium Declaration (2000), Hannover *Principles* of a planning policy for *sustainable development* in Europe (2000), Leipzig Charter for Sustainable European Cities (2007).

According to the Rio Declaration 1992 and Agenda 21 (2003), the strategies for sustainable development need to include several dimensions: economic, social, ecological and cultural (World Bank, 1999). Sustainable social development is connected with continuous progression towards creation of a human society without cultural, racial and language differences.

Since the moment of the declaration of the sustainable development principles in the context of national economic and social realities in Ukraine, the model of market transformations based on the "Washington Consensus" rules has not acquired the necessary social orientation. This approach has proved to be destructive and led to significant social losses.

In Ukraine the formation of the middle class as the main bearer of democracy, social and political stability in the society has failed, as well as a fundamentally new social infrastructure adapted to the market conditions has not been provided. The result of the unsystematic, selective reform has become the absence of the coordinated approach to the implementation of the provisions of sustainable development conceptual frameworks in the national legislation and their subsequent implementation in business practice. Along with positive achievements (development of environmental education, cultural diversity activities) there are significant gaps in health care, housing and utility services, etc. Introduction of sustainable development principles at the national, regional and municipal levels is constrained by the lack of sustainability awareness of managers at different levels and local communities concerning the opportunities of cooperation and partnership on projects of social infrastructure development, local environmental initiatives and so on.

In any drive toward sustainability of urban areas, all aspects of society (economical, socio-political, cultural and environmental) have to be included. Cities are complex entities, with population densities that are often – especially in megacities and hypercities – well over 2,000 per square kilometer. Too often, it is thought that a drive toward a sustainable urban development will work automatically.

Apart from the economic and environmental aspects, which traditionally receive most of the attention, the socio-political and cultural dimensions of urban areas will need to be drawn explicitly into the sustainable urban development. The transition towards sustainability will profoundly alter the way in which people live in urban areas. It's necessary to consider: governance, the availability of shared (public) goods or 'commons', existing inequalities (for example, in standard of living) and inequity, participation, education, 'livability' of cities and the sustainability-awareness of city dwellers, etc. Herewith, the approach to the development toward sustainability of cities needs to be fundamental, integral and systemic (Mella, 2012).

4. Conclusions

The continuing urbanization of Ukraine in the context of the global trend urge the solution of the vital issues of creating conditions for sustainable, that is socially, economically and environmentally sustainable urban development. It involves the development of the economic potential and proper living environment for present and future generations based on the rational use of resources (natural, human, industrial, scientific, technical, intellectual, etc.), technological upgrading and restructuring, improvement of social, industrial,

transport, communication and information, engineering, environmental infrastructure, raising standards of living, recreation and rehabilitation, preservation and enrichment of biodiversity and cultural heritage.

The pivotal role of the human potential development is to be the major driving force for the constructive changes on the way towards sustainability in Ukraine. Its major goal is to ensure the continuous quality of life improvement. Quality of life is a complex socio-economic category that covers all the aspects of human life. So far well-being has been measured by the level of consumption. However this approach can not cover all the aspects of the concept “quality of life” as a system. Measuring the quality of life is determined by the extent to which human needs are met in relation to the social standards and resources of the society, as well as the role of government institutions to ensure the proper conditions of living.

Ukrainian cities will perform better when the key elements of the common Ukrainian methodology for sustainable urban development have been defined. In addition, contributions to a responsible, sustainable and prosperous development of Ukrainian’s cities and regions will be most successful if they are undertaken in close cooperation with all political levels pursuing the common vision for the future development of the cities by making the best possible use of the best practices, know-how, guidance and funding opportunities thus further promoting the national sustainable well-being on the whole.

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