DRIVING FORCES FOR URBAN DESIGN AND CITIES FUNCTIONALITY

Madalina DOCIU
The Bucharest Academy of Economic Studies, Bucharest, Romania
madalinadociu@yahoo.com

Anca DUNARINTU
The Bucharest Academy of Economic Studies, Bucharest, Romania
anca.dunarintu@gmail.com

Ana Maria CALIN
The Bucharest Academy of Economic Studies, Bucharest, Romania
ana_maria_calin@yahoo.com

Abstract
The global population is mostly concentrated in cities, created as areas that face many challenges such as economic, social or environmental ones. The impact of urban areas is felt not only in cities but also in other regions so well designed and well managed urban areas are premises for sustainable living and great opportunities for urban population.
Keywords: Urbanization, Urban design, Pollution reduction, Sustainable development.

1. CITIES AND THE URBAN DESIGN

Today cities represent 50% of the global population and they are using 75% of the natural resources; in order to be able to use cities as a tool for a green economy we have to integrate their spatial design with that of buildings and transport system. Cities will be the central element of welfare by integrating the urban design in planning policies and by co-integrating nature and human economic development, the favourable conditions in this respect is played in Table 1, as follows.

TABLE 1 – ENABLING CONDITIONS FOR GREEN CITIES

ENABLING CONDITIONS
- recognition of the complex relationships, causalities and effects
- emphasis on the need for integrated policies
- planning: guidelines for an integrated approach
- transparency and accountability
- long term sustainability, public-private partnerships
- fiscal and financial incentives

Source: UNEP, n.d.

Over the last decades attitudes regarding living in cities have changed – people are no longer moving away from city centres and cities are now supposed to provide agreeable places to live in while minimizing the side effects (Gilbert, 1989).
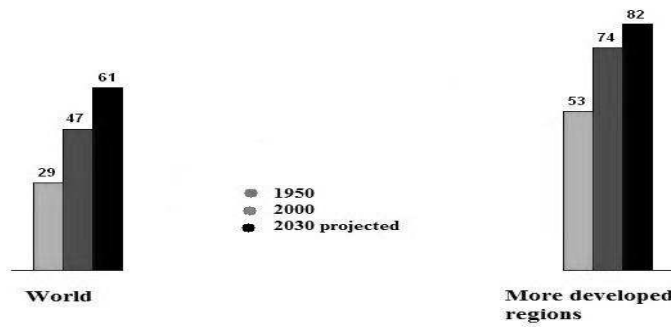

FIGURE 1 – TRENDS IN URBANIZATION. URBAN POPULATION - PERCENT
Source: United Nations, 2011

Nowadays many cities struggle to cope environmental, social and economic problems resulted from pollution, overcrowding and social inequity.

The urban design is a complex process of giving forms and shapes to a city involving arrangement and design of buildings, green spaces, public spaces and transport, blending building and landscape architecture and city planning in order to make the urban areas attractive, functional and aesthetic (Zimny, 1999). Urban design involves the design and the proper coordination of all the elements of cities and towns, as follows:
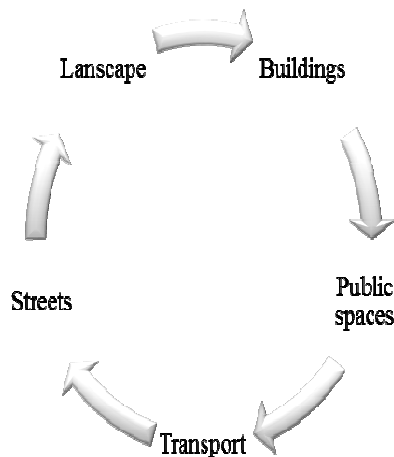

FIGURE 2 – ELEMENTS OF CITIES

Poor urban design can easily aggravate the impacts on global climate change meanwhile proper green urban design generates multiple cobenefits, including improving air quality, reducing pollution, increasing green areas and support biodiversity.

Cities are considered real ecosystems – they are dynamic systems which consume, transform and release energy and materials, they are shaped by humans and they interact with the other ecosystems.

Rethinking urban design into green areas can transform cities and urban landscapes into urban ecosystems with better urban planning and design. Problems regarding cities can not be solved only at a local level so we need a global vision and better policies and programs (Bacon, 1999).

2. DRIVING FORCES FOR URBAN DESIGN

The type and the effects of environmental impact on urban quality life depend on the nature of urban areas and of their connections with cities and close regions. Climate change, socio-economic factors as well as the cultural ones lies in a strong relationship of interdependence with direct impact on the urban space.

Mobility is vital to keep cities functioning and this fact can be achieved in different ways. Currently transport by car has a major share of urban transport fact that influences the high level of noise and air pollution.

Transport demand and the options given for this fact are different from region to region and they depend on urban design and infrastructure (Bradbury, 2009).

The environmental quality of a city – as part of the overall quality of life – is an important element mostly when people choose to live in suburbs. Even tough that noise and air quality data are influencing factors for urban spaces, a perceived poor environmental quality of life in urban areas is contributing to urban sprawl.

Design and local factors in urban areas influence environmental quality, where natural conditions mostly affect the area in which the city is embedded and where the activities of people generate great negative impacts.

Air pollutants are fine particles that can travel thousands of kilometres across the continent so as urban air pollution is not entirely local generated. The local demand for urban space is generated by multiple fact such as migration of people to cities (these areas are considered real centres of development, evolution, progress and areas with a better level of welfare) or regional demographic trends as ageing,

growth or decline. The growth of population usually generates pression on green areas, on land and accelerates the demand of resources, increases consumption while the decline provides real opportunities to reclaim green areas, to improve the quality of urban space and to reduce consumption (Glaeser and Kahn, 2010).

Urban systems do not affect only their own environment but also the areas beyond city borders.

Urban design and urban density are important factors for determining external impacts of cities such as those on the environment.

The global trend for urban developments remains urban sprawl – this fact threatening the eco-efficiency advantage of cities.

The history of urban design dates thousands of years back, exploring of these areas having a meaningful evolution over time both in terms of social, economic, and politic aspects. For example, the compact nature of the old city centres reflect the need for internal self defence of towns, while highways are supporters of the suburbanization, which has gotten an even greater extent as a result of the development of means of transport.

Today, many cities have a comprehensive transition from industrial centres to cultural, business and services. The urban design is the one that established the urban framework of functional urban space. A corresponding urban design can generate multiple possibilities for the local population in the election of a healthy lifestyle, taking for example noise, whose impact can be significantly reduced (United Nations, 2011).

1 • improves local climate by providing green areas

2 • supports mental health by providing attractive, quiet places

3 • reduces overall transport demand - lenght and number of trips - by using sustainale transport modes

4 • sets the conditions for the adoption of a more sustainable lifestyle
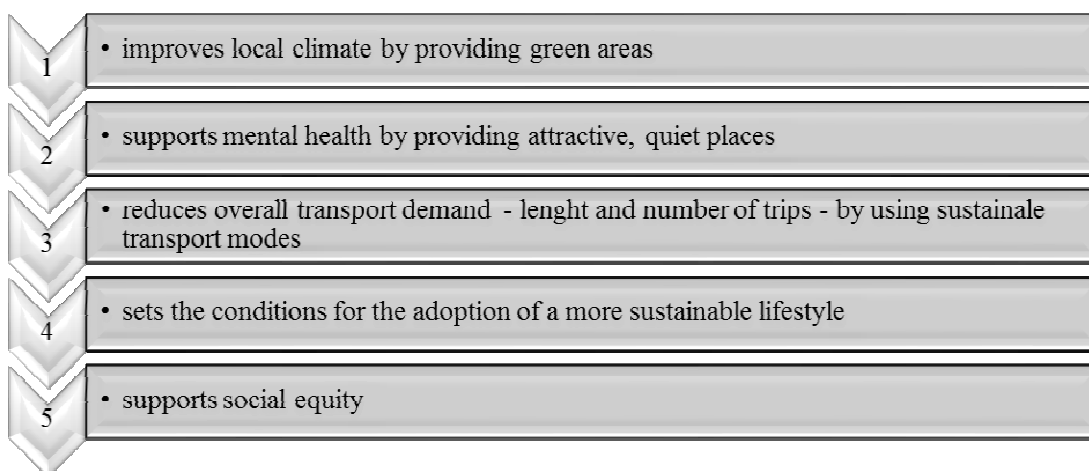
5 • supports social equity

FIGURE 3 – BENEFITS OF SMART URBAN DESIGN

Urban design stands in a certain form of representation for centuries, it can be modified, but failing to be major climate change in the low range attenuate. It will be hard or even impossible to change the factors such as population density or urban expansion, but we can change or inform population with regard to the consumption of resources, the negative impacts of urban areas and irreversible character of damage to certain areas.

The challenge of urban areas is that the design of the buildings and the socio-eco-economic framework ensure a development and evolution of future generations, in the context of sustainable development, creating an urban space with complex functions and a superior level of wellbeing (Rojanschi et al., 2006).

A factor in the urban space is represented by the population, whose behaviour or conduct influences urban development because of the activities undertaken and the pressure it creates on the environment as an essential element of life support (EEA, 2010).

Increase or decrease in the population, migration, social or cultural values are all determining factors of individual or collective mode of consumption in the urban space to which the population migrates. These dynamics are found in urban areas in which take place a powerful trend of changing goods, services, ideas and culture.

3. CONCLUSIONS

Environmental impact depends on all those elements that determine the behaviour of the urban population and urban life in urban areas and in the immediate vicinity.

Because of the major importance of cities that provide new centres of trade, communication and living possibilities, the urban spaces and their design must be based on serious and sustainable criteria, in order to reduce pressures on the urban environment and to ensure a better level of life quality.

Facing the global demand for more and better housing facilities and green areas for living it is absolutely necessary to view this problem from a green perspective, seeking the sustainable benefits and reducing the pollution in the urban areas.

REFERENCES

Bacon, E. (1999), *Design of cities*, New York: Penguin Books.

Bradbury, A. (2009), *Understanding the Evolution of Community Severance and its Consequences on Mobility and Social Cohesion*, European Transport Conference.

EEA (2010), Thematic Assessment. Urban Environment.

Gilbert, O.L. (1989), *The Ecology of Urban Habitat*, London: Chapman and Hall.

Glaeser, E.L. and Kahn, M. E. (2010), The Greenness of Cities: Carbon Dioxide Emissions and Urban Development, *Journal of Urban Economics*, 67(3), 404-418.

Rojanschi, V., Bran, F., Idiko, I. and Grigore, F. (2006), *Quantifying Sustainable Development*, Bucharest: Economica.

UNEP (n.d.), *Urban Environment Unit*, retrieved from <http://www.unep.org/urban_environment>.

United Nations (2011), *World Urbanization Prospects. The 2010 Revision*, New York.

Zimny, H. (1999), *Ecology of Urbanized Systems*, Warsaw, EEA, 2010a, GMES Urban Atlas World Development Report, retrieved from <http://econ.worldbank.org>.