

URBANIZATION AND THE IMPACT OF ECO ECONOMIC MEASURES IN URBAN AREAS

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ABSTRACT. –Urbanization and the impact of eco-economic measures in urban areas. Urban development has a powerful global dimension. Cities interact and have a major impact on environment, overcoming their spatial barriers. They are acting just like real centers of progress, offering new and various opportunities reasons strong enough to generate an exponential increase on the population number in these areas. Global consumption of resources, consumption of energy and water have the biggest values in these areas reasons to adopt and improve measures of control and sustainable development for these areas.

Keywords: Urbanization, ecosystems, ecological planning, sustainable development

1. INTRODUCTION

The urban ecosystems are those in which people live at high levels of density and where the most of the land surface is being covered with built structures and infrastructures. Attributes of major cities are:

- High population density
- Urban mosaic of buildings
- Both diffusive and selective input of nutrient sources
- Pollutants in air, water, soil
- Various disturbances
- Stress factors

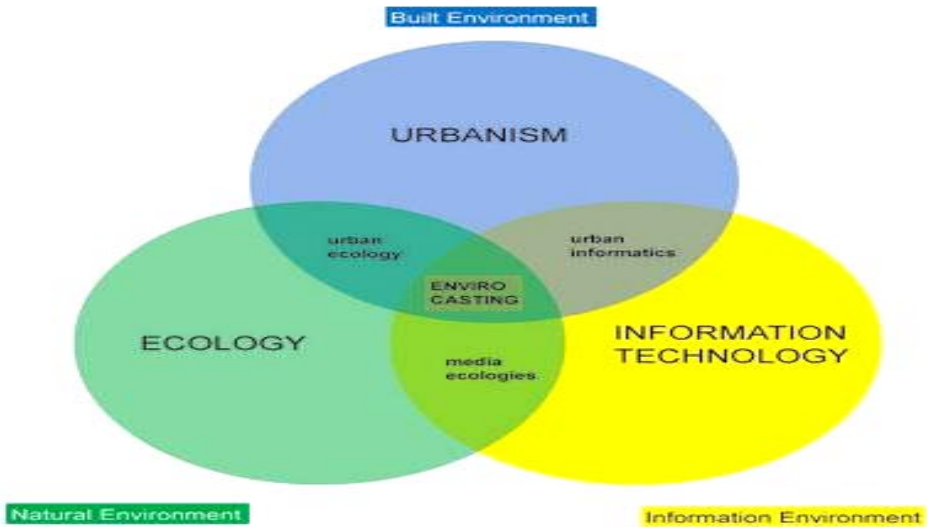
Cities and towns grew as centres of trade and commerce being highly artificial ecosystems, created by humans to provide places to do business and communicate and to offer suitable and safe living conditions. (Glaeser, E.L., 2010) Nevertheless, cities are real ecosystems: they are open and dynamic systems, which consume, transform and release materials and energy; they develop and adapt; and they interact with humans and with other ecosystems. Therefore, providing quality of life in cities functions only in interaction with its different components such as social equity, income and welfare, a healthy environment (EEA, 2009).

An ecological perspective over these areas understands urban systems as systems including less densely populated areas, urban ecosystems including not only the city cores but also the suburban areas. Urban areas are considered to be real centers of society development, where economic, social and ecological

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systems converge , serving as model systems for examining the interactions of patterns and processes.



Source: wiki.envirocasting.net

Fig. 1: The interactions of urbanism, ecology and information technology

It has been lately demonstrated that urban areas are having a general trend of evolution, gaining a continuous and general interest, but regarding this extension lots of ecological aspects have to be taken into account, as many of the changes in urban areas anticipate unprecedented alterations of the global environmental state.(Florina Bran, 2006)

Regarding these aspects we have to realise the the associated element of urban areas, the ecological planning perspective has an important role with significant impact on natural resources and people’s quality level of life.

Urban ecology as planning is totally different from spatial planning in which primary motivations are the degree of aggregation of different social and economic functions and efficient filling of undeveloped spaces. (Zimny, H. 1999) The additional components of urban planning having ecological premises include life cycle analysis of product, the utility being based on green use and exploitation of resources with monitoring the effects. This ecologically motivated planning incorporates data on ecological function and environmental practices applicable in novel ecological circumstances.

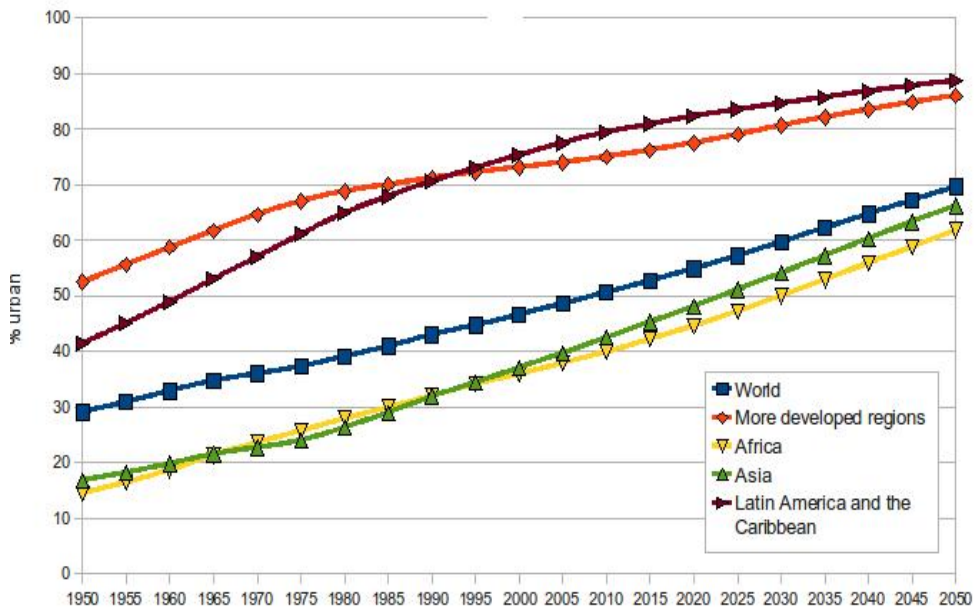
All ecosystems, including the urban ecosystems are being affected by the same state of factors:

- The prevailing climate
- The resident organisms and their residual effects
- The substrate

- The period of time during the first three factors have been acting (Bacon E., 1999 „Design of cities”)

Fast urbanization highly accentuates the pressure on natural resources, this phenomenon being caused by demographic growth in these areas, and also because of the migration from rural to urban areas of population in order to create new opportunities and to ensure a much faster development adverse effects on the environment.

In order to reduce as much as possible the phenomenon of urbanization measures and instruments of strategic planning have to be adopted to reduce and stop loss of biodiversity and to improve the general level of human life quality. New social theories take into account spatial, social and temporal differences to provide a hard base for an ecological approach of urban systems. (Moller, 2009)



Source: United Nations publication, United Nations 2010

Fig. 2: Percentage of population living in urban areas, 1950-2050

Urbanization is a dominant demographic trend and an extremely important component of global land transformation (Bradbury, A., 2009). Urban areas are gaining 67 million people per year including at this moment more than half of the total population of the planet ; it is anticipated that by 2030 almost 5 billion people are expected to live in the urban space or 60% of the projected global population of 8,3 billion. The exponential evolution of the population and its spacial impact are strong enough reasons to study this problem and to adopt new measures and tools for a proper management of cities that will ensure more sustainable places to live in the future. (Platt, 1994)

Multiple benefits of smart urban design :

- ecological urbanization urban green areas can filter particles and create quiet areas
- reduced level of air pollution
- improves the local climate by providing ventilation
- supports mental health by providing attractive, quiet and safe places including green areas;
- reduces overall transport demand and enables more sustainable transport modes - walking, cycling and public transport (EEA, 2010f);
- reduces energy demand through intelligent building design
- supports social inclusion and equity.

5. CONCLUSIONS

Urban areas are located in countries with developing economies or with highly developed economies with different levels of consumption of resources or emissions of pollutants.

In order to achieve a transformation of cities into real elements of ecological economies it is absolutely essential to integrate their design in the space considering also the transport systems and all the other urban elements; different levels of development make cities experience totally different the environmental impacts.

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