LOCAL FISCAL INSTRUMENTS FOR "GREEN CITIES" – CASE OF ROMANIA

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Abstract: *One of the great challenges that local authorities have to face in the current period of time is climate change and that environmental protection, the responsibility of creation or strengthening green cities appearing in the forefront. In this context, the success of policies based on regulations can be sustained and substantially enhanced by appropriate use of local fiscal instruments such as taxes, fees or expenditures. From this point of view, our paper suggests some alternative design, implementation and use of these fiscal tools so that they can manifest realistic as active levers to influence the activities and behaviors of actors involved to develop and strengthen green cities.*

Keywords: *local fiscal instruments, green cities, local policies, financial instruments.*
JEL Classification: H7, H71, H79.

1. Introduction

Continued concern over climate change as a component of sustainable development (environment, social and economic) calls into question the ability of local public authorities to develop fiscal instrument for green sustainable cities. In this context, own local revenues (local taxes and fees) have great potential to be seen as main fiscal instruments for green cities. Along with these, there are other several sources which may be considered as important for achieving the desideratum of the greener cities such as: public-private partnership, bonds, loans, etc. The challenge in mobilizing these local instruments at the local level (administrative-territorial units) is to design them in a green way for "green sustainable cities".

This paper presents an overview of local fiscal instruments for Romanian municipalities as "green sustainable cities". In this regard, the first section is dedicated to the experience of financial instruments of green cities in selected EU countries, the second section is dedicated to the practice in Romania, taking into account that Romania has less experience in implementing and using financial instruments for green cities. The third section supposes some alternative design, implementation and use of the fiscal tools for desideratum of green cities.

2. Towards existing financial instruments for "Green Cities" in the EU

The design of local revenue sources for administrative-territorial units/municipalities can stimulate the development of green sustainable cities. A range of financial instruments can help to achieve this goal through local taxes and fees such as congestion charges, transportation fees and variable parking fees that reduce car traffic, property taxes that stimulate density, and fees that stimulate responsible water consumption. These may be considered the greening of cities financial instruments.

A green focus on urban finance could mean from private actors through public-private partnerships (PPPs), loans, bonds and carbon markets. Local governments should create incentives for them to invest in sustainable infrastructure related to new development and to get them involved in partnerships (Merk, et al., 2012).

Congestion charges introduced in 2003 in London, have reduced carbon dioxide emissions of up to 19.5% (Beevers and Carslaw, 2005). Other effects were reductions of

emissions (NOx, PM10) and car traffic. London use the revenue from congestion charges to finance urban public transport.

Table no. 1. Impacts of selected urban congestion charges in EU

Country	Legal framework (since)	Reduction CO2 emissions (in %)	Period of effect	Other effects
London (UK)	2003	19.5%	2002-2003	-reductions of emissions (NOx, PM10), -reduction of car traffic
Milan (IT)	2008	9%	2008	-reductions of emissions (PM10, NOx) -reduction of traffic volumes
Stockholm (SE)	2006	13%	January 2006 - July 2006	-reductions of emissions (NOx, CO, PM10), -reduction of traffic volumes

***Source**: Merk, et al., 2012, after OECD (2010); OECD, 2013*

In the United Kingdom, there is the practice of tax deduction for owners (individuals or legal entities, residential owners) for energy-saving work. The mechanism requires that building owners who pay income tax can apply for a tax exemption on investment for thermal insulation, solid wall and floor insulation, insulation against the current, isolating hot water systems. The deduction is limited to a maximum of £ 1.500 on rented accommodation. Legal persons have the right to request a higher deduction for certain types of heat or installing efficient equipment. The VAT is reduced by 5% for improvement, renovation and maintenance of houses.

The UK government plans to introduce Owners Scheme Green Building Fund to reform the current Fond Wear and Tear (WTA) and the allocation of subsidies will be conditional on the energy performance of the building. The UK government takes into account the possibility that the WTA to be extended to unfinished properties and qualification for the WTA revised version to be linked to the energy performance certificate.

In France (Romania Green Building Council, 2009), local governments implement a range of discounts on local taxes. In this context, households may receive a tax reduction of 50% based on Council tax reduction scheme for investments in the acquisition and installation of photovoltaic panels. The VAT is reduced by 5.5% for improvement, renovation and maintenance of houses finished at least 2 years.

Through the financial instruments used, Green loans for renovations have a special role, with a zero interest rate and maximum loan amount of up to 30,000 EUR per household, reimbursement of the loan being made in 10-15 years. The aim is to encourage energy efficiency in buildings and thermal energy production from renewable sources. Eligibility to obtain such a loan is not subject to income levels, but borrowers must prove that the plans are to conduct a comprehensive review and after implementation work there is a high energy level of performance requested by the program (replacement of doors and windows, thermal insulation of walls, thermal insulation of roof, installation of more efficient heating systems, installation of a water heater system or housing heater system using renewable energy. Green loans can be combined with a reduction of duties of up to 50%.

If companies make investments in equipment used for energy efficiency and renewable energy facilities, for equipment purchased or produced before 1 January 2011, there is guaranteed accelerated amortization. In addition, companies can deduct the cost of equipment in the first fiscal year.

Another financial instrument are considered, in France, specialized companies financing through leasing of property, factories and equipment, or rental of equipment and materials for energy generation and environmental protection. They can cooperate with public authorities in concessions and public procurement.

In Italy (Romania Green Building Council, 2009), local governments carry out tax cuts for improvements aimed to reduce energy consumption in buildings and the purchase of energy-efficient electric household appliance, such as 20% discount for replacing refrigerators Class A +. Also, local authorities may grant loans and incentives, tax rebates for improvements in the level of energy performance of buildings. Accessing them is based on an energy efficiency certification.

In Ireland (Romania Green Building Council, 2009), electricity suppliers offer a tariff "Power save" ("Energy Savings") to stimulate energy consumers register to reduce the rate of energy consumption or increase the contribution of external renewable during periods of peak demand . Instead, customers receive compensation through a payment mechanism based on reductions kWh accumulated during the campaign "Power Save".

In Austria there is a direct funding for housing insulation.

3. Good practices for “green cities” in Romania

In terms of legislative measures, from 1 January 2007, owners are required to obtain energy performance certificates on completion of the construction of a new building, certificates that owners must provide for future buyers or tenants when signing a sale or an agreement of renting that building. On the sale and rental housing for single family and apartments in apartment blocks, providing certificates became mandatory from 1 January 2010.

In many administrative-territorial units in Romania (as beneficiaries) have been implemented programs to replace or supplement the heating systems using solar, geothermal and wind energy or other systems leading to improved air quality, water and soil quality, due to non-use of fossil fuels. These programs have assumed a 80% co-financing through the Environmental Fund. Determining the rate of participation from owners or residents associations are the responsibility of local councils. The maximum amount of funding on administrative-territorial unit was between 500000 and 4000000 RON, depending on the number of inhabitants.

Another program was Thermal Rehabilitation Multiannual Programme that aims to provide thermal insulation of blocks of flats build between 1950-1990, in order to achieve enhanced energy performance of buildings of this type and therefore decrease energy consumption for residential heating by providing and maintaining heat inside.

European standards provide about 26 square meters of green space per capita. Green Capital of Romania Gala, where all cities are invited to participate, represents a good opportunity to motivate cities to develop the concept of green cities. In 2010, Brasov won the first edition of the "Green Capital of Romania" in actions that promote tourism, and because of its environmental policies and projects. For example, it had the highest number of volunteers in the project "Let's do it Romania", introduced the "Registry of local green space", and has implemented sustainable policies for alternative energy involving the Energy-Cities European Association. It also made selective waste collection or rehabilitation, protection and conservation of biodiversity protected area "Tampa Mountain".

In 2011, Oradea won the "Green Capital of Romania Award", and Botosani won in 2012, being the city which meets the standards with 31 square meters of green space per capita. For the period of time 2013-2016, this competition has gone out “into shadow”.

Table no. 2. Awards of Green Capital of Romania Gala in 2010

Town	Award
Alexandria	Award for initiative in the field of environmental protection
Braila	Award for actions undertaken recyclable
Bucharest - Sector 2	Award for measures taken to prevent raising large amounts of waste in urban space
Cluj Napoca	Award for Sustainable Development Plan
Deva	Award for actions taken in order to avoid / minimize pollution
Sfantu Gheorghe	Award to plan future actions in the field of environmental protection
Slobozia	Award for promoting the concept of selective collection and its acceptance by inhabitants
Timisoara	Award for the environmental strategy and waste management
Zalau	Award for environmental actions undertaken and communication between authorities and population

4. Conclusion towards existing greener revenue sources

At the level of local public authorities in Romania, the financial instruments most handy could be local tax reductions and tax exemption. The most relevant local tax could be building tax and land tax. The reduction or tax exemption period should be correlated with the performance of the building. If developer reduces land tax for a green project building (with high energy efficiency) is less relevant, but reduction or exemption of tax on the building for a certain period of time is particularly relevant for large office buildings, commercial buildings or hotels or small developers who benefit from the building after construction and did not plan immediate sale thereof.

According to the Romanian Tax Code, local authorities may grant tax exemptions or reduction on buildings. To stimulate urban population, the municipality may offer tax reduction or other benefits to buildings having a roof garden well maintained and may offer discounts and sponsorship to gardening companies.

Another type of financial instrument of local authorities could be the reduce of the fee for obtaining Building Authorization (Building Permit). Its cost is high and fully covered by the developer, no matter what will happen with the construction after development (operating by the developer or sales). Therefore significantly reducing the fee for obtaining the building permit is an incentive that would encourage any developer to consider increasing energy efficiency in the construction project.

Another type of financial instrument of local authorities could be *transportation fees and charges*. Transport fees should discourage car use and encourage public transit and non-motorised travel (Merk, et al., 2012).

As instruments to reduce successfully the share of car traffic, reduce emissions, and raise funding to finance local transportation infrastructure could be *Congestion charges* (fees for road use that are applied exclusively or more intensely during peak traffic periods) and *Variable parking fees and taxes* which can reduce car trips and encourage public transportation use.

Local governments are open to implement fiscal measures to encourage the development of green cities in order to stimulate the local economy and in the future more

and more local authorities will act quickly to attract investment in green buildings (e.g. Brasov- building tax is reduced by 30% for three years to upgrade building energy performance certificate attested before and after rehabilitation).

References

1. Beevers, S.D. and Carslaw, D.C., 2005. The Impact of Congestion Charging on Vehicle Emissions in London‖. *Atmospheric Environment*, Vol. 39, No. 1, January, pp.1-5.
2. Hammer, S., 2011. Cities and Green Growth: A Conceptual Framework. *OECD Regional Development Working Papers* 2011/08, OECD Publishing, http://dx.doi.org/10.1787/5kg0tflmzx34-en.
3. Merk, O., Saussier, S., Staropoli, C., Slack, E. and Kim, J.H,., 2012. Financing Green Urban Infrastructure. *OECD Regional Development Working Papers* 2012/10, OECD Publishing; http://dc.doi.org/10.1787/5k92p0c6j6r0-en.
4. OECD, 2013. *Green Growth in Cities*. OECD Green Growth Studies, OECD Publishing. http://dx.doi.org/10.1787/9789264195325-en.
5. OECD, 2010. *Cities and Climate Change*. Paris: OECD.
6. ***Green Building Council, 2009. *Measures to Attract Investment in Green Buildings Locally*, Romania.