Multistakeholder Networking towards Circular Flow Land Use Management

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Abstract

This paper will address multistakeholder networking as an innovative approach in regional development. Networking will be organised as a platform collecting the land management data needed for innovations and development, bringing knowledge on the future trends affecting the region in order to take care of the shared strategic processes, cooperation and leadership. Municipalities in the microregion of Trnava have successfully started networking in order to prevent the use of greenfields for attracting new development projects, when brownfields are available in other parts of the micro-region and ready for redevelopment. The issue of brownfield redevelopment is pressing in central European countries. Shared understanding and joint vision and multistakeholder microregional cooperation contributes to the development of local industry and to cooperation and competitiveness within the micro-region, following the objective of sustainable spatial development.

Circular flow land use management is a concept applicable at regional and municipal levels, supported by networking to help the sharing of joined development and the decision-making in large municipal and regional networks. In the on-going study, the concept of networking is applied in a network structure, consisting of 12 small municipalities around the regional city of Trnava in western Slovakia, EU. The municipalities created a micro-regional platform in order to network and manage efficiently land use and other essential functions for better spatial and temporal qualities of the micro-region. Involvement of the Slovak University of Technology in the issues of brownfield redevelopment is bringing know-how to the strategy of redevelopment based on joint participation in the ERDF project, operational programme Central Europe "Circular Flow Land Use Management" No. 2CE174P4. The project started in Feb 2010 and will end in Feb 2013 and the first results of cooperation in the frame of networking are presented at the AESOP 2012 Congress.

1. Introduction

Circular flow land use management is a vital concept applicable at regional and municipal levels, supported by networking to help the sharing of joined development

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and the decision-making in large municipal and regional networks. Circular land use and management represents an integrative policy and governance approach that presupposes a changed land use philosophy with regard to land utilization. Such modified land use philosophy can be expressed with the slogan “avoid – recycle – compensate”.

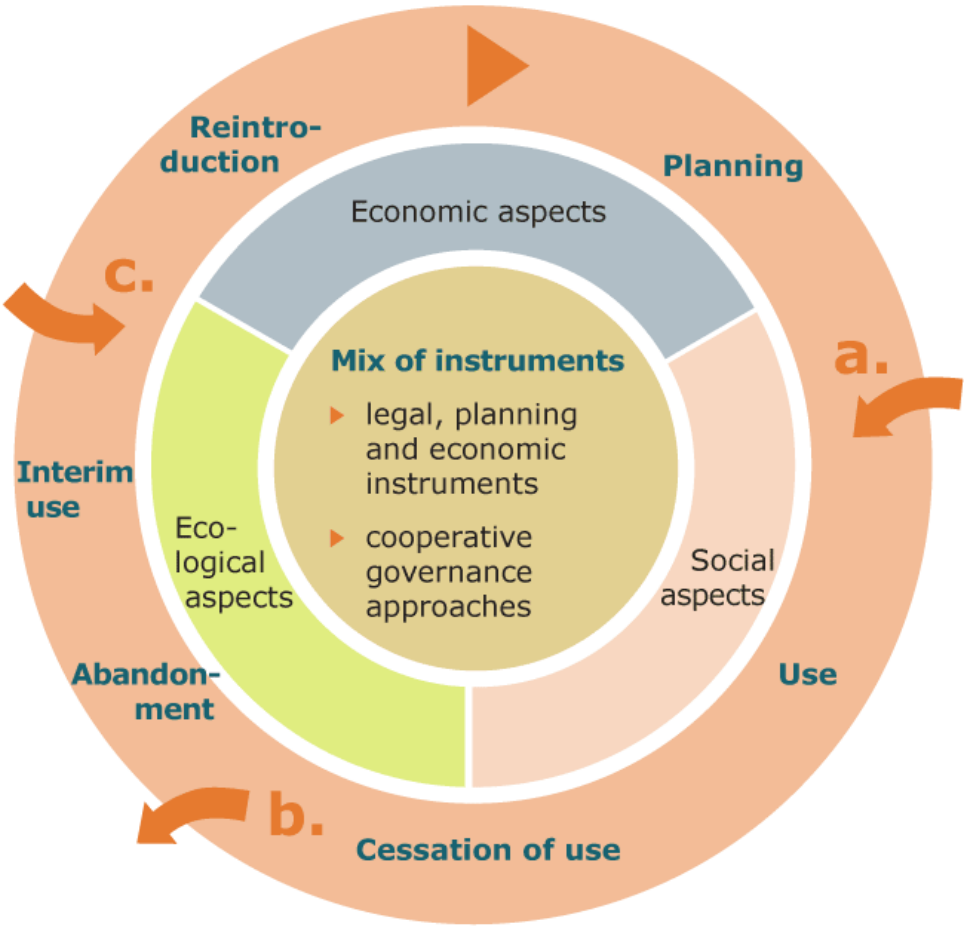
Similarly to the recycling-based principles, which have become commonplace in recent years in areas such as waste and water management, the concept “circular land use management” should become an established policy in sustainable land utilization. Materials cycles can serve as a model for circular land use management

The project CircUse “Circular Flow Land Use Management” No. 2CE174P4 is running under the ERDF operational programme Central Europe, where 12 partners are preparing the concept of Circular Land Management in 6 countries (PL, SK, CZ, DE, AT, I) under the leadership of the Institute for Ecology of Industrial Areas in Katowice, Poland. Involvement of the Slovak University of Technology is bringing know-how to the strategy of redevelopment based on participation in previous projects dealing with the issues of brownfield redevelopment. The project started in February 2010 and will end in February 2013 and the first results of cooperation in the frame of networking are presented.

Limitation of land consumption has become one of major spatial development policy tasks in across all EU member states. One of possible answers to the question how to minimise the land consumption and at the same time not to limit social and economic development is the reutilization of brownfields sites as crucial element of sustainable spatial development management.

Multistakeholder networking is an innovative approach in regional development. Networking is organised as a platform collecting the land management data needed for innovations and development, bringing knowledge on the future trends affecting the region in order to take care of the shared strategic processes, cooperation and leadership in order to avoid urban sprawl. Shared understanding of joint vision and multistakeholder micro-regional cooperation contribute to the development of local industry and to cooperation and competitiveness within the region, following the objective of sustainable spatial development.

Figure 1. Circular land use management (DIFU Berlin, 2008)



The philosophy visualised in the above figure shows the phases of land use resulting in a cycle. At the end respectively at the beginning of certain phases – see a, b and c – decisions concerning the further utilisation of land have to be made.

a. Zoning new “green belt” land for development
b. Rejection of land not suitable for subsequent use
c. Activating land potentials
- brownfields (industrial, commercial, military),
- gaps between buildings in internal areas,
- urban renewal sites,
- sites undergoing planning.

The end and the beginning of each phase are crucial decision points.

2. Analysis

In the Slovak Republic the Trnava microregion, located in west Slovakia, has been chosen as the case study in the CircUse project. Municipalities in the microregion of Trnava have successfully started networking in order to prevent the use of greenfields for attracting new development projects, when brownfields are available in other parts of the micro-region and ready for redevelopment. The issue of brownfield redevelopment is pressing in all central European countries and in the Trnava microregion in particular. The vision is the development of functioning, efficient and flexible cooperation structure and interlinks between different aspects of micro-regional development, different actors and interests in one interlinked strategy as a reaction to existing problems with brownfields areas, abandoned buildings and growing requirements concerning new capacities of public services and land for private investments.

Microregion of Trnava consists of 12 municipalities that create a microregion as a platform for cooperation and networking that will lead to new innovations in the development strategy of microregion. The aim is to integrate multi-task actions to re-use derelict areas in the city and municipalities in its suburban area, involving various stakeholders into the planning, decision making and implementation of joint strategy as a new chance to improve the quality of life in Trnava and other municipalities in the microregion.

This network platform is an organizational concept that helps the sharing of joined understanding and the decision making in large network structures by:

- Inviting the major actors of local development together around the table to discuss on land uses in the networking area of the microregion,
- Creating and sharing joint vision of the development and division of functions of the municipalities in this development,
- Promoting common values in the area of the microregion and developing trust and cooperation in reaching the targets,
- Preparing the joint development agenda,
- Developing the common innovation environment,
- Monitoring the implementation of the targets,
- Evaluating the results.

In terms of sustainable development it is necessary to create networks, alliances, elaborate joint strategies for several municipalities, which allow the division of labour, and make use of common potential. Each community has unique potential, each has different resources available. Cooperation and networking to achieve synergies and increase their attractiveness for investors to bring jobs, development and tax incentives, but also for people, which will be in the context of demographic change much more important. The cooperation of municipalities in the micro-region supports the diversification of the economic base of rural settlements, intensive use of specific human potential, innovation and local potentials.

Innovativeness of local development micro-region is based on:

- Increasing knowledge and skills about possible solutions and functions in the territory of the micro-region,
- Development of cooperation and networking relationships built on trust,
- Development of an innovative environment that allows an increase in the local economy,
- Development of ability for regeneration of microregion territory,
- Increasing the competitiveness of micro-region at regional and national scale,
- Using of marketing tools for creating a common brand (branding) of the territory, which re-uses the old areas (brownfields).

For the development of other economic activities and community facilities in the microregion the key role is played by the inclusion of the communities among the cohesion growth poles in the interest area of innovative growth pole of the city of Trnava. Municipalities also lie in the core belt of settlement zone first level. A major impetus for the development of micro-region was the establishment of the automotive group PSA Peugeot Citroen in the municipality of Zavar (2/3 of the factory area) and in the city of Trnava (1/3 of the factory area) in 2003.

An important factor for the development of transport infrastructure is the immediate proximity of the D1 motorway, linking the cities of Bratislava and Trnava. The advantage of geographical proximity of the villages of microregion is the exit from the motorway D1. The motorway passes through the village Zeleneč, at which it was built a new motorway feeder "Voderady" built, in connection with the construction of industrial premises Samsung. This goes directly to the village of Hrnčiarovce Parnou, which thus provides an excellent transport accessibility, but also serves to the surrounding villages of the microregion.

Also railway No.120 Zilina-Bratislava, which has undergone renovation in recent years. These two important transport elements become not only a significant positive solution to the territory, but somehow at the same time are also limits to the territory of the micro-region. In connection with the construction of the company Samsung that has taken place in the municipality of Voderady, the construction of a new motorway junction was finished, which significantly changed traffic conditions, eg. in the cadastral territory of Hrnčiarovce nad Parnou.

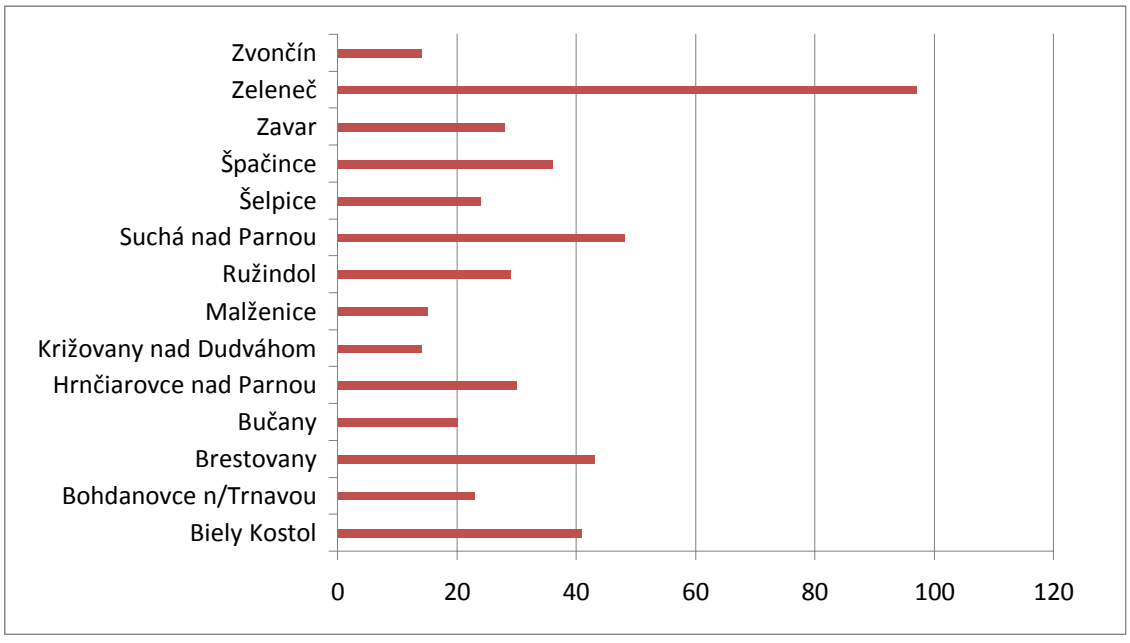
City of Trnava in Slovakia is among the cities hit by the suburbanisation tendencies. While even the late 90's, over 70-thousand people lived in Trnava, after 2000 the demographic characteristics of the city begins to fall. Causes of population decline not only in Trnava, but this process is taking place in almost all major cities not only in Slovakia but also in Europe. This is very similar: decrease in fertility, fewer children on average per family but especially moving into the new satellites in the countryside and villages near cities, that means suburbanisation.

Interesting is also the view of decades back: the greatest increase in population experienced Trnava in the seventies and eighties. The average annual increase amounted between 1970- 1980 enormous increase of 1529 people, in the years 1981 to 1991 the increase in Trnava per year on average was about 800 new residents. In the first half of the 90's, the annual growth fell to less than 300 in the second half of the 90's even dropped below a hundred.

The overall decline in population of Trnava is the independence of the municipality of Biely Kostol and Hrnčiarovce nad Parnou in 1993 and 1994. In recent years, the population decline has not stopped, on the contrary, continues. In 2001, in Trnava lived 69 563 inhabitants, a year later, 69 868 inhabitants, in 2003 68 588 inhabitants, in 2004 68 500 inhabitants. Five years ago there was still in Trnava 68 292 inhabitants, in 2006 67 878 inhabitants and at the end of 2010 only 67 368 inhabitants.

Number of emigrants from Trnava to various neighbouring municipalities for the period 1/2011-12/2011, according to the data by the Local Government of Trnava is directed largely to the municipalities of the territory of the reference micro-region (to 9 villages out of the 13 municipalities of the micro-region).

Table 1. Number of residents moved from Trnava to neighbouring municipalities in 2011



3. Results

In all municipalities a pilot survey of the area and communities was carried out, following the issues:

- Topography and landscape characteristics of the municipality
- Settlement structure, housing
- Population and social climate
- Transport, social and technical infrastructure
- Green areas / Settlement Greenery
- Public spaces
- Underused areas

The results are presented in the SWOT analysis:

Strong aspects of Trnava microregion development:

- infrastructure - proximity to the superior technical infrastructure,
- availability of superior amenities (retail and services) accessible in the regional and superior regional centres,
- investor interest for the development of housing construction and by microregion development induced demand for housing,
- good access centres to microregion and region (Trnava), followed by a multi-modal transportation centre of Bratislava - Vienna
- the availability of jobs,
- the dynamics of economic growth
- relatively good business environment,
- the development of demand-induced population growth,
- demographic increase.

Weak aspects of Trnava microregion development:

- lack of vacant land owned by municipalities,
- in many villages a little outdated building stock of individual housing,
- missing local streets and paths in many villages,
- the lack of barrier-free access solution,
- existing wild dumping sites,
- poor quality of public recreational areas, playgrounds,
- low quality of public transport,
- in many villages no parking and garaging facilities of cars,
- in many villages dust due to transport, lack of windbreaks and soil erosion,
- in many villages the poor state of historic buildings and a problem of their recovery realistic strategies and funding sources,
- in some villages lack local of social infrastructure (education, health, culture, sport),
- connotations associated with the existence of complex nuclear power plants.

Opportunities of Trnava microregion development:

- the use of PPP and structural funds to complete the reconstruction of technical, transport and social infrastructure,
- development of micro-regional cooperation involving common infrastructure building, cycling paths, building micro-regional collection yards,
- regional programmes and land consolidation implementation in order to access land to create building sites for various types of housing areas and infrastructure,
- use of the Environmental Fund and other EU funds for planting greenery outside built-up areas of municipalities,
- microregional cooperation intended to regulate the migration trends and investors in the most suitable locations in terms of sustainable development,
- microregional cooperation for more efficient and better public transport,
- cooperation with the universities close centres to support the micro-regional development.

Threats of Trnava microregion development:

- increase of unemployment,
- decrease in real estate prices,
- increase of the cost of living (energy, food, services),
- reduction in the level of employment in agriculture,
- nuclear safety and threat to environmental components,
- reduction in quality of life by the existence of nuclear facilities and radio waste,
- emergence of industrial and logistics parks,
- population migration,
- coming of problem causing population groups,
- an increase of the temporary present and temporary resident population,
- lack of interest to cooperate.

4. Conclusions

As it is clear from the summary of the outcomes of the SWOT analysis, the Trnava microregion is a typical representative of a core of urban metropolitan region. Good transport accessibility and availability of facilities makes it attractive for investors in the industry segment as well as in housing, services and benefiting from social infrastructure and the cumulative advantages of the core city - Trnava. The dynamic development of economy of the region induces demographic growth influenced by migration and the demand for quality forms of housing and services both for the production services as well as for the services to the population.

Despite the core common competitive advantages which include location, area availability, accessibility, infrastructure and transport facilities, each community due

to its location, the specific natural conditions and existing development have different potential for participation in the development of the region. A key factor in the competitiveness of microregion as a whole and the individual municipalities, including the core centre appears to be the exploitation of these specific potentials. This is only possible in a coordinated development strategy and cooperation enabling more efficient use of specific potential and division of labour. Microregion therefore has a unique potential to gain a competitive advantage from the development of inter-communal cooperation. By developing the intercommunal cooperation it is possible to respond to the need to optimize the structure and location of facilities covering the internally derived demand - it is primarily about leisure time activities, recreation and relax, and specific forms of housing and services, and in the external investment demand - it is especially locating the business of manufacturing services, small production , logistics services and transport. By optimizing the localization from the miroregional perspective it could both maximize use of existing potential of individual communities, as well as to minimize the take of un-built territory reflecting thus the limiting factor for extensive development throughout the region TSK – high quality of agricultural land and environmental protection. Optimising the location of functions on microregional level could also make the movement of population within the microregion more efficient and it could be effective also for the operation of services, with particular emphasis on services provided by public sector and thus contribute to saving municipal finances. Given the considerable similarity of the range of problems perceived by population (lack of green spaces, low services by public transport, incomplete services, long-term unemployment) it opens the possibility for using the cooperation within the Trnava microregion also for the associated projects financed by EU structural funds.

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