

Development of the Hradec Králové - Pardubice agglomeration since 1986

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Abstract. Hradec Králové - Pardubice agglomeration formed an important industrial and agricultural area in the centre of gravity of East Bohemia. Currently, the extensive development of the tertiary sector and important position of the two regional capitals set the pace for the development of logistics centres, accompanied by the development of transport infrastructure, but also the development of higher amenities. The whole organism of the agglomeration is complemented with recreational functions in biologically valuable and landscaped areas. According to the regional development policy of the Czech Republic this bi-centric agglomeration is included in the development area OB4. Development areas are defined in territories where are concentrated international and national activities with increased demands for changes in land use.

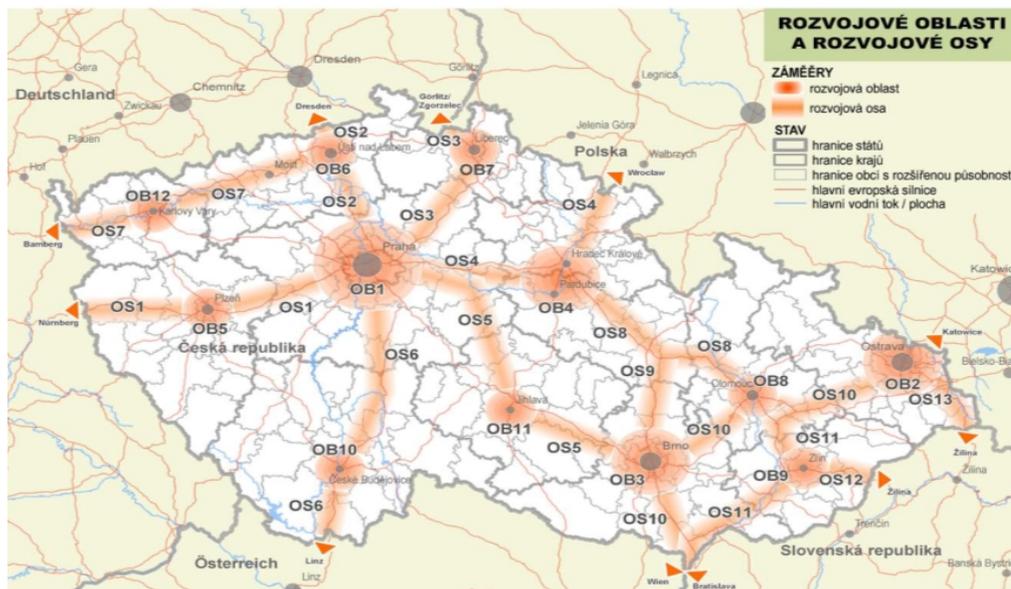


Fig. 1 Definition of development areas and development axes on the territory of the Czech Republic as seen in the Territorial Development Policy of the Czech Republic [2]

Urbanized area of the bi-centric agglomeration

Urbanisation problems of the Hradec Králové and Pardubice agglomeration have been discussed since 1976. The decision of the Czechoslovak government on urbanisation plans and long-term trends in the settlements of Czechoslovakia led the Council of East Bohemia to prepare a land use

plan of the large territorial unit Hradec Králové and Pardubice agglomeration (hereinafter “ÚPN VÚC”). The agglomeration territory was defined in accordance with resolution of the government of Czechoslovakia no. 56/1983 and it was extended to include also the closely related areas forming the external zone of regional agglomeration. [1]

In terms of administrative division the studied area consists of:

- District Hradec Králové
- District Pardubice
- Part of the district Chrudim (defined as the catchment area of the settlement of local significance, Chrudim)
- Part of the district Náchod (defined as the catchment area of the settlement of local significance, Jaroměř)
- Part of the district Jičín (defined as the catchment area of the settlement of local significance, Hořice)
- Part of the district Rychnov nad Kněžnou (defined as the catchment area of the settlements of local significance, Týniště nad Orlicí and Borohrádek)

In the core area of the bi-centric agglomeration there meet, interplay and complement many interests and functions of both core cities (Hradec Králové and Pardubice). The core area can be divided into heavily urbanised parts focusing on the main residential and production service functions or settlements of both core cities and the Opatovice area. These functions in the core area are surrounded by suburban territory with the main function of agriculture, mining and water management and with recreational and biological functions.

The aim was to solve the conflicting relationships in the development of industry, energy and agriculture, including objective solution to the regulation of demands for the development of settlements in accordance with the need for efficient deployment of labour, industry, mining, transportation, water, civil amenities and technical equipment.

Urban development had problems especially due to excessive concentration of industrial and power generation facilities with negative impacts on the environment and on agricultural and forest production. With increasing lack of quality drinking water in the discussed area and due prospective inadequate transport infrastructure there arose requirements for construction of a local nuclear power plant.

Forward-looking urban concept (until 2000) of the core territory of two perspective residential structures pointed to substantial overload of the core cities of Hradec Králové and Pardubice. Unfavourable demographic development, including worsening of the environment in the centre of the agglomeration in the discussed period, led to the presentation of a concept of gradual decline in the dynamics of development of core cities, including the creation of conditions for the stabilization of the inner and outer zones of this regional biocentric agglomeration. One of the pivotal points of the urban concept was to stabilize the rural population in agriculturally productive areas [1]. The expected (until 2000) individual housing construction in the district of Hradec Králové was almost 12,000 flats, in the district Pardubice less than 11,000 flats, of which the city of Hradec Králové had less than 7,500 flats and Pardubice 7,000 flats. The development of individual housing construction in the core area was proposed in locations Plachta and Temešvár in Hradec Králové, and areas Polabiny III and Cihelna in Pardubice. The proportion of individual housing construction was designed at almost 25% of the total share of constructions. Reconstructions of housing fund were planned to represent 13%.

Currently, there is a significant depopulation on the peripheral parts of the two main centres, with high spatial demands on the individual construction. There occurs depopulation of the major centres with people moving out to settlements with fewer amenities where sole residential function prevails. This suburbanization phenomenon led to an increase in traffic intensity due to commuting to work and due to aging houses in the core cities of Hradec Kralove and Pardubice.

Urbanized landscape in the core area

The quality of environment is affected not only by transport and technical infrastructure and renewed housing stock with high levels of tertiary sector, but also a system of urban landscape and green areas with an interplay of special and functional relationships. In both centres the urbanized landscape is an important component of the whole urban design. Systems of greenery form a connection linking the city with suburban landscape. For short-term recreation there are large parks in the centre and suburban forests in the suburbs. Important landscape features of both centres are water areas and major rivers (Labe, Orlice, Chrudimka). The bi-centric agglomeration is situated in the Labe River Plain whose terrain morphology has an average altitude of 230 meters above sea level. It has the geological structure of the Bohemian Massif and a unique landscape atmosphere defined by its Paleo-Arctic deciduous forests, which are typical of the Czech Republic. Water determines the location of individual elements in greenery while limiting any constructions due to adjacent flood and protection zones.

The areas of greenery include, not only in the city core, elements of the territorial system of ecological stability. Representative features of the system in the core area are supra-regional biocentres and corridors, which are located in the South-East of Hradec Kralove and North-West of Pardubice [3] [4]. Interconnected natural and altered near-natural ecosystems are complemented by a network of local systems. This system maintains the balance of nature, for example by providing paths for animal migration. Another important part of the system of greenery are suburban forests and special purpose forests. Suburban forests are usually found on the edges of the higher settlement centres. Nowadays, with the development of settlements, they already reach into the built-up areas like some green wedges (e.g. the North-West of Pardubice - Semtín, Doubravice and Rosice or the South-East of Hradec Kralove – Nový Hradec Králové and Malšovice). These forests are permeable and thus allow recreational movement of people [5]. Occurrence and interconnection of water areas or urbanized areas increases the potential of the entire core area.

Conclusion

Territorial Development Plan of the Czech Republic [2] is the main tool for territorial planning throughout the Czech Republic. It details the requirements for specification of the tasks of territorial planning in the national, cross-border and international context with regard to sustainable development of the territory. By defining the development axes and areas in the territories with concentrated international and national activities helped to localise higher demands for changes in the territory. Thus defined development areas include the municipalities affected by the development dynamics of the capital city, in this case both centres (regional capital cities). The position of the bi-centric regional agglomeration in the development area OB4 brought significant progress, particularly in the transport infrastructure. Enhanced capacity of transport links to other major centres, including the capital city Prague, accelerated the migration of people and commodities, and allowed the construction of higher amenities. Both core cities (now regional capitals) have their own advanced tertiary sector, often without mutual coordination. The unifying tool therefore becomes the Territorial Development Plan of the Czech Republic [2], which sets national priorities and requires their mutual coordination throughout the Czech Republic. Therefore, to tackle the urbanized areas of bi-centric regional agglomeration it is necessary to coordinate the urban development of Hradec Kralove and Pardubice and the development principles of Hradec

Králové and Pardubice [3] [4] but also the territorial planning of individual municipalities even in the core zone of this agglomeration. Fragmentation of different views on urban development and environmental quality, including the creation of urban green spaces, creates contradictory development opportunities and a loss of uniqueness of the solved area.

Acknowledgments

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Reference

- [1] Hradecko – pardubická aglomerace (ÚPN, draft 1989), approved by the Czechoslovak government on 18. 5. 1989, TERPLAN – National Bureau of Urban Planning, 1989, archive of the Regional Council of the Hradec Králové Region (KÚ KHK).
- [2] Czech Republic Urban Planning Policy (“PÚR ČR“) is governed by the Ministry of Regional Development according to section 5 subsection 5 and section 31 through 35 and section 186 of the act No. 183/2006 Coll. about urban planning and construction rules, as amended (“Building Act”), based on the Czechoslovak government decision No. 561 of 17. 5. 2006, which approved the Czech Republic Urban Planning Policy (PÚR ČR 2006), and based on task II. 2. letter a) of this decision. Available at WWW
- [3] KÖRNER, Milan et al. Zásady územního rozvoje Pardubického kraje – Právní stav po aktualizaci č.1 – říjen 2014. Praha: AURS, spol s. r. o., 2014. Available at WWW: <http://www.pardubickykraj.cz/zasady-uzemniho-rozvoje>.
- [4] SURPMO a.s. Zásady územního rozvoje Královéhradeckého kraje – listopad 2011. Available at WWW: <http://www.kr-kralovehradecky.cz/rozvoj-kraje/uzemni-planovani/zasady-uzemniho-rozvoje-kralovehradeckeho-kraje-46187/>.
- [5] KUČERA, Petr –Šimek, Pavel. Městské lesy – prostorové a provozní souvislosti. In Městské lesy: Luhačovice 2002. Edition 1. Praha: Společnost pro zahradní a krajinářskou tvorbu, 2002. ISBN 80-902910-2-3.