



Part 1: "Assessment of demand and identification of trends"

Specific urban environment problems, chances and indicator needs in Czech, Slovak, Hungarian and Polish cities

Q1 Situation - specific aspects of Czech, Slovak, Hungarian and Polish cities in transition economy, public administration reform, accessing EU.

This is IURS o.s. comment to preparation of the EU Communication on the Thematic Strategy for Urban Environments. Commented questions are in italic. Comment was compiled by Jirina Jackson, who drawn extensively on other IURS and ITDP papers, in March 2004.

The commented aspect is the economy of land use especially, the brownfields issue.

Brownfields are formerly developed land that is underused, and sometimes vacant, derelict, or contaminated. Brownfield properties are "stuck," somehow, in this underused state: the market, left to itself, will not recycle them into more active use, often because the perceived cost and risk of bringing them back into use exceeds their benefits to owners. Yet the broader urban and social costs of these "holes" in the urban fabric are great, and often do justify the necessary expenditures.

The circumstances of former socialist countries and of the transitions these countries have undergone in the last decade or so, have, on the one hand, left a legacy of an exceptionally large amount of these brownfields in urban areas; yet, on the other, they resulted in a weakened capacity for the interventions needed to recycle this land. In addition to the brownfields produced as a regular outcome of industrial restructuring in any country, the dynamics of socialism and the circumstances of transition from a socialist to a market economy, both described below, left Central European countries with an exceptionally large burden of brownfields. This burden was initially fairly invisible as a policy issue, until the privatisation process, and especially the reluctance of foreign investors to purchase sites that were or might be contaminated. These brought home, often for the first time, the scale and seriousness of the brownfield problem in Central Europe.

An exceptional feature of Central European brownfields is their abundance in urban settings. This is the result of shared socialist heritage. With no real estate or capital markets to speak of, state companies did not consider the cost of land or of money when making construction or operating decisions. Thus production facilities were situated in what would otherwise have been prime sites in central locations. Additionally, plans and quotas regulated raw goods allocation and production. Inflexibility, and bad predictions about demand and supply led to setting aside of large areas for the storage of raw materials and finished products, often for extended periods. As companies were not responsive to the spatial and financial inefficiencies of these build-ups, their premises were often much larger than their counterparts in capitalist economies, and sometimes over-equipped. The spatial legacy of these circumstances in the industrial footprint in post-socialist cities today: central European cities (even those that are not heavily industrial), have 2 to 3 times the amount of space devoted to current or past

industrial uses than their western counterparts¹. The portion of land devoted to industrial uses is even higher in industrial cities, and these face massive brownfield and restructuring problems with the demise of their indigenous industries.

Another aspect of socialist planning added to the formation of large industrial sites on quite central and valuable land in Central European cities. Massive high-rise housing estates were developed beyond the industrial sites (often to house workers in these industries), leaving industrial sites in central locations as cities grew outward. Because of these housing estates, the usual curve of declining density as one moves away from city centres is interrupted by a large “hump” in central European cities².

With the change in regime in the late eighties, much CEE industry found itself rapidly redundant, unable to compete in terms of its efficiency and the products it offered. A spiral of decline commenced. Maintenance (always a weak point in socialist economies) virtually stopped with the change in regime. Cash-starved companies sold their production and maintenance equipment. The functioning of companies sold in the privatisation process was often short lived, only deepening their property's dilapidation. Indeed, sometimes these sales were not intended to yield a functioning firm, but were for the purpose of asset stripping. Some properties were rented for other uses in a dilapidated form, and on an oversupplied market; these secondary uses (for car breakers, for example) could further contaminate the land.

The physical degradation of these sites was accompanied by a degradation of their ownership status and integrity. Through the privatisation process, and because owners and bankruptcy administrators tended to dispose of properties in small individual lots, they often became less viable purchases for redevelopment. Other sites were unsellable as they were securities for mortgages, often valued at hundreds of percent their actual value.

In addition to post-industrial brownfields, additional brownfields arose through demilitarisation: the emptying or disuse of large bases in and around CEC cities. Extensive railway lands and siding areas, often quite polluted, are also drastically underused in many Central European cities.

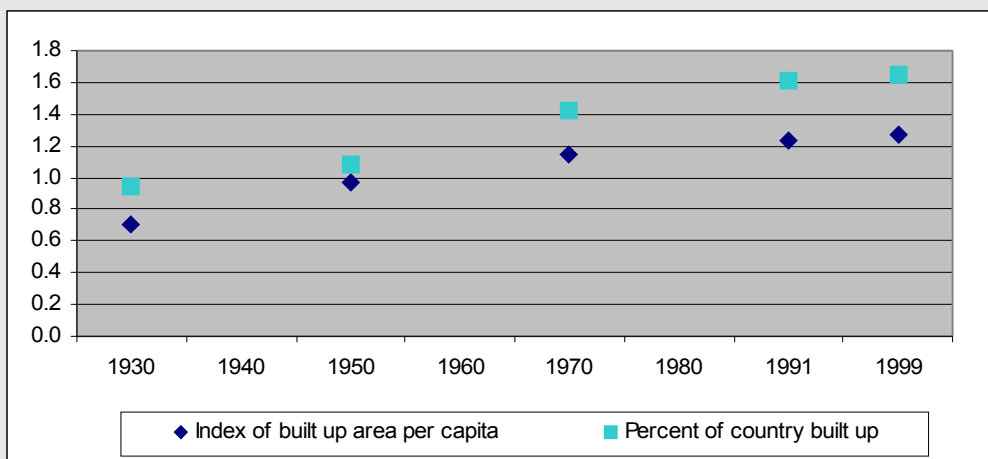
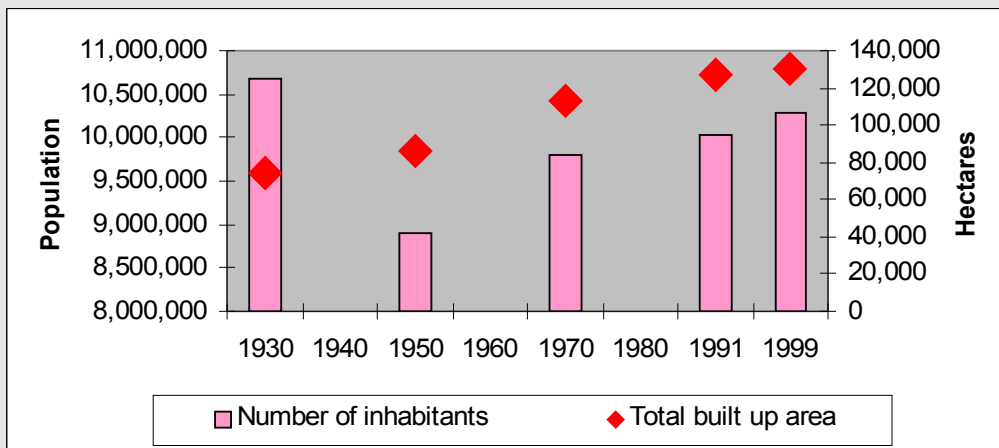
Central European brownfields must be placed in the context of overall population decline, and of greenfield development for commerce, industry and housing. Cities are losing people, activities, and capital due to declining numbers and to sprawling peri-urban areas; hinterland communities feel the challenge to their development potential even more strongly.

Budapest is an example. It has extensive and, as far as we know, still untalied brownfield sites. Over the last decade and a half it has lost 200 000 residents, or 10% of its population. Greenfield development is extensive, with the local authorities around the city able to develop such sites independently, with little consideration of metropolitan-wide strategic plans or needs. There are few policies to enable brownfield reuse. Despite the declining population, city planners are planning based on population growth scenarios. These decentralization processes are the context in which brownfield redevelopment must be reconsidered.

¹ Fig. 2. (From Kesides, 2000): percentage of urban land devoted to current or past industrial uses

² See also: The density “hump” typical of CEC cities from J. Brzeski, "Guidelines for Developing Local Land Management Strategy," Krakow Real Estate Research Institute, 2001

The declining spatial inefficiency of the Czech Republic



Sprawl has been defined by some as a situation in which the land use of a city expands faster than its population. In the 1930s, the Czech Republic was a wealthy European country, with a high industrial output (mainly of machinery, glass, and textiles), and a strong export. Yet, while the population in 1930 was 400, 000 people larger than today, the built up area used to support this thriving economy was only half that used in 1999! And, with the rapid use of greenfields in the last couple of years, this ratio is worsening rapidly.

Derived from statistics in: M Říha (2001), "Anarchy of urbanism in the Czech countryside."

The lack of data and absence of CEE wide brownfields networks

With brownfields such a dominant feature of the Central European urban landscape, there is a surprising lack of shared awareness and networking on the issue, and a lack of reliable data.

While inventories and measures of greenfield development are possible through satellite imagery, brownfield inventories require a more intimate knowledge of the current use and status of sites. Thus, even the capital cities of Prague and Budapest currently lack a more comprehensive inventory of the aerial extent of their brownfield sites, much less on prioritised by degree of contamination or the economic feasibility of rehabilitation. Country-wide figures for the scope of the brownfield problem are similarly lacking, with the exception of Poland, which offers a figure of 8,000 square kilometres¹ though little information on what kinds of land this figure includes, or how it was derived. The Country Reports of international financial institutions, such as the IMF or World Bank, sometimes estimate the overall cost of environmental liabilities of countries, though brownfields and their spatial and economic aspect does not figure as a separate category.

Q2 Development trends of the cities from view of sustainable development issues and in the context with the Thematic Strategy on the Urban Environment (TSUE), in the four action areas "urban transport", "urban construction", "urban management" and "urban design".

The TSUE is so far absolutely ignoring the issues of urban land economy and land use sustainability. Although it talks about the urban sprawl and brownfields land, it is not going to achieve useful solutions, if it does not add an urban economy and land use sustainability to its action areas.

Cities and planners were slow to understand the potential reuse value of central but derelict sites, especially in a climate that made greenfield development a far simpler option. The ease of greenfield use was facilitated by the radical decentralization of CEEC planning, partly in response to the centralized planning of the communist era. This decentralization devolved planning authority to dozens of local administrations around each typical large city. Each of these administrations (pitted in competition against one another) could offer attractive zoning, fast and flexible (often a euphemism for corrupt) approval and planning processes, and large assembled plots, free of buildings and environmental encumbrances. Often new rings roads, actual or proposed, added to the attractiveness of city-edge greenfield sites. Despite the advantages of proximity to a city centre, an oil-laden old factory site under dozens of ownerships, could not compete with a turnip-field close to a highway interchange, especially when the field is owned by someone close to the mayor who had the authority to approve its zoning for commercial use.

Most cities lacked the wherewithal to discern and respond to the rather sudden formation of a massive brownfields problems in the years following the transition. Brownfield sites are a form of market failure, where the cost of rehabilitation exceeds the benefits of use to an individual owner, freezing sites into disuse. It takes a competent strategic planning and urban administration to recognize the costs of this disuse and respond creatively to it. While visual blight is immediately evident, and sometimes the devaluation of adjacent properties, the subtle damages to urban economies are harder to spot. These include lowered densities, longer travel distances, and the under use of support infrastructure resulting from large pockets of unusable urban land, even as the need for development sites drove investment beyond the city's edge.

It takes a proactive, creative, cross-organizational effort and funding to "bump" brownfields sites out of their stagnation. Public leadership must provide a range of coordinated inputs (policies, instruments, planning, funding, and training) to begin to increase the attractiveness of these sites to the point that the market can take hold of them and use the potential inherent in their centrality. But amidst so much change, CEEC planners and administrators were not until recently aware of the extent and larger implications of the dereliction of urban land, which had "Swiss cheesed" Central European cities. Nor are the capacities for public intervention up to the task.

For example, the predominantly architectural training of planners, which made them sensitive to design, preservation, and zoning issues, did not equip them to address market needs and think creatively about the economic incentives and flexible planning tools necessary to bring sites back into productive use. In Prague, for instance, the initial response to the challenge posed by these sites was to bracket them from planning. Thus, a thick line around eleven large brownfield sites excluded these from the land use plan approved in 1999, so that by local ordinance any development on them (other than non-structural fit-outs and painting) was disallowed.

A potential developer who braved the dilapidated state of these sites would do so without the benefit of plans that facilitated focused development, and against considerable resistance. In order to gain approval for development, and in addition to a planning application process, the developer would have to finance and carry out a lengthy (2.5 years minimum) process for changing land use, including full public and municipal consultation. This in addition to the difficulties posed by the risks of potential environmental damage, assembling the land in the absence of legal frameworks for doing so, and in a fragmenting context of properties being broken up for sale to the highest bidder.

City administrations' ability to tackle brownfield problems was hampered by another legacy of the socialist period, in which land had little market value: land and property are taxed at a very low rate. The virtual absence of these taxes has several damping effects on brownfield rehabilitation. Owners have little incentive to offer their sites for redevelopment, preferring to simply sit on these assets, waiting, for example, for the hoped-for jump in values upon EU accession. At the same time, the city is deprived of an important source of income that could contribute to redevelopment projects. When property taxes are allocated to the local authorities, they can provide a predictable and thus highly bankable revenue stream, against which cities can borrow for the purposes of land assembly, infrastructure improvements, and other efforts. These funds, in conjunction with improved and flexible planning, could make derelict sites more competitive. Brownfield investments serve a city well, since development that cannot occur on brownfields typically will leave the city for greenfield sites, outside city jurisdiction, and in direct competition with city interests.

The urban benefits of brownfield rehabilitation

Urban brownfields--especially when as extensive as in central European cities--constitute a significant drag on urban vitality and quality of life. These embedded areas are more or less "dead" in terms of urban functioning, and the impacts and opportunity costs of these holes in the urban fabric extend far beyond the particular underused sites. Some of the benefits to be gained from bringing these sites back into urban use, are the following:

- Increased attractiveness and vitality of the immediately adjacent area
- Reduction of nuisance or environmental hazards
- Greater spatial continuity in the city fabric
- More efficient spatial economy (increased densities, reduced travel)
- Bringing new land into economic and social functioning within the municipal core (rather than at the city edge, where development might otherwise go)
- Increased income from increased economic activity, from property transactions, and, where applicable, property taxes. (Where these are retained by the city, rather than central government.)
- Reduced infrastructure costs compared to

siting of new development away from existing infrastructure and services

Q3 Conditions in the cities for implementing sustainable development (SD) indicators

IURS has an insufficient experience to base an opinion on this question

Q4 Experiences with implementation of SD indicators

No sustainable indicators for the urban land economy. Sustainable indicators are mainly set up by environmentalists who do not fully understand the economical aspect of sustainability, especially the spatial development sustainability.

Q5 Demand, needs, expectations and willingness of local governments with regard to the collection of data and monitoring of the progress towards sustainable development of urban environment

Little demand, little understanding, little expectation, insufficient professionalism, not sufficiently useful sustainability indicators, none on economy of the land use, need for a very large education campaign and international projects of INRERREG B, C type focused on promotion of this issue. It needs to be set up as a serious national priority, (not only a priority of an environmental lobby) supported by a substantial education and information campaign.

Appendix 1

Mobilizing brownfield action through simple objective indicators

While brownfields are sometimes defined as land that is contaminated or suspected to be contaminated, a broader more useful definition is all previously used sites that are currently significantly underused. In working with local authorities, we were immediately posed the question of how to determine in some objective manner whether an area fell under this description, and how one could more readily scan municipal lands to identify such sites.

An rather direct indicator of under use would be tax yields per unit area, within classes of similar land use. Under-par sites would stand out. However, while it is technically possible to produce such data, at least in the Czech Republic, local authorities face administrative and legal barriers in obtaining this. Presently, they obtain aggregate data for the entire area of their jurisdiction, but cannot obtain a finer resolution, even were it to be resolved to a group of say 10 taxpayers, to respect the privacy of individuals. Perhaps, as the value of such indicators becomes more apparent to the authorities, they may lobby harder to obtain it, but for now, this is a dead end. Other fiscal indicators are publicly available, such as the number and volume of real estate transactions, or of construction permits, or the registration and deregistration of companies, but none have the directness and bite that the tax data might.

In the absence of tax yield information, we worked with local authorities on a more subjective and rapid way of identifying and measuring their brownfield holdings. After a brief sensitisation to the range of sites other than the typical abandoned industrial site that might be brownfields (abandoned institutional buildings, army barracks, railway sidings, etc.), several local authorities were able to map the location and extent of lands, with varying degrees of sophistication. Some used pencils on a town map, while others conducted more extensive and expensive surveys.

With this data in hand, we began to prod these authorities to construct various indices that display the severity of the problem in terms comparable between towns. Most local authorities have three declared boundaries: their administrative area (**AA**), the area included in their local master plan (**PA**) if this exists, and the extent of the actual built up area (**BA**). Whereas jurisdiction and local plan areas (AA and PA) are precisely defined, built up area is somewhat more subjective. We asked authorities to express their brownfields as a percentage of their planned area, and of their built up area. We also asked for an index of PA/BA: an indicator of the authority's "growth ambitions," if you will. A town that has planned 1.3 times its current built up area has, literally, designs for 30% more land that it currently occupies.

The growth ambitions can be tested by taking the difference between planned and built up area (PA-BA), and dividing this by the actual increment in built up area (averaged over the last 3 years, for example). This indicates how many years of current growth rate would be required to "fill up" the planned area through greenfield conversion. Now, if one takes the total of areas identified as brownfield (**TB**) and divide this by the recent average annual growth increment, we get an indication of how many years growth could be accommodated in brownfields. This poses starkly the extreme scenarios of zero and full brownfield utilization. This leads readily into a discussion of the costs of a sprawled out-fill scenario, and its attendant costs of infrastructure extension and abandoned holes in the central urban fabric, versus the brownfield regeneration in-fill scenario, with its attendant costs of land rehabilitation.

Also persuasive to public officials are brownfields as expressed as a percentage of built up or planned or industrial areas. (In Sternberk, for example, it was discovered that 63% of their industrial area was brownfield). These ratios—the knowledge, for example, that 10% of a towns built area is under-performing—seems to have a galvanizing effect on City Hall, especially once we demonstrate the lost development potential represented by this underused land. The standard CzechInvest figures (though these must be modified to suit different settings) are 50 jobs per hectare, or 40 housing units. We also asked local authorities to break down the planned volumes proposed for the PA-BA greenfields into sectors (industry, commerce, housing, etc.), so as to sharpen their awareness of how much of each could be accommodated within their existing brownfields.

In our work in the Czech Republic we have noticed how these simple indices have a strong education, advocacy and coalition-building function, and help generate pressures on the state system to accelerate the legal framework and tools to help recover these underused lands. They basically help redirect an automatic outward greenfield perspective on development, toward one more attentive to the potentials for inward regeneration. As we near then end of the pilot stage of developing this brownfield audit methodology, we are exploring the appropriate platforms and partners for delivering a finished core packet of materials in the Czech Republic, and localizing versions in other Central European countries.

IURS

IURS is a non-profit advocacy, research and project implementation organization, working to forward sustainable development practices. IURS aims to foster broad coalitions that enhance the competitiveness of accessible city centre development and redevelopment (retail, residential, and other) relative to out-of-town “greenfield” developments, which tend to be sprawling, car-based, and wasteful of resources that undermine city centre vitality. The NGO is strongly focused on issues of underused urban land and the containment of sprawl in the Czech Republic and Poland. IURS members are local and international experts in various fields touching upon the urban land reuse agenda.

***www.brownfields.cz**
[kontakt: info@iurs.cz](mailto:info@iurs.cz)*

