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S T U

"DOKUMENT JE VÝSTUPOM CENTRA EXCELENTNOSTI SAV V
RÁMCI PROJEKTU CENTRUM STRATEGICKÝCH ANALÝZ
(CESTA)"

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PRESENTATION OF THE BROWNTRANS PROJECT
AT THE NITRA AGROKOMPLEX EXHIBITION HALL



Spatial development in Central Europe is a big challenge for spatial planning practice, theory and education. New tasks and new frameworks, brought by current development of the formation of knowledge based society, require the implementation of new approaches, new methods and new instruments in the spatial development management, new understanding of the role of planning. After the reorganisation in 2008 the issues of complex spatial development with the emphasis on its sustainable utilisation for the development of the Slovak society are covered by the university Institute of Management of the Slovak University of Technology and its Department of Spatial Planning as well as by the SPECTRA Centre of Excellence of EU that integrates the capacities within the STU and within the cooperating domestic and foreign institutions, among them Slovak Academy of Sciences. One of the joint projects is the establishment of new joint working units the Centre for Strategic Analyses and "CESTA" the Centre of Excellence of the Slovak Academy of Sciences supporting interdisciplinary research and especially the research of young academicians and doctoral candidates. Interdisciplinarity based research project of young researchers affiliated to the SPECTRA and the CESTA centres reflects broad capacities of the joint STU and SAV units.

One of the preconditions for the quality of the education in spatial planning is close contact of the academic environment with spatial planning practice. As the Institute of Management at the Slovak University of Technology in Bratislava (UM STU) is the only institution educating spatial

planners in their complex profile, and with the affiliated SPECTRA Centre of Excellence of the EU the only working place of systematic research in spatial planning in Slovakia, based on intensive collaboration with respective professional organisations – chambers and associations - and participation in professional discussions is an integrated part of the academic work. One of the joint activities of the UM STU, SPECTRA Centre and Association of Urban and Territorial Planners of Slovakia (ZUUPS) was the organisation of the first trade fare LANDURBIA in Nitra with broad scale of activities, exhibition, lessons, round table discussions, panel discussions, interactive games, public hearings. Important part of this event was the day of BROWNTRANS Project, focused on brownfield regeneration theory and practice and their reflection in the education of planners and public organised by the SPECTRA Centre of Excellence of the EU as the principal coordinator of this project under broad international participation. This event met high interest by the professionals as well as public. With the goal to mediate some of the valuable knowledge presented at the LANDURBIA Trade Fare the editorial board of the TERRA SPECTRA decided to address active participants to contribute to this issue of the journal. We hope, the papers will address academic society in the field of spatial planning as the reflection and impulses for their research from the planning practice.

Maroš Finka



Michael Hardman
Peter Larkham
Julian Lamb
Rachel Curzon

ILLEGAL URBAN AGRICULTURE IN THE UK OCCUPYING THE CITY THROUGH GUERRILLA GARDENING

Introducing Urban Agriculture and Guerrilla Gardening

Research concerning how we grow, transport and educate the populace about food has been available for decades (Bryant et al., 1982; Mougeot, 1999a, 1999b), yet the idea of 'Urban Agriculture' (UA) – the growing of crops in the city (Wiskerke and Viljoen, 2012) – has only recently emerged as an important academic topic (Bryant, 2012). There are ample examples of UA from across the globe, with Gorgolewski et al's (2011) 'Carrot City' providing a commentary for the more innovative and radical. This exhibition of food is a touring concept visiting a variety of cities across the globe: from New York (USA) and Montreal (Canada) to Birmingham (UK), Paris (France), Casablanca (Morocco) and many more locations (Carrot City, 2012; Nasr et al., in press).

In Europe, several networks have been established to promote discussion around the concept of UA: from the Association of European Schools of Planning Thematic Food Group (AESOP), to several Cooperation in Science and Technology (COST) 'Actions', there are increasing attempts to promote discussion around the topic (Hardman, 2012). Essentially, most of the discussion centres on the idea of UA and the embedding of the concept in policy, which has proved difficult in a variety of countries (Gorgolewski et al., 2011; Steele, 2009). For instance, Tornaghi (2012) argues that planning practice is failing to embrace UA and needs to be more proactive towards the concept; adapting legislation to adopt the idea. Recently, several authors blame the planning system for its inability to realise the benefits of these new concepts, holding the practice responsible for the lack of integration into policy (see for example Tornaghi, 2012; Scott and Carter, 2012).

In response to this lack of adoption, some have gone ahead with plans for UA without gaining appropriate consents, such as planning permission (Crane, 2011). Whilst there is some discussion emerging on legitimate forms of UA, there is little discussion regarding unregulated, illegal forms of the concept (Douglas, 2011; McKay, 2011). At the forefront of this form of UA are guerrilla gardeners, individuals who alter land without permission (Flores, 2006; Tracey, 2007). Reynolds (2008) argues that the activity is on the increase in the UK, demonstrating the desire of some individuals, or groups, to tackle neglected land and important issues facing the general public. Whilst guerrilla gardeners are well known for beautifying landscape, their actions with promoting

local food – through the illegal planting of vegetables and fruit in the urban – are less widely known (Crane et al., 2012). Existing literature fails to account for the reasons why guerrilla gardeners pursue the unpermitted route, or the impact – on the nearby community – of the spaces they create (Hardman et al., 2012). Fundamentally, as Douglas (2011, p. 1) states, 'existing social science research on illegal alterations of urban space is limited'. Whilst guerrilla gardeners have been viewed from afar, knowledge on their actions and interactions is restricted (Crane et al., 2012).

GROWING WITHOUT PERMISSION

Whilst it is evident that there is a growing amount of UA occurring in UK cities, there has recently been a huge upsurge in grass-roots activity, which amongst other activities, also aims to increase UA (Hardman et al., 2012; McKay, 2011). This grass-roots approach is often labelled guerrilla gardening, which is essentially:

"THE ILLICIT CULTIVATION OF SOMEONE ELSE'S LAND."

(Reynolds, 2008, p 16)

The prefix 'guerrilla' has a military connotation, often being used to describe rebels who are in conflict with an oppressive dominant power (McKay, 2011). Reynolds (2008) acknowledges and emphasises this similarity. The guerrillas and authority both 'wrestle for control' and attempt to 'shape the landscape' (Reynolds, 2008). Reynolds goes one step further declaring that 'fighting and gardening really are quite natural human pastimes, so combining the two offers no great contortion' (Reynolds, 2008, p. 28). Differences appear in their motives: whilst "traditional" guerrillas aim to topple a government or combat an invading army, guerrilla gardeners generally attempt to beautify neighbourhoods and increase biodiversity in areas which generally suffer from neglect (Cobb, 2011; Flores, 2006; Lewis, 2012).

Guerrilla gardeners generally tackle small spaces (Winnie, 2010), and since this activity has scarcely been researched, it could be questioned whether their action has any significant or lasting impact. Nevertheless, existing accounts of guerrilla gardening are somewhat one-dimensional; portraying the act in a purely positive light. The only thorough accounts of the activity derive from guerrilla gardeners themselves, such as Crane et al. (2012), Reynolds (2008), Tracey (2007, 2011) and various other authors and informal bloggers (see for example: D.C.



Guerrilla Gardeners, 2012; Glasgow Guerrillas, 2012; Pothole Gardener, 2012). A review of existing literature reveals that academics who investigate the act are mostly 'disconnected': reviewing guerrillas from secondary sources or using techniques which allow only the activists' views to be expressed (see Cobb, 2011; Crane, 2011; Crane et al., 2012; Harrison, 2010; Johnson, 2011; McKay, 2011; Winnie, 2011; Zanetti, 2007). In some situations, such as that demonstrated by Crane et al. (2012), academics have started their own guerrilla gardening troop, presumably due to the inability to join an existing group of guerrilla gardeners. It could be argued that this severely jeopardises the traditional view of research as an independent, impartial activity, since in this case the individual reviewing the group was also the one who started it; these guerrilla gardeners did not form naturally, rather they are led by an academic as opposed to an activist with their own desires and issues for pursuing UA. There is no notable, balanced study which explores unregulated UA: the extent of the activity, its impact and the spectrum of those involved: academic explorations are somewhat short and slanted towards a particular agenda. The research carried out underpinning this paper aimed to address this issue through engaging with guerrilla gardeners over a prolonged period.

A Disabling System? Planning-Centric Criticisms

The various ideas expressed above all require a proactive planning system (Howe et al., 2005; Wiskerke and Viljoen, 2012). Academics have argued that urban planning should pay more attention to food systems (Born and Purcell, 2009; Neegard et al., 2012; Shackleton, 2012; Tornaghi, 2012). In Europe, often at the heart of the modern planning system lies the spatial planner, a position which 'brings together and integrates policies for the development and use of land with other policies and programmes which influence the nature of places and how they function' (ODPM, 2004).

Spatial planning theory aims to transform the previous system from a controlling, negative, reactive entity to one that is adaptive and positive; facilitating new innovative action and ideas (Scott, 2001; Scott et al., 2009; Taylor, 2010). This theoretical ideal elevates the planner as facilitator and enabler to maximise multifunctionality and diversity that supports more innovative uses of food systems (Nadin, 2007; Tewdwr-Jones et al., 2010). However, in practice these ambitions for the spatial planning system appear to be illusory, especially in relation to UA (Tornaghi, 2012). For instance, Qviström (2010) believes that decisions take too long to materialise, and the planning process needs to be more reactive to innovative use of space. In an almost identical manner, Scott et al. (2009) argue that spatial planners are increasingly restricting activity and preventing innovative and creative practise, such as UA.

Whilst there are inevitable barriers preventing the integration of food into the urban context, the largest appears to be the restrictive legislation guiding current planning practice (Qviström, 2007; Scott, 2001; Nasr and Komisar, 2012). Spatial planners, according to Taylor (2010), are no different to those previously identified as land-use planners, town planners or urban planners; they still abide by rigid rules which regulate the management of space. Taylor creates the images that spatial planners practice in a similar manner to their twentieth century predecessors, who 'sought to tame the unruly city' (Hall and Barrett, 2012: 159). Essentially, spatial planners are seen as stifling creativity through the top-down approach employed (Valler et al., 2012).

Nevertheless, some defend the planning system, such as Greed (1994) who argues that too often academics blame planners for being insufficiently reactive. Greed (1994), although referring to the old planning system, suggests that planners are seen as individuals with huge amounts of power; they are the ones who control the development of the built environment. However, in reality there is a complex web of developers, architects and other practices which change the urban landscape (American Planning Association, 2006; Conzen and Larkham, forthcoming; Inch, 2010; Larkham, 1996). Hillier and Healey (2010, p. 17) explain that 'failures of planning practice are sometimes blamed on attempts to implement impossibly abstract or Utopian theory', essentially they condemn the notion that planners can implement all idealist ideas, especially the more radical. Hillier and Healey suggest that some presume the advent of 'spatial planning', and its change in approach, is able to deal with even the most innovative and perhaps unsuitable of projects.

Despite this, there is a substantive literature that perceives the planning system as a potential barrier for UA development. Yet UA-related advisory bodies, such as the Community Land Advisory Service and Federation of City Farms and Community Gardens (FCFCG), claim that planning permission should be sought before any development (FCFCG, circa 2005): planning permission can sometimes be refused, but this is an unlikely scenario (Community Land Advisory Service, 2012). This is echoed by PlanLoCal (2012) who stipulates that 'if you have an idea for a low carbon project or a community garden, you are likely to need some sort of planning permission to make it happen', and with the latter proposal, evidence of 'community support' would be required. The recent report by the Welsh Rural Observatory (WRO) 2012, although not concentrating specially on UA (16% of the sites surveyed were urban), raises questions regarding the planning system, particularly the arduous process of obtaining permission to use land.

"There's so much disused land across Wales and if we could get over that and the planning permissions that's needed we could have loads of projects up and running for relatively small start up costs"

(WRO, 2012, p. 16)



This report highlights the shortage of land, but more importantly, this idea that even once land is found, the planning system could constrain its use for UA. This correlates with earlier arguments from Tornaghi and others suggesting that planning is insufficiently proactive with regard to these new forms of agricultural activity: land owners need to be consulted more quickly and planning practice needs to be more open to the creation of these sites (Milbourne, 2011; Welsh Rural Observatory, 2012). Understandably, it may take some time for planners to adapt to the advent of UA and realise the potential of the concept. Qviström's (2007) explanation on the constant struggle, mediated by planners, of the expanding city population and farming communities exemplifies the current separation between production and consumers. UA challenges this separation and calls for the integration of food cultivation into the city fabric; in effect this is an immense shift in practice and requires a robust and innovative system to respond (Scott and Carter, 2011; Wiskerke and Viljoen, 2012).

Creating Havens for Produce through Guerrilla Gardening: Challenging Planning

In response to a perceived complex permission granting system, several groups have pursued the act of guerrilla gardening to enable more UA to occur within cities (Tornaghi, 2012). This expansion of unregulated UA is hidden from the view of many (Hardman et al., 2012); these are projects which have been implemented, and continually run, without authority knowledge or planning permission. The main perpetrators behind these unpermitted forms of UA are the guerrilla gardeners: transforming and using land without permission.

Many official UA schemes have roots in the realm of guerrilla gardening: Incredible Edible Todmorden (IET), for instance, is now one of the best-known UA projects in the UK but began as a guerrilla project, with residents occupying spaces within the town to produce vegetables (IET, 2011). The dominant nature of these individuals soon persuaded the local planning authority to adapt legislation to support their action, with the colonised patches transitioning from illegal to legal uses of space (Adams et al., 2013). Another example is that of Rosa Rose from Germany, a group of residents who began colonising a patch of land adjacent to their block of apartments: growing vegetables and holding events on the space (Rosa Rose, undated). The authority was able to liaise with the landowner and gain temporary use of the land for the residents, who were able to expand and grow more vegetables on the space (Reynolds, 2008). In a more comprehensive study, Milbourne (2011: 7) notes how 'tactics of guerrilla gardening were employed to transform [community garden] spaces and then agreements had been made with the local authority'; in essence, grass-root tactics enabled these UA projects. These are only a few

examples, but all demonstrate the link between guerrilla gardening and UA, specifically how the former can initiate a legal, more formal type of food cultivation.



Figure 1: The author with member of F Troop

This paper proceeds to discuss F Troop (Figure 1), a group of local authority employees who transformed a neglected strip of land to accommodate vegetables. It focusses on the authors' experience in the field with this troop over two years: exploring guerrilla in action as opposed from an abstract point of view.

F TROOP: THE DUAL CARRIAGEWAY COLONISERS

The group or 'troop', as they commonly refer to themselves, operated in the Midlands region of the UK and comprised a mix of mid 30s – early 40s male and females. The unusual, yet interesting, point about these individuals was that the group was formed entirely of local authority employees: by day they worked from a city-centre office and, on weekends or evenings, the group operated on council-owned land without permission from local authority. Due to the nature of their 'day jobs', it was vital that as a researcher one was mindful that revealing the location of where the troop practised would also reveal the authority they represent: disclosing information which could lead to colleagues recognising the individuals. Ultimately, this may end with dismissal or another form of punishment; with this in mind, their identities and the precise location of their action have been obscured in images and publications.

The group was observed and interviewed over a two year period. The author also interacted with several other guerrilla gardeners at the same time, allowing for comparison and the sheer extent of guerrilla gardening to be revealed (see Hardman et al., 2012). F Troop cultivated a strip of land adjacent to a dual carriageway barrier; this is partially pictured in Figure 2. Unlike the majority of guerrilla gardeners, the group opted to plant a range of edible produce: from spinach to peas and nasturtium, a variety of vegetation was inserted into the landscape.



Figure 2: F Troop in Action

They were conscious of the wider UA movement and wished to demonstrate how vegetables could grow in even the most inhospitable of urban environments. Through this repetitious digging of authority-owned land and planting of vegetables in the urban, F Troop inadvertently challenges the everyday perception of traditional food cultivation: the idea that agricultural activity should take-place in the rural, far away from our cities (Steel, 2009).

“It’s probably also coloured by the fact I work for the, well I did at the time work for the [local authority], and I didn’t really enjoy it. I should have known better, I should have just stuck with being a teacher in a school.”

(Sarah from F Troop)

In the context of F Troop, the site appeared unnoticed and the only interaction with any element of authority was the six-monthly pruning of the vegetation which existed across the dual carriageway barrier. However, the observations and interviews collated in this research revealed three primary reasons why F Troop opted for the illegal route. The first appeared to centre on their resentment of the local authority – their employer – which, at the time of the first dig, was making redundancies: ‘we do it [garden unlawfully] to piss them [local authority] off’ (Sarah). The second surrounded the troop members’ perception that the planning system was overly complex. In particular they explained that the large amounts of paperwork required for permission was a huge barrier. Thirdly, F Troop appeared to adopt the guerrilla route in order to gain ‘thrills’ from the action. It was necessary to avoid authority, and the planning system, in order to achieve this taste of disobedience.

This pursuit of the illegal, for thrills, is well-documented amongst guerrilla groups. For example Crane’s (2012, p. 14) recent study of a troop in Ontario indicates how these individuals thrived on the ‘creativity and autonomy’ associated with the activity. This is reinforced when one explores the literature: Reynolds, McKay, Tracey and others suggest that a main draw to guerrilla gardening is this

escape from reality and the opportunity to break rules. Less well-documented in the literature is the desire to avoid the planning system, with guerrillas holding the perception that the process is overly complex: these views were derived from previous engagements with planners on projects not associated with UA.

Making Planning Attractive: Engaging the Guerrillas

The views expressed through the investigation with F Troop inevitably pose challenges for planning practice. Although, in theory, attempts are being made to change perceptions and practice, this is still characterised by many outside the system based on previous experiences, actions and policies (Taylor, 2010). This, in turn, raises questions as to how planning practice can demonstrate and employ a more adaptive management strategy in an attempt to attract guerrilla gardeners to a more formal version of UA practice (Scott et al., 2009). Guerrilla gardeners are effectively volunteers who are transforming land through their passion to revitalise space; they are an untapped resource who could, if provided with wider authority support, revolutionise areas. If the planning process was perceived as more attractive to these individuals, it could be argued that this pool could be opened up and more innovative formal projects could be developed.

However, to a large extent the pursuit of the ‘thrill’ element drives F Troop’s action: this opportunity to disobey and retaliate is a notable motivation for some guerrilla gardeners (Crane et al., 2012; Reynolds, 2008). Inevitably, this pursuit of a ‘naughty activity’ is a step too far for planning practice to manage, and thus presents a major challenge if guerrilla groups, like F Troops’, were ever to seek legitimation. However, Hardman et al. (2012) demonstrate how there are willing guerrilla gardeners open to change; they argue that these are less radical than F Troop and only adopt the illegal approach for simplicity and speed. These less radical guerrilla projects, such as those identified by Hardman et al., would gladly embrace planning and the wider authority particularly if funds and attractive propositions were to be offered.

There is plenty of guidance, and encouragement, for planning practice to grasp, and promote, this relatively new ideology (Marsden, 2010). Furthermore, IET (2011), Milbourne (2011) and Reynolds (2008), amongst others, provide evidence to suggest that successful projects can spring from guerrilla gardening. This is currently perhaps most evident in North America where UA is more widespread: Canada, the most notable for its adoption of the concept (see Nasr and Komisar, 2012; Nasr et al., in press), has several schemes which began via guerrilla action, due to the restrictions placed by planning processes (Gorgolewski et al., 2011). These schemes were eventually legitimised and flourished within a supportive and enabling planning system.



However, before F Troop or other guerrilla action can be accepted, the concept of UA must be embedded within planning policy: embracing this alternative form of agricultural activity could eventually pave the way for unregulated projects to be 'mainstreamed'.

References

- Adams, D., Hardman, M. and Scott, A. J. 2013: **Guerrilla Warfare in the Planning System: Revolution or Convergence in Sustainable Planning Discourse?** *Geografiska Annaler*, in press.
- American Association of Planning 2006: **Planning and Urban Design Standards**, New Jersey: Wiley.
- Born, B. and Purcell, M. 2006: **Avoiding the Local Trap: Scale and Food Systems in Planning Research**, *Journal of Planning Education and Research*, 26 (2): 195–207.
- Born, B. and Purcell, M. 2009: **'Food Systems and the Local Trap'**, in Inglis, D. and Gimlin, D. (Eds.) *The Globalization of Food*, Oxford: Berg.
- Bryant, C. R. 2012: **'The Discovery of Urban Agriculture'**, Paper presented at UAE Aachen, RWTH Aachen University, Germany.
- Community Land Advisory Service 2012: **Frequently Asked Questions for Community Growing Groups - England**, London: CLAS.
- Conzen, M. P. and Larkham, P. Forthcoming: **The Shapers of Urban Form**, Abingdon: Routledge.
- Carrot City (Accessed: 22 March 2013) www.carrotcity.org
- Cobb, T. D. 2011: **Reclaiming Our Food: How the Grassroots Food Movement is Changing the Way we Eat**, MA: Storey Publishing. Klenke.
- Crane, A. 2011: **Intervening with Agriculture: A Participatory Action Case Study of Guerrilla Gardening in Kingston**, Ontario, Unpublished Masters Dissertation, Queen's University, Canada.
- Crane A., Viswanathan, L. and Whitelaw, G. 2012: **Sustainability through Intervention: A Case Study of Guerrilla Gardening in Kingston Ontario**, *Local Environment: The International Journal of Justice and Sustainability*, 1–20.
- D.C. *Guerrilla Gardeners* (Accessed 22 March 2013) <http://dcguerillagardeners.blogspot.co.uk/>
- Douglas, G. 2011: **Do-It-Yourself Urban Design**, Paper presented at: Regular Session on Popular Culture at the American Sociological Association annual conference in Las Vegas, August 21st 2011, published in proceedings: http://home.uchicago.edu/~gdouglas/GCCDouglas_DIYUrbanDesign-ASA2011.pdf.
- FCFCG circa 2005: **Community Garden Starter Pack**, London: FCFCG.
- Flores, C. H. 2006: **Food Not Lawns: How to Turn your Garden and Neighbourhood into a Community**, White River Junction: Chelsea Green.
- Glasgow Guerrillas (Accessed: 22 March 2013) <http://glasgowguerrillagardening.blogspot.co.uk/>
- Gorgolewski, M., Komisar, J. and Nasr, J. 2011: **Carrot City: Creating Places for Urban Agriculture**, New York: Monacelli Press.
- Greed, C. H. 1994: **Women and Planning: Creating Gendered Realities**, London: Routledge.
- Hall, T. and Barrett, H. 2012: **Urban Geography**, Fourth Edition, Abingdon: Routledge.
- Hardman, M. 2012: **Review: AESOP Third Sustainable Food Thematic Group Meeting**, *Town Planning Review*, 83 (4): 487–492.
- Hardman, M., Larkham, P., Curzon, R. and Lamb, J. 2012: **'Considering the Impact of Illegal Food Cultivators: A Critical Exploration of Guerrilla Gardening and the Local Trap'**, in: Sheppard, V. (Ed.) *Proceedings of the Salford Annual Research Conference*, Salford: University of Salford.
- Harrison, C. E. 2010: **Rethinking the Divide: Beyond the Politics of Demand versus the Politics of the Act Debate**, Unpublished PhD Thesis, University of Exeter.
- Hillier, J. and Healey, P. 2010: **The Ashgate Research Companion to Planning Theory: Conceptual Challenges for Spatial Planning**, Surrey: Ashgate.
- Howe, j. Viljoen, A. and Bohn, K. 2005: **'New Cities with More Life: Benefits and Obstacles'** in Viljoen, A. (Ed) *CPULs: Continuous Productive Urban Landscapes*, Oxford: Architectural Press.
- Incredible Edible Todmorden, 2011: (Accessed: 10 March 2013) <http://www.incredible-edible-todmorden.co.uk/projects>
- Inch, A. 2010: **Culture Change as Identity Regulation: The Micro-Politics of Producing Spatial Planners in England**, *Planning Theory & Practice*, 11 (3): 359–374.
- Johnson, L. 2011: **City Farmer: Adventures in Growing Urban Food**, Vancouver: Greystone Books.
- Larkham, P. 1996: **Conservation and the City**, London: Routledge.
- Lefebvre, H. 1991: **The Production of Space**, Oxford: Blackwell.
- Lewis, T. 2012: **'There Grows the Neighbourhood'**: Green Citizenship, Creativity and Life Politics on Eco-TV, *International Journal of Cultural Studies*, 15 (3): 315–326.
- Marsden, T. 2010: **Food 2030: Towards a Rede?nition of Food?** A Commentary on the New United Kingdom Government Food Strategy, *The Political Quarterly*, 81 (3): July-September.
- McKay, G. 2011: **Radical Gardening: Politics, Idealism and Rebellion in the Garden**, London: Frances, Lincoln.



- Milbourne, P.* 2011: **Everyday (In)Justices and Ordinary Environmentalisms: Community Gardening in Disadvantaged Urban Neighbourhoods**, *Local Environment: The International Journal of Justice and Sustainability*, 17 (9): 1–15.
- Mougeot, A. J. L.* 1999a: **'For Self-Reliant Cities: Urban Food Production in a Globalising South'**, in Koc, M. MacRae, R. Mougeot, A. J. L. and Welsh, J. (Eds.) *For Hunger-Proof Cities: Sustainable Urban Food Systems*, Ottawa: IDRC.
- Mougeot, A. J. L.* 1999b: **Urban agriculture: Definition, Presence, Potentials and Risks, and Policy Challenges**, Paper presented to the International Workshop "Growing Cities, Growing Food", October 11-15 1999, Havana, Cuba.
- Nadin, V.* 2007: **The Emergence of the Spatial Planning Approach in England**, *Planning Practice and Research*, 22 (1): 43–62.
- Nasr, J. L. and Komisar, D.* 2012: **'The Integration of Food and Agriculture into Urban Planning and Design Practices'** in: Viljoen, A. and Wiskerke J. S. C. (Eds.) *Sustainable Food Planning: Evolving Theory and Practice*, Wageningen: Wageningen Academic Publishers.
- Nasr, J. L., Komisar, D. and Gorgolewski, M.* in press: **Urban Agriculture as Ordinary Urban Practice: Trends and Lessons'** in Viljoen and Bohn (Eds.) *CPUL City: Making Urban Agriculture Happen*, New York: Routledge.
- Neegard, A., Drescher, A. W. and Kouame, C.* 2012: **'Urban and Peri-Urban Agriculture in African Cities'**, in: Shackleton, M. M. (Ed.) *African Indigenous Vegetables in Urban Agriculture*, London: Routledge.
- ODPM 2004: Consultation Paper on Planning Policy Statement 1: Creating Sustainable Communities*, London: Office of the Deputy Prime Minister.
- PlanLoCal* (Accessed: 14 March 2013) <http://www.planlocal.org.uk/pages/the-planning-system/seeking-planning-permission-for-a-community-project>
- Pothole Gardener* (Accessed: 22 March 2013) <http://thepotholegardener.com/>
- Qviström, M.* 2007: **Landscapes Out of Order: Studying the Inner Urban Fringe Beyond the Rural – Urban Divide**, *Geografiska Annaler*, 89 B (3): 269–282.
- Qviström, M.* 2010: **Shadows of Planning: Revealing Inherited Ambiguities at the Urban Fringe**, *Geografiska Annaler*, 92 B (3): 219–235.
- Reynolds, R.* 2008: **On Guerrilla Gardening: A Handbook for Gardening without Permission**, Bloomsbury: London.
- Rosa Rose* (Accessed: 16 March 2013) <http://www.rosarosegarten.net/en/history>
- Scott, A. J.* 2001: **Contesting Sustainable Development: Low-Impact Development in Pembrokeshire Coast National Park**, *Journal of Environment, Policy and Planning*, 3: 573–287.
- Scott, A. J., Carter, C. E., Brown, K. and White, V.* 2009: **'Seeing is Not Everything': Exploring the Landscape Experiences of Different Publics**, *Landscape Research*, 34 (4): 397–424.
- Scott, A. J., and Carter, C. E.* 2012: **'Planning on the edge'**, *Green Places*, Issue 84, May 2012, pp.17-20.
- Shackleton, C. M. M.* 2012: **African Indigenous Vegetables in Urban Agriculture**, London: Routledge. Steel, C. 2009: *Hungry Cities*, London: Random House.
- Taylor, N.* 2010: **What is this Thing called Spatial Planning? An Analysis of the British Government's View**, *Town Planning Review*, 193–208
- Tewdwr-Jones, M., Gallent, N. and Morphet, J.* 2010: **An Anatomy of Spatial Planning: Coming to Terms with the Spatial Element in UK Planning**, *European Planning Studies*, 18 (2): 239–257.
- Tornaghi, C.* 2012: **'Public Space, Urban Agriculture and the Grassroots Creation of New Commons'** in: Viljoen, A. and Wiskerke J. S. C. (Eds.) *Sustainable Food Planning: Evolving Theory and Practice*, Wageningen: Wageningen Academic Publishers.
- Tracey, D.* 2007: **Guerrilla Gardening: A Manifesto**, Gabriola Island: New Society Publishers.
- Valler, D., Nicholas, A. and Wood, A. M.* 2012: **Planning for Growth? The Implications of Localism for 'Science Vale'**, *Oxfordshire, UK, Town Planning Review*, 83 (4): 457–487.
- Winnie, M.* 2010: **Food Rebels, Guerrilla Gardeners, and Smart-Cookin'** *Mamas: Fighting Back in an Age of Industrial Agriculture*, Boston: Beacon Press.
- Wiskerke J. S. C. and Viljoen, A.* 2012: **'Sustainable Urban Food Provisioning: Challenges for Scientists, Policymakers, Planners and Designers'**, in: Viljoen, A. and Wiskerke J. S. C. (Eds.) *Sustainable Food Planning: Evolving Theory and Practice*, Wageningen: Wageningen Academic Publishers.
- WRO 2012: Community Food Grown in Wales*, Cardiff: Welsh Government.
- Zanetti, O.* 2007: **Guerrilla Gardening – Geographers and Gardeners, Actors and Networks: Reconsidering Urban Public Space**, unpublished MA dissertation, Queen Mary, University of London.



Richard Heriban

QUANTITATIVE ANALYSIS OF CONCENTRATION OF SPATIAL PLANNING IN THE AREA OF SERVICES INFRASTRUCTURE IN THE SLOVAK REPUBLIC

SPATIAL PLANNING ANALYSIS OF 2011 CENSUS AND REGIONAL STATISTICS OUTPUTS

In this work the concentration of spatial planning in the Slovak Republic is analysed, based on data from Census 2011 as well as other complete findings and statistics. Both quantitative and qualitative characteristics of spatial planning play a decisive role in the way territory is used – not only in the settlement point of view but also in the area of exploiting its social, economic and environmental potential. This work focuses mainly on quantification of the spatial planning concentration from the facilities and services provided to the population as well as the economic subjects. The end results show unbalanced allocation and a great variation of concentration dependant on particular kinds of infrastructure and services. To assess an optimal spatial planning its correspondence with some theoretical models – such as Central places theory by Christaller and other considerable core <-> periphery models – e.g. Interstate Periphery on Example of Naples (Wirth, 1963), The Evolution of Core-Periphery Dichotomy (Gottmann, 1980), Differentiation of Magnitude of Centrality – The Pyramid of Power (Schuler, Nef, 1983), Nodal Regions (Korcak, 1973, Hampl, 1987), Marginality vs. Periphery (Andreoli, 1989), “The Blue Banana” (Brunet, 1989), Core and Periphery Within Individual Perception of Actors (Heintel, 1998), Development Types of Core – Periphery Space Polarisation (Havlicek, Chromy, 2001), cited in Jancak, V. a kol. (2012) – can be explored.

While exploring the correspondence of real empiric spatial planning with theoretical models it is necessary to assess both quantitative as well as qualitative characteristics in further research. In this context qualitative characteristics of consideration are e.g. the shape of infrastructure layout or the shape of financial flows within particular agglomerations or the vector of provided services (zone of attractiveness) among the settlement units.

2012 Census analysis

In the part of the research focused on researching variability of social and economic regions from the spatial point of view in Slovakia, in particular these variables from the 2012 Census are used in following blocks:

Variables in the Demographic block:

- share of people of productive age, respectively age structure of population
- share in the total number of population
- structure of highest attained education of population

Variables in the Economic block:

- economically active population according to trips to place of work and branch of economy
- employed and unemployed population
- GDP on the county level
- living standard indicators (area of incomes, health statistics etc.)
- fiscal management of municipalities (financial stability, rate of debt etc.)

Variables in the Living Infrastructure block:

- furnishing of permanently inhabited dwelling units
- water-supply connection
- gas connection
- sewer connection

Part of the research focused on aspects of spatial planning on the territory of the Slovak Republic relies particularly on variables from the statistics on the zones attractiveness which provide information on settlement and vectoring of provided services in the following areas:

- Police force
- County courts
- Fire services
- County magistrates
- Local military administration
- Department of Labour, social affairs and family
- County environment authority
- Parish registers
- Tax administration
- County military administration

The aforementioned data provide two kinds of information. Primarily they are information on mutual cohesion of municipalities and areas from the provision of a particular kinds of service's view, which are used to assess the kind of settlement concentration (Christaller and other core-periphery theories) by using vector analysis. Secondly we harvest information on the number of seats of providers of particular kinds of services in the municipalities, which will be exploited to assess the character of the zones of attraction. According to Havlicek P. and Chromy T. (2001) it is feasible to expect that the evolution of the core-periphery relation is likely to happen in 4 scenarios: (i) increasing polarisation – gradual



asymmetry growth given by natural progress - no state intervention; (ii) stagnating polarisation – state intervention and forced interference to promote equality among regions; (iii) vanishing polarisation – the weight of regions increases at the expense of cores, substantial investment gets put in the regions; (iv) levelling polarisation – state where the allocation of population, investment etc. is so much even that the former differences between regions wither away (this option is very rare though).

Correlative linkage of municipalities in area of various services provided

Table 1 tabulates information on correlative linkage of municipalities in area of various kinds of provided services (detailed frequency charts of zonal attractiveness density of municipalities by particular provided services are shown in Appendix 2, charts 1 to 8).

Type of service	Aggregate number of central municipalities in the Slovak Republic
County court	52
Fire services	50
County magistrates	49
Local military administration	8
Department of Labour, social affairs and family	81
County environment authority	45
Parish register	977
Tax administration	91
County military administration	1

Comment: The aggregate number of researched municipalities was 2891 in 2011

Table 1 Preliminary tabulation of information on correlative linkage of municipalities by particular provided service

As Table 1 and frequency charts in Appendix 2 show, the zonal attractiveness of municipalities in the Slovak Republic varies by a great degree. T.m. within the frame of various services the zonal attractiveness is spread between a varying number of municipalities. The highest concentration of services can be observed with the military administration while the highest variation is with the parish registers. This heterogeneousness indicates that it is possible to achieve various alignment of attractiveness within shape structures of residential concentration. Data for all 2891 municipalities are available which makes it possible to watch not only density (quantitative indicator) but also a specific vector of attractiveness linkage (qualitative indicator) between particular municipalities.

This kind of detailed information enables us to also explore the shape of attractiveness structures for particular kinds of provided services, extent of their correspondence as well as distances between municipalities which are linked within zones of attractiveness. The above-mentioned shape structures can be displayed on a vector map of a particular territory in order to find a prevailing type of spatial alignment of zones of attractiveness in particular districts, regions or counties.

Information on the number of seats of providers of particular services in municipalities, used to assess the character of municipalities' degree of attractiveness.

Table 2 provides a survey on the number of centres respectively organizations located in particular municipalities in the system of providing particular types of services. The more centres there are within a municipality the more important a node the municipality becomes within a model of residential concentration. This type of information allows to assess the number and the degree of importance of particular municipalities as well as to compare to what degree of diffuseness (or concentration) the type of service within the particular territory is.

Charts 9 – 16 in Appendix 3 provide detailed visualisation of the level of attractiveness data. The charts show that the level of attractiveness, respectively the measure of concentration of services in municipalities also strongly depends on the type of provided service. State government authorities are the most concentrated ones but also authorities of social and health insurance. The most diffused structure can be observed especially in the area of services provided by local government authorities.

Type of service	Aggregate number of central municipalities in the Slovak Republic
local authorities of state government	58
local authorities of governance	2932
central authorities of state government	15
courts and offices of prosecution	68
health and social insurance offices	5
tax offices	101
Department of Labour, social affairs and family	90

Comment: The aggregate number of researched municipalities was 2891 in 2011

Table 2 Tabulated information on the number of seats of particular services providers in municipalities, that are used to assess the character of attractiveness (the degree of centricity) of municipalities



Table 2 shows that only 5 municipalities within the Slovak Republic have offices of health and social insurance. This depends on the type of provided service. Therefore, in order to assess the centrality of municipalities in a more exact manner, more detailed data on the degree of centrality of municipalities within services provided are presented in Appendix 3.

Appendix 1 Data used and methods of their processing

It was necessary to collect and analyse a great number of data stemming from the 2011 Census. This data was of demographic (number of population, their accretion, level of education, language) as well as of socio-economic character (health, culture, facilities, level of attractiveness etc.). The data can be obtained directly from the Statistical Office of the Slovak Republic as an excel tabulation suitable for import to various statistical software. A certain problem appeared to be the vast number of files to be processed. The Statistical Office has 2891 municipalities on record (138 urban and 2753 country municipalities). Every municipality had an excel sheet generated which contained 12 sheets. On each sheet there was various data from statistical findings (e.g. Sheet 1 – resident population according to the degree of economic activity, gender and place of birth, Sheet 2 – population according to type of residence and gender, Sheet 3 – population according to economic activity etc.). It became necessary to process all 2891 files with sheets in which not all of the data contained was relevant to the research. Because it was physically impossible to manually sort and copy chosen data (excel fields) from each single file the task was done by creating a macro in excel that cyclically opens individual source files for each municipality and copies cells (defined in advance) which are then put in one single data file. This data file contains a list of municipalities along with their IDs. Particular fields of choice are then attached to individual municipalities according to their IDs. The end result is one file in which there is a list of all municipalities, their IDs and chosen statistical indicators. This file is then possible to import to statistical software and do computations and simulations in a full-automatic mode without the need for manual data input.

Appendix 2 Frequency charts of attractiveness according to individual types of services

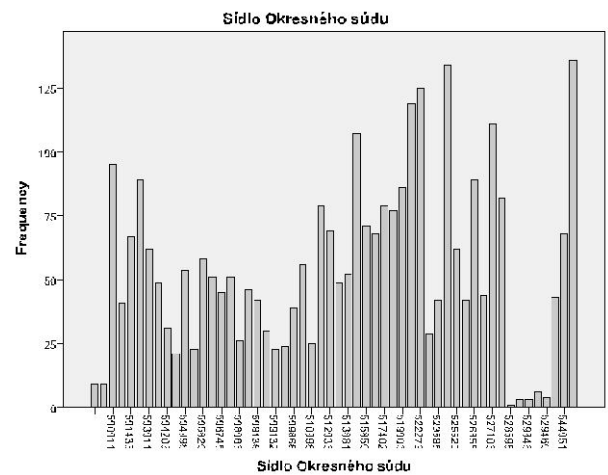


Chart 1 – Seat of district court

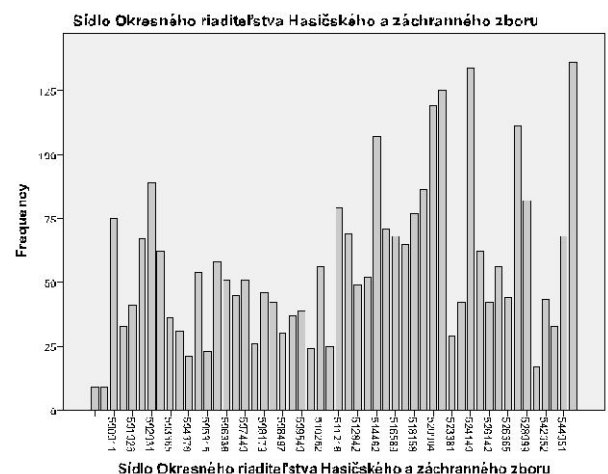


Chart 2 – Seat of district fire brigade HQ

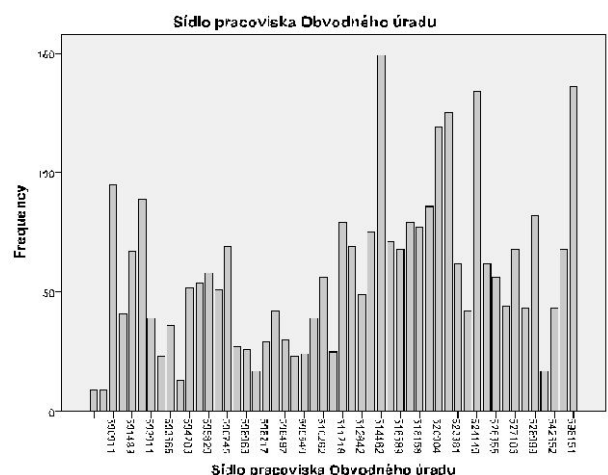


Chart 3 – Seat of district magistrate

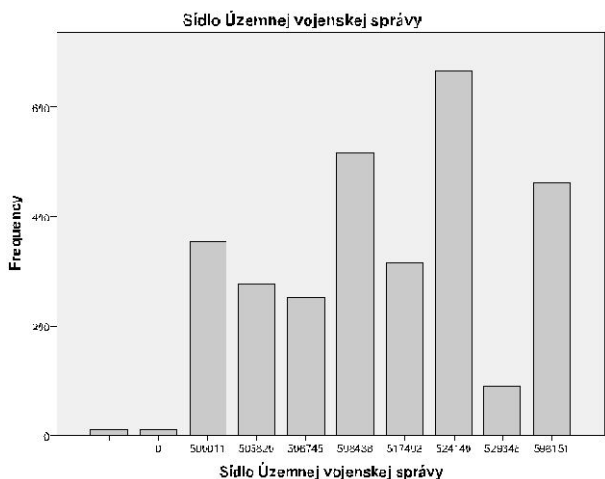


Chart 4 – Seat of local military administration

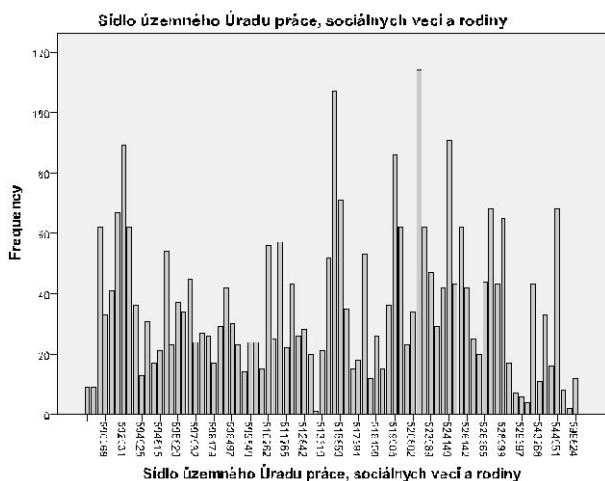


Chart 5 – Seat of local Department of Labour, social affairs and family

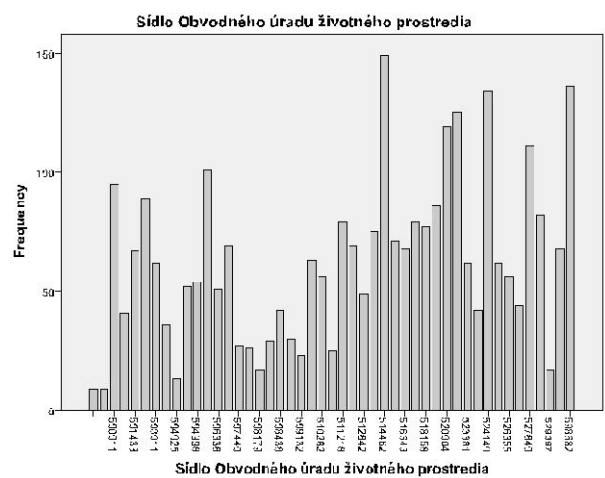


Chart 6 – Seat of district environment authority

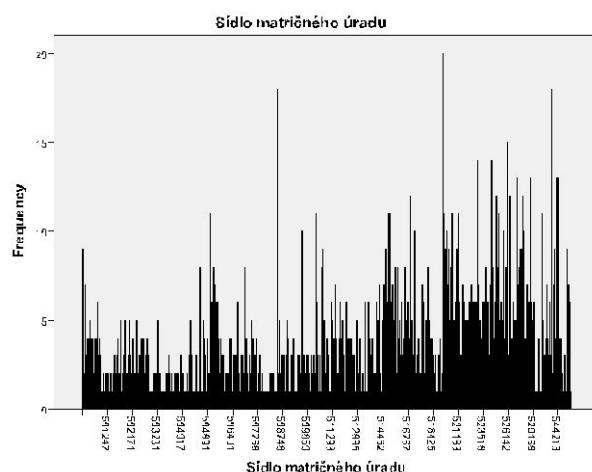


Chart 7 – Seat of parish register

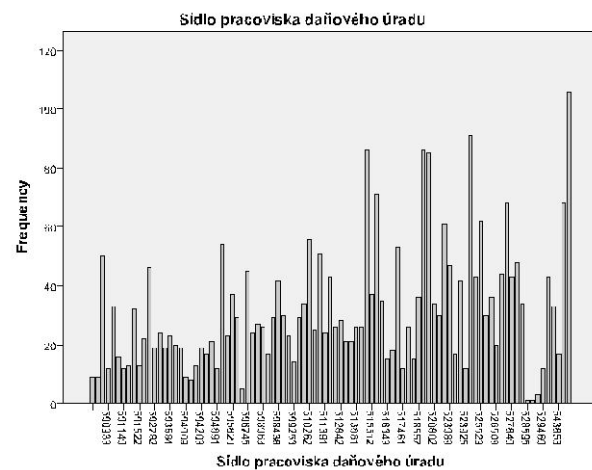


Chart 8 – Seat of tax office

Appendix 3

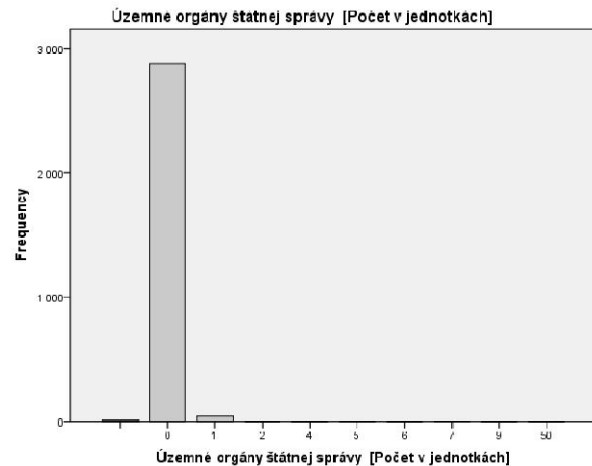


Chart 9 – Local state government authorities

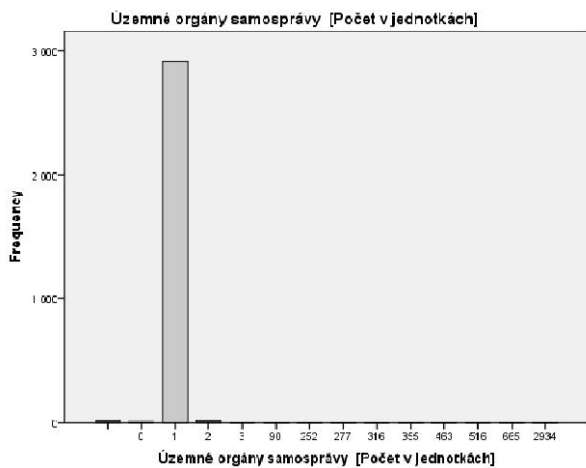


Chart 10 – Local governance authorities

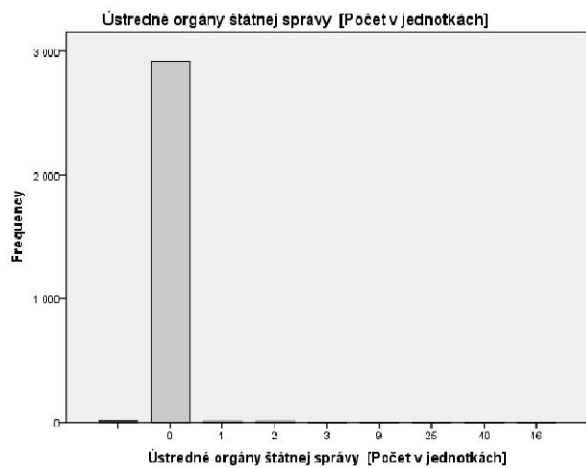


Chart 11 – Central state government authorities

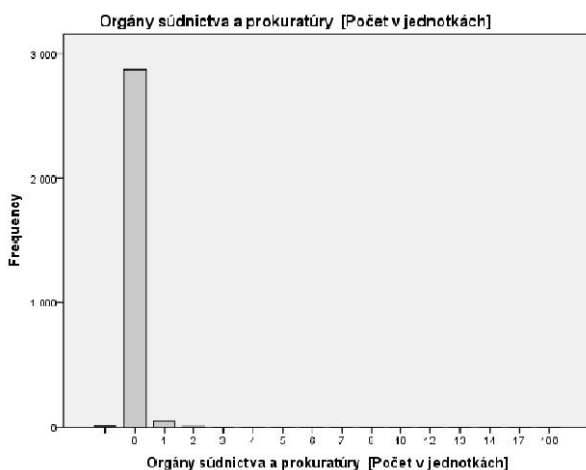


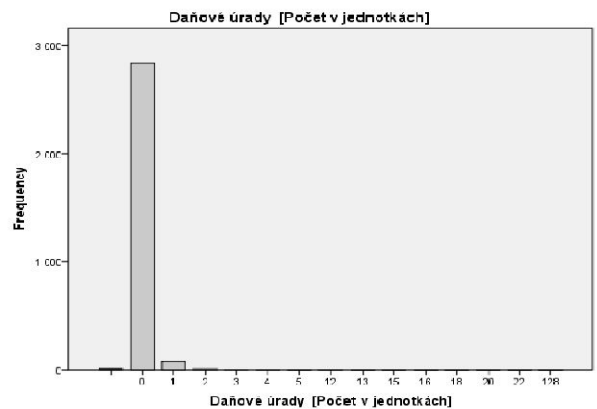
Chart 12 – Courts and prosecution offices



Chart 13 – Social organisations inc. parties and churches



Chart 14 – Health and social insurance offices



Graf 15 – Tax offices

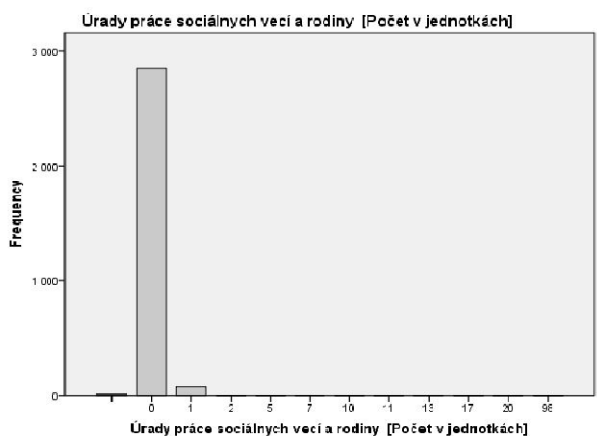


Chart 16 – Department of Labour, social affairs and family offices



Silvia Hícová

SUSTAINABLE DEVELOPMENT PRINCIPLES IN THE RECOVERY OF URBAN RESIDENCIES

Introduction

Sustainable development principles should be an important part of projects for recovery of urban residencies. Why? Because it is the environment, where we live and many of us spend their whole lives. In the end, it's not just us, but generations that come after us. It's important to treat the environment, in which we live, with foresight and prudence. This article will discuss some of the options how to support sustainability within projects of urban residencies recovery, such as recycling and the usage of alternative energy sources. To approach this topic, Malmö, Sweden was chosen as an example.

Sustainable development

§We all heard the term sustainable development, either at conferences, or we read about it in scientific journals or even in the local press. But do we really know, what the term actually stands for?

The term sustainable development and its meaning was formed in the last 30 years, beginning with the Paris Biosphere Conference in 1968 until today. The current understanding of the term sustainable development and its global usage began with the adoption of the report "Our Common Future" by the General assembly of the UN in 1987 (WCED, 1987). This report was prepared by the World Commission on Environment and Development chaired by the former Norwegian prime Minister G.H.Brundtland. This report contains the most used definition of the term: "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

A process, in which the usage of resources, investments, technological development and institutional changes are all in harmony and support the present as well as the future potential fulfilling mans needs and requirements." (Strategy for Sustainable Development).

The definition of sustainable development in Slovakia can be found in the Law nr. 17/1992 Col. About environment § 6: "Sustainable development of the society is a development for the present and future generations which can meet the principal life needs without compromising the variety of nature and leaves the natural function of ecosystems in tact." According to the National strategy of Sustainable development of Slovakia, ratified by the Slovak government Nr. 978/2001, the definition is as follows: "targeted, long-lasting (interim), complex and synergetic process, influencing conditions and all aspects of life

(cultural, social, economical, environmental and institutional), on all levels (local, regional, global) and leading to a functional model of a society (local and regional community, country and internationally). It satisfies all biological, material, spiritual and social needs and interests of people, as well as it eliminates or significantly restricts threats, damages or destroys conditions for life. It does not damage the countryside over a tolerable rate, uses its resources reasonably and protects cultural and natural heritage."

To sum it up, development has to fulfil the needs of the present and it cannot limit the needs of future generations. For it to succeed, one has to consider on all strategical decisions and independent measures aspects of the environment. All this three aspcts, the environmental, economical and social, have to be assessed for a longer period of time.

Sustainable development is based on principles, which are necessary to be followed through, in order to proceed successfully. Unfortunately, the principles are not exactly defined. We know multiple sources of where some principles can be found, the largest of which, is a collection of 27 sustainable development principles in the Rio Declaration on Environment and Development (UNCED, 1992) (Strategy for Sustainable Development).

Another internationally accepted classification, is the "We care for the world" from 1991, which can also be regarded as goals, tasks and demands for sustainable development (see: http://www.tur.sk/tur_kriteria.stm). Furthermore principles and tasks were proposed by Mr. Mikulas Huba in 1996 (Strategy for Sustainable Development).

The concept of sustainable development is very broad and complex. Therefore it is essential, for a correct measurement of the development or the way to fulfil the goals, to use statistical data and tools – to collect and rate information and as well to introduce some measurable characteristics (Strategy for Sustainable Development).

Therefore the 4th meeting of the UN comission for sustainable development on April 18th 1996 in New York City ratified the document – Indicators of sustainable development. This document includes 132 indicators arranged in the system – moving force – status quo – reaction. Indicators of the type moving force represent the human action, processes and models, which have an effect on sustainable development. Status quo indicators represent the present status of sustainable development and reaction indicators represent strategical and other possibilities of reaction on change in the status of sustainable development.



All 132 indicators of sustainable development (38 social, 28 economical, 56 environmental and 15 institutional) are in the report of the Ministry of the environment in the Slovak republic under the title Agenda 21 and indicators of sustainable development published in 1996

(http://www.sazp.sk/slovak/periodika/sprava/SPRAVA_96/UKAZOVATELE/ukazovatele.html).

With these indicators we are able to measure progress in sustainable development strategy and they can also be used by local government on small scale, e.g. local borrows:

- 1. Development of basic demographic indicators** - this indicator focuses mainly on the total population, number of live births per 1,000 population, number of deaths per 1,000 population and natural increase per 1,000 population, etc. ... As can be seen from the Figure no. 1, in 2011 (the most recent Censuses of Population and Housing) the natural growth of population has continued to increase. Unfortunately, the annual rise of the aging population in Slovakia continues the trend, which is a very crucial fact.

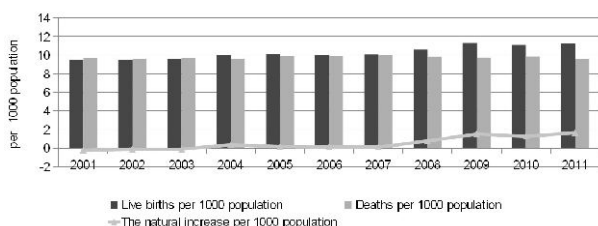


Figure no.1: **Development of basic demographic indicators 2000-2011**
Source: www.enviroportal.sk

- 2. Living space per person** - The following table shows that living space per capita rises. This number will rise in the future, not only because of the increasing number of completed residencies, but also because the residencies are predominantly 3-4 bedroom. Since 2007, the average area of a residency steadily increased up to 117.1m² in 2012. The same goes with the average living space, the number increases by around 0.1 m².

Year	Average living space in m ² per person	Index (year 1961=100)
1961	9	100
1970	10,2	113,3
1980	12,8	142,2
1991	14,6	162,2
2001	17,5	194,4

Table no. 1: **Average living space per person**
Source: *Statistical Office of the Slovak Republic*

- 3. Built-up area** - the chart shows, that since 1991 the percentage of built-up area increases by 44%. This is due to retail chains and malls, construction of industrial parks, etc. ... At present, 4.6% of Slovakia is built-up, most of these areas are in the Region of Bratislava (7.4%) and the Region of Trnava (6.6%).

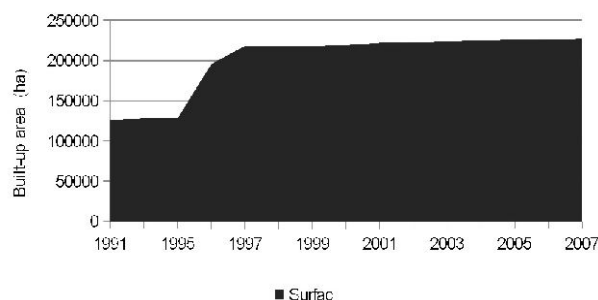


Figure no. 2: **Development of built-up areas per 1000 hectares**
Source: www.enviroportal.sk

- 4. Changes in land usage** – Figure no. 3 shows, that the highest increase (+12,629 ha) of area was recorded on buildings and courtyards. This fact is rather negative as it is at the expense of highly productive agricultural land (- 29,855 ha). A slightly positive figure is the increase in water bodies by 1.8% which is about 1659 ha.

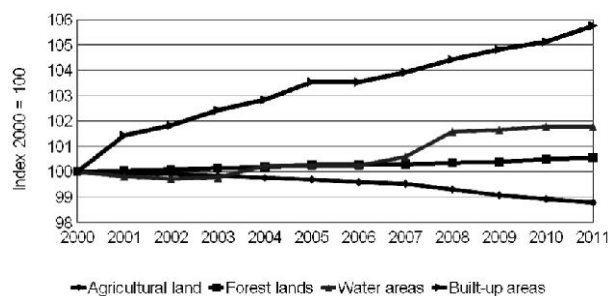


Figure no. 3: **Structure of land usage (Index from year 2000)**
Source: www.enviroportal.sk

- 5. Green areas in urban settlements** - in 2009, the greenery per inhabitant was 21m². This years area of greenery in all cities and villages of Slovakia is 11.570 ha. Since 2000, the green area is slightly volatile, but overall the it has increased by about 3.3%. The largest area of greenery are in the Region of Nitra, the lowest is in Region of Zilina.

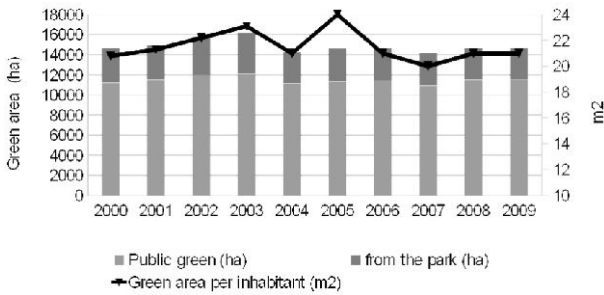


Figure no. 4: Green areas in urban settlements
Source: www.enviroportal.sk

- 6 Gross domestic product per capita** - GDP per capita grew from 2000 until 2009. In 2009, GDP fell by 5.2% compared to the year before, due to the world economic crisis. Between 2010 and 2011, the GDP began growing again, compared to 2009, but it has not reached the growth of years between 2004 and 2008.

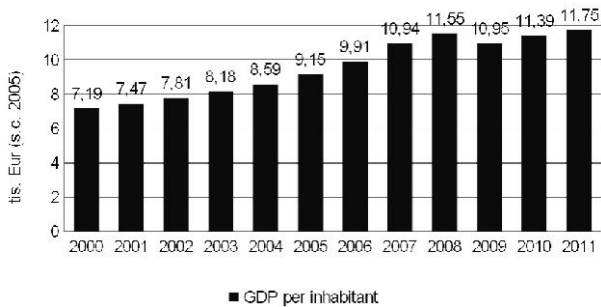


Figure no. 5: Gross domestic product per capita (tsd. Eur, 2005)
Source: Statistical Office of the Slovak Republic

- 7. Contribution of renewable energy sources in the total electricity consumption** - between 1992 and 2006 Slovakia increased its contribution to electricity produced from renewable energy sources by 2.2%, due to the vast majority of hydroelectric power plants. Between 2006 and 2007 there wasn't any increase of electricity production from renewable energy sources, which means a negative development for the usage of renewable energy, and in terms of energy diversity and of Slovakia.

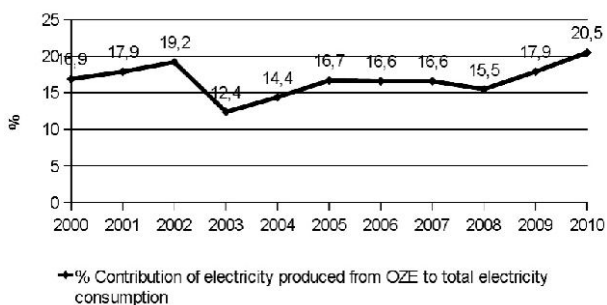


Figure no. 6: Contribution of renewable energy sources in total electricity consumption (%)
Source: www.enviroportal.sk

- 8. Quantity of municipal waste** - the amount of municipal waste continues to grow and this since 2004. In 2011, it was about 1.77 million tons, which per capita means, that each Slovak citizen has produced in average 330 kg of waste per year.

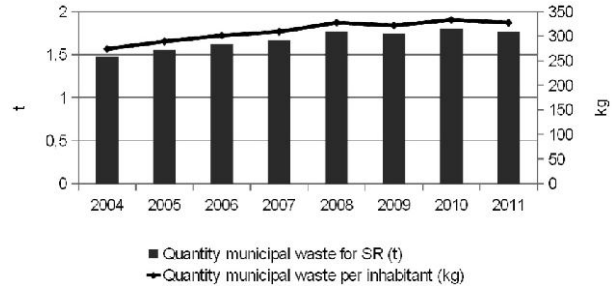


Figure no. 7: Quantity of municipal waste
Source: Statistical Office of the Slovak Republic

Principles of sustainable development projects in urban renewal residencies

A Today's revitalization of an urban area can not be developed without innovation, whether in terms of industry, infrastructure, housing or ecological demands. The main requirements for innovation include: higher performance with lower energy consumption, lower capital intensity, reliability and favorable ecological parameters. Note that most of these requirements are in accordance with the principles of sustainable development. With these modern developments, the revitalization of a territory can be economical, ecological and it can adopt new technologies as well as transforming existing manufacturing and administration into more productive and user-significant values (Beran, Dlask, 2005).

Possibilities to innovate while protecting the environment are: recycling of construction waste, creating new waste management technologies, the choice of materials produced from recycled goods, use of green energy, which is now becoming a very popular element used in modern architecture.

Recycling - is an important part of environmental protection, and it solves two problems: the burden on the environment and the use of waste as a secondary raw material. It prevents ineffective waste by not using natural resources, but instead already manufactured materials, reducing energy consumption in the production process, thus also reducing greenhouse gas emissions.

If a good can not be used again, it should be rethought and produced within a recycling process. This saves natural resources, energy and reduces the amount of



waste. Studies have shown, that recycling of materials saves up from 3 to 5 times more energy than it could be obtained by burning. For example, production of recycled paper requires only 30% of the energy needed producing paper from new trees, moreover it saves the forests from over-exploitation. Recycling 1 ton of waste paper in the manufacture is saving 500-600 kWh of electricity. With screening the waste, 110 tons of waste paper and its use in the production, one hectare of an 80 year old forest can be saved. Recycling of glass saves 43% energy, recycling of aluminum saves up to 95% of energy compared to usage of bauxite (although aluminum impacts on nature and the environment during extraction, processing and production are so negative, that it is more environmentally beneficial not to use it for packaging). Energy savings from recycling waste materials during the production compared to the usage of primary sources are Steel (74%) Plastics (97%) Glass (25%) Paper (70%) Aluminum (95%).

The most recycled materials in the construction business are concrete and brick. These can be used for example as stone filling in concrete, as gravel substitute under the fundaments or paved areas. Another raw materials for recycling are asphalt (roads) and steel (up to 40% of the world's steel production is recycled). Other possibilities of reusage in the construction world is f.e. creating a mosaic of old tiles, using old roofing materials for the construction of small sheds, etc.

These were some of the environmental reasons to recycle. Economic reasons are also well known. It reduces the costs for waste disposal and storage in a controlled landfill. The fact that landfills are becoming increasingly more expensive, due to larger production of waste, recycling will get even more economically advantageous.

Green energy - a renewable source of energy, which is constantly re-created by nature comes in different forms. It is the energy obtained from the sun, wind, biomass, geothermal sources (earth heat), small hydroelectric plants and ocean energy as well as biofuels and hydrogen derived from renewable resources.

The usage of these energy sources is still in the "infancy" stadium in Slovakia. But the increase of fossil fuel prices and the pressure from European institutions are pushing Slovakia into increasing use of these energy sources. The most used renewable energy sources are biomass and energy from hydroelectric plants and wind turbines.

Biomass – is the most beneficial renewable resource in Slovakia. It comes mostly from wood waste produced during the harvesting process, waste from agriculture as well as waste from the food production process. This kind of biomass is in large amounts, which ensures also a good price for the heat which it generates. It creates less emissions and there are options of financing via the EU funds. In the industry process, biomass is best used in the timber and paper industry. Most cauldrons, run on wood biomass, are currently used in the heating supply chains of the residential and municipal sector, where heat from

biomass heats more and more towns and villages. The growing demand for biomass heating should also benefit producers of slovak cauldrons (www.hnonline.sk).

Technology	mil.€/MW
Photovoltaic	140
Biogas stations	120 - 160
Small hydroplants	60 - 130
Wind turbines	45
Heating solar systems	30 - 40
Electricity production from biomass	40 - 50
Biomass water boilers	8. október

Table no. 2: Investment costs for renewable energy technologies
Source: Energy Centre Bratislava

Energy from water - according to experts, Slovakia uses currently almost 60% of its hydropower potential. There are almost no further possibilities to build large-scale hydroelectric plants, therefore, the focus is now on smaller plants. The largest domestic energy supplier, Slovenské elektrárne, is planning to build at least four small hydroelectric plants in the next years. All of those should be operated on the rivers Vah and Hron (www.hnonline.sk).

To further increase the use of renewable energy, the Slovak government could be helpful by providing incentives for investments and the obligation to buy from producers of renewable energy at a better price. Currently, only biomass heaters and solar panels are co-financed. Reality shows, that this support is insufficient and administratively difficult. Therefore a different kind of initiative is needed to promote the use of renewable resources.

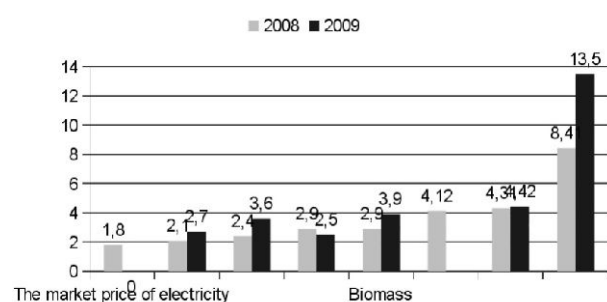


Figure no. 8: Comparison of electricity prices (€/ kWh)
Source: Energy Centre Bratislava

How can these innovations be used in projects of urban residence renewal?

The basic tool is the territorial (spatial) planning. This planing creates conditions for compliance of all activities in the country with a special focus on the environment and the achievement of ecological balance. Modern urban planning should be based on interdisciplinary knowledge



(philosophy, sociology, history, archeology, ethnography, architectural and urban design, ecology and others (Strategy for Sustainable Development).

In accordance with the master plan, a project for the renewal of an urban residence is developed, which will comply with the demands of sustainable development and requirements for environmentally friendly construction. There are several various options for using alternative energy in this project, that are furthermore consistent with the architecture of urban residencies. In this paper, we will show the example of Augustenborg in Malmö, Sweden, a successfully revitalized urban neighborhood ((Picture 1).

Augustenborg was once a pride of Swedish engineering. The houses had bathrooms with hot water, which used daily 5 tons of coal per hour, just for heating the water. With time, Augustenborg began to decline as a lively urban area. Frequent rain and insufficient drainage were harming the conditions of buildings. The inhabitants started to leave the area, houses remained empty with no one left to repair them. The negativity spin began – rise of crime and unemployment as well as poverty. The process of revitalization began in 1997 and right from the beginning, residents of the borough were invited to actively cooperate on the development.

Currently, the borough has 450m² solar panels and 100m² photovoltaic cells, that produce hot water, heat and electricity. A solar pump with piping installed under the football field does also supply heat and hot water for the community. If the temperature falls underneath 5°C, the added value of this system is, that the heat pump can create a skating rink. Since 2001 a car sharing system began with the possibility to charge electric cars. Cars can be booked online or at the local shop. The community expects to recycle 90% of its waste, currently it stands at 70%. A unique rainwater management system captures rainwater and sends it to little bassins, which are not only a popular decorative feature, but also contribute significantly to local biodiversity. A significant role play the green roofs, which can capture up to 50% of rainwater. The largest green roof in Scandinavia has 9500m² and it is located at the "Botanical green roof garden". Green roofs are created on all new construction sites and wherever it is technically possible. Inhabitants are directly involved in the planning and developing of the innerblock greenery and the result is really admirable (www.uzemneplany.sk).

Malmö has limited car traffic for the inner city center and creates more space for pedestrians and cyclists. Cycling takes up to 40% of all daily trips in the city. Public transport runs on biogas, another positive effect for air quality apart of numerous parks, alleys, gardens as well as green roofs.



Picture no. 1: **Example of revitalized urban neighborhoods in Augustenborg, Malmö in Sweden**

Source: <http://www.uzemneplany.sk/clanky-a-publikacie/?article=59>

Conclusion

Requirements of sustainability are difficult, especially if they need to be connected with economically rational outcomes. This is particularly serious, if we want to formulate requirements for development of urban and suburban areas, e.g. Long-lasting farms. There are only few examples, where ambitious strategies were fully brought to life according to the project in its beginning phase. So far, there are only few sophisticated instruments for differentiated interactions between economic processes and their integration into complex models. During crisis situations, a number of otherwise well planned and challenging projects cannot be finished (Beran, Dlask, 2005).

Principles of sustainable development and related indicators can be very helpful in identifying suitable areas for revitalization and its future design. Thanks to this process, we can evaluate quite early, if an area is suitable for revitalization, before any financial problems for the owners and investors occur. Lack of finance can result in insufficient technical maintenance of buildings, problems with financing culture and social services in the neighborhood, increasing crime, etc. .. Therefore, if we want to revitalize an area, we need to know first, to which extent is the territory able to absorb changes. Characteristics of an area, can be determined with statistical data from the statistical office, which monitors the majority of indicators for sustainable development. These indicators characterize an area and its general situation and indicate the potential for its future development.



Sources:

Beran V., Dlask P., Management udržitelného rozvoje regionů, sídel a obcí. Praha: Academia. 2005. ISBN 80-200-1201-X.

Šenitková I., Števílová N., Recycling in the civil engineering from the viewpoint of energetic samings. In Acta Montanistica Slovaca. ISSN 1335-1788, roč.3, č. 3, str.318-322.

Malmö stad (Access June, 2013): www.malmo.se

Document: National Strategy for Sustainable Development [online]. 2013 [cit. 14.6.2013]. Available on the Internet: <<http://www.rokovania.sk/appl/material.nsf/0/F34F511CC50CD268C1256ADA003D484F?OpenDocument>>

Negotiations the Slovak Government Republic (Access June, 2013): www.rokovania.sk

Zoning plans (Access June, 2013): www.uzemneplany.sk

Enviroportal (Access June, 2013): www.enviroportal.sk

Economic news (Access June, 2013): www.hnonline.sk

Energy centre Bratislava (Access June, 2013): www.ecb.sk

Statistical Office of the Slovak Republic (Access June, 2013): www.statistics.sk

www.sazp.sk/slovak/periodika/sprava/SPRAVA96/UKAZOVATELE/ukazovatele.html

www.ozeport.sk/kontext/kontext.htm



Janka Jelemenská

REGIONAL DEVELOPMENT APPLIED ON THE EXAMPLE OF THE BRATISLAVA SELF-GOVERNING REGION

Introduction

For Slovakia, the accession to the European Union primarily meant the integration into European structures and gradual unification of the market and policies with the objectives and policies of the European Union. The established trend of globalization of the world economy as well as the continuing restructuring of the Slovak economy place a great pressure on increasing the competitiveness and dynamics of the economy based on innovations and help to maintain sustainable development to achieve the process of overall convergence. The relations between the European Union and Slovakia are based on accession of the Slovak Republic to the EU in 2004. One of the main requirements of the membership for all candidate states was the compliance with so-called Copenhagen criteria, approved in 1993. The criteria can be divided in three categories:

- 1. Political criteria
- 2. Economic criteria
- 3. Acceptance of the political union targets, so called *acquis communautaire*

Current situation in Slovakia

In the period between January 1, 1993 when the independent Slovak Republic was declared and May 1, 2004 when the independent Slovak Republic became a part of the integrated European Union, the country has undergone a dynamic internal political development with major impact on regional policy. This process has resulted especially in the change of the administrative organization of the country from previous three territorial entities of Western, Central and Eastern Slovakia, into eight new Self-Governing Regions of Bratislava, Trnava, Trenčín, Žilina, Prešov, Košice, Banská Bystrica and Nitra. This territorial-administrative division is established by the act on territorial administrative organization of the Slovak Republic. In 2004 the above Self-Governing territorial units assumed majority of the competencies of the state administration and at present the above territorial units have not only the original competencies but also the so-called transferred performance of the state administration, involving a great number of problems, especially in relation to insufficient funding to carry out these functions. At the end of the 2004 the major changes of arrangement and organization of the transfer of the performance of the state administration functions onto Self-Governing units were completed and at present this process is being once again

reviewed by the national government in relation to the correctness of the system and in relation to the impact of the global economic crisis on the national budget of the Slovak Republic and budgets of the individual budgets of the Self-Governing Regions. Based on the assigned competencies the Self-Governing Regions may participate in international and cross-border cooperation as they have their own sources of funding and staff, and they are allowed to carry out business activities and collect certain types of taxes.

Bratislava Self-Governing Region

Bratislava Self-Governing region resulted from division of the Western Slovakia region into three parts – presently called Trenčín Self-Governing Region, Trnava Self-Governing Region and Bratislava Self-Governing Region (“the BSGR”). With respect to the perspective development the BSGR represents potentially the strongest region in Slovakia, thanks to a great degree to the density of population, developed infrastructure, population structure and qualification, presence of scientific-development base and density of the institutions of strategic importance. BSGR is the region with long history of highest proportion of university educated population and lowest rate of unemployment.



Figure no.: **Map of the Bratislava Self-Governing Region**
Source: www.wikimedia.org

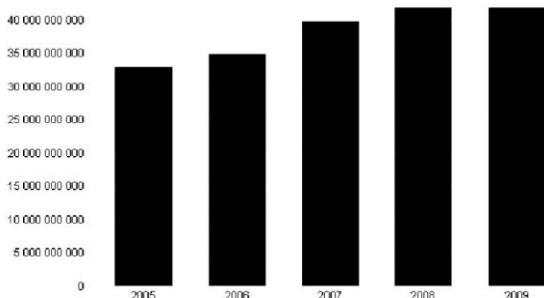
Basic information on the Bratislava Self-Governing Region

Within BSGR, on the area of 2,053 km², there are 8 districts, the capital city of Bratislava, with its specific position and 72 municipalities, some with town statute. In comparison, for example, Luxemburg, ranking among the first in the ranking by European Statistical Office, is divided in 12 cantons and 3 districts.



There is a total of 118 municipalities on the area of 2,586 km², while the area of Luxemburg is almost equal to that of the BSGR. The BSGR was compared in the statistics of the European Statistical Office and according to the macroeconomic indicator of gross domestic product, the BSGR ranks among the top (5th) in overall ranking, overtaking cities such as Vienna or Prague (Kacalka, L, 2012). Based on the above statistical data it can be said that the population of the BSGR is the fifth richest population in the EU. Compared to the BSGR and according to the data of the International Monetary Fund the per capita gross domestic product in Luxemburg is highest in the world. According to the available data for 2008 the value of GDP is USD 81,500 (www.statistics.sk). Graph No.1 presents the overview of the development of the per capita gross domestic product in BSGR in the period of 2005-2009.

Regionálny hrubý domáci produkt na obyvateľa (v bežných cenách) podľa rok.
Bratislavský kraj, Regionálny hrubý domáci produkt na obyvateľa (v b. c.) PKŠ. (PKŠ)



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Figure no.2: Regional GDP per capita (in current prices) by years
Source: Statistical Office of the Slovak Republic

It has to be emphasized that the statistics in no way reflect the actual quality of life of the inhabitants of BSGR, considering the purchasing power standard.

The position of the BSGR within Slovakia is exceptional to a certain degree, as due to the location between the western and eastern part of the Europe it is considered a gate to the EU and this is augmented by its strategic location within Slovakia. This fact is also supported by a certain territorial specificity – the location of the capital city of Bratislava within the BSGR. This region represents an important area between the north and south part of the so-called central Europe, bordering another two regions (in addition to Trnava and Trenčín Self-Governing Region), namely the Burgenland region in the east of Austria and Sopron-Gyor region in the western Hungary. A progressive effect on the developmental importance of the BSGR is a result of the presence of the Danubian settlement band that offers an opportunity to influence the utilization of the territory through development of urban units and through development of the economic conditions within the area. In a wider context, it has to be appreciated that BSGR does not reach the developmental level of European metropolitan cities, however, it offers a great opportunity to connect the

bordering regions in Austria and Hungary. Compared to other cities within the territory of BSGR, Bratislava has a competitive advantage due to its overall competitiveness and per capita GDP. At the same time it bears a trans-regional and international importance and directly underlines, considering its area and urban structure, the development of the BSGR. Bratislava should not be viewed as a competition to other towns within the BSGR region but as a factor supporting the development of the region. Bratislava consists of mutually linked functional systems, making up a homogenous unit with potential of becoming a conference, international or administrative center. In spite of these facts, it has to be said that there is a low degree of lifetime education – as confirmed by the EU through its representatives involved in the preparation of the program period of 2014-2020.

PEST analysis of the Bratislava Self-Governing Region

PEST analysis is the „Political, Economic, Social and Technological analysis“ and it is a part of strategic management. It is defined as analysis, involving the research of political-legal, economic, social and cultural as well as technological environment of the particular region. This analysis is sometimes extensive, as it in fact covers all major macroeconomic indicators. The purpose of the analysis is to audit the parameters of the macro-environment. The focus of the audit is to find answers to three basic questions, i.e.:

- 1. Which factors have impact upon the region?
- 2. What are the possible effects of these factors?
- 3. Which factors will be most important for the Self-Governing Region in the near future



Figure no.3: PEST Analysis
Source: www.businessballs.com

The purpose of the analysis is to find out whether the Bratislava Self-Governing Region is qualified to hold the position of an independent region within the administrative organization of the Slovakia in the future, considering the active approach of the government towards modification of the territorial-administrative division and reduction of the number of Self-Governing Regions. In relation to this issue, another issue comes to prominence – should the capital



city of Slovakia – Bratislava – following the example of Vienna (being not only the capital city and capital of region but with its area of 414 m² also one of the nine federal regions) – be allowed to perform the function of an independent Self-Governing Region with support of the government with respect to the competencies of the transferred performance of the state administration. One of the opportunities to find answers to the above questions is to use the PEST analysis.

Political environment

Analysis of the political factors does not so much involve the analysis of the rotation of the political leaders on a regular basis through municipal and regional elections, i.e. every 4 years but it is rather an analysis of the stability of the political environment with direct impact on the stability of the adopted legislative frameworks. These are adopted in the form of generally applicable regulations by the council of the capital city of Bratislava as well as by the council of the BSGR. These changes and instability may have a direct impact on environmental issues, ecology, policy of urban development and many other areas addressed by the capital city either through its chief architect, traffic limitations or permits or by the BSGR Authority through its activities. At the same time, in addition to the political stability, the content of the current and future activities is very important, as developed by the council of the capital city and the BSGR. It is also very important to work on coordination between the resolutions adopted by the municipal authority of the capital city of the Slovak Republic Bratislava, government of the Slovak Republic and the authority of the BSGR, which should be coordinated in the principal issues of construction, transportation, international relations, development of tourism within the subject areas as well as in relation to finances.

Economic environment

Economic environment is one of the most important factors, especially with respect to the estimates of the labor costs, product and service prices. This part of the analysis focuses on the issues of taxes, excise duties, real-estate transfer taxes but also labor costs and other macroeconomic and microeconomic indicators. At the same time the focus is on overall stability of the currency, its links to other world currencies, trends in interest rates, major markets (e.g. automotive, agriculture, etc.), trends in the area of distribution, issues of economic cycles, impacts of economic crisis and opportunities for foreign investors. From regional viewpoint it is very important to analyze various types of taxes collected by the Self-Governing Region, capital city of SR – Bratislava or corresponding city sections.

When assessing the economic environment, in case of PEST analysis applied on Self-Governing Region, it is necessary to take into consideration not only the economic

environment that affects the management decisions but also the possibilities of funding of the needs of the Self-Governing Region. The sources for funding of the needs of Self-Governing Region are as follows:

- 1. National budget of Slovak Republic – the budget is used for partial funding of the transferred activities of state administration, however this type of funding in reality does not cover all expenses of the Self-Governing Region in relation to the competencies assigned by the government;
- 2. Budget of the Self-Governing Region – divided in 13 budget chapter such as planning, management, control, promotion, marketing, internal services, travel industry, safety, communication, transport, education. The following basic principle should be taken in consideration with respect to funding of regional activities within the territory of the Self-Governing Region:
 - I. The overall indebtedness of the Self-Governing Region including organizations established by the Self-Governing Region, should not exceed 60% of the current income in the previous budget period (year), while principal installments in the current year should not exceed 25% of the current income in the previous year;
 - II. Any economic surplus should be primarily used to service the loans;
 - III. Any assets should be acquired only upon consideration of the future income from such assets;
- 3. Funding by EU – this is another instrument used to support the development activities. There are several options for the use of these sources of funding, such as operational program Bratislava region, EEA Financial Mechanism and Norwegian financial mechanism, Switzerland-Slovakia cooperation program, etc.

Social environment

This environment is the component of the analysis that enables the most accurate and simplest definition. Data is readily available from individual statistics. Analysis of the social environment is very important especially for business that plan their business activities within the territory of the BSGR, especially with respect to the number of consumers. This analysis addresses mainly demographic indicators, lifestyle trends, ethnic and religious issues but also the area of media, their influence, perception of advertisement. It also addresses the issues of local ethics – level of corruption, compliance and enforceability of law. With respect to the social environment in the Bratislava Self-Governing Region, it can be stated that from demographic perspective the



representation of population in individual districts is very variable. Naturally the most populated district is Bratislava V. (Petržalka) and the smallest district is Bratislava I (www.bratislava.sk). However, it is also necessary to consider a very natural phenomenon – ageing of the population – as measured by the ageing index. The educational structure of the BSGR population with permanent residency within the territory is as follows:

- 1. 9,6 % of population with elementary education;
- 2. 17,1 % of population with vocational or high-school education without certificate of completion;
- 3. 31,9 % of population with vocational or high-school education with certificate of completion;
- 4. 26,2 % of population with university education.

Bratislava region has the highest number of universities/colleges within Slovakia.

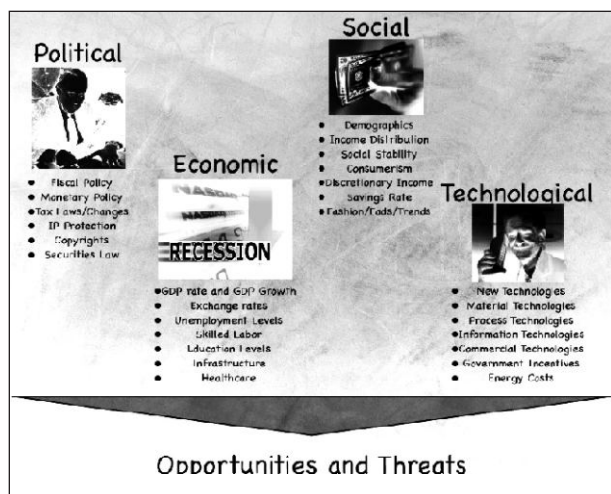


Figure no.4: **Detailed PEST Analysis**
Source: www.businessballs.com

Technological environment

With respect to technological environment, the analysis focuses on the issues of infrastructure, such as transportation (including raw materials, power, telecommunications) development and focus of industry, conditions in the field of research and science, support for science and universities. Partially this part of analysis includes so-called intellectual property rights, including some very important issues of industrial rights protection such as patents and industrial designs. Also included is ecology, especially emissions trading or the requirements to implement EIA, i.e. Environmental Impact Assessment, etc.

Bratislava Self-Governing Region is a transportation hub connecting Austria, Hungary and Trnava and Trenčín regions. In the area of transport infrastructure the issues

include: poor condition of highways, overused D1 freeway section, missing bypasses and overloading of other highways as well as missing parking capacities.

Defined disparities and opportunities for the BSGR

Based on the results of the PEST analysis, the following main problems and disparities can be defined in the BSGR:

- 1. Growing differences in residential infrastructure, services and leisure time opportunities in the context of increasing demands due to growing population, with possible future reduction of the attractiveness of the residential environment,
- 2. High economic loading represents a pressure on environment with direct consequences in form of pollution of water, air and soil),
- 3. Adverse age structure and demographic development, ageing of the population,
- 4. Wear and tear and depreciation of public buildings that require major investments for reconstruction, or involve high operating costs.
- 5. Poor funding of the budget, with direct consequences on fulfillment of the needs of the BSGR;
- 6. Insufficient funding of competencies transferred from the state administration onto Self-Governing administration from the national budget;
- 7. Unsettled ownership of land under public infrastructure that prevents further development of the area with possible consequences for the future.

Together with disparities and problems, it is also possible to define the main opportunities and challenges for the future of BSGR, including:

- 1. Support for research and development potential considering the density of universities within the area,
- 2. Utilization of close links of the capital city to the European structures;
- 3. Support for development of quaternary sector (healthcare, education);
- 4. Support for life-long education,
- 5. Support for creation of clusters for creation and distribution of innovations based on scientific and technological knowledge
- 6. Support for travel industry
- 7. Support for the utilization of water transport and extension of cycling routes, etc.



Procedure and used methods

The objective of the PEST analysis is to define the main problems that prevent the development activities of the BSGR and to define the solution options. Presented are several options to increase the standard purchasing power of the population in the BSGR by supporting the opportunities presented by within the area.

Solution model and conclusion

Current perception of the Bratislava Self-Governing Region, primarily as the seat of the capital city of Slovakia Bratislava, can be seen as the key factor of solution of the resulting disparities. The means to eliminate the identified disparities and to use the opportunities presented by the location of the region – following the example of Vienna – is the declaration of a Self-Governing Region on the territory of the capital city of Bratislava. One of the examples are high schools located within the territory of the capital city, that falls under the competence of the Self-Governing Regions as a result of the transfer of the state administration, while subsidies aimed at its support would be a significant help for other districts of the region. This would enable the resources that are currently used for reconstruction of public building to be diverted to environmental programs, to programs supporting residential development for young families, with direct consequences on demographic development and development of leisure time activities in the districts of Malacky, Senec and Pezinok. With respect to the perception of the population, employers as well as politicians, the BSGR is more of a sponsor of Bratislava as the center of travel industry, business and politics. Due to the current situation the district towns encounter growing differences in development of residential infrastructure, services and leisure time activities on the background of growing demands of the growing populations, possibly resulting in reduced attractiveness of the residential area,

Therefore it is important that the potential development of the BSGR should take into consideration not only the needs of the capital city of Slovakia, but also the needs of other districts within BSGR through long-term objectives and targeted support, ensuring sustainability of these objectives.

References

- Wikipedia** (Access June, 2013): www.wikipedia.org
Available on the Internet: [?http://cs.wikipedia.org/wiki/PEST_anal%C3%BDza?](http://cs.wikipedia.org/wiki/PEST_anal%C3%BDza?)
- Businessvize** (Access June, 2013): www.businessvize.cz
Available on the Internet: [?http://www.businessvize.cz/planovani/kde-se-vzala-a-k-cemu-je-pest-analyza?](http://www.businessvize.cz/planovani/kde-se-vzala-a-k-cemu-je-pest-analyza?),
[?http://www.businessballs.com/pestanalysisfreetemplate.htm?](http://www.businessballs.com/pestanalysisfreetemplate.htm?)
- Google** (Access June, 2013): www.google.com, Available on the Internet: [?http://www.google.sk/imgres?imgurl=http://thumbs.dreamstime.com/thumb_513/12767972997IGcCq.jpg&imgrefurl=http://www.stockphotos.sk/image.php?img_id%3D14771406%26img_type%3D1&h=342&w=300&sz=37&tbnid=AllJplIVxBdHtM:&tbnh=71&tbnw=62&prev=/search%3Fq%3Dpest%2Banal%25C3%25BDza%26tbm%3Disch%26tbo%3Du&zoom=1&q=pest+anal%C3%BDza&usg=__B1kxCqEPH4FgDCeHe_s1N1b2oAM=&docid=8r-RCarJCsJcTM&sa=X&ei=gijFUaPgLYTeOPPgggAl&ved=0CFUQ9QEwBQ&dur=2044](http://www.google.sk/imgres?imgurl=http://thumbs.dreamstime.com/thumb_513/12767972997IGcCq.jpg&imgrefurl=http://www.stockphotos.sk/image.php?img_id%3D14771406%26img_type%3D1&h=342&w=300&sz=37&tbnid=AllJplIVxBdHtM:&tbnh=71&tbnw=62&prev=/search%3Fq%3Dpest%2Banal%25C3%25BDza%26tbm%3Disch%26tbo%3Du&zoom=1&q=pest+anal%C3%BDza&usg=__B1kxCqEPH4FgDCeHe_s1N1b2oAM=&docid=8r-RCarJCsJcTM&sa=X&ei=gijFUaPgLYTeOPPgggAl&ved=0CFUQ9QEwBQ&dur=2044)
- Bratislava** (Access June, 2013): www.bratislava.sk, Available on the Internet: [?http://px-web.statistics.sk/PXWebSlovak/index.htm?](http://px-web.statistics.sk/PXWebSlovak/index.htm?)
- Kačalka, L.* 2012. **Štatistika: Bratislava je bohatšia ako Praha či Viedeň, aj keď v skutočnosti nie je** ?online?. 2013, ?cit. 2013-06-18?. Available on the Internet: [?http://www.investujeme.sk/statistika-bratislava-je-bohatsia-ako-praha-ci-vieden-aj-ked-v-skutocnosti-nie-je/?](http://www.investujeme.sk/statistika-bratislava-je-bohatsia-ako-praha-ci-vieden-aj-ked-v-skutocnosti-nie-je/?)
- Statistical Office of the Slovak Republic** (Access June, 2013): www.statistics.sk, Bratislavský samosprávny kraj (Access June, 2013): www.region-bsk.sk, Available on the Internet: [?http://www.region-bsk.sk/clanok/program-hospodarskeho-a-socialneho-rozvoja-na-roky-2014-2020-352939.aspx](http://www.region-bsk.sk/clanok/program-hospodarskeho-a-socialneho-rozvoja-na-roky-2014-2020-352939.aspx)



Barbora Lipovská

TRADITION OF GARDEN OPENING IN GREAT BRITAIN

The practice of opening private gardens to the public has received little research, compared with other type of attraction and open spaces in Great Britain. This paper presents history in garden opening in Great Britain, that has now been recognizes as the part of life of many garden owners and seen as a new tourist attraction. Owing to its scale and national prominence, the NGS was used as the basis for exploratory research focusing on smaller domestic private gardens in suburban or village settings, principally where 'clusters' of gardens open simultaneously. The NGS, a charitable trust founded in 1927, has strongly influenced the expansion of the number of private gardens open to the public. Garden opening has become a traditional way of raising money, first for the Queen's Institute, and later for many charities including Marie Curie Cancer Care, Crossroads Care; Help the Hospices and Macmillan Cancer Support

Introduction

"Gardens have special meaning. They are powerful settings for human life"
(Francis & Hester, 1990:2).

Garden ownership in Britain has expanded to the point where there are now over 20 million private gardens – by far the highest number per capita of any nation in Europe – and gardening is the nation's most popular and widespread leisure activity (Alfrey, Daniels, & Postle, 2004). Gross and Lane (2007) estimate that 67% of British population have gardening as a hobby. Created domestic gardens are regarded as an element of personal territory, expressing a personal taste, preference as well as a form of display (Gunter, 2000). The growth of charity openings with the emergence of the National Garden Scheme (NGS) in the 20th century (Hunningher, 2001; NGS, 2012) has created a relatively new tourist attraction from a wide range of domestic gardens that became, more accessible, offering more information and garden ideas in comparison with historic gardens and country-house estates, about which more is known (Connell, 2004a). The opportunity to look around an otherwise private sphere (Bradley-Hole, 1996) attracts according to the NGS (2012) more than 750 000 visitors every year.

The role of the domestic garden and consumption of private garden space has emerged as a area of research for sociologists. The domestic garden is seen as an ordinary everyday space, attached to the home, "where plants are grown and other materials arranged spatially" (Bhatti & Church, 2000, p. 183). It plays an important role in the enjoyment of leisure time (Bhatti & Church, 2004) and serves as a local link to nature that provides a restorative experience (Kaplan & Kaplan, 1989). The garden is also viewed as a private re- treat; a setting for creativity; a social place for sharing with others; a connection to personal history; a reference point of identity; a status symbol (Bhatti & Church, 2000) and vital expression of popular culture (Hunt & Wolschke-Bulmahn, 1993). It could be seen as a good point of social contacts 'over the wall' (Bhatti & Church, 2004) and a forum for family (and friends) to interact (Alexander, 2002).

In addition to the private leisure possibilities, domestic gardens may be seen as a relatively new tourist attraction, more accessible for more people, offering more information and garden ideas in comparison with historic gardens and country-house estates, about which more is known (Connell, 2004a). According to Evans (2001), during 1999 approximately 16 million visitors visited 400 gardens in Britain, and gardens enjoyed the highest growth of any attraction sector that year. Every year the National Gardens Scheme (NGS) across England and Wales opens more than 3700, mostly small and private, gardens; and welcomes more than 750,000 visitors (NGS, 2012). The British Red Cross and the Royal National Lifeboat Institute have similar schemes (Fox & Edwards, 2008). More locally, a number of individual villages have opening schemes, usually for charity, which match the NGS approach.



Fig. 1. The information about garden opening are seen everywhere and all gardens participating in NGS garden opening are marked by Yellow balloons (Source: Author, 2012).

National Gardens Scheme

The National Gardens Scheme was founded in 1927 to raise money for the nurses of the Queen's Nursing Institute (QNI) by opening gardens of quality and interest to the public. Every year NGS gardens across England and Wales



welcome about 750,000 visitors. Most gardens which open for the NGS are privately owned and open just a few times each year. Some gardens open as part of a group with the whole community involved.

Since its first opening the NGS has been trying to encourage owners to open their gardens for “Charity’s sweet sake” (Atkins, 2001). Hundreds of gardens in England and Wales were presented to the public in a book, *Making Gardens* (Cunningham, 2001), “a mine of vital information for every gardener”, where practical advice gleaned from NGS gardens and garden owners were presented to encourage the contemporary gardener. Garden owners wishing to participate in the scheme have to meet certain criteria, and only gardens considered to be of quality and interest are selected (NGS, 2012). The NGS publishes *The Yellow Book*, a guide to over 3,800 gardens - the so-called ‘bible’ of garden visiting (Fig. 2).



Fig. 2 *The Yellow book*, “Bible” for garden visitors
(Source: Author, 2012).

Garden interest – a leisure occupation

For hundreds of years, members of the aristocracy and gentry had kept estates on the edges of London used for hunting, temporary courts or as retreats from London’s affairs (MODA, 2007). Small estates of villas were being developed probably during second half of the seventeenth century surrounded by gardens, and these that became a middle-class symbol of status and wealth (Whitehand & Carr, 2001). Many of the wealthiest members of the middle class were moving out of cramped and unhealthy inner-city areas (Constantine, 1981) and began to settle on the urban fringe (MODA, 2007) in large detached houses in neo-Tudor styles (Betham, 1934, pp.206-218) in the suburbs that were depicted as a retreat from the intense, stressful life of the city, enabled its residents to return to a bygone, bucolic era (Gold and Gold, 1990). In order to establish themselves in society they began to emulate the upper-class traditions of creating gardens, which had been intended for the ostentatious displays of wealth and good taste (Constantine, 1981). Gardens were planted in ‘formal Victorian suburban tradition’ (Turkington, 1995) seen as

moral space, as pedagogical devices for children (Davidoff & Hall, 1994). Much of the work in garden was done by the owners as a means of ameliorating any sense that leisure time could be tarnished by idleness (Taylor, 2008).

Although the number of gardens and amateur gardeners increased considerably in the nineteenth century, the evidence overwhelmingly shows that, as a recreational activity, gardening was limited almost exclusively to the rural and urban elites (Constantine, 1981; Whitehand & Carr, 2001; Stone, 2003). Since at least the sixteenth century, the creation and enjoyment of gardens had been a leisure occupation of the aristocrat, squire and rural cleric (Constantine, 1981). The first country villas for the well-to-do middle class were probably built during the second half of the seventeenth century (Whitehand & Carr, 2001) and many of the wealthiest members of the commercial and professional middle class were moving out of the cramped and unhealthy inner-city areas (Constantine, 1981). By the early-nineteenth century small estates of villas for middle-class families were being developed on several city peripheries (Whitehand & Carr, 2001), surrounded by gardens that became a middle-class status symbol (MODA, 2007) to demonstrate their developing wealth and status. A new urban middle class began to emulate the upper-class traditions of creating gardens, which had been intended for the ostentatious displays of wealth and good taste. Although the middle class did use the size and appearance of their gardens for design, they were principally formed as closed and private preserves away from the public gaze (Constantine, 1981) where moral family ideas could be fostered (Taylor, 2008).

By the end of the nineteenth century, ideas of improved working-class housing were becoming linked to what had previously been a notion of middle-class suburban living. There were the beginnings of spacious estates of mainly detached and semi-detached houses with front and back gardens, separated from the road and often from another, without any connection with neighbours (Stone, 2003). Gardening had become a major leisure activity no longer confined almost exclusively to the middle class (Constantine, 1981) and suburban gardens were created as a complex organization of trellises, sheds, fences, hedges and drifts of fallow and planted soil (Stone, 2003).

After the First World War low density development peripheral to cities had been seen by the government as a release from nineteenth-century overcrowding and single family house and private garden became the accepted norm of local authorities and private-enterprised builders alike (Whitehand & Carr, 2001). The private garden offered greater opportunity for individual expression and for the first time in homes below gentry level, there was space which could be entirely given over to leisure (Roberts, 2007). Gardening, became conceived as an appropriate home centered recreation that could reduce the public forms of working class leisure, such as violent sports, wakes and music halls (Bailey, 1978): seasoned, according to leisure historians (Constantine, 1981, 390) “by drinking



and gambling". Gardening was morally cleansing attribute for both mind and body (Taylor, 2008) Encouraged by moral imperatives seen in middle-class gardens, the landowners were motivated to attach gardens to cottages in modern villages (Constantine, 1981) and to houses on the expanding urban fringe.

Development and improvement in the national housing stock by 1939 had opened up opportunities for more, especially suburban, living (Constantine, 1981; Whitehand & Carr, 2001). Between 1919 and 1939, four million new homes were built in Britain (Clapson, 2000) and significantly, most had private gardens. Gardens were transformed from high to low maintenance, from labour-intensive seasonal bedding schemes and highly manicured bowling-green lawns to 'naturalistic' perennial borders (Hunningher, 2001) inspired by local parks or, more recently, garden centres (Taylor, 2008). Today Britain has an unusually high level of houses with private gardens. According to MINTEL (2003), there are 20.2 million private gardens and almost every second adult (49%) in the country regularly participates in gardening activities. Bhatti & Church (2004) state that participation in gardening is strongly influenced by age and it is identified as a leisure pursuit predominantly by people over 60. For example, only 20% of 20-24 year olds gardened on a monthly basis compared to 61% of 60-69 year olds (Bhatti & Church, 2000).

Gardening lifestyle

New magazines appeared to feed the growth in gardening interest. Some, like *Homes and Gardens* and *Amateur Gardening*, catered for the traditional exclusive middle class; while others such as *Popular Gardening* and *Home Gardening* had do-it-yourself tips and free advice for working-class readers (Constantine, 1981). Newspaper editors also recognised an increasing popular interest in gardening, and regular columns were published, for instance in the *Daily Express* from the 1920s (Constantine, 1981). As further recognition of the passion for gardening, the BBC broadcast gardening talks by Mrs Marion Cran in the 1920s and by C. H. Middleton in the 1930s. BBC television's Gardening Club began in 1956 and attracted more than 3 million viewers by 1963 (Pimlott, 1964). The radio audience question show 'Gardeners' Question Time' began in 1947 (BBC Radio 4) and the television 'Gardeners' World' in 1968 (BBC); both are still being broadcast. In the 1970s the number of column inches devoted to gardening in national newspapers and magazines seemed to double and books on gardening began to compete with cookery books in popularity (Atkins, 2001). People inspired by TV garden lifestyle programmes and magazines were trying to re-create their gardens (Constantine, 1981): this became the subject of intense focus in late 1990s, when garden lifestyle programmes were particularly prolific and the popularity of garden magazines was been rising (Taylor,

2008). For example, the MINTEL Home Interest and Gardening Magazine report (2000) shows that the number of titles grew from seven to twelve between 1995 and 1999, and spending grew from L18.57 million in 1995 to L30.20 million in 1999. Lifestyle programmes appealed to the audience by showing lucrative individual projects such as 'Ground Force' (BBC, 1997-2005) and its spin-off 'Charlie's Garden Army' with Charlie Dimmock (BBC, 1999), presenting garden renovation and design ideas ('Homefront in the Garden', BBC, 1996-2000) or experts helping amateur gardeners to transform their rundown gardens ('Real Gardens', Channel 4, 1998-2000). The garden retail sector grew steadily during the period and consumers were purchasing more garden goods (Taylor, 2008). Schools for garden design were proliferating and courses were being offered in every adult education institute (Hunningher, 2001). Gardening has been turned into one of Britain's hottest fashions and become a nationwide talking point (Taylor, 2008). The growing number of people participating in gardening as a leisure pursuit, the rising popularity of lifestyle and gardening television programmes, and increased coverage of environmental issues in modern media have also been linked to the increasing popularity of garden visiting (Connell, 2004a).

Garden opening in Great Britain

Garden visiting and consumption are not new post-modern phenomena, but have evolved over several centuries (Connell, 2005) and originated as an elite pursuit long before such visiting became a popular and widespread activity (Towner, 1996). The origins of present-day large schemes of garden visiting can be traced back to the early-Victorian period, the first age of mass country house visiting (Mandler, 1997). Prior to this, garden visiting was mainly for leisure and social purposes, where the upper class met their friends and many cultural events took place (Towner, 1996; Girouard, 1978). Gardens created in the eighteenth century, such as Stourhead (Owen, 1998), were major attractions of their time – but amongst a narrow social elite (Tinniswood, 1998).

The identifiable early attempts at managing visitors in historic gardens are seen around the 1870s, in the peak era of historic house visiting (Mandler, 1997). The increased transport facilities offered by railways – 'the cheaper travel for ordinary people' (Patmore, 1983) – allowed to people to escape the built environment and to undertake leisure activities in rural areas (Billinge, 1996). Large populations had potential access to country houses and gardens around the major cities, such as Chatsworth House (Derbyshire), Alton Towers (Staffordshire) or Tatton Park, Alderley Edge and Dunham Massey (Cheshire) (Mandler, 1997). Workers able to take Saturday afternoons and Sundays off were seeking more opportunities for leisure and paid holidays, which became widespread from the 1920s and 1930s (Patmore, 1983).



Reasons for opening country houses with gardens have evolved from benevolence to financial necessity for many country house owners, as estate assets have required further mobilisation to generate income for maintenance and conservation (Connell, 2002). During the twentieth century the number of gardens open to the public expanded with the introduction of the NGS (see below) and the 'Gardeners' Sunday Scheme' (Hunt, 1964). In 1927 owners of fine gardens were invited to open them for charity on one day by the Queen's Nursing Institute (QNI). The idea to open private gardens was one of the initiatives to raise money for a District Nurses Service. Twenty-seven gardens (mostly those handed down with estates through the generations: Atkins 2001), were opened to support the charity. This event was so well supported that the Committee of the QNI decided to continue the scheme throughout the summer of 1927 and nearly 164 000 people took advantage of the opportunity to enjoy gardens that had never before been open to the public (Atkins, 2001).

With increasing personal mobility, mostly from the 1950s when there was a noticeable growth period for private vehicle ownership and wartime austerity had ended (Patmore, 1983), and day trips within reach, garden tourism became accessible to all (Mandler, 1997). People travelled further, and visited gardens seeking inspirations and ideas. The NGS has been transformed from the opening of modest numbers of large-scale gardens for the benefit of a single charity, into the current scheme which includes small private plots behind terraced houses, additionally supporting local charities specified by the garden owners (Hunningher, 2001). Atkins (2001) suggests that *Room Outside*, published by the garden designer John Brookes in 1969, spurred this revolution, encouraging people to think of their garden as an outdoor room, and involving an outing to some well-known smart gardens to seek inspiration. The evolution of gardening as a boom activity in British society seems to have affected the number and nature of gardens open to the public (Connell, 2004a). In the 1970s many garden owners offered to open their gardens, rather than waiting to be invited (Atkins, 2001). In 1982 the English Tourist Board's English Heritage Monitor (Hanna & Hall, 1982) suggested that more than 2000 gardens were open; and that the number of gardens in the National Garden Scheme had expanded (to about 1440 gardens according to the NGS in 1980). For Evans (2001), most of the garden visitors own their own garden and Littlejohn (1997, p. 170) suggested that visitors are oriented mainly to flowers – visiting to see whether the flowers in other gardens are more varied and impressive than theirs: "Most English visitors, being flower gardeners themselves, come to see if your flowers are more varied and impressive than theirs".



Fig. 3. Garden visiting is pleasure not just for visitors, but for owners as well. On the picture you can see the Four Seasons Garden in Walsall, (Source: Author, 2012).

Conclusion

As a particular type of public space, the potential of private gardens open to public has not been investigated thoroughly. Gardens offer an opportunity where people from different backgrounds can participate in this activity. Garden opening might also be seen as a way of communicating within a town, suburb or village. In this way private gardens are powerful tools for creating community. This phenomenon also helps to change current understanding of middle-class gardens, when private gardens are not just enhancing life of the garden owner and the immediate family or close friends, but could serve as a tool to improve the life of local people and visitors. Such gardens may support the development of social ties and community in inner cities and rural areas. Neighborhood spaces, gardens in particular, provide opportunities for social interactions that may help residents to develop their relationships and to form community and support community life.

Such gardens are, by definition, owner-designed and therefore of little or no economic value to the designer. Yet they reveal unusual elements, and can spread the gardening idea further. The NGS has strongly influenced the expansion of the number of private gardens open to the public and garden opening has become a traditional way of raising money for many charities including Marie Curie Cancer Care, Crossroads Care; Help the Hospices and Macmillan Cancer Support. This way of charity support has been promoted across the UK trying to cover all counties and to spread the idea in every village. Owners can be nominated by themselves (or by friends) or they are directly asked by the NGS county (local) organizers: this is seen by owners as an appreciation of their hard work, offering them to be a part of a group with generous aims and to be a living example of a working charity scheme.



Future garden openings might need to deal with a rising number of immigrants whose gardens might not be designed within traditional English garden aesthetic standards. People moving to the UK bring cultures, habits and gardening culture. They leave behind their homes and gardens, and some might rely on creating new gardens here. It is suggested that the proportion of White English, Welsh, Scottish and Irish-born citizens will decline from the current 80% of the total to 59% by 2051 (Coleman, 2010). This change can influence small garden tourism and further research should be therefore be aimed towards local people and their attitude to small private gardens open for charity, taking into account issues of ethnicity and religion. Small private gardens might serve as a presentation of different cultures, helping to integrate other nationalities. Denying these new communities and their gardens ability to open for the public could lead to segregation of ethnic groups.

References

- Alexander, C. (2002). **The garden as occasional domestic space**. *Signs*, 27, 857–871.
- Allan, G., & Crow, G. (1991). **Privatization, home-centredness and leisure**. *Leisure Studies*, 10(1), 19–32.
- Atkins, R. (2001). **Gardens of England and Wales: For Charity's sake**, in Hunningher, B. (Ed.), *Making gardens: The National Gardens Scheme* (pp. 14–29). London: Cassell.
- BBC (1968–). **Gardeners' World**. [online], Accessed at: <http://www.bbc.co.uk/programmes/b006mw1h/episodes/player> [accessed on 06 April 2012].
- BBC (1996–2000). **Homefront in the Garden**. [online], Accessed at: http://www.bbc.co.uk/pressoffice/bbcworldwide/worldwidestories/pressreleases/2002/01_january/home_front_paperback.shtml [accessed on 06 April 2012].
- BBC (1997–2005). **Ground Force**. [online], Accessed at: <http://www.news.bbc.co.uk/1/hi/entertainment/4314491.stm> [accessed on 06 April 2012].
- BBC (1999). **Charlie's Garden Army**. [online], Accessed at: <http://www.uktv.co.uk/blighty/item/aid/611383> [accessed on 06 April 2012].
- BBC Radio 4 (1947–). **Gardeners' Question Time**. [online], Accessed at: <http://www.bbc.co.uk/programmes/b006qp2f> [accessed on 06 April 2012].
- Bhatti, M. (2006). **"When I'm in the garden I can create my own paradise"**: Homes and gardens in later life. *Sociological Review*, 54(2), 318–341.
- Bhatti, M., & Church, A. (2000). **"I never promised you a rose garden"**: Gender, leisure, and home-making. *Leisure Studies*, 19, 183–197.
- Bhatti, M., & Church, A. (2004). **Home, the culture of nature and the meanings of gardens in late modernity**. *Housing Studies*, 19(1), 37–51.
- Billinge, M. (1996). **A time and place for everything: An essay on recreation, re-creation and the Victorians**. *Journal of Historical Geography*, 22(4), 443–459.
- Brookes, J. (1996). **Room outside: A new approach to garden design**. London: Thames & Hudson, (originally published 1969).
- Channel 4 (1998–2000). **Real Gardens**. [online], Accessed at: <http://www.channel4.com/programmes/real-gardens> [accessed on 06 April 2012].
- Coleman, D. (2010). **Projections of the ethnic minority populations of the United Kingdom 2006–2056**. *Population and Development Review*, 36(3), 441–486.
- Connell, J. (2002). **A critical analysis of gardens as a resource for tourism and recreation in the UK**. Unpublished doctoral dissertation, University of Plymouth, Plymouth, United Kingdom.
- Connell, J. (2004a). **The purest of human pleasures: The characteristics and motivations of garden visitors in Great Britain**. *Tourism Management*, 25(2), 229–247.
- Connell, J. (2004b). **Modelling the visitor experience in the gardens of Great Britain**. *Current Issues in Tourism*, 7(3), 183–216.
- Connell, J. (2005). **Managing gardens for visitors in Great Britain: A story of continuity and change**. *Tourism Management*, 26, 185–201.
- Constantine, S. (1981). **Amateur gardening and popular recreation in the 19th and 20th centuries**. *Journal of Social History*, 14, 389–403.
- DeWalt, K., & DeWalt, B. (2002). **Participant observation: A guide for fieldworkers**. Walnut Creek: AltaMira Press.
- English Tourism Council, Northern Ireland Tourist Board, Visit Scotland and Wales Tourist Board (2000). **Sightseeing in the UK 2000**. London: English Tourism Council.
- Evans, M. (2001). **Gardens tourism - Is the market really blooming?** *Insights*, 12, 153–159.
- Fox, D. (2007). **Understanding garden visitors: The affordances of a leisure environment**. Unpublished doctoral dissertation, Bournemouth University, Dorset, United Kingdom. Fox, D., & Edwards, J. (2008). A preliminary analysis of the market for small, medium and large horticultural shows in England. [online], Accessed at: http://www.eprints.bournemouth.ac.uk/10624/1/Understanding_the_market_-_final.pdf [accessed on 20 April 2012].
- Gallagher, J. (1983). **Visiting historical gardens: A report on contemporary garden visiting and its Literature**. Unpublished doctoral dissertation, Leeds Polytechnic, Leeds, United Kingdom.
- Girouard, M. (1978). **Life in the English country house**, London: Yale University Press.



- Hanna, M., & Hall, M. A. (1982). **English Heritage Monitor**. London: English Trust Board.
- Hellyer, A. (1977). **The Shell guide to gardens**, London: Phoenix House.
- Hunningher, E. (2001). **Making gardens: The National Gardens Scheme**. London: Cassell.
- Hunt, J. D., & Wolschke-Bulmahn, J. (1993). **The vernacular garden: Dumbarton Oaks Colloquium on the History of Landscape Architecture XIV**. Dumbarton Oaks: Harvard University Press.
- Hunt, P. (1964). **The Shell gardens book**. London: Phoenix House.
- Jorgensen, D.L. (1989). **Participant observation: A methodology for human studies**. London: Sage.
- Kaplan, R., & Kaplan, S. (1989). **The experience of nature: A psychological perspective**. New York: Cambridge University Press.
- Littlejohn, D. (1997). **The fate of the English country house**. Oxford: Oxford University Press. Löfgren, O. (1999). **On holiday: A history of vacationing**. London: University of California Press.
- Malinowski, B. (1922). **Argonauts of the Western Pacific**. London: Routledge.
- Mandler, P. (1997). **The fall and rise of the stately home**. New Haven: Yale University Press.
- MINTEL (1997). **Specialist garden centres**, Retail Intelligence, August 1997. London: MINTEL International Group.
- MINTEL (2000) **Home Interest and Gardening Magazine report**. London: MINTEL International Group.
- MINTEL (2003). **Gardening review**, Leisure Intelligence, September 2003. London: MINTEL International Group.
- More, T. (1991). **Utopia**. London: Dent, (originally published in 1516).
- Museum of Domestic Design and Architecture (MODA)* (2007). **The suburban landscape: 200 years of gardens and gardening**. [online], Accessed at: http://www.eprints.mdx.ac.uk/3102/1/Suburban_Landscape.pdf [accessed on 05 May 2012].
- National Garden Scheme* (2012). **The Yellow Book 2012**. Guilford: National Garden Scheme.
- National Garden Scheme** [online], Accessed at: <http://www.ngs.org.uk> [accessed on 15 March 2012].
- Owen, J. (1998). **Gardening on a grand scale**. [online], Accessed at: <http://community.seattletimes.nwsources.com/archive/?date=20000716&slug=4032054> [accessed on 15 March 2012].
- Patmore, J.A. (1983). **Recreation and resources: Leisure patterns and leisure places**. Oxford: Blackwell.
- Pimlott, J. A. R. (1964). **A nation of gardeners?** *New Society*, 3(82), 18–19.
- Ryan, C., & Bates, C. (1995). **A rose by any other name: The motivations of those opening their gardens for a festival**. *Festival Management and Event Tourism*, 3(2), 59–72.
- Scott-James, A. (2001). **'The shillingses' at Sissinghurst**, in Hunningher, B. (Ed.), *Making gardens: The National Gardens Scheme* (pp.15-16). London: Cassell.
- Shukman, D. (2012). **Why, oh why, does it keep raining**. [online], Accessed at: <http://www.bbc.co.uk/news/science-environment-18783422> [accessed on 06 August 2012].
- Silverman, D. (2010). **Doing qualitative research**. London: Sage.
- Stone, R. (2003). **Privet: Theologies of privacy in some modernist urbanism**, in Whyte, I.B. (Ed.), *Modernism and the spirit of the city* (pp. 209–236). London: Routledge.
- Taigel, A., & Williamson, T. (1993). **Parks and gardens**. London: Batsford.
- Taylor, L. (2008). **A taste for gardening: Classes and gendered practices**. Aldershot: Ashgate.
- Thomas, H. H. (1936). **Gardening in towns**. London: Methuen.
- Thompson, K., Austin, K. C., Smith, R. M., Warren, P. H., Angold, P. G., & Gaston, K. J. (2003). **Urban domestic gardens: Putting small-scale plant diversity in context**. *Journal of Vegetation Science*, 14, 71–78.
- Tinniswood, A. (1998). **The polite tourist**. A history of country house visiting. London: The National Trust.
- Tipples, R., & Gibbons, P. (1992). **Garden visiting - twentieth century local tourism in Canterbury**. *Horticulture in New Zealand*, 3 (2), 29–34.
- Towner, J. (1996). **An historical geography of recreation and tourism in the Western**
- Whitehand, J. W. R., & Carr, C. M. H. (2001). **Twentieth-century suburbs: A morphological approach**. London: Routledge.
- Williams, F., & Botterill, D. (1999). **Professional hosts' perceptions of garden festival Wales: A qualitative approach to festival impact studies**, in Foley, M., McGillivray, D., & McPherson, G. (Ed.), *Leisure, tourism and environment: Sustainability and Environmental Policies* (pp. 55–70). Eastbourne: Leisure Studies Association.



Dejan Popović

REGIONAL DEVELOPMENT OF THE SLOVAK REPUBLIC IN TERMS OF ENVIRONMENTALLY FRIENDLY INDUSTRIES

Introduction

At a time when globalization brings more uncertainty to the sphere of economic, political, social and natural changes, the priority of switching to other forms of growth that would ensure the efficient use of scarce natural resources. Dissertation focuses on examining the interrelationship of industrial development and sustainable growth in the context of the requirements of environmental protection. The main problem lies in the fact that traditional manufacturing and energy production are the major polluters of the environment in the regions of Slovakia. Industry and Energy are the biggest consumers of natural resources and energy, but is significantly involved in the production of GDP and jobs in the regions.

The complexity of solving issue lies in the fact that the industry clearly gets into conflict with the environment, but also has a positive impact on the economy of the regions in which it is located. This contradiction is the primary issue, which deals with the work. Other aspects are the evolution of the global economy and the economy in Slovakia, environmental quality, distribution of economic operators, industry and energy, and their effective use. Issues on which the work is focused, it is necessary to examine in the context of multi-level system.

Under the social and economic pressures on the environment are reflected in dynamic changes of system components of the environment, interrelated synergies. Said bonds are multilevel, particularly evident in the urban, regional, national and global level. These synergies are visibly reflected on the relations of micro - macro (economic sector), local - global (domain environment) and subjective - objective (social sphere). It is in these sessions work examines the issues examined.

The relevance of the conditions and potential development of low carbon economy in Slovakia can be examined at the state, regional and local level. Regions vary considerably depending on how many own natural resources and how intensively they use, what type of production support, and what technologies are oriented. Services, jobs and living standards of the population also determine the attractiveness and their position in the national and international level. GDP growth regions should mean an increase in the standard of living of its people, but in real terms to the model engages in number of external factors that affect the cycle. They are mainly environmental and social aspects, which often came into conflict with the economic.

Current state of the examined issue

Regional development is a complex process related to the changes ongoing in the natural, social and economic regional spheres. Among these three planes there are close links in the methods of utilization of the regional capacity. It is a sensitive and closed cycle of energy and material flows, which lies in their exploitation (active use) and conservation (active protection of resources). The economic environment is formed by interaction of people and human interaction with the natural environment. Changes in environmental quality are either natural or originate in socio-economic activities. Social aspects and the actual status of the company is the image of interaction of economic activities and the environment. Not all economic activities have a negative impact on the environment. Into conflict with the natural environment is frequently receives industry, more specifically, certain industries have a negative impact on environmental issues.

Certain production cycles in the industry at the entrances consume large amounts of materials and energy, which in most cases also produced by burning fossil fuels or the use of radioactive fuel. Global Energy is primarily focused on fossil fuels and nuclear energy. The mere exploitation and processing of primary raw materials it uses a variety of chemical auxiliaries and in this way raises a number of hazardous waste at the output of the manufacturing process. Another phenomenon of industrial production is that the industry uses to run and destroys a huge amount of drinking water, a strategic raw material due to climate change and rapid demographic development of the global population will have in the future a very high price. At the same time industry and energy are one of the primary sources for the production of GDP and job creation in the region.

It is a powerful attractor for many other industries and services. It is the basis for the practical implementation of the outcomes of science and research, thus greatly contributing to building regional competitiveness. This brings us to the paradox lies in the fact that, despite the absolute increase in consumption of natural resources and degradation of ecosystems, the global quality of life improves. Report of the United Nations (UN), published under the title: Human Development Report of 2010 notes that the other 20 years we have seen significant improvements in many aspects of life. This improvement is related to most people, although it is also possible to see significant growth in inequality (UNDP, 2010).

The problem is, how long can the quality of life at the current rate of use of natural resources can be improved, and for whom? For which populations and regions of the



world is that happening and which regions in the world pay the cost? UN Report Millennium Ecosystem Assessment, outputs International Panel on Climate Change, or analysis of the European Environment Agency shows that the environment is deteriorating locally and globally (MEA 2005, IPPC 2007, 2011, EEA 2007, 2010).

For a comprehensive understanding of the situation in the field of environmental policy and environmental policy implementation is important insights into history. He also has a strong overlap in different areas of contemporary life. Although the history of complicated relationship between man and nature, combined with the exploitation and devastation, is as old as mankind itself, it was the Industrial Revolution that this relationship has profoundly changed. This revolution, which began in England in the 18th century, has created many environmental and social problems. It also created the conditions for an unprecedented development of knowledge and the gradual improvement of people's lives in the industrialized countries. Irresponsible behavior of population towards environment, characteristic of the period of the twentieth century created the problem in the form of a range of historically unrecognized environmental pollution. After a long period of peace and environmental balance we almost brought the planet to critical state, in the course of about two centuries.

The very process of intensification of environmental degradation was started by the Industrial Revolution, and over time only become more and constantly expand into larger areas. Modernization and automation of industrial production resulted in rapid development of industry and the growing demand for energy and natural resources. Primary focus on coal and steel as the base of heavy industry, over time coal was mostly replaced by the oil and natural gas, which took the role of the primary energy source. An economy based on cheap fossil fuels should surge, but the volume of fossil fuels has resulted in strong pressure on the environment. In addition to the first look of visible smog, smoke and dust, as well as the hidden danger of an excessive increase in the concentration of carbon dioxide in the atmosphere. He is one of the main factors causing global climate change. The mechanism of the greenhouse effect is known since 1824, when it was first described by Joseph Fourier. Natural regeneration mechanisms have not been able to sufficiently respond to the threat caused by excessive release of CO₂ into the atmosphere has been lost natural balance. Many relevant scientific studies claim that this trend continues and even accelerates it (Stern, 2006 IPPC, 2007).

Success of economic development is now considered primarily through achieved level of economic growth, measured pace of growth of gross domestic product (GDP). Attention is primarily focused on economic development, creation of material goods, irrespective of the fact that material goods can have on the development of a positive and negative impact. Efforts to achieve high growth dynamics often overlap the fact that economic

growth has a negative impact on the environment. It is evident that the increasingly deepening contradictions between the quality and quantity of economic growth and increasing entitlement to improve its environmental impact. Sustainable economic development of regions must be achieved through changes in our philosophy of production and consumption of resources, waste and energy.

By supporting innovative approaches in science, technology and design can develop new typological forms, using new technologies, but fewer natural resources, and are also less energy-intensive, while promoting the reduction of pollution of the natural environment, threats to human health and safety. Promoting technological change for sustainable development would be focused on the applicable research on safe and environmentally sound technologies, materials and production processes. Elaboration of approaches to sustainable development was still subject to particularly intense unsustainable high growth dynamics, remains largely supported by extensive resource consumption. Criticism of the extensive development of logic was focused not only on the environmental impacts of economic growth, but also to the increasing polarization of wealth and poverty, progressive deterioration of social sustainability of development.

The decisive impetus for exploring sustainable development has become the UN Stockholm Conference on the Human Development in the cartridge which resonated care about the environment. In essence, gave impetus to the establishment of the World Commission on Environment and Development (the Commission was within the scope of the United Nations, established in 1983). World Commission on Environment declared that sustainable development is based on assumptions of finite resources consumed by the human confrontation with the speed of consumption and strain on the environment from waste products of human activity. For sustainable development that is the type of development of production and consumption that meets the needs of present generations without undermining the ability of future generations to meet their own needs.

- Club of Rome in 1968 - ordered a study on the limits to growth by experts from the University of Massachusetts (Meadows, DH-Meadows, DL Randers, J. - Behrens, WW: *The Limits to Growth*, Universe Books, New York, 1972),
- UN Stockholm Conference on the Human Environment (1972) - emphasized the need to increase environmental awareness of people, followed by the establishment of the UN Commission on Environment (1983)
- United Nations Conference on Environment and Development (UNCED) (Rio de Janeiro 1992) - Rio Declaration, the Convention on Biological Diversity, and the Framework Convention on Climate Change and Agenda 21 Those documents created Agenda 21, which forms the basis for the



development of sustainable development strategies of Member States. It also was appointed by the UN Commission on Sustainable Development (CSD), whose mission is to support the implementation of UNCED documents and monitor their implementation at national, regional and global level.

- Rio + 5 (1997),
- Kyoto Conference and the Kyoto Protocol to the UN Framework Convention on Climate Change (negotiated for 1997, entered into force in 2005),
- The World Summit on Sustainable Development (WSSD), held in 2002 in Johannesburg, South Africa, and evaluate the development of the world in terms of the implementation of Agenda 21 for the last 10 years and set goals for sustainable development for the next period,
- Stern report prepared in 2007.

The level of the European Union

Instrument for coordinating economic policy in terms of broad economic policy guidelines (Broad Economic Policy Guidelines, since 1993) and the following environmental, economic and social action programs:

- The Luxembourg process-oriented employment policy (1997)
- Cardiff-process focused on structural reforms (1998)
- Cologne process on macroeconomic dialogue with economic and social partners (1999)
- The Lisbon Strategy (2000)
- EU Sustainable Development Strategy (Gothenburg 2001),

At year-end 2004, the European Commission responsible for the expert group evaluation report for the first five years of the Lisbon strategy (Wim Kook report)

- EU Sustainable Development Strategy for the years 2005 - 2010 (adopted in 2006 by the European Council)
- Agenda 2020 - Europe 2020 from 2010.

At EU level, there are major strategic development documents and documents in the form of action plans with the character of specific tools to implement the strategy and achieve the real objectives, such as:

- Europe 2020 / Territorial Agenda for European Union
- European Strategy for Climate Change / EU ETS / EU Emissions Trading System
- Lead Market Initiative for Europe / European Economic Recovery Program
- The Directive on Energy / Strategic Energy Technology Plan
- EU Initiatives in Support of Low Carbon Technologies

- Performance of Buildings (2002 / 91/EC) ? Extensive Program for Research Development and Demonstration of Low Carbon Technologies

For Slovakia as an EU Member State and its small and open economy is the European strategy directly binding thing and should be understood in this way as well. National targets for policy to promote low-carbon economy in Slovakia lie in reconciling multinational and national sustainable development strategy, integrated strategic decision-making processes in planning and sustainable development of the regions based on legislative acts in the form of laws and government regulations. The legislative framework is the work divided into three basic categories. Each category represents a specific territorial level. The first level is a global legislative framework, followed by the level of European Union legislation and then state level, represented by the Slovak Constitution and laws approved by the Parliament.

Current global trends in industry and energy

Growing burden on the environment as a result of increased economic activity and its concentration in the space is becoming a major problem last decade. It is impossible to expect that market mechanisms alone will ensure steady use of natural resources. Benefits of agglomeration effects often outweigh the negative consequences of the merger. From the result of the work focuses on defining major global trends, which greatly affect the issues examined.

- The transition from industrial to post-industrial society
- Informatization and the transition to a knowledge-based society
- Climate change and environmental pollution
- Increasing the economic impact of the BRIC countries
- Developed global economy, promote energy based on fossil fuel
- Reassessment-states against nuclear energy in the aftermath of the disaster at Japan's Fukushima nuclear power plant
- Destabilizing the political situation in various parts of the world
- The fact that resources have become a powerful tool of political and economic power
- Forming strong companies as a result of globalization, which aggressively enforce its corporate strategy
- The liberalization of the energy market is slowed down by strong companies from the energy sector, which are monopoly and maintain competition in the submarkets



Current situation in Slovak republic

Labor productivity in industry in Slovakia only year between 2009 and 2010 increased by 23.9%, while achieving a total of 140 870.12 euros. The added value of the industry increased in 2010 compared with 1995 and by 174.3% to a total value of 15 518.66 million euros. Despite these positive trends, there are also the negative phenomena which are manifested mainly through a decline in employment and slowing the economical growth. According to the data, this indicates Statistical Office of the Slovak Republic:

- The share of industry in gross domestic product in SR 2000 amounted to 25.8% in 2010 increased to 27.8%.
- Industrial production in 2000 accounted for 21.3% of the gross domestic product of the Slovak Republic and in 2010 its share rose to 21.4%.

Increasing labor efficiency and automation in manufacturing is essential to maintain the competitiveness of industry. In particular, it allows rapid information technology and applied science and research in production. In the form of robotics, machine intelligence, nanotechnology, biotechnology, advanced materials, production systems and energy supply, and many others.

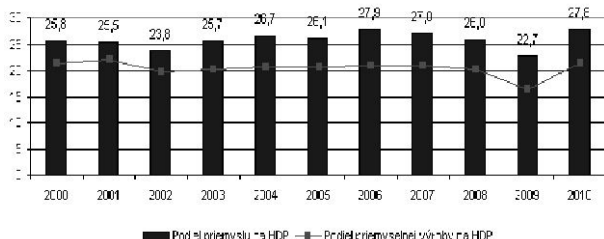


Table number 1: Share of industry in gross domestic product for the period of SR period 2000-2010. / in percentage (%).

Source: *Enviroportál Slovenskej agentúry životného prostredia*, available on: http://enviroportal.sk/indikatory/detail.php?kategoria=120&id_indikator=905 (2.9.2011)

Energy intensity of industry in Slovakia is an important indicator of the efficiency of industry in comparison with other countries of the European Union; Slovak industry demands are very high. In 2008, the share of industry in Slovakia in final energy consumption reached 40.4%. For comparison, in the EU - 27 share of industry represented 27.2%. Is an alarming figure, which shows that in 2009, the final energy consumption in industry Slovak Republic, increased by 13.8% than in the EU - 27, and the industry's share of energy consumption accounted for 38%.

Final energy consumption of fuel, electricity and heat in industry in Slovakia is declining. It shows the official statistics, which show that in 2001, the industry accounted for 35.8% of the final energy consumption of fuel, electricity and heat in the national economy, and in 2010

dropped to 32.1%. Steel sector in 2010 accounted for 31% of final energy consumption of fuel, electricity and heat. Manufacture of pulp, stationer and printing accounted for 16.5%. Reducing energy consumption and negative environmental impact of these industries is one of the main preconditions for sustainable development of the regions and the Slovak State itself.

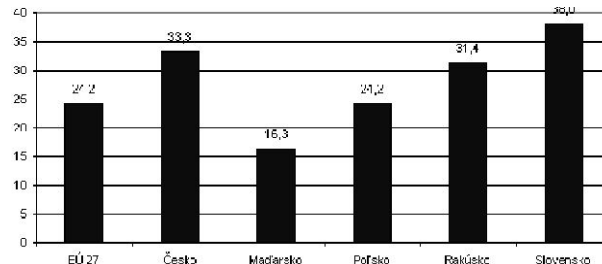


Table number 2: Final energy consumption of fuel, electricity and heat in industry. The share of industry in final energy consumption in 2009 (%), international comparison.

Source: *ŠÚ SR - Slovstat; Processed by: SAŽP*

In most developing industrial zones there is a conflict with the environment in the form of taking of agricultural or forestry land. Soil is the highest quality prime just in western Slovakia. The biggest losses of agricultural land for industrial development in the reporting period were recorded in 2009 (805 ha). The biggest losses for industrial construction in the forest land were recorded in 2001 (18 ha).

In year 2011 accounted for losses of agricultural land for industrial development 134 ha of forest land disposals and 7 ha. Today, after a three-year period, it is possible to feel the negative feedback in the form of a constant decline of domestic agriculture and food industry, the loss of food produced in Slovakia on the shelves of retail chains, increasingly Reports and fraud with raw materials imported to Slovakia. Loss of soil development on industrial development is reflected in the chart below, which processed Slovak Environmental Agency.

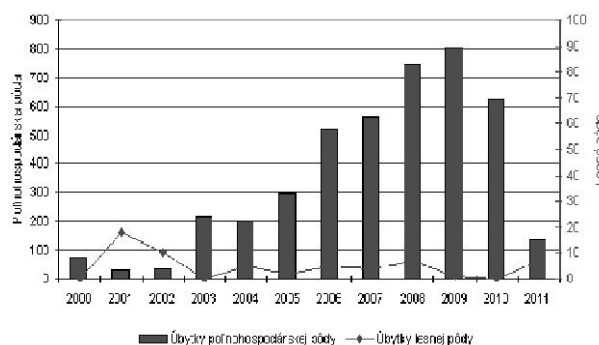


Table number 3: Disposals of land for industrial development in hectares (ha)

Source: *ÚGKK SR; Processed by: SAŽP*



The work is intended to serve as a basis for the development of environmentally oriented economy, Eco-industry and energy supply systems in Slovakia. It follows the following basic argument: Possible answer to the current problems in the Slovak economy is transforming the present environmental threats into the economic opportunities for the future. With this approach it is possible to gradually improve the economic and also ecological situation in regions in Slovakia.

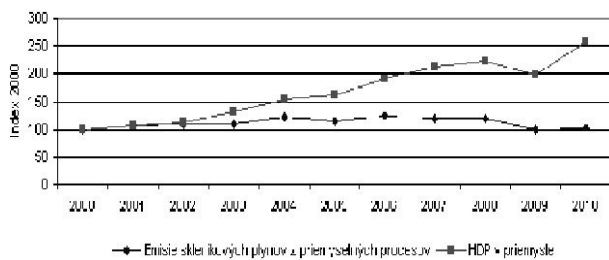


Table number 4: Eco-efficiency in industry due to greenhouse gas emissions from industrial processes in SK.

Source: ŠÚ SR - Slovstat, SHMÚ; processed by: SAŽP

Objective of the thesis was formulated in accordance with the objectives identified by initiatives recommended by the European Union in Europe 2020. The main objective of the thesis is to find out how greening industry can benefit from the economic growth of regions in Slovakia.

Outcomes

According carried out comprehensive research on regional development in the context of greening industry evaluate the research hypothesis H1 is currently under given conditions in Slovakia, right in theory, and in the circumstances and in practical terms. In certain cases, the implementation of environmental projects in industry in Slovakia successfully tested in practice. The other projects under consideration, but a major shortage in the transition to low-carbon industrial production is due to lack of innovation and the adoption of certain legislative measures.

The issue being addressed, the main practical benefit statement is that currently exists in Slovakia comprehensive innovation policy that defined itself further strategy and approach in this area. Functioning innovation system, which should be formed by the institutions, policies and programs creating conditions for the development of innovation, increasing competitiveness of the Slovak economy is absent. While innovation play a vital role in the ongoing economic, political and social transformation of developing countries. Innovation policy should therefore include, in view of the low-performance economy of the Slovak Republic, the priority areas through which it is possible to ensure the long-term development of economic prosperity. Admittedly, it can be expected that the

engine of economic growth in Slovakia in the development of the future will continue to be the part of industry and services, which is linked to the activities of the industry (transportation, finance, business services). Slovakia continues to be among those EU countries where the share of industry in GDP and employment than the average cluster. Determinant of overcoming technological innovation and industrial backwardness, industrial production and its individual sectors will continue investment activities of entities, including foreign direct investment.

The best prospects for development of the construction industry, infrastructure construction and remodeling of existing urban structures to intelligent. Also the very strong development perspective is the automotive industry and the downstream sectors. Primarily, we should focus on actively carry out the tasks set by the draft strategy innovation in industrial production in 2005. The most important determinant of overcoming the technological and innovation gap Slovak industry for the rest of the EU industry is implementation of research and development in production infrastructure.

References

Books

- Ing. Andrej Fáber a kolektív Atlas využívania obnoviteľných zdrojov energie na Slovensku.* Energetické centrum Bratislava v roku 2012. ISBN 978-80-969646-2
- Karol Morvay a kolektív. 2012. Hospodársky vývoj Slovenska v roku 2011 a výhľad do roku 2013.* 1. Vydanie. Bratislava: Ekonomický ústav slovenskej akadémie vied, 2013. S. 139. ISBN: 978-80-7144-196-0
- Kolektív oddelenia štatistiky priemyslu a energetiky ŠÚ SR. 2010. Ročenka priemyslu za rok 2010.* 1. Vydanie. Bratislava: Štatistický úrad Slovenskej republiky, 2010. S. 148. ISBN: 987-80-89358-89-2
- Meadows, D.H.- Meadows, D.L.- Randers, J.- Behrens, W.W.1972. The Limits to Growth,* New York, Universe Books, 1972 Rozsah strán - 279. ISBN: 0-415-36553-8
- Milan Buček, Štefan Rehák, Jozef Tvrdoň. 2010. Regionálna Ekonomia a Politika.* Bratislava, Iura Edition, 2010. Rozsah strán - 269. ISBN: 978-80-8078-362-4
- Philip Cooke and Andrea, Piccaluga. 2006. Regional Development in the Knowledge Economy, 1 edition.* Oxon, Routledge, 2006. Rozsah strán- 279. ISBN: 0-415-36553-8
- Philip Cooke, Kevin Morgan. 1998. The associational economy, firms, regions and innovation.* OXFORD university press, 1998. Rozsah strán- 247. ISBN: 0-19-829659-2
- Potůček, M. (2002): Průvodce krajinou priorit pro Českou republiku.* Praha: Gutenberg, 2002



SAMUELSON, P. A.–NORDHAUS, W. D. 2000. **Ekonómia**. Bratislava: Elita, 2000, ISBN 80-8044-059-X

Staněk, P. – Černá, J. (1995): **Prežije Slovensko rok 2000?** Bratislava: ÚDVM 11. Scheer, H. 2002. *The Solar Economy, Renewable energy for a sustainable future*. London, Earthscan 2002. Str.347. ISBN: 978-1-84407-075-6

Electronic documents of the EU and national institutions

European Commission, Brussels 2010. **Strategy EUROPE 2020** [Online]. Dostupné na: <http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:2020:FIN:EN:PDF>

European Commission, Brussels 2010. **European Strategy of the Climate Change** [Online]. Dostupné na: http://ec.europa.eu/clima/policies/adaptation/what/docs/com_2013_216_en.pdf

European Commission, Brussels 2007. **Lead Market Initiative for Europe** [Online]. Dostupné na: <http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2007:0860:FIN:en:PDF>

European parliament and council, Brussels 2002. **The Directive on Energy Performance of Buildings** (2002/91/EC). [Online]. Dostupné na: <http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2003:01:0065:0065:EN:PDF>

European Commission, Brussels 2010. **Strategic Energy Technology Plan**. [Online]. Dostupné na: http://ec.europa.eu/research/energy/pdf/set-plan_en.pdf

European Commission, Brussels 2012. **Extensive Program for Research Development and Demonstration of Low Carbon Technologies**. [Online]. Dostupné na: http://ec.europa.eu/energy/eepr/doc/com_2012_0445_en.pdf

Territorial Agenda of European Union. Agreed at the Informal Ministerial Meeting of Ministers responsible for spatial Planning and territorial development and Territorial Cohesion in Leipzig on 24 / 25 May 2007. [Online]. Dostupné na: http://www.infocooperare.ro/Files/Territorial%20Agenda%20of%20the%20European%20Union_20093195.pdf

European Commission, Brussels 2004, **Oznámenie Európskej komisie** (COM 2004, 353) Veda a technika, kľúč k budúcnosti Európy – Hlavné ciele pre budúcu politiku Európskej únie na podporu výskumu. Dostupné na: <http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2004:0353:FIN:SK:PDF>

European Commission, Brussels 2008. **EU ETS - EU Emissions Trading System**, [Online]. Dostupné na: http://ec.europa.eu/clima/policies/ets/index_en.htm

European Commission, Brussels 2008. **COM(2008).European Economic Recovery Program**. [Online]. Dostupné na: http://ec.europa.eu/economy_finance/publications/publication13504_en.pdf

European Commission, Brussels 2012. **EU Initiative in Support of Low Carbon Technologies- SMART CITIES AND COMMUNITIES - EUROPEAN INNOVATION PARTNERSHIP**. [Online]. Dostupné na: http://ec.europa.eu/energy/technology/initiatives/doc/2012_4701_smart_cities_en.pdf

Národná stratégia trvalo udržateľného rozvoja Slovenskej republiky (2001). Bratislava: Ministerstvo životného prostredia Slovenskej republiky.

Správa o stave životného prostredia Slovenskej republiky v roku 2003. Bratislava: Ministerstvo životného prostredia Slovenskej republiky. ISBN 8088833-39-6

Správa o stave životného prostredia Slovenskej republiky v roku 2004. Bratislava: Ministerstvo životného prostredia Slovenskej republiky. ISBN 8088833-40-X

Správa o stave životného prostredia Slovenskej republiky v roku 2005. Bratislava: Ministerstvo životného prostredia Slovenskej republiky. ISBN 8088833-43-4

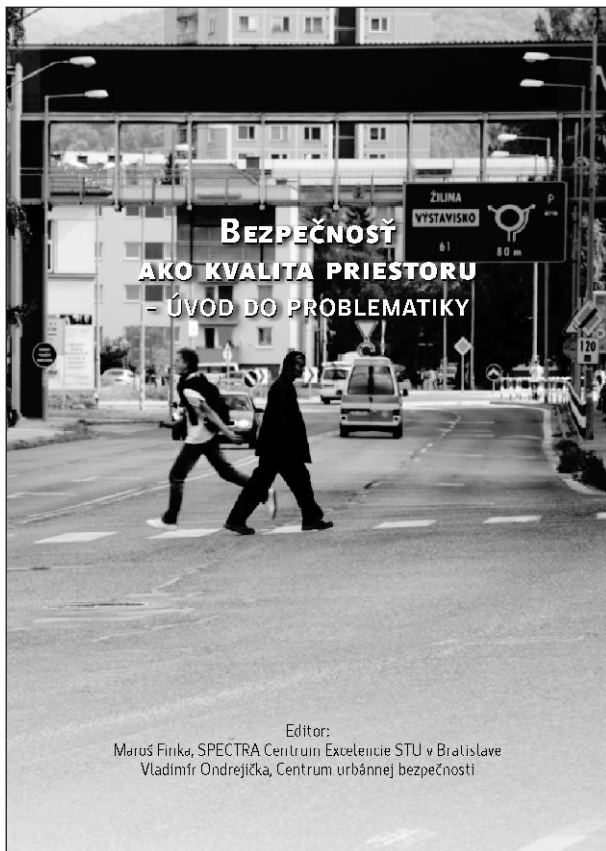
Správa o stave životného prostredia Slovenskej republiky v roku 2006. Bratislava: Ministerstvo životného prostredia Slovenskej republiky. ISBN 8088833-47-5

Správa o stave životného prostredia Slovenskej republiky v roku 2007. Bratislava: Ministerstvo životného prostredia Slovenskej republiky. ISBN 97880-88833-50-5

Stern Review on the Economics of Climate Change. Dostupné na: <http://www.occ.gov.uk/activities/stern.htm>



SAFETY AS SPATIAL QUALITY - INTRODUCTION TO THE PROBLEM



SAFETY AS SPATIAL QUALITY - INTRODUCTION TO THE PROBLEM

Author: Spectra - Centre of Excellence and Institute of Management at the Slovak University of Technology in Bratislava: Maroš Finka, Ľubomír Jamečný, Vladimír Ondrejčka, Zuzana Ladzianska, Peter Bláha, Peter Bahleda, Silvia Ondrejčková

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Slovak University of Technology in Bratislava
2012

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The publication has been created within the project "Safety as Spatial Quality", supported by the Council of Government on Crime Prevention of the Slovak Republic and Trenčín District Office as well as in partnership with the Urban Safety Centre, Spectra - Centre of Excellence at the Slovak University of Technology in Bratislava, District Office Trenčín, Trenčín Foundation and Cesta - Centre of Excellence at the Slovak Academy of Sciences.

This is the first of the three publications mapping the process of theoretical and practical research on safety and security issues in Slovak conditions. It was the "Safety as Spatial Quality" project goal to bring a comprehensive view of current knowledge on urban safety issues. The first publication has been dedicated to general knowledge on safety and designing an objective methodology of urban safety assessment in real environment. It is being followed by the publication "Safety as Spatial Quality - Case Study Trenčín" and the textbook "Selected Safety Problems in a Settlement Area". The three scientific outputs together form a complex overview on safety problems in a city and create a contribution to the "safe" spatial planning (with particular emphasis on "soft" factors when examining the qualities of space, with the human individual as centerpiece - a person as reference object).

Urban safety, or rather public safety, includes a wide range of aspects and activities primarily linked to publicly accessible areas, from crime (prevention) through physical environment safety, accessibility (barrier-free solutions and principles of design for all - "universal design") to institutional and organisational aspects.

The book itself has been divided into eight logical chapters, which follow each other and their order is not random. The first chapter – publication outset, is also an introduction to safety problem in cities. Basic concepts, key terms, divisions and categorizations of safety were defined here, together with importance of safety in human values hierarchy, as well as reflection of safety within the discipline of spatial planning. Special attention has been paid to marginalized groups within society. The next chapter presents an overview of the safety problem worldwide and a number of short case studies, which successfully achieved dealing with safety issues and crime (preventing).

After this the very options of safety quality assessment follow, as well as risk profile of an area overview, an overview of safety factors (space feature holders) and the assessment methodology itself – a matrix created by mutual interactions of risks and environmental characteristics, choosing the most relevant interactions and focusing attention on the crucial ones.



Methods of analysis of any urban area current situation in terms of safety were described in detail so that the data were as accurate as possible. Therefore, a unique triple combination of methods to cover subjective as well as objective indicators of safety have been created (based on resource that objective state of safety and subjective perceptions of safety are two different things, though largely related, however both of them are equally important). It involves sociological survey, expert evaluation method and evaluation objectification. This results in possibility of getting “urban safety profile” of any particular place.

The last two chapters are dedicated to procedure for processing proposals and measures in order to improve urban safety level and practical implementation of the proposed actions.

The main significance of the publication lies in the comprehensive perception of safety issues and examining these issues in such a broad context, which have so far not been studied. Results of this research (proposed safety assessment methodology) were already successfully tested in practice. The issue of urban safety has been included in an accredited educational course for preventers in elementary and secondary schools in Trenčín region, conducted by the District Office in Trenčín. Added value of the book lies in starting discussions on safety in public spaces of a city, so necessary for the enhancement of urban commons and creating conditions for healthy urban development.

Dagmar Petříková



Zuzana Ladzianska

PRESENTATION OF THE BROWNRANS PROJECT AT THE NITRA AGROKOMPLEX EXHIBITION HALL



The Project BROWNRANS is a new “Life-Long Educational Project on Brownfield Regeneration Know-How Transfer” (LdV ToI No. 11310 1614) that has started in November 2011 with participation of the CEE countries (SK, CZ, RO, BG). BROWNRANS project has been presented at the annual Nitra Agrokomplex Exhibition Hall on the 19.4.2013 in the form of a one day intensive teaching seminar for Slovak professionals. The aim of the teaching seminar was to present the project in Slovak language to a wide field of practitioners and relevant stakeholders who are interested in brownfields issue.



Intensive one day teaching seminar in Nitra was organised by the Slovak University of Technology, SPECTRA Centre of Excellence represented by Maroš Finka and Dagmar Petříková with the intensive support of the ZUUPS (Anna Dobrucká, Martin Baloga) and SKSI (Diana Zlatňanská) as official partners of the BROWNRANS project. The aim was to present the topic not only by the local specialists from Slovak University of Technology

(Dagmar Petříková, Maroš Finka, Zuzana Ladzianska, Lubomír Jamečný, Mária Zúbková, Matej Jaššo) but to invite foreign experts with long time experience in brownfield regeneration. Invited guests were from Germany (Dietmar Scholich), Austria (Johannes Schaffer) and Czech Republic (Barbara Vojvodíková, Jana Peterová from VŠB Ostrava).

Topics presented have covered all important fields of brownfield regeneration such as introduction to the topic, environmental issues, planning background, legal and financial issues of brownfields regeneration mainly in Slovakia, and at the end of morning and afternoon session two adapted plays (role playing game and card game brownfields quartet) have been introduced to the wide public. The whole program was very positively perceived by the local experts and stakeholders approved by following invitations with the request for further presentation of the brownfields issue at the local municipalities.





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Next Issue:

The next issue of Journal TERRA SPECTRA
Planning Studies No.2/2013 will be devoted
to the outputs of PhD. Studies

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special issue / 2013

■ **STUDIES:**

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QUANTITATIVE ANALYSIS OF CONCENTRATION OF SPATIAL PLANNING IN THE AREA OF SERVICES INFRASTRUCTURE IN THE SLOVAK REPUBLIC

Silvia Hícová

SUSTAINABLE DEVELOPMENT PRINCIPLES IN THE RECOVERY OF URBAN RESIDENCIES

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