

Why in the Czech Republic the Sustainable Land Use Efforts have Failed to Match up the Improvements in Available Tools

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1 ABSTRACT

This paper discusses why appropriate sustainable land use management strategies are missing in the Czech Republic, despite that the principles of the land use sustainability are well set in the Czech law, in some of the policies and the use of the technical tools (which can facilitate sustainable land management) is at a very high level. This paper examines why it is, that the subject of sustainable land use is not addressed properly. It looks into what needs to be done, to promote the circular land use management techniques, such as are for example advocated by the project CircUse¹. Paper draws on materials produced so far by this project. In analyzing the situation in the Czech Republic, the paper focuses onto why this failure occurs in all of 3 administrative levels – the national, the regional and the local one. It reviews the responsibilities for sustainable land management at all tree levels and try to identify the main barriers.

2 INTRODUCTION

Land conversions for urbanization are often carried out in an unsustainable way. An expansion of urbanised land is not always based on rising population, there are losses of arable land and biodiversity, concerns exist about food security and rising costs of infrastructure due to urban sprawl weaken competitiveness of local communities. These are just some of the considerations which a sustainable land use management ought to include. For number of years the spatial planning was considered to be the main local authorities land use management tool. Then other factors, such as market influence, personal preferences, demographic changes, new investment formats, fading availability est. demonstrated that planning alone is not enough to deliver sustainable land use and it is becoming obvious, that sustainable land use management techniques need to be employed. For various reasons, the land use sustainability was for a long time missed from most national and the EU policies and only recently there are drivers (the EEA2 sealing reporting for example), which makes their way into national legal frameworks, policies, strategies and most importantly into a wider practise.

2.1 Project CircUse concept of Sustainable Land Use Managment

Project CircUse advocates concept of Circular Land Management, which represents an integrative policy and a governance approach. At the local and regional levels it presupposes a changed land use philosophy with regard to land utilization. Such modified land use philosophy can be expressed with the slogan “avoid – recycle – compensate”. Similarly to the recycling-based principles, which have become commonplace in recent years in areas such as waste and water management, the “circular land use management” should become an established policy in sustainable land utilization. Materials cycles can serve as a model for circular land use management. But recycling of urban land requires quality information on brownfield and other underused urban land. It also needs tools, indicators and monitoring. Because land recycling processes have tangible societal and environmental benefits, measures and models need to be set up that would make it possible support the development premium, which has to be paid, to initialize brownfield reuse and land redevelopment (especially in areas of lesser commercial market interest).

2.2 Sizing and advocating the issue

Sustainable land use management principles need to be introduced down to regional and local levels, where key decisions about land use are made. The realization that land conversions are a serious sustainability “issue” has to penetrate into the regional and the local land use strategies and plans. It also needs to be understood by the public. Public has to be made aware, how costly and damaging unsustainable land use practises are, and what risks and societal costs they represent. Available data in the Czech Republic shows that 15ha of land per day is becoming urbanized. When compared (respecting the size of the country) with the neighbouring Germany or Austria, (which have an alarming rate 130ha/day and 35ha/day), the Czech

¹ www.circuse.eu

^{2 2} EEA –European Environmental Agency , <http://www.eea.europa.eu/>

land conversion figures may not look so bad, at approximately 55% of the Germany's and 45 % of the Austria's ones. One must however remember that these are 2006 figures (lots of Czech greenfields were redeveloped since then). And also that for example Germany already has in place for number of years suitable land use policies and targets to reduce the land take by 2030 to 30ha/day and even with all this the land conversion situation in Germany is not improving fast enough (so far Germany is failing to fulfil its policy targets). Hence it looks a quite a difficult task to invoke land use sustainability, even with strong governmental policies in place! In comparison, the volume of urbanised land in the Czech Republic is 3, 19% 3 from the size of the entire country, which again when compared to 5, 07% of urbanised Germany looks positive. But this is until one realises, that the EU average urbanised land % is only 1, 18% and that the Czech Republic is the 8th most urbanised country in Europe. In the new Czech Strategic Framework for Sustainable Development (2009), there is now a sole indicator related to the land use. This indicator is based on comparing the size of an administrative and the urbanised parts of it. But so far there are no figures available as yet for the regional or local land conversions differences and there is a little historic data evaluation to indicate trends. See table 1 for some of the historic data.

Year	Inhabitants ČR	Built up area (ha)	Built up area/person/m ²	% built up area. to size of CZ
1930	10 674 388	74 682	69,96	0,9470
1950	8 896 133	85 854	96,51	1,0887
1970	9 807 697	112 564	114,77	1,4274
1991	10 022 150	126 636	122,92	1,6058
1999	10 278 098	130 102	126,58	1,6498

Table 1: Historic figures of "build up" areas (cadastral category) demonstrating doubling the land conversion in Czech Republic last century, source: M.Říha, article Anarchy of urbanism in Czech Countryside, 2001

3 SUSTAINABLE LAND USE DRIVERS AND BARRIERS

3.1 The national level

The Czech Planning and Construction law 4 specifies very clearly that the main aim of the spatial planning is to create conditions for sustainable development and sustainable land use. The Czech Republic is producing policies (see table 2 for the main development related policies), which at the national level should drive the sustainable land use principles and practices. It is also producing number of tools, especially with a focus to satisfy the INSPIRE5 directive, where it is achieving a high degree of compliance6. In parallel, the planning law has stipulated use of number of new tools, such as are the "Spatial analytical data7. All these tools in theory should help to aid the sustainable land use and the land use management. The laws, policies, tools and indicators' sets are however being prepared by various national institutions without sufficient leadership or coordination. These institutions also have their specific and very often conflicting or competing interests (see table 3 for the matrice of the key players at all 3 different levels). The main national player in the field of fulfilling the legal requirements for "delivering" sustainable land use should be the Czech Ministry of Regional Development (MMR). MMR present remit is for the regional and local development, housing, tourism, planning and management of the ERDF funds programming (SF). Its development responsibilities cover preparation of the Planning Law, Procurement law, all of the National and Regional Development Policies and the Spatial and Urban policies. Perhaps because of an overconcentration on the SF, the MMR is a very weak leader and coordinator when considering most of its other functions. Especially during the past 3 years it is failing to place a sufficient focus onto issues of the sustainable land use. For example, the sustainable land use dimension is more or less absent from the last version of the National Spatial Policy8 (NSP). The problem with this policy further lays in a fact that it has no clear objective/s but it is overburden with numberless priorities. Outcome of which is a total lack of policy clarity in respect of the support for sustainable land use, and also lack of policy commitment to any national land use sustainability targets or indicators in terms of sustainable land use. As the land use sustainability was subdued in the NSP, there is no

³ EEA data 2006, <http://www.eea.europa.eu/data-and-maps/figures/degree-of-soil-sealing-as>

⁴ Stavební zákon law 183/2006SB, Part III., Hlava 1, §1, §2

⁵ <http://inspire.jrc.ec.europa.eu/>

⁶ <http://inspire.jrc.ec.europa.eu/reports/stateofplay2009/rcr09CZv101.pdf>

⁷ ÚAP-územně analytické podklady law 183/2006SB, and also the Enclosure 1 for description of information collected

⁸ <http://www.mmr.cz/getdoc/873d1a09-3b9d-4a12-9924-e42eb641a0ad/III--Navrh-PUR-CR-2008>



funding or research channelled into the sustainable land uses now for several years. But there are other policies, which do have an influence on the support for the sustainable land use. The interconnection between these various policies, strategies and planning documents in the Czech Republic and across national, regional and local level is explained in the figure 1. The Strategic Framework for Sustainable Development in the Czech Republic is one of the first policies, which makes the sustainable land use into a Czech policy/strategy priority (priority 3). Due to this document, to the EEA published data and pressure to produced information for national sealing and sub-urbanization reporting system, the Ministry of Environment (MŽP), last year took the initiative based on its “soil protection” remit. MŽP is presently the Czech champion supporting the sustainable land use. It is preparing a proposal for the Czech government how to measure and monitor suburbanization, sprawl and sealing and which measures should be proposed to lower the land conversions. We can only hope that this material covers up for the failure of the present NSP.

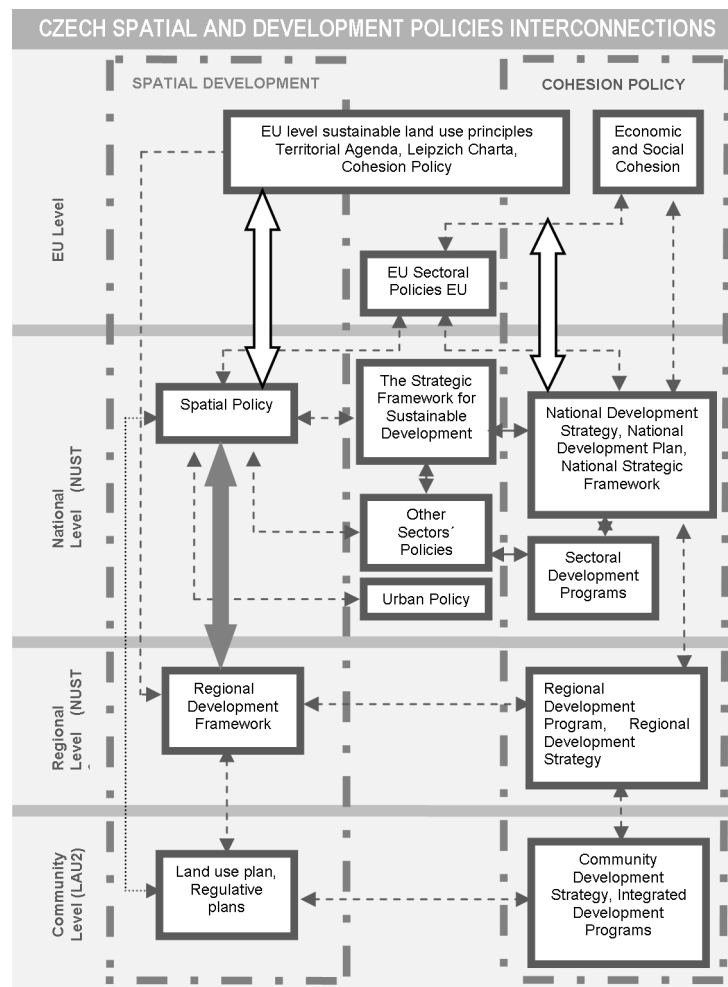


Fig. 1

3.2 The regional and local levels

In the Czech Republic there is a gap in the sustainable land use management appreciation on regional and also on local levels. As the NSP makes little demands for it, in the regions prevail only a weak sectoral approach to land management issues, usually strictly related to implementation of regional duties (Class II and III roads management⁹ for example), which is split between various departments. The only integrating regional documents are the Economic Development Strategies and the Regional Spatial Plans (ZURs). But ZURs in their 1:100 000 scale are more strategic documents, than plans. Due to the INSPIRE directive pressures and the ÚAP GIS layers requirements, Czech regions, ORPs, local authorities and also public now have an access to a vast amount of information, which can be used for monitoring sustainable land use. But it is not yet being fully exploited for meaningful analyses, mainly because the data reflecting brownfield land are incomplete and not compatible and that spatial data on proposed housing land (in difference to other

⁹ Czech regions own, maintain and manage these roads

future land uses) is not collected. Also, none of the regional data or documents usually focuses on sustainable land use management, or regulates volumes of developable land which is being heavily oversupplied by uncoordinated local authorities planning activities. As far as we know, none of the Czech regions reflect such analytical outcomes in their policy making, or use available data for benchmarking individual community's development ambitions. This is despite the fact that the regions and all the ORPs¹⁰ have a biyearly legal duty to make the Sustainable local development assessment (RURU11). Unfortunately the RURU methodology is based on SWOT analyses and experts opinions hence there is a little comparative or objective value in it. Last year improvements to it were trying to employ indicators, but these were so badly chosen that they were partially unusable. So it would take further time before a meaningful and comparative sustainable land use analyses would be locally available.

	Name of the policy or strategy	web reference	Adopted by	lan gu.
1	National Development Plan	http://www.strukturalni-fondy.cz/uploads/old/1141122325.materi-l-nrp---iii.-nrp-upraveny---str-113-a-124.pdf	Government Resolution 175 of 22.2.2006	CZ
2	National Strategic Reference Framework	http://www.strukturalni-fondy.cz/CMSPages/GetFile.aspx?guid=2ddd8ee6-bdf9-419c-9993-7a2e9f58292f	approved by EU commission July 2007	EN
3	The Strategic Framework For Sustainable Development in the CZ	http://www.mzp.cz/C125750E003B698B/en/czech_republic_strategy_sd/\$FILE/KM-SFSD_CR_EN-20100317.pdf	Government Resolution no. 37 of 11.1.2010	EN
4	Strategy Of Regional Development Policy of the CZ 2007-13,	http://www.mmr.cz/Regionalni-politika/Koncepcie-Strategie/Strategie-regionalniho-rozvoje-Ceske-republiky-na	Government Resolution no. 560 of 17.5.2006	CZ
5	Spatial Development Policy	http://www.mmr.cz/politika-uzemniho-rozvoje-cr-2008	Government Resolution no. 929 of 20.7.2009	CZ
6	Principles of Urban Policy	http://www.mmr.cz/CMSPages/GetFile.aspx?guid=84cacd85-1d6a-4162-b4c7-ec92dd3310ab	Government Resolution no 342 of 10.5.2010 č.	

Table 2: Main policies in respect of support for the sustainable land use

The blaze attitude in respect of sustainable land use and its management from the national and the regional level is also transferred down to the local authorities. This appears in their approaches, their documents and outcomes of their actions. Local authorities usually compete for development by appeasing to developers, and by deregulating further un-urbanised land to become developable land. Local councils planning decisions often adopt local plans, without regards for reality or any actual demographic or economic trends. Also in very few local plans as yet is considered brownfield land, or land for recycling. This is despite the Czech planning law requirements that before deregulating any further land for development, reuse of brownfield sites should be considered. This is not happening for following reasons: a) there is no "legal" specification, what is a brownfield, b) there is no specification how to elaborate such a consideration, c) owners of brownfield sites often do not make them available for redevelopment and incentives are not taken to encourage them to do so, d) there are no legal requirements for greenfield developers to carry out mitigatory or compensation measures on brownfield land (demolitions or unsealing work on brownfield sites for example) which would help to offset the brownfield land redevelopment premium. But the advocacy addressed to brownfields in the Czech Republic over the last 10 years has put the Czech brownfields regeneration into a very favourable position in relation to the SF programming, which allows regenerating and recycling of such properties.

3.3 Tools for sustainable land use management

As already indicated in previous sections, in Czech Republic there are now widely available technical tools to aid sustainable land use management. There is ample mapping; environmental and other data access from public webs, and various GIS tools and IT applications (for example web public access to cadastre¹²) are

¹⁰ ORP-205 administrative districts with an appointed communities to implement extra services duties

¹¹ RURU- An assessment for sustainable land use based on the ÚAP and other available information is required by the law 183/2006SB to be carried out biyearly on the Regional and on the ORPs levels.

¹² <http://nahliznidokn.cuzk.cz/>



readily accessible to all regions, ORPs and to most communities up to cc 5 000 inhabitants (below that size the GIS skills are an access barrier). But what is missing is a conviction among the administrators and awareness that the issue of land use sustainability is of an importance. Also, as there are no NSP requirements for documenting or reporting indicators/targets demonstrating regional, ORP or local land use sustainability, the equipment and the tools, which could be used to promote and manage land use sustainability, are not employed.

Key interests in sustainable land management	Key Czech institution and bodies														
	MMR	MŽP	MŽE ¹³	MPO ¹⁴	MDT ¹⁵	ČD	RSD	RVUR ¹⁶	ČKZU ¹⁷	POZ.Ú ¹⁸	UZSVM ¹⁹	CENIA ²⁰	Region	ORP	Commun.
Economic development policies	X														
Spatial Development Policy	X	X	X	X	X								X	X	X
Principles of Urban Policy	X														X
Strategic Framework for Sust. Devel.		X						X							
Energy strategy				X											
Environmental Strategy		X													
Transport strategy					X										
Mineral extraction strategy				X								X			
Planning Law	X														
Nat. reserved matters planning	X														
Agricultural Soil Protection Law		X													
Forest Law			X												
Mineral extraction law				X											
Agricultural land classification			X												
Soil pollution and depletion		X										X			
Water and waste		X										X			
Countryside protection		X										X			
Mapping and geo-surveying									X						
Cadastral upkeep and publicity									X						
Environmental data provision												X			
INSPIRE fulfilling									X			X	X	X	X
Program of land consolidation										X					
State property issues											X				
Regional development policy													X		
ZUR- Regional planning document	X												X		
Regional ÚAP													X		
Regional RURU	X												X		
Reg. reserved matters planning													X		
ÚAP for ORPs														X	
RURU for ORPs														X	
Community ÚAP															X
Community RURU															X
Community land use plans													X		X
Community regulative plans															X
Countryside regulative plans															X
Planning and construction permitting															X
Community development strategies															X

¹³ Ministry of Agriculture, <http://eagri.cz/public/web/en/mze/ministry/>,

¹⁴ Ministry of Industry, www.mpo.cz, <http://www.mpo.cz/dokument81684.html>

¹⁵ Ministry of Transport, <http://www.mdcz.cz/en/HomePage.htm>

¹⁶ Advisory Governments' Council for Sustainable Development, http://www.mzp.cz/cz/rada_vlady_pro_udrzitelny_rozvoj

¹⁷ An independent Cadastral office,

<http://www.cuzk.cz/Dokument.aspx?PRARESKOD=998&MENUID=10384&AKCE=DOC:10-ENGLISH>

¹⁸ Land Office - an institution of MZE, <http://eagri.cz/public/web/mze/uzsvm/uzsvm-urad/ustredni-pozemkove-urad/>

¹⁹ The office for representing the state in state property issues, www.uzsvm.cz

²⁰ Environmental Information Agency, institution of MŽP, http://www.cenia.cz/_C12571B20041F1F4.nsf/index.html

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Integrated development programs																X
Linear transport investments					X	X	X									
Other public institutions investments	X	X	X	X									X	X	X	

Table 3: Key sustainable land management issues and selected Czech institution and public bodies' interests in them

3.4 Governance and the land use sustainability issue

In the view of the CircUse project, the local level is the most important for implementing the land use sustainability. But local communities need to have good inventories of their brownfield land and understand land development potential. They also need to be proactive in promoting development on already urbanised land and balance supply of the developable greenfield land, so that it does not present too much competition for brownfields. But at levels of the Czech local government, the land use sustainability is usually not perceived as a great value. The Planning Law had actually required creating of Local Sustainability Committees (RURs), which were to be staffed by local political representatives. RURs were to be partners to consultants carrying out the RURU assessment in ORPs. Only in 3,2% of ORPs, such bodies were established. The rest of the Czech local authorities found the land use or local sustainability uninteresting.

But for sustainable land use management to be effective it needs to be considered on a larger scale that is a single local authority or a single ORP. But the Czech regions feel that they do not have a legal remit to apply land management issues over areas governed by independent local authorities (there is also the NSP policy absence of land use sustainability demand). All the Czech regions so far maintain that there are not able to include local sustainability indicators or targets in their regional planning documents - the ZURs. What is therefore desperately needed an increase in a coordinating role of regions. This usually works well if there is a suitable legal framework (or suitable policy), or when regions have a strong position (Czech regions do not have that). But it can also work on less formal bases, especially if regions handle fair amount of regional development programs. But in the Czech Republic the SF have put stop to that. All the available national funding was swallowed by co-financing the SF. Therefore a possible "motivation" funding is being distributed by other bodies.

On the national level, there is the Czech government sustainability advisory body (RVUR). This body was in 2006 transferred from the government office, down to the MŽP. MŽP now carries out its duties for the government. MŽP was delegated to monitor biyearly performance of the Strategic Framework for Sustainable Development. Further it is charged to convert the Strategic Framework into a full National Sustainability Policy. MŽP is also the body, which is responsible for the Agricultural Protection Law and its upkeep (inclusive administering charges which are to be paid for land conversions). And it is the MŽP again, and not the MMR, who leads the "sprawl" initiative for the government. In all these functions, the MŽP can be perceived as a "green watchdog". And from this position the MŽP is finding it very difficult to motivate or "excite" the MMR or any other institutions to act as equal cooperative partners in support of sustainable land use or other aspects of sustainability. This is also worsened by a total divorce of MŽP from spatial planning implementation or from development reality. These difficulties were manifested in several policies (NSP for example) and during revising of various laws. Here the MŽP is failing to get through needed measures (for example an increase in land conversion charges). The MMR in return acts more negative than necessary, especially as it may feel that the MŽP is encroaching on its remit. Where the culture of cooperation is missing, usually things take longer and costs are much higher.

3.5 Financing land use sustainability

To help the land recycling principles advocated by the project CircUse, funds need to be made available for supporting the management and mitigatory measures, which are needed to achieve effective land recycling. Regeneration issues were strongly supported by the present SF operating in the Czech Republics, but a majority of it was a "hard" grant funding, which was often counterproductive. In all the 7 Czech ROPs²¹ is

²¹ Regional Operational Programs financed from the ERDF, operated at NUST 2 level – Czech regions are NUST 3 level.



missing the “soft” funding, which would help to prepare bankable projects, or support development partnerships on brownfield land. Financing brownfields projects regeneration is known to be more costly. But recycling of urban land has positive societal and economic outcomes and it also brings benefits on a transnational environmental scale. However, so far there is no effort from the EU (SF) or the national levels to subsidise the interest on loans for brownfields regeneration projects despite that a positive discrimination for land recycling projects needs to be introduced, especially in non prime areas. The environmental and economic benefits which land recycling creates should be paid back. Funding can be got from levying the greenfield land development. Especially useful are mitigatory measures of a type, when the Greenfield development finances naturalizing or demolitions on brownfields. Presently the Czech legal framework, above the low financial levy paid for the land conversions, does not require other actions to compensate for greenfield land take.

4 CONCLUSION

The land use sustainability was for a long time outside the EU policy focus, mainly because it is a national issue. This was why the EU environmental regulation could not quite reach it (soil directive for example). EEA data however have helped to publicise the issue. The INSPIRE directives is pushing the members state to produce accessible and comparable data sets and is expanding the IT and the GIS skills in members states. Similar effect can be seen in development of urban audit and indicators. The developing technologies make the sustainable land use management easily accessible to municipal or regional levels. And it is on these levels, where the suitable tools, inducements and motivation need to be introduced in support of land use sustainability and in support of sustainable land use management. But such tools have to be made simple and very user’s friendly. This is in order that they can be used directly by the decision makers and the administrators. To achieve the needed political and public perception shift, promoting of the land recycling principles would require a lot of advocacy and awareness rising. It would also need a final tuning of holes in legal frameworks and policies, and also compensation measures which would help to finance the sustainable land use management practises and implementation. And finally it would need a sincerer, continuous and long lasting political support on local and regional levels.

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