

THE IMPACT OF ORADEA'S LOCAL AGENDA 21 ON ASPECTS OF SUSTAINABILITY

Emanuela-Iulia HENȚ

University of Oradea, Armatei Române Street, no. 1, Oradea, Romania,
e-mail: hentemanuela@yahoo.com

Abstract: The economic development of modern society and also, the mentality of individuals from a society, made that, the perception on organization and structure provided by a geographical area to be change in favour of a new concept named landscape. Highlighting this perspective, our paper tries to reach to a point of view in which physical landscape of Oradea city could have an impact on our future generation development. Within this context arises the issue of the environment endurance boundary and meanwhile the possibility of providing human's nutrition, energy, housing, culture and entertainment arises. An important document in these considerations is represented by Agenda 21 Oradea.

Key words: social sustainability, dynamic process, community, physical landscape

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INTRODUCTION

Even the landscape transformation has its own natural causes, we know that over time the landscape has a major influence on human settlements and its development; now more and more authors consider that humans – in the name of current housing needs – represent that part of landscape transformation and are suffering from it. As we know from literature (Dincă, 2005; Horner, 2006; Herman, 2009), the physical landscape could be understood as a mixture between plains, plateaus, hills and /mountains, forests, rivers, lakes, seas, oceans, shores. In other words, the landscape is very varied and it has an important influence on our lives, because it could have exercising actions – and different in the same way – on our foods, drinks, energies and their individual quality. Hence we say that landscape is divided into two major categories: the former refers to the natural landscape and the latter to the anthropic landscape. The landscape carries in the values of a global society (Potschin et al., 2006), so our paper reveals both categories, because they are both inseparably bounded.

METHODOLOGY

Our first data the „*location*” of this issue is Local Agenda 21 Oradea which in its turn is based on LA2. ¹ The Local Agenda 21 of Oradea municipality, like her „*sister*” promotes and seeks to find a cohesion line between social equity, economic growth and environmental protection. As we can see landscape is not mentioned anywhere (Szlávik et al., 2002). So that is why we will now try, with the

¹ Local Agenda 21 from Earth Summit, Rio de Janeiro (1992).

help of our study, to provide a conceptual model that describes how physical landscapes and socio-economic issues can be combined for a sustainable planning (Szlávik et al., 2004).

According to literature and our own feelings about this problem, we conclude that the variety of landscape is important in community development; that is why, its dominant characteristics refer to two major features: one is about natural aspects and the other, of course, about human management on landscape. This is how two capital characteristics describe landscapes as being dynamic systems and regard them as being subject to change and evolution. We will discuss about both of them, because they are inseparably bounded.

RESULTS

Traditionally, the ecosystem has been described in terms of its elements such as the volume of water, the carrying capacity of the arid land, and the size of the population. By focusing on various parts of the ecosystem rather than looking at the interaction of the physical and social elements of it, we get a very static picture of the conditions in the environment (Hwang, 1998). As Kiel (1991, cited by Hwang, 1998) states: „*The static nature of linear and deterministic models reveals that these efforts provide at best a „snapshot” of reality with, most likely, only short-term relevance. The determinism generally embedded in traditional linear models inhibits dynamics that may arise over time. This can result in native extrapolation based on assumptions of static relationships between relevant variables.*”

Table 1. Major pollutants in Crisuri Basin
(Data source: Oradea Crisuri Water Directorate)

Current issue	Hydrographical Basin	Source pollution
1.	CRISURI	S.C. European Drinks S.A. Rieni
2.		S.N.P. Staging Oil Suplacu de Barcău
3.		E.M. Bihor Stei: decanter and mine water Nucet
4.		R.A.G.C.L. Oradea lagoons
5.		S.C. Petrolsub S.A. Suplacu de Barcău
6.		SINTEZA S.A. Oradea
7.		ROMCIM S.A. Oradea

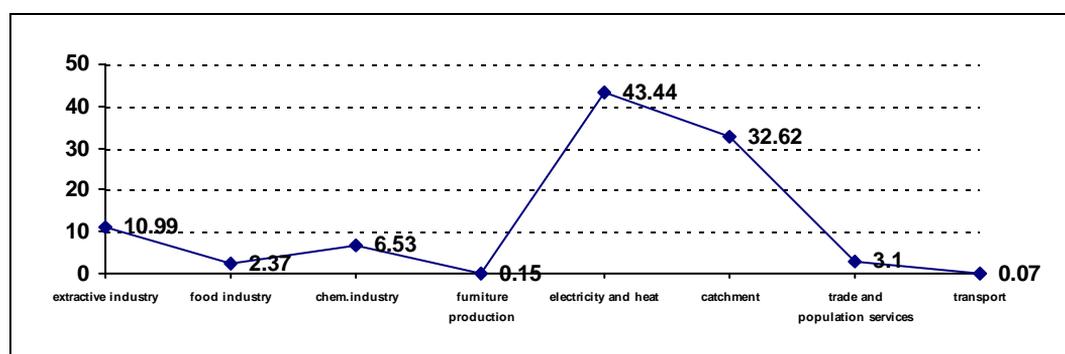


Figure 3. Wastewater discharged into surface waters by local industry
(Source: Oradea Environmental Protection Agency)

According to it and not only, especially with the Local Agenda 21 Oradea regulations, our paper meets these aspects. From a geopolitical point of view Oradea city has always been a gate for Central and South-Eastern European countries, because it lies on Romania's Western border, being in this way a transit place to Europe. Geomorphologically, it is located in the depression bearing its name, bordered by Plopiș (in North) and Padurea Craiului (in South) Mountains (Josan,

1992). At the same time, Crisul Repede River crosses the city from South-East to North-West, the entire city developing over that river meadow. Being close to Romania's western border, Oradea city, which has an average dimension, population and economic activities, it also has a special statute, which implies a lot of environment problems caused by intense crossborder car traffic. In this respect, from the sustainable environment criteria point of view, the local authorities carry out analysis on environmental factors by monitoring air pollution, the quality of water resources (from surface and underground) in the town and around (and for this one the authorities measurements consist in detecting the major pollutants from the entire Bihor county – table 1, figure 3 and figure 4), quality of soils (which, mostly are polluted with refined sands and clay from the brick factory and incorrect deposited waste from the other local industries, garbage storage of the town, demolished houses, human waste and so on – table 2).

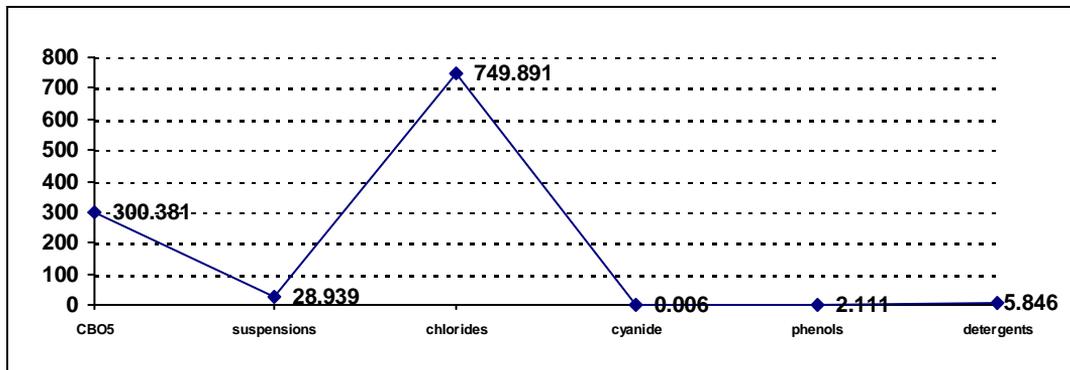


Figure 4. Total quantity of noxious into surface waters in Bihor County
(Source: Oradea Environmental Protection Agency)

Table 2. Composition of domestic waste

(Data source: National Research and Development Institute for Environmental Protection, Local Agenda 21 Oradea and Oradea Environmental Protection Agency)

Waste composition	Paper, card-board	Glass	Metals	Plastics	Textiles	Organic Materials	Others	Total
%	5-11	2-7	7	4	5	51	25-39	100

The municipality of Oradea develops various programmes, projects and strategies for urban planning in the city. Our observation is that all these (or mostly) are based on such principles (we will not exemplify all principles used by local authorities for sustainability plans, because our interest is not the entire administrative plan of our city):

- a sustainable development in the long run;
- restructuring the public services in correlation with the objectives of sustainable development and community priorities;
- developing partnerships between public and private institutions;
- reducing the chaotic constructions with impact on private property;
- increasing the public consciousness for a sustainable planning;
- restoring the cultural heritage;
- regulating land use with provisions set in the Landscaping Master Plan;
- efficiency in the using of human and financial resources;
- developing new ways for a better public information about specific investments made by local authorities;
- measures for resources conservation and reducing of waste;
- promoting the energy efficiency for landscaping plans.

CONCLUSIONS

Beyond the recognition of the fact that geographical space represents the mechanism for more or fewer landscapes, we must accept that the distinction is given by what comes from both inside and outside of them. Thus, from inside, the landscapes are influenced by natural factors and anthropogenic externality (Dincă, 2005).

The concrete situation in which a landscape has a relevant impact on sustainability is when we are talking about different levels of it on one component or on all other components both vertically and horizontally. And that is because, after all, every landscape could be interpreted as an organization model for modulation of the components which comprises it. Landscape planning should not be reduced to a matter of setting it to territories and populations that live on it. It must become a policy topic which could be strengthened in order to protect its sustainable development. For this objective local authorities must have special departments in which interrelations between specialists and populations can cooperate on long terms (table 3).

Table 3. Institutional cooperation through common urban planning projects
(Data source: Local Agenda 21 Oradea)

Current issue	Project title	Specific goals	Partnership	Monitoring and evaluation
1.	Reviving the following streets: Republicii for pedestrians, Ferdinand, Unirii, V. Alecsandri	Protecting patrimony buildings. Implementing the programme to revive the central area	Institute for Housing Studies Rotterdam, The Netherlands ProArh SRL Oradea	Oradea City Hall A.P.I. Oradea
2.	Granting support to house constructions through ANL	Building houses for the youth by means of mortgage credit, through ANL	National Housing Agency, MLPTL	A.P.I. Oradea
3.	Intense surveys on the risk areas – circulation, water infrastructure	Rational utilization of land plots to be used for construction purposes in the hilly and risk areas	R.A. Apaterm Oradea, USAID, B.E.R.D.	Oradea City Hall R.A. Apaterm MLPTL
4.	Turning to value the major roads in the city (design and planning)	Marketing of the city's image	Private Sector	A.P.I. Oradea
5.	Local Agenda 21 Oradea	Sustainable development on long terms of the city	Oradea City Hall, UNDP/CIDA/IISD Canada	Oradea City Hall
6.	Development of Oradea Metropolitan Area	Sustainable development on long terms of the Oradea's neighbours	Oradea City Hall USAID/RTI	Oradea City Hall

According to UN Documents, chapter 2 „*Towards Sustainable Development*”, sustainability is more a general concept, which implies any developing initiative at general level. From document A/42/427: „*Our Common Future*” (Report of the World Commission on Environment and Development), we observe that sustainability is defined „*as meeting the present needs without compromising the ability of the future generations to meet their own need.*”

In other words certain activities are sustainable (such investing in education), and others are unsustainable (like dumping harmful pollutants into water sources) (Branner et al, 2005).

That is why we will say that Local Agenda 21 must not be limited to consider the sustainability, even in our country and locally, in Oradea too, these aspects have often equal implications. Local authorities (the national and governmental ones too), together with the stakeholders when make things into a developing of their own habitats, even the area must take into considerations the principles of the Local Agenda 21, because only in this way sustainability could be defined based on local priorities and circumstances

REFERENCES

- Branner F., Csetew Mária (2005), *Evaluation of the sustainability of settlements*, in *Periodica Polytechnica Ser. Soc. Man. Sci.* Vol. 13, No. 2, pp. 215-225.
- Dincă I. (2005), *Peisajele geografice ale Terrei. Teoria peisajului*, Editura Universității din Oradea, p.30, 84, 93.
- Herman G.V. (2009), *Omul și modificările antropice din Câmpia Someșului*, Editura Universității din Oradea, p. 21.
- Horner A. (2006), *Physical Landscape of Ireland*, electronic publication, Library Council of Ireland, www.askaboutireland.ie, accessed at 07.02.2013
- Hwang S.W (1998), *A General Evolutionary Methodology for Sustainable Development*, Dissertation submitted to the Faculty of the Virginia Polytechnic Institute and State University in partial fulfilment of the requirements for the degree of Doctor of Philosophy in Environmental Design and Planning College of Architecture and Urban Studies, May 27, Blacksburg, Virginia, USA.
- Josan N. (1992), *Câmpia Ierului – caracterizare geomorfologică*, in *Analele Universității din Oradea, Fasc. Geografie*, Editura Universității din Oradea.
- Kiel, D.L. (1991), *Lessons from the Nonlinear Paradigm: Applications of the Theory of Dissipative Structures in the Social Sciences*, in *Social Science Quarterly* 72(3), p. 431-442.
- Potschin, Marion, and Roy Haines-Young (2006), „Rio + 10”, *sustainability science and Landscape Ecology*, in „*Landscape and urban planning*”, vol.75, issues 3-4, Elsevier, p.162-174.
- Szlávik, J., Csete, M. (2004), *A fenntarthatóság érvényre juttatása és mérhetősége települési – kistérségi szinten. Gazdálkodás (The Realization and Measurement of Sustainability on Settlement. Subregional Level)*, Budapest, IV.
- Szlávik, J., Turchanyi, Gy. (2002), *Útmutató a Fenntartható Fejlődés Helyi Programjai (LA 21) elkészítéséhez, (Guide to Preparing Local Programs of Sustainability - LA 21)*, Budapest. Európai Atelier 70 Kft., BUTE Department of Environmental Economics.
- *** ICLEI (1996), *The Local Agenda 21 Planning Guide, An Introduction to Sustainable Development Planning*, Toronto. <http://apmbh.anpm.ro/>, accessed at 07.02.2013.
- <http://www.incdpm.ro/ro/>, accessed at 07.02.2013.
- <http://www.iclei.org/about.htm>, accessed at 09.02.2013.
- <http://www.rowater.ro/dacrisuri/default.aspx>, accessed at 07.02.2013.
- www.WorldCountries.info, accessed at 09.02.2013.
- <http://www.oradea.ro/pagina/consiliul-local>, accessed at 07.02.2013.
- http://www.ncsd.ro/documents/local_agenda_21/AgLoc21_Oradea_eng.pdf, accessed at 09.02.2013.
- <http://www.un-documents.net/index.htm>, accessed at 15.02.2013.

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