

## THE SHIFTING RELATIONSHIP BETWEEN URBAN AND SPATIAL PLANNING AND THE PROTECTION OF THE ENVIRONMENT: ROMANIA AS A CASE STUDY

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**Keywords:** territorial planning, legislation, integrated development, sustainability, biodiversity

**Abstract.** Processes driven by human communities are the core causes of transformations occurring in natural systems. While the environment is a whole, composed of natural and man-dominated subsystems, space is limited and the two compete for it. At least from this perspective, human communities should consider the impact of their development on natural systems. From this standpoint, sustainable spatial development means to balance social, economic, ecological and cultural needs in the territory, aiming at creating sustainable communities. Consequently, territorial planning of larger territories and urban planning of settlements need to account for these criteria. While social, economic and cultural criteria have already been considered, the paper addresses the question, ‘How are ecological criteria accounted for in spatial planning, and what is the relationship between spatial/urban planning and environmental protection?’ In order to answer the question, the paper takes a deeper look at the Romanian urban and spatial planning and at the institutional and legislative relationship it has with the protection of the environment, comparing it with other worldwide examples.

### Introduction

The most important worldwide drivers of environmental transformations due to human activities – land use, energy use and climate change – were recently called, all together, ‘global change’ (Dale, Virginia H. *et al.*, 2011). The three are interrelated; it is important to stress out that wise land use results in bettering off the energy flows and mitigating the effects of climate change, while unwise land use aggravates their consequences (Dale, Virginia H. *et al.*, 2011). Studies looking at the underlying causes leading to the changes in land cover and use indicated that socio-economic drivers are predominant (Petrișor *et al.*, 2010). These findings

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stress out the need to regulate land cover and use changes in order to prevent the degradation of ecological systems and diminish the outcomes of climate change and imbalanced energy flows. Nevertheless, the limited space is shared by man-dominated systems and by natural systems (Vădineanu, 1998). Consequently, the two compete for space and human development occurs in the detriment of natural systems, and is based on the resources and energy taken from the natural systems (Ianoş *et al.*, 2001; Petrişor and Sârbu, 2010).

To achieve a balance, sustainable development – “*development that meets the needs of the present without compromising the ability of future generations to meet their own needs*” (Brundtland, 1987) – must account for economic, social and economic needs (Bugge and Watters, 2003), to which cultural ones were added in 2004 (Petrişor, 2011b). Moreover, in a practical perspective, sustainability implies using natural resources within the carrying capacity limits, conserving biodiversity, performing the ecological restoration of deteriorated systems and designing environmental protection measures integrated in sectoral development strategies, aiming to internalize environmental costs and to assess the environmental impact (Petrişor, 2009).

However, provided that human communities, supposed to develop in a sustainable manner, occupy a given territory, sustainability has a territorial dimension, and ‘sustainable spatial development’ needs to find “*a territorial balance of satisfying at the same rate the economic, social and environmental needs of present and future generations*” (Petrişor, 2008a). In the European spatial thinking, the definition is translated by three principles. At a regional scale, ‘territorial cohesion’ is the “*balanced distribution of human activities in a territory*” (DG Regional Policy, 2004); at the urban scale, meeting socio-economic and ecological constraints leads to transformations aimed at improving the living conditions; the entire process is called ‘urban regeneration’ (Petrişor, 2011b; Presidencia Española, 2010). The third principle consists of ‘polycentricism’, defined at all spatial scales as a spatial organization characterized by a “*functional division of labor, economic and institutional integration, and political co-operation*” (Nordic Centre for Spatial Development, 2003), modeling the morphology of the territory (number of human settlements, their hierarchy and distribution) and relationships (fluxes and cooperation) of these elements (Nordic Centre for Spatial Development, 2005). The endpoint of spatial sustainability is the creation of ‘sustainable communities’ defined by the 2005 Bristol Accord as “*places where people want to live and work, now and in the future*” (ODPM, 2006).

Creating at the scale of a human settlement a ‘sustainable community’ or determining a wise land use at a territorial scale is a question of planning; the only difference is given by scale. Romanian and French planning systems distinguished

the two by using the term ‘urban planning’ when talking about a rural or urban settlement and ‘spatial planning’ for larger territories (Petrișor, 2010).

This paper aims to look at how the planning system, including the institutions and legislation, helps achieving the goals related to the conservation of biodiversity and protection of the environment examining the case study of Romania in a broader context.

### **1. Case study: the romanian planning system**

When looking at the Romanian planning system, there are three items that need to be described: the plans, the actors involved in the process, and the legislation.

The plans can be categorized, as previously shown, as urban and spatial. Urban plans include the General Urban Plan and corresponding Regulation of Urbanism, Zonal Urban Plan and corresponding Regulation of Urbanism, and Detailed Urban Plan, while spatial plans comprise the National Spatial Plan, Regional Spatial Plans, and County Spatial Plans (Petrișor, 2010).

In order to describe the actors, it is necessary to understand the process. Plans are elaborated, approved and implemented. The actors involved in the elaboration of plans vary with the size of plans. While the plans referring to a small portion of the territory can be elaborated by small companies and individuals, mostly with a background in architecture or urbanism, plans of larger territories involve teams consisting of specialists with different backgrounds, including urbanism, but also connected disciplines, such as geography, ecology, economy, sociology, engineering etc. (Petrișor, 2010). By law, the sections of the National Spatial Plan can be elaborated only by the National Research and Development Institute for Constructions, Urbanism, and Sustainable Territorial Development “URBAN-INCERC”, institution subordinated to the Ministry of Regional Development and Tourism. Similarly, the approval depends on the size of plans: local plans are approved by local bodies and plans of regional or national importance by central bodies. In both cases, the bodies are technical committees formed by representatives of other authorities, responsible with the management of resources (water, electricity), protection of the environment etc. (Petrișor, 2010). Once plans are approved, they can be opposed in justice and their implementation is again differentiated: urban plans are operational instruments used to decide whether a building permit can be issued or not, while the spatial plans provide the general guidelines for the spatial development of larger territories.

While the entire Romanian planning legislation was covered by numerous books, for the purpose of this paper we are going to analyze only the chapters of urban and spatial plans referring to the protection of the environment. The organic laws on urban and spatial planning clearly state that they aim for a long term

spatial sustainable development, providing among others for the protection of landscapes, efficient land and energy use, and conservation of biodiversity. These characteristics are found in the European legislation, and originate in the Terremolinos Charter on spatial planning.

The elaboration of plans is described by several documents describing their contents (Grigorovschi, 2008, 2011a, b): 1999-2000 orders of the Ministry of Public Works and Spatial Planning (currently the Ministry of Regional Development and Tourism), a 2006 proposal of the National Research and Development Institute for Urban and Spatial Planning URBANPROIECT (currently the National Research and Development Institute for Constructions, Urbanism, and Sustainable Territorial Development “URBAN-INCERC”), and a 2008 proposal of the Ministry of Development, Public Works and Housing (currently the Ministry of Regional Development and Tourism). As it can be seen, except for the first one, which is outdated, the other ones were not officially approved. In brief, the proposed content consists of two chapters describing the current situation: the natural conditions (relief, climate, fauna, flora, natural resources), underlining natural and technological risks, environmental issues such as pollution and waste management, and the overall quality of the environment, and another one looking at the natural heritage, focused on natural protected areas, underlining human impact and the elements requiring a special protection. Based on these analyses, the gap between the current and the desired situations is assessed and measures aimed at reducing it are proposed. The documents reveal a sectoral approach and the lack of understanding that the environment is a system (Petrișor, 2008b).

In terms of the actors, the Registry of Urban Planners in Romania is the national authority in charge with attesting the rights of signature for the specialists elaborating specific chapters of these plans. By law, the specialists who can coordinate the elaboration of plans are urban planners, architects, geographers, economists, and sociologists; in addition to them, engineers and other qualified specialists can coordinate the elaboration of the sections of the National Spatial Plan only. Urban planners, landscapers, geographers, biologists, ecologists, and engineers can elaborate the chapters related to the environment (Petrișor, Liliana Elza and Petrișor A.-I., 2011).

## **2. Romanian planning system in a broader context**

One of the key elements stressed out by Dr. Gro Harlem Brundtland in her 2003 interview was the need for integrating the pillars of sustainability (Bugge and Watters, 2003). The three traditional pillars are interrelated, as it can be seen in Fig. 1 (Drăgan, 2012).

However, the integration of these issues cannot be seen in the sectoral approach still used in Romania. It is sufficient to note that the Ministry in charge with planning has changed its name and focus in time, to include tourism and/or public works or not. Moreover, in the current structure of the government, there are at least two ministries dealing with development: the Ministry of Regional Development and Tourism and the Ministry of Agriculture and Rural Development. A third one, the Ministry of the Environment and Sustainable Development, recently changed its name into the Ministry of the Environment and Forests (as if forests are not part of the environment), but still has a Department of Climate Change and Sustainable Development.

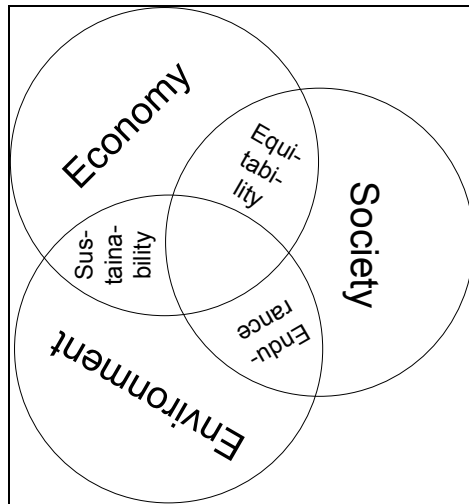


Fig. 1. The concept of 'sustainable development'  
(Drăgan, 2012)

If looking at the worldwide situation, France has a Ministry of Sustainable Development including divisions dealing with the environment, energy, transportation and spatial planning; similarly, Argentina has a Ministry of Planning, Public Works and Services with divisions in charge with energy, planning, public works, transport and communication; Italy has a Ministry of the Environment, Territory, and Sea. Other countries have a structure closer to the Romanian one; Germany, the United States, Canada, China, Japan and other countries have separate ministries dealing with environmental and territorial planning issues. Integrating planning problems and environmental issues does not necessary involve a single unit, but a better cooperation and well-delineated

responsibilities. For instance, the planning system in Japan does not allow for any exception from meeting the environmental protection standards (Tominaga, Marin, 2011).

### **3. Discussion**

The discussion on the relationship between environmental protection and planning starting from the Romanian example placed in an international context is placed in the framework constituted by the universal principles of environmental protection law (Sands, 2003; United Nations Environment Program, 2009):

1. Environment is a reality of historical evolution in natural systems. As a result of this evolution, man must organize activities in accordance with the evolutionary laws, without enterprising actions that could change its course. As a consequence of the evolution, man inherited the natural capital, upon which he benefits.
2. Environment is a global entity with regional and local particularities. Local actions can have global consequences, while global changes have global and local impact. The environment has no borders.
3. Environment is the source and support of life. Man, human communities and entire humanity are an integrant part of the environment, depending on it for its future existence and development.
4. Man, human communities and the entire humanity, by ensuring that the environment benefits upon the right of being protected, conserved and ameliorated, ensures their own fundamental rights to life, a healthy environment, welfare, civilization, and progress.
5. Environment belongs to human communities and the entire humanity, and is a good of major public interest.
6. Environmental protection and amelioration prevails upon other interests that are not of major public interest. The only interests to prevail over environmental protection are providing for human health, national defense and security, prevention of catastrophes (including natural ones) and providing for the subsistence of local communities.
7. Environmental protection and conservation must have a preventive character. Environmental deterioration involves phenomena occurring in cascade, and environmental restoration is unlikely and involves costs exceeding substantially the costs of prevention.
8. The principle of responsibility for prejudicing the environment: fines of imprisonment and material (applying the “polluter pays” principle and enforcing the restoration of degraded systems to remove the prejudice)
9. The principle of utilizing natural components of the environment in a sustainable way, including the principle “beneficiary pays”

10. The principle of local, regional, national, and global cooperation to implement the environmental norms and principles includes the notification and consulting procedures

11. The correct and even participation of local communities to environmental protection and amelioration and benefits resulted from the use of components by people and groups locally, regionally, nationally and globally.

Obviously, not all these principles have direct territorial consequences, but sustainable spatial development must include all of them when used as a governing rule for future local, regional or national strategies of development. Studies by Ianoș and Petrișor (2011), Iurea, Daniela (2011), and Văidianu, Maria Natașa (2011) have clearly indicated that development cannot be characterized statistically by indicators pointing to a single sector (economic, social or environmental), but by an index composed aggregating several indicators, each from a different sector. Obviously, their conclusion points out to Dr. Gro Harlem Brundtland's understanding of sustainability as integration of all economic, social, and environmental criteria (Bugge and Watters, 2003).

The first principle is reflected in the Romanian legislation by the conservation of biodiversity through natural protected areas. Conservation is understood as maintenance of the systems within the carrying capacity limits, implying their natural functioning. Nevertheless, the principle is not applied consistently, as there are other legal provisions understanding it as a strict preservation (Petrișor, 2011a). The next four principles seem to be better reflected by legal provisions than observed in reality. It has to be stressed out at this point, while in reality the statement is valid in almost all the other cases too, that for the Romanian environmental protection laws the most important practical issue is enforcement. The next principle is perhaps at the core of this paper, as the Romanian legislation system has accumulated especially in the last decades numerous overlaps, and often it is not clear which law or principle prevails. The question of declaring a major public interest was affected by the political involvement; a good example, in terms of planning, was the difficulty of declaring Bucharest Basarab Passageway a public interest utility, though the 1930's plans already contained it (Iftode, 2004).

Other principles reflect the gap between Romania and other countries in terms of creating the means of implementing them. Prevention does not seem to be encouraged and correlated with the responsibility for prejudices; the enforcement of environmental legislation is punitive, but incentives are not supported. An offender could find the point where it is cost-effective to prevent the effects instead of having to pay fines. For both planning and environmental offenses, fines (which are rarely updated) are applied without any obligation to remove the damage and its consequences. On a similar note, local communities are not necessarily

supported by returning benefits resulting from an environmentally friendly development.

The international cooperation and public access to environmental information is improving. In summary, according to the official sources (Ministry of the Environment and Sustainable Development, 2007), the main environmental issues are:

1. Low level of environmental investments
2. Lack of inter-sectoral communication and coordination
3. Insufficient wastewater treatment and sewerage network
4. Low access to centralized water and wastewater systems; low quality of drinking water
5. Settlements not covered by water companies
6. Inadequate sludge treatment
7. Inefficient water management structures
8. Heavy damaging spring floods
9. Historically polluted sites
10. Insufficient waste management infrastructure
11. Low awareness of population on waste management
12. Large amounts of waste; insufficient selective collection and recycling
13. Soil pollution
14. Air pollution caused by fossil fuels
15. High consumption of primary resources and high emissions
16. Low awareness on the management of protected areas
17. Sparse network of protected areas, low resources for their management
18. Low number of management plans for protected areas
19. Serious coastal erosion
20. Lack of experience in project management, tendering, contracting, and development

As it can easily be seen, most of these issues, particularly those related to the management of waste, water and protected areas, can be tackled with locally and regionally, and they require spatial solutions. Such solutions need to be addressed by the spatial and urban plans, or at least correlated with them.

### **Conclusions**

From a theoretical perspective, there is no doubt that as long as man-dominated systems are part of the environment, planning for human settlements or broader territories must take into account the environmental issues. On the practical side, the analysis of the Romanian planning system placed in a broader international context does not reveal the optimum pattern; the example of Japan, where even though the ministry dealing with planning is not part of the ministry of



the environment, but environmental constraints prevail over the planning process, shows that institutional integration is not necessarily the solution. Most likely, the best solution is a clear definition of roles and ‘right of the way’ rules aimed at creating a clear cut hierarchy. Obviously, this construction must be sustained by an equally well built enforcement structure.

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