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A territorial understanding of sustainability in public development

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ABSTRACT

Sustainability theories in European Union (EU) development policies are facing significant challenges: it is difficult to transmit context-specific, publicly communicable messages; the recent development policies strengthen the concurrent development paradigm of economic growth and competitiveness; 'climate change' became a more popular environmental integration term than sustainability in the last few years. However, due to the recent crises of the economic growth, there is a great chance to reintroduce a sustainability-based development. A territorial/regional understanding of sustainability can also be an answer for the current challenges, a platform for refreshing the concept with relevant, specific messages that are close to the everyday life. This paper summarises the 'territorial system'-based basic principles of territorial sustainability in a model called AUTHARSIIV (AUTonomy, HARmony, Solidarity, Innovation, Identity and Values). This is a supplementary sustainability content specified for the context of spatial/regional development or planning. The paper also examines the presence of 'general and territorial sustainability' in regional development programmes, and case studies on applying the territorial sustainability principles in planning, assessment, and implementation. According to the results, sustainability is rarely adapted to the conditions of a given sector or a region, and the territorial aspect of sustainability is underrepresented even in territorial programmes. Therefore, the paper proposes a new planning and assessment system that is based on a set of regionally legitimate sustainability values.

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1. Introduction

The way of understanding sustainability does need a sound renewal especially in the field of development policies. On one hand, some significant challenges have emerged recently in case of integrating sustainability (e.g. cliché-like use, concurrent concepts).

On the other hand, due to the recent crises of the economic growth, there is a great chance to reintroduce a sustainability-based development. Integrating sustainability cannot take an advantage of this situation without having tailored and unambiguous messages (e.g. those transmitted by recent ideas on criteria-based sustainability assessments). This paper defines a specific supplementary meaning of sustainability in a territorial context and for 'development policy'-related activities with territorial concerns such as regional/spatial development and planning.

In other words: the article commits itself to the idea that a territorial approach can contribute efficiently to a possible future renaissance of sustainability. The paper summarises the important planning-oriented territorial messages of sustainability in a theoretical model that deals with the sustainability of territorial structures

from a systems point of view and neglects the separate sector approaches.

The paper also detects the 'state of the art' in sustainability messages of current regional development initiations empirically in the context of the European Union (EU) development policies. It presents a study on analysing regional development programmes and case studies on applying territorial sustainability principles in regional development.

2. Sustainability as a declining paradigm of development policies?

2.1. Strong EU traditions in sustainable development

Soon after its appearance and international spread, 'sustainability' and 'sustainable development' became one of the basic development ideas and most popular expressions also in the European development policies in the early 1990s. Sustainable development was included in the Treaty of Amsterdam as a crosscutting objective of EU policies in 1997. The Cardiff process strengthened further the horizontal position of sustainable development in EU policies together with environmental policy concerns (Feldmann and Vanderhaegen, 2001) in 1998. Three years later, the Gothenburg Strategy on the sustainable development of the EU was set up (CEC, 2001). The EU also promotes sustainability in the international community through its external policies (CEC, 2002).

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In spite of this fast evolution, the positions of sustainability in development policy making started to change around the mid 2000s. Sustainability had to start to compete with other development ideas. Another reason for this is the practise: development policy experts and the public are facing difficulties in comprehending and enhancing the often ambiguous issues of sustainability.

2.2. *New challenges of the theory of sustainability as a development paradigm*

2.2.1. *Economic growth (–competitiveness) has become the main European development direction*

In the last several years sustainability (or sustainable development) could not be the leading message of development policy in the EU. On the one hand, from a theoretical point of view, it is quite understandable, as this term does not urge development progression as most of the current political intentions do. It even calls for the moderation of consumption and it is also critical of other elements of modern life related to material conditions. Even its development-oriented version, the 'sustainable development' could not maintain the position of the sustainability paradigm.

The idea of economic 'competitiveness' overtook the role of the leading public development paradigm. The Lisbon Strategy of the EU set up ambitious goals on economic growth and competitiveness for 2010. Soon after adopting Lisbon Strategy, the green interest groups initiated an EU strategy on sustainability, too (the Gothenburg Strategy in 2001). In spite of the latter balancing attempt, the basic document of development policy prepared in 2005 for the 2007–2013 programming cycle (see [CEC \(2005\)](#)), transmits mainly growth-oriented messages.

Despite the ambitious planning, the EU has failed to achieve its growth-oriented development goals. Global economic crisis also made the European ambitions on competitiveness less realistic than ever. Still, the current messages of the European development policies and crisis management are about restarting the economic growth by all means (in a slightly more intensive way than formerly), and there are no interventions related to new development paradigms (for instance to a sustainable way of organising economy and society instead of following the growth myth).

Although the current strategic foundation, the so-called EU2020 ([EU, 2010](#)), introduces 'sustainable development'-related content, it uses the term mostly as 'sustainable growth' without sufficient understanding and integration. In EU2020 sustainability appears as an economical engine of growth promoting the efficient use of economic resources and other aspects of green economy, and also as social equity with no connections to other messages.

2.2.2. *'Climate change' as the future of environmental integration?*

The theory of sustainability has been challenged not only in the context of development paradigms, but also in the field of environmental integration.

Two decades ago sustainability became the dominant theory on environmental-integration, even relieving the term 'environment protection' and 'environmentalism' of their integrative planning roles. Now sustainability is surrendering its place to the currently most popular environmental-based policy term: 'climate change'.

Probably communication and understanding difficulties also contributed to the decreasing environmental integration power of sustainability. Unlike sustainability, climate change mitigation and adaptation possess simply widely and easily understandable messages. Climate change also refers directly to catastrophes. The disasters could always easily become public issues ([Nooteboom, 2007](#)). The global cataclysms or local tragic events of unsustainable development are not so obvious, and need explanations. Moreover, the adaptation issues of climate change are not in conflict with economic development, and even mitigation can promote the growth

through innovation. Therefore climate change is able to become really popular in policies as well as publicly. Its strong regional character also makes climate change an emerging issue in territorial policies ([Czira et al., 2010](#)).

The horizontal integration of climate change awareness was already mentioned in the Cardiff Process ([CEC, 1998](#)), and was emphasised further in its revision ([CEC, 2004](#)). 'Climate change'-related issues also appeared as goals in sustainability-related EU strategies. The issue gained stronger emphasis during the stocktaking of the Gothenburg Strategy in 2006 ([EC, 2006](#)) and 2009 ([CEC, 2009](#)). EU2020 – the master document of the future development policies – highlights the climate change messages significantly better than the sustainability-related ones (in spite of the fact that the word 'sustainable' is mentioned even in the title of this document).

In theory, sustainability and climate change cannot compete with each other. There is a circular relation (with feedbacks) between climate change and sustainable development ([Munasinghe, 2003](#)). When climate change as a public issue gained legitimacy, sustainability was suggested as a platform for its integration (e.g. [Swart and Raes \(2007\)](#)).

Still, unlike sustainability, the term 'climate change' occurs in an obvious increasingly dominating manner concerning its presence in everyday life, in policy making and in plans and in programmes. This process can be illustrated by the relatively frequent appearance of the term 'climate change' on the Internet. (See the number of results by Google Internet search engine [2010-11-17]: search for the term 'climate change' returns 63 700 000 results; while the term 'sustainability' and 'sustainable development' yield 30.400.000 and 18 500 000 results, respectively.)

Even environmental or sustainability assessments itself can raise the popularity of climate change, since climate change is usually regarded as a factor to be considered in contemporary appraisals ([Pálvölgyi, 2010; Wilson, 2010](#)).

2.3. *Ambiguous messages of sustainability*

2.3.1. *Difficulties related to communication and understanding*

The application of the theory of sustainability does need a knowledge and wide acceptance of sustainability concerns among the public actors, but – unfortunately – sustainability is not an easily communicable and learnable consideration. Therefore, sustainability is not a proper matter for the current mass communication practise that broadcasts only simply understandable messages.

Simple issues based on limited factors and related to problems of the daily routines (especially to financial issues) override public interest. Even the alternative actions must benefit immediately, either financially or politically ([Nooteboom, 2007](#)).

Sustainability is a really complex issue with only indirect relations to everyday life. Because of its complexity, it is really time consuming to define a common sense of sustainability. The process of common understanding needs to stimulate public participation and define public interest that is always a very hard planning task. It requires special techniques and conceptions to learn all the factors and consequences ([Sinclair et al., 2008](#)). Moreover, the effectiveness of the tools of time-consuming sustainability integration (e.g. strategic environmental assessment – SEA) is not completely verified ([Hilding-Rydevik and Bjarnadottir, 2007](#)).

2.3.2. *Difficulties in transmitting clear sustainability contents in PPPs (Policies, Plans and Programmes)*

Although sustainability has been mentioned as a compulsory element of strategies and priorities for years, there is no understanding of sustainability in the given strategic context in several cases ([Mebratu, 1998](#)). We can also experience a cliché-like appearance of the term 'sustainability' in planning and policy making issues. Different schools following different conceptualizations of sustainability started to work

almost as early as the appearance of the theory itself (Mebratu, 1998). Sustainability can be used to verify different and frequently reverse actions resulting in an ambiguous, multipurpose application of this term.¹ Therefore, sustainability concerns should be specified to the given decision-context in order to agree on the actual meaning (Bond and Morrison-Saunders, 2009, 2011).

2.4. Chances for a sustainability renaissance

The global economic crisis has pointed out the deficiencies of the technocratic, growth-oriented, competitiveness-based and unachievable European development goals (being dominant in the 2000s). Therefore, the paradigm of sustainability has the chance to get into focus of the European development policies again.

Climate change issues shall not take the role of sustainability either. On the one hand – similarly to sustainability – they have an environmental conceptualization, go beyond physical–environmental issues towards social–economic ones, and require inter-disciplinary approaches to assessment of solutions (Corfee-Morlot et al., 2009; Wilson, 2010). On the other hand, their integrative approach is thematically much narrower than sustainability. The popular idea of climate change cannot give a complex understanding of resources and production–consumption patterns; it focuses on the environmental aspects of life quality and economy.

Nevertheless, the renewal of sustainability needs to stop the meaningless, cliché-like occurrence of this term in policies, plans and programmes. Sustainability has to have tailored meanings in the context of different activities.

3. Creating clear and relevant sustainability messages by territorial interpretation

3.1. Assessments as ways of creating relevant sustainability criteria

The practise of strategic environmental and sustainability assessment (SEA, SA) recognised that any tools for enhancing sustainability would lose their definitive meanings without a tailored understanding of sustainability. Assessments need context-specificity. Assessment processes must provide means of specifying the sustainability decision criteria and trade-off rules for specific contexts (Gibson, 2006). The context of assessments is specified by the planning procedures and policy making processes, but also by the different social, cultural, and political values of the society that runs the institutions responsible for these processes and procedures (Bina, 2008).

In order to get more relevant (context-tailored) sustainability messages, new sustainability assessment models were proposed to develop further the traditional 'triple bottom line' (TBL) sustainability approach that defines the social, economical and environmental pillars of sustainable development. According to the alternative concerns, sustainability criteria or principles can be set up instead of using separate social, economic and environmental approaches. The principles emphasise the interconnections and interdependencies between the pillars rather than the conflicts and trade-offs (Gibson, 2001).

Pillar-oriented sustainability considerations can be reclassified into principles along different complex and multi-dimensional (multi-pillar) drivers, for example: along the short-term and long-term sustainability objectives or effects (Sinclair et al., 2008); or along the well being phenomena where non-material (non-financial) aspects of welfare are also taken into account (Pope et al., 2004).

Another argument of context-specificity points toward the territorial interpretations of sustainability. The requirements on

site-specificity of assessments depend on the level of public decision making. On the level of programmes, spatially relevant, tangible technological information is needed during the assessment process (Fischer, 2003).

It is true, however, that the environmental conditions of a development site are not always taken into account in assessment processes conducted along the TBL approach, not even on the level of programmes. In many cases, only an abstract notion of environment is applied that deals only with national or international environmental policy directives and threshold targets but not with the specific landscape or social–economic context (see for instance the results of this study in Section 4.1.2). Therefore, a site-relevantly tailored set of criteria would be useful for assessing the real region-specific environmental and other conditions at least on the lower PPP levels.

3.2. Territorial understanding – a way of defining tailored sustainability messages

3.2.1. Why use a territorial approach and what is different in territorial sustainability?

One way of giving a more accurate meaning for sustainability is the territorial understanding of the term. The structures of TBL pillars necessarily interact territorially; thus territory-related development has a key role in harmonising TBL pillars towards sustainability (Salamin, 2006). A territorial interpretation can make sustainability a more articulate, actual, and pragmatic theory. The territorial/regional context strengthens the specific, anthropocentric understandings.² People obviously know their own local/regional social, economic, and natural environment better than the global context. Different development stakeholders can recognise their own interest supremely in their own region. Therefore, it is possible for actors to define the meanings of sustainability in their region and become committed to its principles.

The territorial dimensions can be related to different hierarchical levels of territorial management and planning: to local, regional, national, and global levels. Sustainability can be described on each territorial level differently. On the local level – in the field of urban and rural development policies – the territorial structures cannot be considered comprehensively (e.g. because of the homogenous appearance or weak diversity of the territorial – social, economical, and environmental – structures). On global and national levels, the structures are too complex and diversified; hence the development issues are dominated by the simplifying sector approaches.

In regions (above the local and under the national level), territorial structures form a system that is complex and diverse enough to define sustainability. Additionally, the social, economic, and environmental information is still manageable in a regional situation analysis, thus sustainability can be described. Communication and involvement are still efficient (not like on the global level): sustainability can also be tailored to the context of the region-specific life style, and consequently interpreted as part of the public interest. The classic level of territorial policy and development issues is also the regional one.

3.2.2. Theoretical territorial (spatial) approaches of sustainable development

The non-global (territorial) dimensions of sustainability were considered almost as early as sustainability itself. For instance, the local understanding of sustainable development is a well-embedded endeavour initiated first by the local actions of the United Nations' Agenda 21 Programme in 1992. In spite of this early recognition, the

¹ Even the use of the term of 'sustainable development' and the term of 'sustainability' can transmit significantly different messages. In the present article the terms of 'sustainable development' and 'sustainability' are used as synonyms.

² The terms of territory, region and space are used generally as synonyms in the present article (all exceptions are explained). Furthermore, there is no definite distinction either between 'territorial sustainability' and the sustainability of territorial/spatial/regional development and planning activities. Nevertheless, it will become clear that these two frames of understanding have different functions.

interpretation of sustainability in a 'territorial way' (under the overall global/national level) has not been frequently and extensively applied and researched recently. The following categories of different territorial sustainability aspects can be identified in the relevant initiatives and papers:

- *The global vs. macro-regional context (or regional-cultural context) of sustainability:*
It serves as a basis for criticising the idea of sustainable development by arguing that this 'western' theory does not fit the conditions of the different cultural regions of the world (see for example in [Haque \(2000\)](#)). 'Development' and 'sustainability' can have different meanings in different cultural contexts.
- *Regions as areas of intervention for enhancing sustainable development:*
Regions are considered the most suitable platforms to manage some aspects of the social and environmental dimensions of sustainability (e.g. pollution management and generation equity in [Shaw and Kidd \(2001\)](#)).
- *The assessment-rooted and 'territorial level'-focused approach of sustainability:*
It supposes that the importance of incorporating territorial environmental information emerges when making appraisals closer to the local level (see in [Finnveden et al. \(2003\)](#)). Assessments (SEAs) at the regional level also allow reconciling national and local levels of decision making ([Barker and Fischer, 2003](#)).
- *The 'physical space'-oriented aspect of sustainability:*
It considers spatial phenomena such as connectivity of ecological units, spatial concentrations of development activities, shifting environmental problems and risks from one region to another (see for instance in [EEA \(2010\)](#)³).
- *The 'system theory'-based approach of regional sustainability:*
This is the most complex approach from the point of view of territorial thinking. The approach is rooted in the idea of regional sustainability as a necessity of the overall (global level) sustainability: sustainability can be reached only when none of the regions exceeds their own carrying capacity (see in [Rees \(1990\)](#)). This 'system theory'-based approach considers the territorial units (e.g. a region) as systems which communicate with the rest of the world through energy and material flows, business activities inside and between the regions (see in [Wallner et al. \(1996\)](#)). This approach can be assessment-oriented, too. One of the few ways to reduce the unpredictability of environmental and sustainability-related impacts of development interventions is to organise the material and energy flows inside an area and to connect consumption and production ([Therivel, 2010](#)).

The messages of the current paper (based on [Péti \(2005, 2010\)](#)) are similar to the ones offered by the latter system-based approach.

3.2.3. Territorial concerns in the practise of EU sustainable development policy

Sector-independent or territorial approaches of sustainability are hardly used in EU sustainable development policies. The Cardiff Process ([CEC, 1998](#); [CEC, 2004](#)) does not deal with this meaning of sustainability.

The Gothenburg Strategy ([CEC, 2001](#)) and its revisions ([EC, 2006](#)) use an interpretation beyond the context of separate sectors, for example when introducing a topic of sustainable production and consumption behaviour. However, a regional understanding of this issue is missing. Even in the explicit case of greening public

procurement procedures on a regional level, there is no territorial context, e.g. no mention of preferring nearby regional producers (probably because of the need to avoid competition–distortion effects on the EU-wide free market). Nonetheless, the strategy has some territorial concerns. It refers to territorial cohesion in its social goal and enhances sustainable land use.

3.2.4. The current context of territorial sustainability in EU development policies

The current paper presents a model of territorial sustainability that has been constructed during the Hungarian planning and implementing actions related to the current European development cycle. In Hungary, a new method has been formed for integrating sustainability considerations into regional development policy and planning (see in [Hu \(2007\)](#)). The method is stimulated by a new European development idea, the so called 'territorial cohesion'.

The term of territorial cohesion has already been introduced into the development policies of the EU in the early- and mid-1990s ([Faludi, 2004](#)). Then, it became an official shared competency between the Union and the EU member states by signing the Lisbon Treaty in 2007 ([EU, 2007](#)). Still there is no clear definition of this term, the European Commission's Green Paper on Territorial Cohesion ([CEC, 2008](#)) does not set up a normative understanding ([Faludi, 2009](#)). Therefore, the EU member states can create their own territorial cohesion goals and practises.

In Hungary, territorial cohesion was introduced as a horizontal aim during the planning of the EU financed development cycle from 2007 to 2013. The horizontal aim on territorial cohesion consists of a set of principles. Each principle defines territorial cohesion from a different aspect; territorial sustainability is one of the most important aspects. This sustainability-related approach to territorial cohesion is not standalone. [Camagni \(2007 in EEA \(2010\) p. 43.\)](#) claims that "territorial cohesion has been defined as being the spatial representation of sustainability (which is time-oriented), since both territorial cohesion and sustainability represent an integration of people, planet and profit". The Green Paper on Territorial Cohesion ([CEC, 2008, p. 3.](#)) also refers to territorial cohesion as "putting sustainable development at the heart of policy design".

Territorial sustainability forms a subset ('horizontal spatial utilisation principles' in [Hu \(2007\)](#)) inside the territorial cohesion objective. These principles have been developed further during the implementation of the 2007–2013 programmes; and now they can be summarised as a model on territorial sustainability (see [Section 3.2.5](#)).

Another possible future development concern has come up with the reform ideas on the strongest EU development policy, the Cohesion Policy. The traditional territorial policy approach focusing first of all on the economically less developed regions shall be diversified by the spatial integration of sector interventions ([CEC, 2010](#)) and by using a so called "place-based approach" ([Barca, 2009](#)). This urges to adapt the development interventions to the unique conditions of the different places (settlements, regions), and to spatially harmonise the conflicting development ideas of sustainability and competitiveness.

3.2.5. A criteria-based model (AUTHARSIV) of understanding sustainability in territories and during spatial development

Creating complex sustainability criteria is a way of giving relevant sustainability messages for assessments (see [Section 3.1](#)). [Gibson et al. \(2005\)](#) formed the requirements on sustainability into a comprehensive system of decision criteria (socio-ecological system integrity, livelihood sufficiency and integrity, intra- and intergenerational equity, resource maintenance and efficiency, socio-ecological civility and democratic governance, precaution and adaptation, immediate and long term integration). According to their application guidance, these general sustainability criteria have to be adjusted to the given decision context involving all the different actors and stakeholders of

³ [EEA \(2010\)](#) defines a territorial dimension of environmental sustainability in EU development policies. Although these thoughts do not cover social and environmental sustainability concerns, they introduce a so far underrepresented territorial thinking in EU sustainable development policy.

the decision-making in order to realise a common learning process. As a result of the adaptation, the criteria can be detailed, reclassified, and enlarged.

Although time-related dimensions are more emphasised in the above system of sustainability criteria than the spatial ones, there are some geographical concerns inside. For instance, the criteria on 'intragenerational equity' have rather direct spatial dimensions, as they also take the geographical differences into account. In addition, territoriality is embedded in the recommendations on the application of the eight criteria: it is stated that the relevant sustainability criteria depends on local differences, and also on the level of interpretation where 'level' can be understood also as a territorial level (from the micro to the global). Nevertheless, the eight general criteria can be developed further to be adapted to a territorial context, to the context of the spatial/regional development and planning activities.

Such an adaptation that interprets sustainability in a territorial way was developed during some current planning and implementing actions in Hungary (see Section 3.2.4). The aims were (1) to integrate the sustainability concerns into the territory-related management and development activities (first of all spatial/regional development and planning), and also (2) to support the assessment of PPPs that are related to given territorial units. Three basic components of this criteria-based and context-specific adaptation work were identified (see Fig. 1):

- (I) The basis is a set of general sustainability criteria (e.g. those described by Gibson et al. (2005)) that is – in some extent – tailored to the wider decision context (e.g. development policy).
- (II) Each development action has to be adapted to the specific local/regional conditions.
- (III) The essential part of the adaptation is to apply a supplementary set of criteria that generally describes the sustainability of a territory as a complex system of unique social, economical, and environmental structures with internal and external system relations and non-material values. Those supplementary criteria form a model called AUTHARSIV.

The AUTHARSIV model can be summarised in the following set of principles:

1. *AUT – Autonomy (Autarky)*: a sustainable region has to keep all the financial, knowledge, energy, and material flows inside its territory as long as it is possible. It has to try to close the cycles of these flows inside, to become least dependent on external resources, and to reduce travelling and transportation needs inside and between regions. The limits of this kind of autonomy have to be decided in any individual cases differently, for instance in the mirror of competitiveness. (See similar ideas in Wallner et al. (1996) and Therivel (2010), and related thoughts about the general sustainability requirement on resource maintenance and efficiency in Gibson et al. (2005)).
2. *HAR – Harmony*: in a sustainable region all the social, economic and environmental needs have to be satisfied without one regional structure (environmental, social or economic) harming another (e.g. housing [as part of social needs] must not consume the protected natural areas; industrial and communal wastewater [as part of social and industrial needs] must be treated properly; the labour force [as part of economical needs] must be ensured by the local society not causing local unemployment; emigration [as part of social needs] must not cause lack of labour force for the local economy). (See related thoughts about the general sustainability requirements on socio-ecological system integrity, livelihood sufficiency and integrity in Gibson et al. (2005).) An important subset of the principles of harmony is regarded as sustainable land use. The developments shall respect the landscape ecological patterns and improve their stability. They shall protect the natural areas, preferring the multifunctional use and reuse of the artificial locations (brownfield investments). Developments may not hinder the public accessibility to sites of natural and cultural value and heritage.
3. *S – Solidarity*: a sustainable region cannot exploit other regions and cannot export its economic, social, and environmental problems towards other regions (see similar ideas in Rees (1990) and environmentally focused in EEA (2010)).

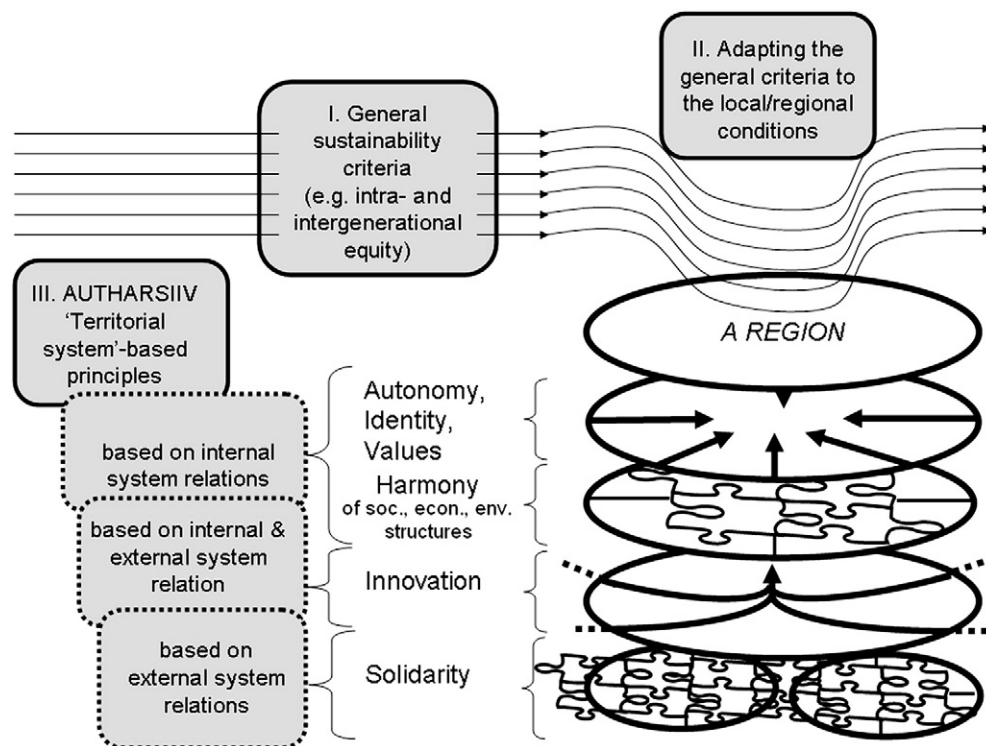


Fig. 1. Components of 'territorial sustainability' and the AUTHARSIV principles.

4. *I – Innovation*: a sustainable region is able to renew itself by adapting or creating innovations concerning its ecological and demographic production as well as its knowledge base. (See similar ideas in Wallner et al. (1996).)
5. *I – Identity*: There is no territorial sustainability without a strong territorial identity, without having ideas on a given territory in the people's mind. The local/regional identity is one of the most important resources of enhancing sustainability in a region. Identity stimulates the local society to act along sustainability principles without having a direct financial or other interest in those actions.
6. *V – Values*: The above set of principles represents a certain choice among the values of a society. The choice is relative; it is affected by the actual social, environmental and economical situation of a region. For instance, autonomy is always readjusted (by good territorial governance) to the current opportunities of economic competition. Nevertheless, the management and the internal actors of a region must always have that choice: the competence to influence the development of their own region using their own values. (See related thoughts about the general sustainability requirement on socio-ecological civility and demographic governance in Gibson et al. (2005)).

Sustainable territorial planning and regional development has to push the region under planning towards a more sustainable status described by the above principles. The principles can be applied on all territorial levels, but the regional one is the optimal (see Section 3.2.1).

4. Examining the presence and opportunities of territorial sustainability in regional development

The following studies are to map the practical application opportunities of the formerly introduced AUTHARSIIV model (see Section 3.2.5). They consist of an empirical study and some case studies, all of them examine the programming actions of the EU development policies for the current development cycle 2007–2013.

The empirical part surveys the different types of sustainability messages applied in the planning and assessment practise. The case studies analyse some pilot applications of AUTHARSIIV.

4.1. An empirical study on the presence of territorial sustainability in regional development

4.1.1. Methods – analysing regional development programme documents

This part of the study focuses on the development actions financed by the funds of the EU Cohesion Policy. The scope and the conditions for acquiring these funds are regulated and focused (CE, 2006), but are available for most of the sector development activities, for social, economical and environmental issues, and in all regions of the European Union. The funds can be spent along regional or sectoral operational programmes prepared by national or regional governments of the EU member states.

The representation of territorial sustainability messages was examined in EU regional operational programmes (ROPs). Altogether 55 ROPs prepared for the period 2007–2013 were analysed from 14 EU member states and 3 pre-accession countries (see Table 1). The sample is highly representative, covering the majority of the current ROPs under implementation in the EU. ROPs are the optimal fields for studying territorial sustainability messages of development policies according to the following arguments:

- The ROPs as for every other OP (sectoral OP) financed by EU sources have to incorporate sustainability as a horizontal principle according to the EU requirements (CE, 2006; CEC, 2005). ROPs are subject to strategic environmental assessment.

Table 1
Analysed ROP programming documents by country.

Country	Number
Analysed ROPs 2007–2013 financed by the EU Structural and Cohesion Fund	
Hungary	7
Austria	4
Germany	9
Bulgaria	1
Czech Republic	1
Slovakia	2
Finland	3
Ireland	2
Poland	5
Lithuania	1
Romania	1
Slovenia	2
UK	9
France	5
Analysed ROPs 2007–2009 from non EU member states (pre-accession countries) financed by pre-accession assistance	
Turkey	1
Macedonia	1
Croatia	1
Sum	55

- The subject of ROPs is the territory (a region), and ROPs deal with multi-sector developments. Therefore, ROPs might have the greatest potential among the other EU development programmes to create understandings on sustainability that go beyond a sector-based approach towards the sustainability of a complex territorial system.
- The ROPs are precisely analysable documents, as all of them have a similar structure, methodology, and terminology (CE, 2006). They follow the paradigm of strategic planning and system-led planning. Therefore, they are always based on an analysis, and set up aims and objectives, identify indicators, draft the later evaluation actions of the programme implementation, and define development tools (interventions) in their priority chapter. (Most of the measures described in the priorities are about financially subsidising development projects.)

In the first part of the analysis the frequency of occurrence of sustainability content was examined. The context of each occurrence of sustainability content was also collected. Both direct and indirect mentioning of the term of sustainability and any contents on enhancing sustainability were investigated. Those ROP chapters were analysed which might inherently contain development messages: objectives (including horizontal objectives or principles), priorities, monitoring and evaluation (including indicators) (see Tables 2–3).

In the second part of the analysis the already detected sustainability contents were classified (see Table 4). Three main categories were set up regarding the content:

- (1) General concerns on the coherence (relations to legitimate strategies on sustainability) and the level of tangibility
- (2) Territorial sustainability messages that are not related to single sectors (Those can be directly related to the elements of the 'territorial system'-based AUTHARSIIV principles.)
- (3) Sector-related sustainability messages (i.e. the usual, non-territorial sustainability concerns)

Both latter categories were assorted into more subclasses. During the analysis new subclasses were defined if new sustainability content was detected. Table 4 shows the final set of the subclasses and the relation between the subclasses and the AUTHARSIIV principles. Due to the scope of the programmes, not all the principles had the chance to be surveyed properly: only a few messages can be related to

Table 2

Ratio of the programmes with different sustainability content profile (total number of programmes = 55).

Rate of programmes meeting the criteria	Objectives with sustainable content ^a	Priorities with sustainable content	Indicators and monitoring issues with sustainable content
51%	Yes	Yes	Yes
2%	Yes	No	No
2%	Yes	No	Yes
25%	No	Yes	Yes
9%	No	No	Yes
2%	Yes	Yes	No
2%	No	Yes	No
7%	No	No	No

^a Not regarding sustainability as a compulsory horizontal objective or principle.

'Values' and 'Identity'. The non-land-use-oriented elements of 'Harmony' are hardly or non-analysable, as they possess too general requirements.

The data collected by the programme document analysis was put into a database. The quantitative investigations were followed by qualitative ones: the texts of the detected direct or indirect sustainability content were examined. In this manner, the territorial concerns in a given sustainability content (the relation to the AUTHARSIIV principles) could be detected more precisely.

4.1.2. Results

In 93% of the investigated programmes, sustainability content can be detected in one or more parts of the documents (see Table 2). Although half of the programmes do not represent sustainability in all of their chapters, the vast majority of the programmes include sustainability content in their strategic parts (see Table 3). (The presence of sustainability is even more solid among the horizontal messages: all the programme documents have sustainability principles or horizontal objectives because sustainable development is a compulsory horizontal policy of the EU development policies.)

The relatively least frequent occurrence of sustainability is among the objectives (see Table 3). The overall objectives (or visions/aims/goals) consider sustainability more commonly than the specific ones.

The high value of the monitoring and evaluation issues is due to the indicators (see Table 3), as the achievement of the objectives – as well as the compulsory incorporated sustainability horizontal objectives – always has to be measured by indicators according to EU programming methodologies. The evaluation plans of the programmes have much less sustainability concerns.

Some features of the sustainability messages detectable in any part of the programmes were also analysed. According to the results, applying sustainability criteria tailored to the decision context of a development policy is underrepresented. Only a few percent of the

Table 3

Rate of the programmes with different forms of sustainability content at the strategic parts of the programme document (total number of programmes = 55).

Among horizontal considerations	100%
◦ Among horizontal objectives	71%
◦ Among principles	93%
Objectives	58%
• Among the overall aims or in the vision	48%
• In specific objectives	38%
Priorities	78%
• Ratio of programmes mentioning sustainability in priorities or in measures	43%
Monitoring and evaluation	88%
• Ratio of programmes with indicators measuring sustainability	82%
• Ratio of programmes having proposals on evaluating sustainability performance of the programme in the evaluation plan (according to the EU programming methodology, some parameters of the later programme evaluations are to be mentioned in the programme document itself, in the evaluation plan)	20%

Table 4

Questions for classifying the sustainability content of ROPs.

Questions	Connecting AUTHARSIIV principle
(0) General questions	
• Does the programme refer to the national and/or EU sustainability strategy or climate change issues in their objectives?	Non-specific
• General or tangible sustainability content?	Non-specific
◦ Is the sustainability content related to a given theme or sector (specifically)?	Non-specific
◦ Is the sustainability content related to a given territory (specifically)?	Non-specific
◦ Is the sustainability content related to the principles of territorial sustainability without relating to a given region?	Non-specific
(1) What kind of territorial sustainability elements do appear?	
• Territorial autonomy	Autonomy, Identity, Values
• Keeping material flows inside a region as long as it possible	Autonomy, Solidarity (waste and pollution)
• Closing the cycles of material flows inside the region	Autonomy, Solidarity (waste and pollution)
• Keeping incomes inside the region	Autonomy
• Keeping and utilising knowledge inside the region	Autonomy, Innovation
• Preferring brownfield investments to Greenfield	Harmony (sustainable land use)
• Minimising the needs for transportation	Harmony (sustainable land use)
• Improving the accessibility of the places of the common values and heritages	Harmony (sustainable land use), Values
• Reducing the transport and travelling needs	Autonomy, Harmony (sustainable land use)
(2) What kind of sector-related sustainability elements do appear?	Non-specific
• Environmentally friendly technologies	Non-specific
• Renewable energy sources	Non-specific
• Energy efficiency	Non-specific
• Minimising the environmental damages	Non-specific
• Adapting environmental standards, thresholds, regulations	Non-specific
• Strengthening environmentally friendly attitudes	Non-specific
• Improving and developing environmental infrastructure	Non-specific

detected sustainability content is tangible enough to be related to a given sector or a region (see Table 5).

Half of the programmes mention sustainability in the context of territorial categories (see Table 5). The vast majority of these cite sustainable cities and urban regions, since the urban dimension was preferred by the programming recommendations. In most of the cases this territory-related sustainability content is not 'place-based' (see Section 3.2.4). It does not include adaptation or specification of the general sustainability messages for the conditions of the given territory. It is only mentioning the term as an attribute.

Table 5 shows the most frequently detectable territorial or sector-related types of sustainability content in the programmes. The most important result is that the sector-related sustainability content is a considerably more frequent element of the programmes than the territory-related one. These detectable sector-related sustainability categories are all popular categories of the sustainable development policies all over the world. They are also embedded in the EU regulations and EU level master policy documents that are the basis of the current programming cycle (CEC, 2005).

The popularity of the territorial sustainability-related categories is really uneven: there are some relatively popular categories beside extremely unpopular ones (see Table 5). The relative popularity can be explained in different ways:

- Some categories are adopted because well known and popular EU level development messages stimulate their occurrence in the programmes. Some of these messages are also contained by the EU

Table 5
Ratio of programmes with different types of sustainability content (total number of programmes = 55).

<i>General or tangible sustainability content?</i>	
• Is the sustainability content specifically related to a given theme or sector?	21%
• Is the sustainability content specifically related to a given region/territory (e.g. a certain county, city or set of cities, a landscape)?	9%
• Is the sustainability content related to classified territory (e.g. cities, villages, urban regions, rural regions, deprived regions, natural geographic assets, landscapes, etc.)?	50%
• Ratio of programmes mentioning 'climate change' in their objectives	61%
• Does the programme refer to the national and/or EU sustainability strategy when describing the external coherence of their objectives?	46%
<i>Different territorial sustainability elements</i>	
The first 6 points are related to some of the basic principles of the AUTHARSIV model on territorial sustainability. 7–15 points have more detailed messages of territorial sustainability based first of all on the harmony principle of AUTHARSIV	
1. Territorial autonomy (regional production and consumption)	0%
2. Keeping material and energy flows inside a region as long as it possible	21%
3. Closing the cycles of material flows inside the region	23%
4. Closing the cycles of energy flows inside the region	18%
5. Keeping incomes inside the region	2%
6. Keeping and utilising knowledge inside the region	34%
7. Preferring brownfield investments to greenfields	45%
8. Minimising the needs for transportation	2%
9. Improving the accessibility of the places of the common values and heritages	34%
10. Reducing commuting needs	2%
11. Reducing the travelling needs for reaching the public services	5%
12. Reducing the needs for recreation travelling	2%
13. Reducing needs for travelling in general	16%
14. Preferring telework	7%
15. Preferring e-administration	25%
Average occurrence	15%
<i>Different sector sustainability approaches</i>	
• Environmentally friendly technologies	50%
• Renewable energy sources	71%
• Economical activities with better energy efficiency	59%
• Human infrastructure with better energy efficiency	32%
• Housing with better energy efficiency	29%
• Minimising the environmental damages caused by tourism	59%
• Minimising the environmental damages caused by agriculture	48%
• Adapting environmental standards, thresholds, regulations	48%
• Preferring/supporting public transport	14%
• Preferring cycling and pedestrian traffic	20%
• Minimising the environmental damages caused by transport	36%
• Improving and enlarging green areas	32%
• Strengthening environmentally friendly attitudes	29%
• Improving and developing environmental infrastructure	38%
Average occurrence	39%

regulations on the scope and conditions of the programmes' financial sources (the Structural Funds and the Cohesion Fund – see in CE (2006) and other related fund-specific regulations). It is also important to mention that these categories hardly show programme-specific messages beyond citing these well-known terms:

- 'Keeping and closing material flows inside a region' are almost exclusively about one highlighted EU environmental topic, waste management. Cooperation between sectors and firms, improving the processing level of raw materials, supporting the local needs from local resources etc. are not mentioned.
- 'Keeping and closing energy flows inside a region' do not go beyond the utilisation of renewable energies in the regions. There are no measures on energy autonomy of the regions.
- The category of 'keeping and utilising knowledge inside the region' is covered by innovation and R&D (research and development) actions in favour of decentralising the knowledge bases inside a country or in Europe. There are no specific measures on utilising the traditional, the creatively produced or adapted knowledge inside a region.

- Other applied territorial sustainability topics are also preferred by the EU, but not from a territorial sustainability enhancement point of view. Therefore, the highly popular category of 'preferring e-administration' is motivated first of all by modernisation, technological development, effectiveness of process management and less by the idea of reducing travelling/transporting needs. However, indirect intentions on cutting down travelling needs can be detected relatively often but without a specific understanding (such as re-creational, commuting, etc.).
- The third group of the frequently occurring categories contains messages deeply incorporated by the European programming practise as criteria meeting perfectly the principles of EU horizontal policy on enhancing environmental and sustainable development (see 'improving the accessibility of the sites of the common values and heritages', 'preferring brownfield investments to greenfields').

4.2. Applying regional sustainability principles – case studies

4.2.1. The background of the case studies

The Hungarian planning and implementing processes of the development cycle 2007–2013 (financed by the EU Structural and Cohesion Funds) served as a field for testing some AUTHARSIV principles in practise. The thoughts on enhancing territorial sustainability were tried to be integrated into planning documents of all PPP (Policy, Plan, Programme) level. Some experimental actions aimed at translating the horizontal territorial cohesion and territorial sustainability messages of programmes into the project level (PÉTI, 2010). A guide (PÉTI, 2009), a manual, and questionnaires were developed for checking programmes and projects of different sectors.

In addition, some pilot SEA processes related to regional development planning were also conducted in the last 3 years. The main findings of the SEA of the Lake Balaton Region's Development Strategy (2007–13) are presented in Section 4.2.2. This region is a very suitable field of sustainability studies as the regional socio-economical structures are dependent on the environment to a great extent. The region is a lake basin area with highly sensitive environmental conditions and strictly regulated economic activities. As the most popular holiday resort area of Hungary, tourism is the dominant economic sector. However, tourism has a vulnerable structure with a small market dominated by the lake shore mass tourism. Many of the enterprises are managed by actors outside of the area and function only seasonally. Unfavourable environmental changes can easily result in declining tourism attractiveness and therefore a reduction of incomes (e.g. the quality and quantity of the lake's water, the climate, the sprawl of built up areas against natural landscapes). The socio-economic standards of the relatively wealthy towns along the shore and of the small sized villages in the hills are quite different.

4.2.2. Experiences of applying territorial sustainability principles in practise

In Hungary, the incorporation of territorial sustainability principles into 2007–13 ROPs (and also sector OPs) resulted mainly in a mention of some principles among the horizontal objectives with minor effects on other programme elements.

On the project level, in spite of the developed guidance (see Table 6), the project developers and evaluators – with usually no territorial and negligible sustainability knowledge – had difficulties in applying the new aspect. Additionally, because of many other development interests, a project fulfilling the requirements of territorial sustainability is not dealt with sufficiently during the project selection and allocation of EU subsidies (it might receive a maximum of 1–3 scores inside the potential maximum of 100 of the evaluation scoring system). Using principles just in some programmes and projects cannot be powerful enough to enhance sustainability in regions.

According to Scandinavian case studies (Hilding-Rydevik and Bjarnadottir, 2007), both macro (e.g. policies, legislation) and micro

Table 6

Principles of regional sustainability on project level (in case of projects developing environmental infrastructure).

Source: Adapted from Péti (2009).

Basic principles	Project evaluation criteria (If a project meets one of the requirements below it gets 1 point, the projects are ranked according to total number of points during the project selection procedure.)
<i>Strengthening regional autonomy (sustainable and efficient use of local/regional resources)</i>	
Strengthening synergy of regional activities	There are projects recently implemented or under implementation/preparation that are different from the environmental development subject of the application and that strengthen the development of the applicant, or to the enforcement of which the development of the applicant contributes
◦ Does the project have any connection to other similar environmental development projects in the settlement, region? Has it been appropriately introduced?	There are development planning documents of settlements or micro-regions accepted with which the development concepts are in accordance.
◦ Does the project have a connection to strategic objectives accepted for settlement/regional development?	The project reflects the collaboration of various settlements (e.g. due to partners, location).
Keeping resources flow inside the region:	Is there a private investment that will be implemented as a result of or in direct connection with the development to be implemented?
◦ The development contributes to the support of the local/regional economy, cooperation, the purchases and sales of local/regional service providers and special products, to retention and use of the human, organisational and financial resources in the micro-region?	Will the project be contributed by local or regional non-profit partners during its development and production? <i>The development is proved – via adequate supporting factors – to contribute to the following factors:</i>
	• The development contributes to the retention of the social resources of the affected settlement/micro-region in the area, to utilisation of micro-regional resources (e.g. NGOs, working hours of the local people, local capital).
	• The development contributes to support the local/regional economy, to the use of local/regional services and products, to the permanent collaboration of subcontractors or purchases within the settlement, micro-region, to the creation of a local cluster of products
<i>Strengthening harmonious relation in and between regional structures</i>	
Enhancing sustainable use of space:	<i>As a result of the project, in accordance with the NHDP principles for land use:</i>
◦ Does the project promote the implementation of principles for sustainable land use? (e.g. it does not increase built-up density, does not reduce nature areas, improves access to public properties, encourages and enables access and local transport on foot, by bicycle, by public transport and alternative modes of transport, reduces travel and delivery needs, deepens knowledge of the region and increases public responsibility) (If access to public properties decreases, no points can be awarded to this factor.)	• The built-up density of the affected land will not increase and the extension of the lands open to the public and areas close to nature (in accordance with the Act on Nature Protection, nature areas, forests, planting trees, water surface, reedy area, fruit-garden, vineyard, line of trees, lawn, grassland, pastureland, green area on urban land) will not decrease.
	• As a result of the development, public access to public properties (forests, peaks, viewpoints, waterside, islands, protected areas open to the public, historic buildings and objects that form a part of the cultural heritage, night sky) and events of public interest will be ensured or improved (If access to public properties decreases, no points can be awarded to this factor.)
	• Access to the mentioned locations and the local sustainable transport will be improved (walking, bicycle, alternative modes of transport and public transport), the rate of individual motorised transport will be reduced.
	• Regular travel and delivery needs will be reduced (e.g. those of employees), or these needs can be met by sustainable modes of transport.
	• Reputation and knowledge of the local area and responsibility for the public properties of the local community will increase.
Positive effects on regional structures (other than environmental infrastructure directed by the project):	<i>As a result of the project, the following will be implemented in settlement(s) or micro-region(s) where project implementation is located:</i>
◦ As a result of the project, will community life be improved, will the infrastructure for community use be developed (apart from environmental development), will local workforce be employed, will tax revenues increase, will there be donations, settlement marketing, other positive effect?	• Infrastructural development for public use (e.g. road, stop, car park, etc., other elements apart from the primary objective of the given environmental development project)
	• The quality of life of the local people will be improved (access to various services, community life)
	• Other positive territorial impact (increase of min. 10% in tax revenues, donations, support for spatial development NGOs, reputation of the settlement, etc.).
	• New jobs for workforce living in the settlement area

(i.e. everyday professional practise) levels can be blamed for the inadequate integration of sustainable development in regional development planning and assessment.

The insufficiencies can be traced back to a lack of a consistent regional sustainability frame. In some countries, there is sustainability planning policy on regional levels. (It is often motivated by the process of developing a national sustainable development strategy which is a recommendation in the EU.) For instance, the regions of England were required to do regional sustainable development frameworks (e.g. SWRA, 2001). (Please note that the new UK Government has abolished the spatial plans at regional level in England in 2010.) The decade long English tradition of sustainability appraisal and the regional sustainability frameworks must be strong procedural bases for enhancing regional sustainability. Nevertheless, some methodological vagueness (Therivel and Walsh, 2006) and conceptual deficiencies (Therivel et al., 2009) can be detected in the assessment processes (SA/SEA) of the English regional plans. For instance, the SA/SEAs rarely identify the regional environmental limits and capacities of the development actions to be sustainable; and some sustainability-relevant strong development competencies (e.g. fiscal regimes, behavioural change) are not presented on regional level (Therivel et al., 2009).

The Hungarian experiences of programme implementation and regional SEAs also came up with similar outputs, and detected a lack of a consistent regional sustainability frame. Recognising the problem, a

specified regional sustainability value set was compiled during the SEA of the Lake Balaton Region's Development Strategy (see Table 7).

Unfortunately, this value set has not become a strong common set of values of the regional society and the regional actors. Thus, strong internal and external adverse interests could appear and act after the planning process. At the same time, the competence of the regional management and decision making bodies concerning regional development was weakened. Therefore, the implementation of the finally adopted regional strategy can hardly follow the defined principles.

Now, as a second attempt, the value set shall be integrated into the updated basic development policy document of the region ('Long Term Spatial Development Concept of the Lake Balaton Region'). In order to form a set of values that truly belongs to the regional community, there is still a lot to do in implementing an iterative-communicative planning process with community involvement, and disseminating those values among the different internal and external socio-economical actors.

5. Discussion and conclusions

5.1. Defining territorial sustainability

Territorial sustainability is not only about considering sustainability in the context of each sector (or TBL pillar) of a region. It is about the sustainability of a territorial system consisting of site-specific

Table 7

Some of the territorial sustainability criteria of the Lake Balaton Region.

Source: Adapted from BFT-ÖTM (2007).

Territorial autonomy related principles

- All developments shall create opportunities for the locally managed small and medium sized enterprises.
- All developments shall intend to create full time, all year jobs for locals.
- All developments have to strengthen the flow of incomes inside the region by stimulating locally managed tourism and other investments, business relations between the local economic actors, especially between tourism services, building common tourist products by locals etc.
- All developments shall support energy autonomy (by energy efficiency and renewable energies) and keeping and closing material flows inside the region.
- However, due to the sensitive environmental conditions of this relatively overpopulated (because of the holiday resorts) region, these intentions cannot be really ambitious. The huge amount of waste cannot be managed inside the watershed, and full energy autonomy could be dangerous to the scenery.
- Administrative autonomy (see values)

Territorial harmony related principles

- All developments shall protect and improve the ecological diversity, the cultural heritage, and the traditional customs of the area, also as objects of tourism attractions.
- All developments shall try to serve a more diversified economical structure that has other dynamic activities than tourism (or more diversified tourism products in case of tourism development).
- None of the developments can reduce the accessibility to the natural and cultural values (cultural heritages, natural assets as the lake shore, forests, the light-pollution free starry sky etc.)
- None of the developments may risk damaging the resources of the area, especially the landscape values.

Solidarity related principles

- The developments shall not export the problems of the shore area (traffic, waste management, urban sprawl caused by the densely populated settlements and strong economic activities) to the less populated and more organic areas far from the shores. Developments resulting in similarly intensive tourism or traffic to the ones at the shore shall not be supported in the hills.
- The developments have to serve the idea of solving the environmental problems inside the area. (The waste management is an exception as in some cases it is better to govern the waste outside the sensitive area of the lake basin.)
- Only the brownfield investments are preferred because of the already densely built up landscapes.
- The investments shall not increase considerably the needs of daily transportation, parking, permanent and strong spatial concentration of tourism visits and the emission values especially along the shore.

Innovation related principles

- All developments shall revitalise the local knowledge especially in case of producing traditional food and handicraft products as tourism attractions.
- Developments shall also adapt the innovation outside the regions, especially in case of tourism services and managing tourism products.
- Exceptions: innovation activities without serving the innovation of the Balaton region itself are acceptable: for the sake of economical diversification investments of knowledge-based activities, R&D units with low emissions are welcome.

Identity related principles

- All developments shall strengthen the local identity and the responsibility towards the common values and the environmental consciousness among locals, visitors and investors outside from the area.
- All developments shall deepen the knowledge of the local society (as far as possible the visitors and investors outside from the area) about how the ecosystem of this highly sensitive area works, how to avoid the unfavourable social and economical impacts.

Values related principles

- All developments shall help to harmonise the many different actors of the area with many times totally controversial interests.
- Even the local actors are really diversified: the local inhabitants are interested in development, jobs and income, the considerable group of summerhouse owners needs calm and clear environment. The investors need efficient investing opportunities not bottlenecked by environmental concerns.
- What is more, the local and central stakeholders apply distinct development approaches. The national government is interested in preserving the values of the area therefore it initiated strict regulations. In the meanwhile these centrally issued regulations are considered as an obstacle of the development and well-being by the local governments.
- Developments shall support broadening the decision competency of the legitimate representatives of local actors.
- The Lake Balaton Region has a special status in the Hungarian regional development administration. The management of the region has very limited development competency and most of the developments are done in the frame of national sector programmes and programmes of the overlapping regions. These programmes cannot take care on the special development needs and principles of the area.
- In order to get a legitimate common set of sustainable development values of the area, the above SEA principles are intended to incorporate into a policy document that is adopted by all different central and local stakeholders of the area.

Sector-related sustainability principles (example)

- Transport developments shall prefer the public transport to building and improving roads.
 - Transport developments shall contribute to the reduction of individual motorised travel.
-

environmental, social, and economical structures. The application of this territorial approach can have an added value in all assessments, but it is especially essential during the integration of sustainability into activities whose scope is the territory itself (e.g. spatial planning, spatial/regional development, rural development, management of territorial units).

5.2. The 'state of the art' in integrating sustainability into regional development programmes

According to the empirical study, neither the 'territorial system'-led AUTHARSIV principles on sustainability, nor the two other components of territorial understanding of sustainability (the place-based approach and the criteria-based general sustainability concerns) are typical of the sustainability interpretation in the current

regional development programmes of the EU. According to the case studies, due to this relative unfamiliarity and unconventionality and also to the high complexity of these territorial sustainability principles, it is difficult to implement them in regional programming and assessment.

Nothing can be blamed if a brand new conceptualization (as for instance the AUTHARSIV model) is not widely spread or hard to be applied. It is true, but this argument cannot sufficiently explain the challenging state of the art in regional sustainability. Based on the results, further symptoms can be synthesised and concluded in details as follows.

5.2.1. Missing strategies for integration of sustainability into development?

Sustainability is certainly among the main motivations for development actions indicated by the ROPs objectives. Still the

understanding of sustainability in different phases of the programming work is not coherent. Only half of the programmes apply sustainability consistently. The inconsistencies set back the strategic integration of sustainability in development policies:

- The strategic and system-based approach of sustainability is not really strong. The enhancement of sustainability is often not directed by sustainability-led objectives. In other cases the programmes try to measure their own sustainability performance (by indicators) without having any programmed sustainability enhancing intervention. The monitoring data (indicators) describing sustainability conditions are not always planned to be processed by programme evaluations.
- The compulsorily incorporated sustainability principles do not pervade the programming process comprehensively. Only the indicators can show up a generally significant incidence of sustainability content. Although the popularity of sustainability is relatively high on the level of priorities; in most of the cases, the priorities repeat only general sustainability matters without any adaptation to the given intervention.

5.2.2. Territorial development without territorial understanding of sustainability?

Surprisingly the regional programmes do not use a territorial approach when adopting sustainability messages, and have no conceptual understanding of sustainability in the regions:

- Although it is popular to mention sustainability in the programmes as an attribute of the development of regions or cities, the term is not interpreted in the context of the unique territorial conditions.
- The sector independent territorial sustainability contents are much less popular than the sector-related ones.
- There is no conceptual consideration of 'territorial sustainability' even in territory-related sustainability content. The motivation behind the territory-related features is often stimulated simply by the sustainable development interventions of certain sectors (e.g. the wise utilisation of renewable energy can indirectly stimulate regional energy autonomy but there is no intention on that).

5.2.3. Territorial sustainability vs. competitiveness

In the context of EU policies it is quite understandable why some elements of the AUTHARSIV model on territorial sustainability are not in the focus of the development programmes. The EU development policies follow the superior ideologies of the free market, the free movement of goods, labour, persons, and capita. Those ideas have some theoretical contradiction with the autonomy (autarky)-based territorial sustainability principles.

Indeed, even in the practise of a 'free market'-oriented environment, territorial sustainability should not be refused. The above contradictions can be managed by defining the limits of the free movements and the limits of utilising the inner regional resources. It is also a question of territorial dimensions; each territorial level can have a different way of autonomy. For instance, the rural regions or rural localities can realise self sustaining systems of food and energy production, the regions with urban centres can organise a self knowledge support and innovation processes.

5.2.4. Using the word 'sustainability' without giving sustainable development messages

Too many meaningless policy applications of this term make sustainability a cliché without considering its sense. Its objectives are rather overall than specific. Its content is not tangible enough to give messages adapted to the given programming situations, neither to the sectors nor to the regions. The messages are not more context-specific either in those frequent cases when coherence is declared between

the programme and the national or EU level sustainable development strategies (see Table 5).

It is surprising that the 'climate change'-related issues were more popular than the sustainability messages in the objectives (see Tables 3, 5). Climate change as an integrative approach with obvious messages (not like sustainability) has become even more popular since 2006 (when the programming was done). Although this is favourable from an environmentalist point of view, it also holds the possibility of 'climate change' making headway against sustainability in the field of environmental integration in development policies. This would not be purely beneficial from a (regional) development planning point of view, because the issue of climate change represents a narrower integration potential to sustainability.

5.3. Recommendations on a sustainability-based regional development system

According to the investigations, the current regional development planning processes are quite far from a sound understanding of sustainability. The case studies also indicated deficiencies in planning and implementing activities. Nevertheless, the studies may also suggest that it is possible to support the interpretation and specification of sustainability messages by using a territorial approach.

In order to give better tailored and more applicable sustainability messages, new planning and assessment methods are to be followed. The methods can be applied especially in the field of regional development, but are also relevant in the sector plans of a region.

In general (and especially in case of programming for EU development sources), it is not always acceptable to incorporate sustainability issues in a much more complex way because the programming processes are already overloaded with many different centrally coordinated methodological obligations, objectives and horizontal policies. Therefore, the effective solution has to be found out of the given planning processes, in the planning system of a region or in the assessment procedures of the programmes.

First of all, it is very important to set up regional sustainability values as baselines with applying not only sectoral but also territorial approaches (see Table 7). The values highlight the requirements to be fulfilled by any kind of sector or territorial development action of a region.

The values can be an indispensable part of the assessment procedures. Sufficient attention should be given to values of the affected communities when assessing policies, plans and programmes (Partidario, 2000). The assessment (e.g. SEA) is to orientate the planning actions towards the inclusion of these regionally tailored sustainability values.

The regional sustainability value set is to be fixed in a legitimate policy or strategic document of the given region: a strategic frame, the basis of the planning system. The value set is to be used as a reference frame in the assessments of all planning processes affecting the given region (Fig. 2). If such a strategic frame of regional sustainability is missing, then each assessment process has to draft its own.

Identifying regional values needs a "baseline led" (Therivel et al., 2009 p. 166.) approach, specifying the regional carrying capacity, and also community involvement to establish general commitment to the values.

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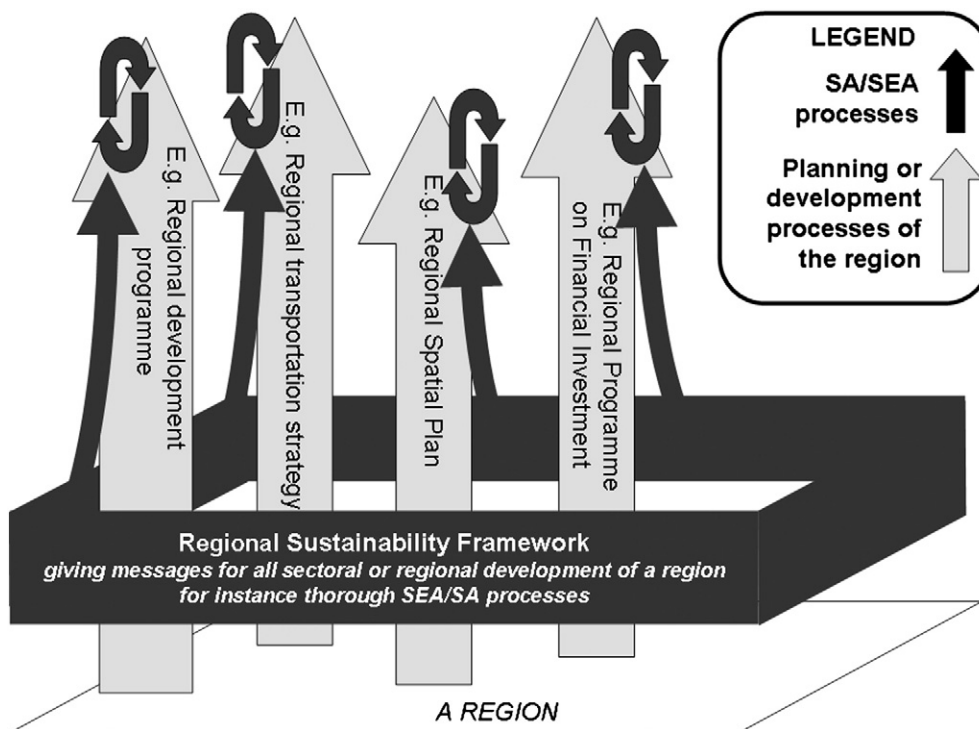


Fig. 2. Sustainability-based regional planning system.

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