ESPON

LP3LP
Landscape Policy for the Three Countries Park

Targeted Analysis 2013/2/21

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Abbreviations

3LP: Three-Countries-Park (Drilandenpark/Parc des Trois Pays/Dreiländerpark)
LP3LP: Landscape Policy for the Three-Countries-Park
CAP: Common agricultural policy
CBPMR: Crossborder polycentric metropolitan region
CLLD: Community Led Local Development
ELC: European Landscape Convention
EMR: Euregio Meuse Rhine
GHG: Greenhouse gases
GPP: Green public procurement
ITI: Integrated Territorial Investment
LQO: Landscape quality objectives
PES: Payments for ecosystem services

A - Executive Summary

Currently, both European as well as regional policy makers are encountering a similar question: How to increase cohesion across borders and jurisdictions – not primarily through standardization, but rather through investing in diversity across scales with place-based and complementary approaches. Moreover, following the Great Recession in 2007, needs for smart, sustainable, and inclusive growth are in an explicit focus. The special subject of the LP3LP project (Landscape Policy for the Three-Countries-Park) is to find out, how landscape – or landscape policy respectively – can serve such a wideness of objectives. Seen as an apt cross-border testing ground for improving the effectiveness of European policy, the '3 Countries Park' (3LP) is used as a case study. Being an ongoing cooperation for cross-border landscape development, the 3LP is an existing stakeholder initiative since about the mid 1990's, with a loosely defined project area located in the Euregio Maas-Rhine. The latter is a CBPMR (Cross Border Polycentric Metropolitan Region) comprising the cities of Maastricht, Aachen, Hasselt, Heerlen and Liège (BE-NL-DE).

The LP3LP project is to provide policy support for both the 3LP stakeholder community and the EU level. Starting with framing landscape and concepts for landscape policy, the project places the 3LP in its dynamic European context, identifies the potential effects of EU policies, compares it with other CBPMR and takes stock of the unique territorial situation (Chapter 2). This information is used to formulate and establish a shared vision on the future of landscape in transboundary collaboration resulting in a cross-border landscape perspective. The landscape perspective serves as a framework for regional (cross-border) policy aiming to preserve and develop the core landscape qualities in the 3LP region in a sustainable and place-based way (Chapter 3). Via reinterpretation of the 3LP as a "European cross-border landscape partnership" (for high-quality and innovative landscapes) and via 4 thematic strategies, the interface between the landscape perspective and EU policy is exemplified. The results provide insight on how European policies can be harnessed to develop a cohesive and diverse European landscape that in turn can contribute to achieving overall European objectives of smart, sustainable and inclusive regional development (Chapters 4 and 5).

i. Analytical results

The conception of landscape diverges according to different cultural and national contexts: a first notion rather hinting towards misunderstandings or even conflicting interests within cross-border areas. However it is shown how the European Landscape Convention (ELC) of the Council of Europe offers a consensus on the topic by considering landscape a perceived area and part of physical space forming people's living environment. Landscape can thus be understood as the distinctive physical and perceivable expression of 'territory' and 'environment'.

Concepts also vary regarding political approaches applying to landscape development. The ELC requires the formulation of “landscape quality objectives” based on public aspirations, valid in the case of 3LP for Belgium and the Netherlands as signatory states. The consideration of “landscape functions” within spatial planning has a long political tradition in Germany and the Netherlands. Landscape functions partly overlap with the concept of “ecosystem services”, which has been recognized by the EU biodiversity strategy. It remains a challenge to combine these different political agendas within one cross-border landscape policy. However, it is shown how the ecosystem services approach – to be linked with (environmental and) landscape quality objectives – can be used as a unifying theme for demonstrating non-commodified value-creation in landscapes enabling smart, sustainable and inclusive regional development across borders, and for developing ‘quality landscapes’ as a shared political goal (Chapter 2.1).

The 3LP itself is characterized by a high diversity of attractive landscapes influenced by significant European epochs. The area is located at the transition from Western Europe’s middle mountain ranges to its plains being part of the Maas river basin crossed by the European loess band. Throughout its history, the area has been a major crossing point of different economic systems, their transformations (esp. industrialization in the 19th century), while having also provided major physical linkages (e.g. the Roman Via Belgica as a road or the Meuse River as a waterway). Together with a dynamic history of changing borders, shifting several times between political unifications and fragmentations, gives the 3LP area a touch of being ‘the heart of old Europe’, a regionally shared characteristic – rather special for a cross-border area. However, the 3LP also represents a typical cross-border situation, resulting from relatively young national borders. On the one hand, the borders can be hypothesized as a major cause for cultural diversity (e.g. 3 languages are spoken) and a plurality of viewpoints (e.g. regarding landscape). On the other hand, they have until recently produced hinterland effects and are responsible for today’s divergence of bureaucracies, including those related to landscape and spatial planning (Chapter 2.2.1).

Besides considering the past and its natural-cultural landscape heritage as a rich source of European and cross-border identity, anticipating on-going trends and potential future impacts is important for a landscape policy. Major territorial dynamics affect European regions and their landscapes. The analysis of a set of previous ESPON studies reveals that the example of the 3LP is especially under the influence of 4 typical European challenges: ‘Intensification of land use + economic diversification’, ‘Climate change mitigation + adaptation’, ‘Demographic change + territorial attractiveness’ and ‘Suburbanization + polycentric development’. This broad variety of issues has been determining the proposals and recommendations within the LP3LP project development (Chapter 2.2.2).

Reacting on such challenges the EU policy context on the one hand poses high requirements to landscapes, while on the other hand offering support to regional and

local policy. While the overarching growth agenda of the “Europe 2020 strategy” generally places high site and resource demands on landscapes, the “Flagship Initiative for a Resource Efficient Europe” and the “Common Strategic Framework” for the structural funds partially, and the “Territorial Agenda 2020” explicitly support landscape values. By additionally considering policy objectives of an abundance of sectoral policies, a comprehensive list of ‘landscape demands’ in relation to landscape functions and ecosystem services is developed, demonstrating an intense spectrum of both conflicting and synergistic political requirements to European landscapes. Regarding support by EU policy, however, no direct promotion of integrated landscape development is provided: Cross-border areas that want to make use of EU support for balancing a multiplicity of territorial interests and impacts via shared landscape approaches have to rely on legal, financial and communicative instruments from different sources. Besides ITI and CLLD as area based tools, suitable instruments are available in the fields of sustainable resource management, biodiversity, and research & innovation as well as from regional, rural and territorial cooperation programs; to a lesser extent in the field of cultural heritage. In any case, landscape approaches remain highly dependent on direct support by regional governments, market actors, their representative organizations and the public (Chapter 2.2.3).

Comparing the 3LP with other CPBMR hints as to which European cross-border regions could potentially exchange experiences and cooperate in future with the 3LP. Three among a total of ten CBPMR investigated (Wien-Bratislava/AT-SK-HU, Lille metropolitan area/FR-BE, Greater Region/LU-DE-FR-BE) are also more or less explicitly applying landscape as an integrative concept for addressing European territorial dynamics, especially in response to land use intensification and suburbanization. Measures are often twofold: Open areas are protected, while at the same time economic and leisure activities are initiated or supported in accordance with the rural profile of the region (Chapter 2.2.4).

Due to their specific territorial characteristics the 3LP and other CBPMR may serve as innovative testing grounds for landscape-driven territorial development that is aligned with Europe and EU policy – in order to strengthen cohesion, while simultaneously enhancing diversity with place based approaches. On the one hand, differences between formal planning systems as well as to the relations to landscape and the ELC are highlighted as a typical cross-border characteristic. On the other hand, the example of the 3LP seems special due to an active and relatively permanent tradition of initiating or collaborating with project-based, approaches that make use of existing organizations and their expertise – dealing with landscape related topics (e.g. water management and habitat development). Hence concluding for the local example of the 3LP area, however more broadly also for other CBPMR, the following directions of landscape-driven policy development are emphasized and addressed by the policy proposals at regional 3LP level (Chapter 2.2.5):

→ **At the beginning, make use of existing core competences and interests**

→ **Enable critical mass for synthesis**

→ **Consider approaches via the integration of market actors**

In relation to landscape and EU policy a not yet fully developed potential of 3 dimensions of landscape for territorial development is hypothesized and reflected in the policy recommendations at European level (Chapter 2.2.5):

→ **Landscape as asset:** It enables smart, sustainable, and inclusive growth, as targeted by the Europe 2020 strategy.

→ **Landscape as place:** It sets the scene for place-based policy implementation, as promoted by the Territorial Agenda

→ **Landscape as common ground:** It facilitates territorial cohesion, as it is an overall aim since the Lisbon Treaty

ii. Options for policy development

Landscape Perspective *(Chapter 3)*

The unique quality and value of the landscape of the 3 Countries Park has already been formally recognized in the first cross border spatial development perspective for the region: the 1993 MHAL perspective. Since, several landscape studies have followed, focused on various parts of the 3 Countries Park, together these cover almost the entire area of the 3 Countries Park. Up until now an overall landscape perspective has been missing, one which crosses the national borders and overarches the differing approaches. This is where the landscape perspective for the 3 Countries Park steps in. The landscape perspective is a structured plan to preserve, enhance and develop the qualities of the landscape of the region. It aims to guide developments and decisions that affect the future physical form and function of the landscape. Based on interviews with stakeholders, discussion in workshop-sessions, a map-analysis, the characteristics of the landscape types and the identification of valuable landscape assets in previous landscape studies, five core qualities of the 3 Countries Park landscape were derived:

- Diversified relief
- Abundance of water appearances
- Varied green character
- Polycentric settlement pattern
- Manifold cultural heritage.

The Landscape Perspective for the 3 Countries Park aims to preserve, maintain and enhance these core-qualities of the landscape. It builds upon the double requirement of unity *and* diversity. On the one hand a shared perspective is given on preservation, development and cultivation of the core qualities of the 3LP landscape. On the other hand it provides opportunities to respect different identities, to reflect

cultural differences and to enable specific place-based solutions. In order to meet the two aims, the landscape perspective is defined on a regional scale, providing opportunities for detailed, tailor-made and culturally-embedded local solutions in landscape planning, design and management. The Landscape Perspective consists of the following elements:

- 13 Guiding principles (Figure 2): General spatial principles for landscape development, based on shared objectives for preservation, development and cultivation of the core qualities
- Present structures: Landscape structure and cultural identities. Important components of the region's identity and physical elements, defining which guiding principles can be applied where, and how.
- Future structures: The green-blue framework (Figure 1) and the urban-open space framework show what structures will emerge on a regional scale by applying the guiding principles. The green-blue framework will provide a backbone in the landscape for enhancing the core qualities and maintaining key landscape functions and ecosystem services. The urban-open space framework will support this by ensuring space for the green/blue framework and improving the accessibility of the landscape for recreation and tourism.

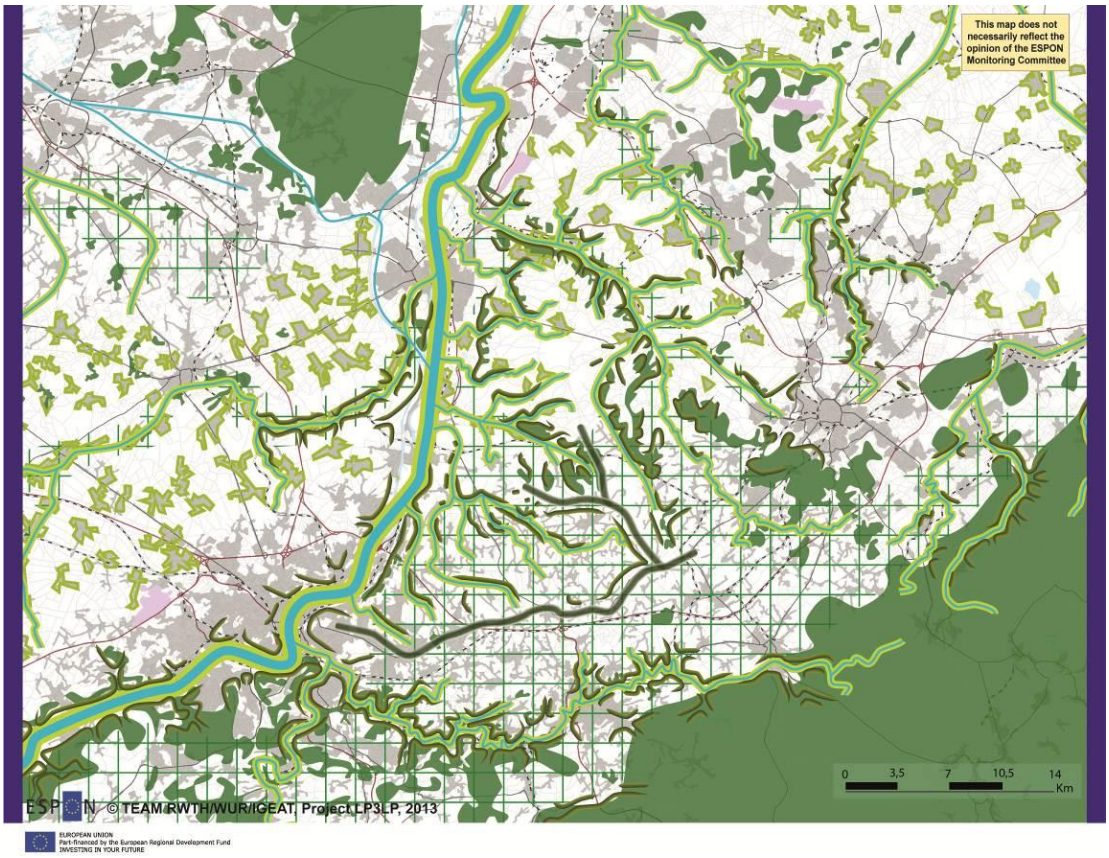


Figure 1 The green-blue framework of the 3LP Landscape Perspective

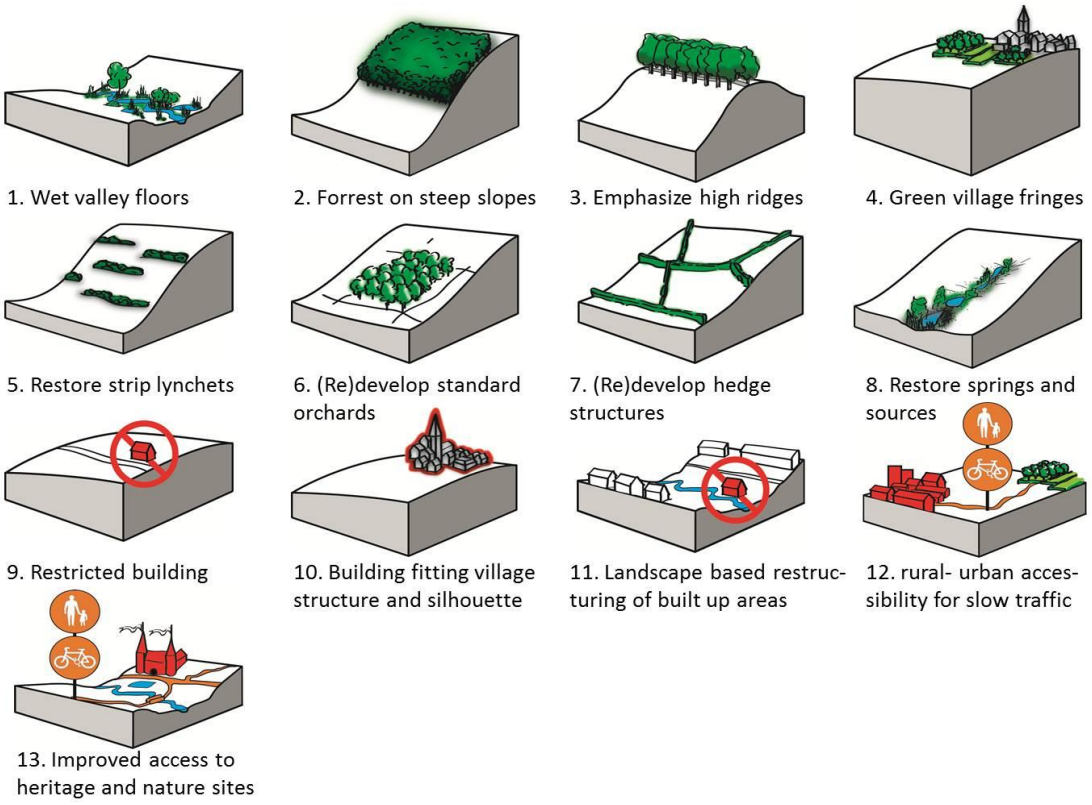


Figure 2 13 guiding principles of the 3LP Landscape Perspective

The frameworks and principles are to be seen as frames of reference, a long term goal or as ambitions. For the future development of the 3LP landscape, smart implementation strategies are needed to take the step from perspective to action.

***Landscape partnership** (Chapter 4.1.):*

In order to operationalize the landscape perspective, a '3LP landscape partnership' is proposed, based on developing the existing 3LP initiative further. It is suggested that the basic partnership (mainly regional governments and landscape associations) starts with an agreement of the partners to adopt the landscape perspective as a guiding framework for their individual as well as their coordinated policy actions – with the overall goal to develop 'quality landscapes'. Coordination with interregional organizations, such as in the case of the 3LP the 'Euregio Meuse Rhine' foundation, is highly recommended as well as to build up capacity for cross-border "landscape management" e.g. by using the cohesion policy instrument of "Integrated Territorial Investments". Central task of the partnership and management is the bundling of cross-border communities to realize thematic strategies. Strategic partnerships should be formed with further stake and knowledge holders like river basin management, conservation groups, tourism agencies, forestry, agricultural advisory services, etc. through concrete (pilot) projects. Moreover it is suggested, that the partnership builds on and enables a public participation processes, e.g. for defining landscape quality objectives, in close cooperation with landscape associations and responsible authorities.

It is hypothesized that informal governance arrangements as described with the 3LP landscape perspective are an efficient way forward also for other cross-border regions in Europe and can catalyse the transfer of results into more formal national systems of landscape and land use planning etc. However, it is recommended to investigate long-term options to build up a 3LP Fund from public and private sources and to transform the partnership into a 3LP foundation or landscape trust.

***Thematic strategies** (Chapter 4.2):*

Based on the proposed 'update' of the 3LP as a landscape partnership that is in line with the landscape perspective, 4 examples of thematic strategies are developed in conjunction with existing regional landscape assets (core qualities) and expertise (the 3LP stakeholders, landscape associations, special interest groups, etc.). The 4 thematic strategies are recommendations that give advice how selected European policy instruments can be used in regional landscape development (i.e. for the integral development of spatial/ landscape functions) and the implementation of the 3LP landscape perspective in particular. All LP3LP policy options are summarized by the following table, including the 4 thematic strategies (white background):

Table 1 An overview of options for policy development by the LP3LP project

3LP landscape policy proposal	Main objectives	Key EU instruments
Landscape perspective	To provide common goals and principles in a spatially distinct way	ESPON targeted analysis (this study)
Landscape partnership	To build-up integrative cross-border capacity and cooperative partnerships for effective management of 3LP quality landscapes	Integrated territorial investments INTERREG program
Green infrastructure strategy	To protect and enhance 3LP biodiversity, ecosystem services and core qualities (focus: water, soil and climate regulation/ adaptation, habitat and cultural services)	-Green infrastructure financing facility -River basin management planning -Natura 2000 network and payments -CAP 5-7% ecological focus area
Cultural heritage and access strategy (pilot project: 3LP Landscape information platform)	To valorize cultural heritage and to enable informational, emotional and sustainable physical access to 3LP landscapes and heritage sites	-ERDF and INTERREG programs
Complementary biomass strategy (pilot project: Complementary biomass production in the 3LP)	To introduce the use of complementary bioenergy crops, production practices and technologies, which yield ecosystem services and landscape quality as added value	-Horizon 2020 -ERDF & INTERREG programs and Smart Spezialisation
Quality production strategy (pilot project: PES-scheme for transboundary ecosystem services)	To encourage and support farmers and other land users to simultaneously co-produce high-quality (food) products and quality landscapes	EAFRD measures within national/regional programs for rural development, especially: -agri-environment-climate payments -forest-environment-climate payments -quality schemes -EIP for productive and sustainable agriculture

Recommendations at European level** (Chapter 5)**:

Recommendations targeted at European level address potential impacts of EU policy on the quality of the 3LP and other regional landscapes, linked with the questions of how investments in landscape can support European Union policy objectives, and how a landscape approach could be strengthened by EU policy. The discussion of the three hypothesized territorial potentials of landscape – as asset, place and common ground – result in the following recommendations:

- → Recognize 'landscape', beyond an aesthetical & heritage concept, as the physical and visual expression of territory and peoples' living environment as per the ELC
- → Dedicate a focal research area to the linkages of landscape quality objectives with ecosystem services/ landscape functions and smart, sustainable, inclusive regional development
- → Consider within a dashboard of indicators for sustainable growth ecosystem service indicators in relation to (regionally defined) environmental and landscape quality objectives and targets
- → Develop a guidance document for the place-based policy approach with a focus on landscape and encourage the inclusion of landscape analysis in territorial analysis for evidence-based policy
- → Encourage cooperative mechanisms and training activities which closely link regional development to landscape management contextualizing standardized policies within the scope of regional/ cohesion policy
- → Provide tools for 'integrated landscape development' similar to integrated urban development
- → Consider setting up a landscape management knowledge & exchange platform as a joint operation with the European Landscape Convention
- → Enhance standardization of geographic data generation on regional to local scale and guarantee free data access for non-commercial uses on basic topics such as relief and soil, water system, land cover/ use, infrastructure and production, natural/ cultural heritage

iii. Conclusions and transferability (Chapter 6)

Conclusions and transferability of results is offered by identifying the general principles and measures from the landscape perspective, the landscape partnership and the policy recommendations. These are distinguished according to applicability to three levels:

a) EU/European level

European landscapes hold major potentials not only for quality of life of local people but also for a place-based pathway of policy integration. Landscapes and their ecosystems provide not only classical production factors, but also the 'reproductive'

conditions of economic activities. Therewith landscapes, their functions, qualities and values lay the basis for any territorial development. The maintenance and management of quality landscapes therefore is not only of cultural and ecological, but also economic concern. Landscapes thus deserve stronger consideration in EU policy. The Territorial Agenda 2020 as well as environmental and cohesion policy offer various entry points.

b) Regional/ cross-border level

All cross border regions are experiencing their own territorial dynamics and have their specific landscape characteristics and potential. Nevertheless, other cross-border regions (and especially those identified in chapter 2.2.4) may consider the following elements:

- Position the territory in a EU territorial context in order to define the large driving forces of landscape change
- Take stock of the existing landscape capital and define core qualities
- Develop guiding principles based on landscape features
- Overall, the LP3LP approach of the landscape perspective may be transferred to other (cross-border) regions. (for a visualization of the approach, see Figure 19/Chapter 3).
- Harmonize the geographical data
- Identify existing organizations active in the landscape and their specific field of intervention
- Think of potential strategies, and validate them by (thematic) experts.
- In this relation, general approaches of the 4 thematic strategies of the LP3LP are transferable
- To link strategies with existing EU policy documents and funds. Here, knowledge of the LP3LP project is transferable. However EU policy will be subject to change after the present decade

c) 3LP level

The landscape perspective creates a shared set of objectives on a joint level of scale and abstraction. It is defined on a regional scale, providing opportunities for detailed, tailor-made and culturally embedded local solutions in landscape planning, design and management. This will enhance the distinct character of the local landscapes. Nevertheless, solutions found in one part of the 3LP may be transferred to other parts of the 3LP with similar characteristics. In any case mutual learning from the different mentalities, perspectives and approaches in the three countries will be very fruitful.

iv. Further work and research (Chapter 7)

Dissemination LP3LP: Several activities are planned for 2013 and 2014 and to be discussed at the coming Steering Committee meeting.

First steps for 3LP policy implementation:

From the regional stakeholder's perspective, a sequence of next steps from 2014-2016 is suggested: It starts with communication/discussion of the LP3LP landscape perspective and the 4 thematic strategies, reflects benefits from public participation, the enabling of projects for implementation and options for setting up a 3LP foundation or trust.

Europe and pioneers of cross-border landscape development:

From the EU perspective, further analytical work is to focus on how policy makers can hear more about regional and subregional concerns in the field of landscape transformation and management. Initiatives all over Europe such as the 3LP are working as a continuous observatory (but also actor) of landscape. A way of facilitating the echo of their message to higher levels is to be found.

B - Main Report

1. Introduction

The 3 Countries Park (3LP) is an ongoing cooperation for cross-border landscape policy, with a project area located in the heart of the Euregio Maas-Rijn. The latter is a CBPMR (Cross Border Polycentric Metropolitan Region) defined by the cities of Maastricht, Aachen, Hasselt, Heerlen and Liège (BE-NL-DE). Historically, the region has been a European node, for example with having been a transition space of the Roman Empire, the center of the Carolingian Empire, part of the European Coal and Steal Community or the signing place of the Treaty of Maastricht. Also regarding its geographic setting, it is located at the verge of the European plains and middle mountains and contains parts of the European loess-band. It is crossed by major European road-, rail- and waterways and ecological corridors. Particularly, it is centrally located within a supra-regional network of urbanized areas including the German Ruhrgebiet, the Dutch Randstad or areas in Belgium such as the Brussels region. Internally, the region contains a high variety of different landscapes, containing parts characterized e.g. by *bocage* (small scale hedge patterns), open fields, forested areas, wide valley floors and largely built out areas.

From a 3LP stakeholder perspective and similarly within other CBPMR in Europe, the region's landscape assets provide strong added values for regional attractiveness. Nevertheless, a cross-border perspective is required to respond to European challenges to its landscapes, such as e.g. related to land use intensification or suburbanization. Policy support is needed for co-ordination and development of spatial functions to preserve and enhance the core qualities of the landscape of the stakeholders region.

From a European perspective, a unique identity of the 3LP can be examined at a larger scale. Particularly, the 3LP forms an apt case study regarding potential effects and demands of EU policies: How to ensure smart, sustainable and inclusive economic growth or at least stability? How to increase cohesion across borders and jurisdictions? How to invest in diversity with place-based and complementary approaches? Approaching such questions – by focusing on landscape – is a key topic of the LP3LP project (together with the LIVELAND project[1]).

[1] LIVELAND and LP3LP are the first two projects within the ESPON context that examine the role of landscape for territorial development.

1.1. LP3LP project aims

The major LP3LP project aims can be summarized as follows:

(1) The examination of the 3LP's European identity, including regional and European challenges

(2) The design of a cross-border landscape perspective for the future development of the 3LP

(3) Recommendations for the interface between the 3LP landscape perspective and EU policy

Apart from these aims, the project aims at a transferability of results by identifying the universal findings from the analysis, general principles and measures from the landscape perspective and the policy recommendations. These, along with a reflection on the LP3LP project's own learnt lessons during the project development, are distinguished according to applicability to (1) all European regions (2) other cross border regions or (3) to specific CBPMR with partially similar characteristics to the 3LP.

1.2. Hypothesis – the Three Countries Park (3LP) as a future "European cross-border landscape partnership" celebrating cohesion and diversity

As explained already from a historical and geographical viewpoint, the 3LP area seems rather special for a cross-border area – giving it a touch of being a 'heart of Europe'. Moreover, three countries and five language communities are bordering each other. Cross-border living and multilingualism is usual. Today, the region is one of the forerunners regarding cross-border landscape policy – i.a. with having the 3LP project since the mid 90's.

It has therefore been early hypothesized within the LP3LP project, that the 3LP can become a cross-border testing ground for improving the effectiveness of European policy: to develop a cohesive and diverse European landscape that in turn can contribute to achieving overall European objectives of smart, inclusive and sustainable development. This hypothesis is underlying the entire project, it is addressed specifically in Chapter 4.1, where the 3LP is re-interpreted in form of a future "European Landscape Partnership".

1.3. Research approach and methodology

Phase A of the project determined the particular identity of the 3LP in the European context, including regional and European challenges. Apart from investigating basics on landscape and concepts for achieving local and European goals through investment in landscape quality, the use of ESPON studies and results informed us about global challenges that may have an impact at the regional level along with comparisons with other European (cross-border) regions. At the same time, a review of European policy documents that may have a significant impact on both image and usage of landscape was carried on, in parallel with the stakeholders' existing (cross-border) perspectives. In addition, an analysis of landscape developments at the 3LP level, based on regional data, was carried on and served as a base for the next phase.

Phase B was dedicated to the development of the landscape perspective, nourished by themes and issues that arised in the previous phase. This Phase started with taking stock of the unique regional capital and potentials inherent in the landscape, and summarized it with five core qualities. The following process was structured as an iterative design process, and included three stake-holder workshops. This information was used to formulate and establish a shared vision on the future of landscape in cross-border collaboration resulting in a cross-border landscape perspective.

Phase C was dedicated to the recommendations regarding the interface between landscape policy of 3LP and European Policies. Main policy documents in EU policy areas matching with themes of the 3LP initiative were analyzed with prospect to the period 2014-2020. In a first step, policy objectives were interpreted with regard to the demands they impose on landscapes. In a second step, the European policy context as well as European funds and support instruments were investigated upon suitable means for implementation of the 3LP landscape perspective. Finally, informed by discussions in expert and stakeholder meetings, policy recommendations linking the European and regional 3LP scale (considering both a top-down and bottom-up path) were derived in the form of a governance proposal for the case study and 4 thematic strategies.

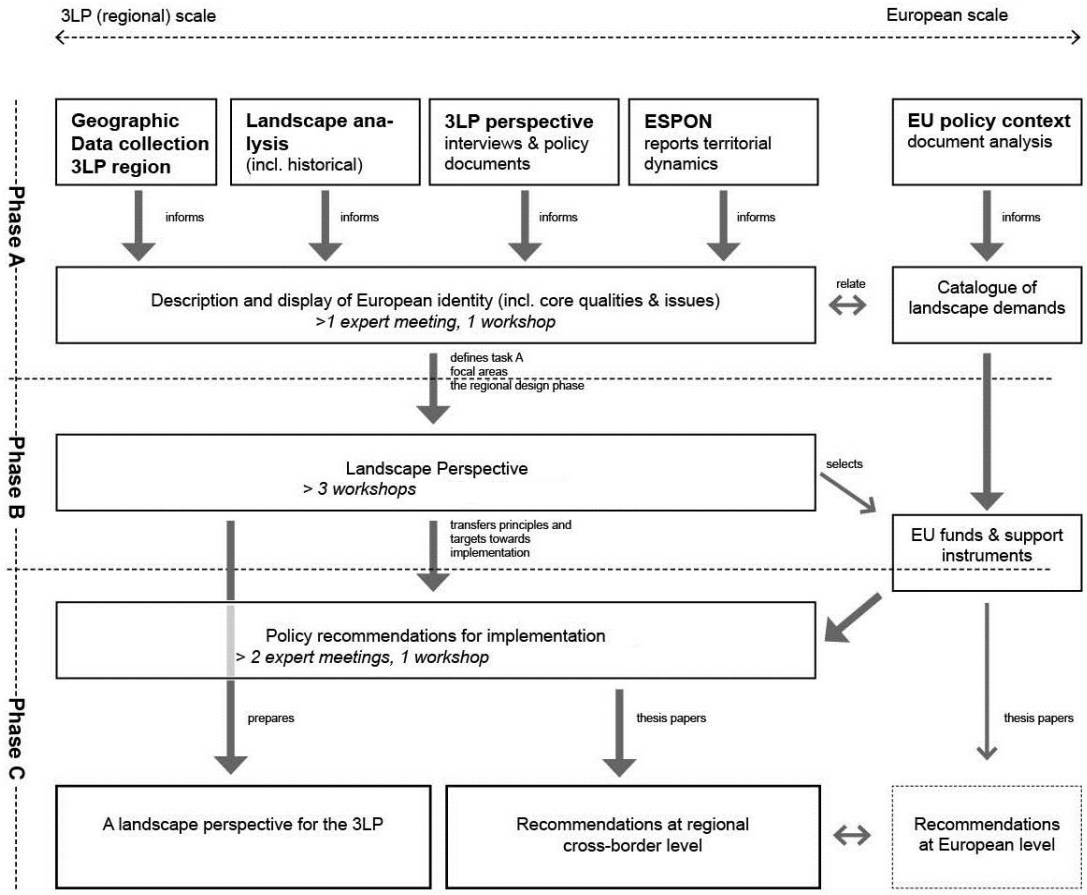


Figure 3 Diagram of research approach and used methodologies.

1.4. Partners and organisation structure

Transnational project group (TPG)

The ESPON project “Landscape Policy for the 3 Countries Park” (LP3LP) is conducted by the three universities:

- RWTH Aachen University, DE (Lead Partner)
- Wageningen Universiteit, NL
- Université libre de Bruxelles, BE

Stakeholders

- Province of Limburg, Department of Spatial Development, NL (Lead Stakeholder)
- The Operational General Direction for land -use planning, housing, heritage and energy of the Wallonia public service, BE
- The Flemish Region, The Department for Spatial Planning and Cultural Heritage, BE
- City region of Aachen, The Department of Building and Environment, DE
- City of Aachen, The Department of Planning and Environment, DE

2. Landscape as a cross-border territorial asset in Europe

2.1. Landscape, landscape policy and territorial development

2.1.1. What is landscape?

The understanding of 'landscape' varies with language, culture and epoch, discipline and individual experiences. In the English language 'landscape' is commonly understood as "a view or vista of scenery on land" and "a picture depicting such a view" (The American Heritage dictionary 1994, p. 469). In different scientific, political and planning contexts the conception of the landscape category is usually broader than that, encompassing also other landscape experiences as well as physical-material components and interactions that actually make up the visual landscape. In Europe two major conceptions of 'landscape' emerged throughout history: the *culturalist* (or aesthetical) and the *naturalist* (or functionalist) conception (Donadieu, Perigord 2007)[2]. In the culturalist conception, emphasis is made on how landscapes are perceived, leading to the identification of aesthetic, heritage and symbolic values of a landscape. In the naturalist conception, the focus is made on the functioning of ecosystems and landscape-ecological processes and how they provide the physical basis of society. Culturalist and naturalist approaches tend to merge during the second part of the 20th century (Conan 1994) (See Annex I.3.4).

In an integrating attempt the European Landscape Convention (ELC) considers landscape as "*part of physical space*" (Committee of Ministers 2008, pp. I.2), it defines: *"'Landscape' means an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors"* (Council of Europe 2000, pp. Art. 1a). 'Landscape' is applied as a territorial concept equally encompassing rural areas, 'cityscapes' (urban & industrial areas), 'waterscapes', as well as high-quality, ordinary and degraded landscapes (ibid. Art.2).

Figure 4 ***Three examples of landscapes (left) within the 3LP area (right)*** *(image sources: LP3LP team. Areal image source: bingmaps.com)*

[2] Similarly, the two approaches to landscape have also been termed the "subjectivist" and "objectivist" paradigms Kirchhoff, Trepl 2009 (future reference to LIVELAND source).

This project basically follows the ELC landscape definition and considers (the historical duality of) the 'perceived landscape' and the 'physical landscape' as two sides of the same coin[3]. Additionally, with a view to clarifying the relation of 'landscape' with other regional-political terms it is suggested to conceive the landscape as the distinctive physical and perceivable expression of 'territory' and 'environment'. Depending on viewpoint, the landscape can be perceived and assessed on multiple scales, e.g. as a local scene, place or composition of places, as a regional integrity, or even globally as a section and face of the terrestrial land surface. Actually, the process of landscape perception often involves a few scales simultaneously (Grodzynskyi, Grodzynska 2009). In this project landscape is mainly approached on the regional scale of the 3LP with some excursions to the local scale. Furthermore, the meaning of landscape for a balanced territorial development on the European scale is explored. Last, but not least it is important to note that the notion of 'landscape' (rather than territory or environment) is explicitly associated with the concrete spatial-temporal dimensions of an area, i.e. its characteristic shape and individual changes. Landscapes thus reflect social-ecological relations of the past and can serve as projection screen for desirable futures. An expert meeting supported by a literature review revealed the high level of interrelation of elements forming landscapes and their identities, as illustrated in Figure 5. More detailed results of the meeting can be found in Annex I.2.1.

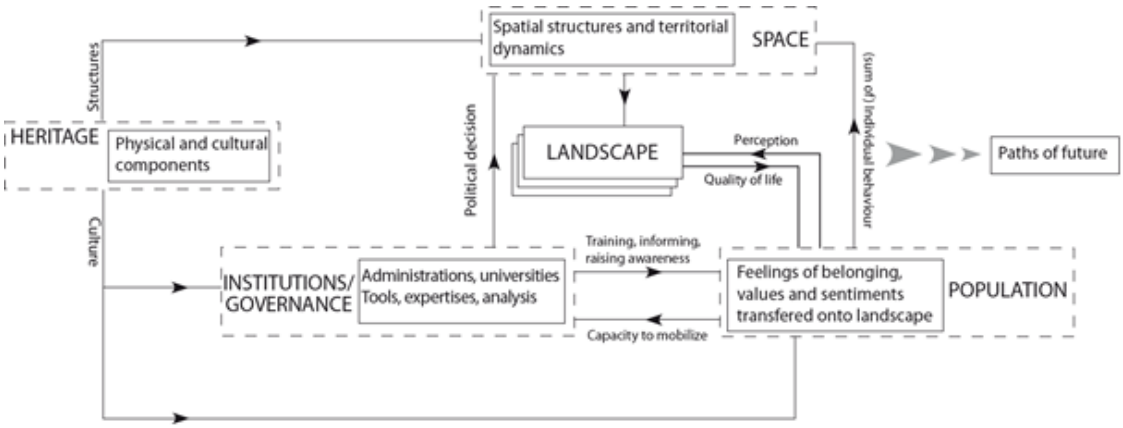


Figure 5 Model of interrelated factors influencing 'landscape'

[3] A particular physical landscape, on the one side, always underlies different subjective perceptions of that same landscape. On the other side, the physical landscape, even if it is assessed with 'objective' natural science methods (e.g. remote sensing, in situ measurements etc.), always is a landscape perceived and interpreted by humans, i.e. by different experts with different research approaches.

2.1.2. Quality landscapes for people, society and economy: political concepts

Landscapes are public goods and hold a variety of values, which are mostly not accounted for by the market and make them subject to political decisions. While the European Union has no designated competence in landscape policy itself, landscape is marginally considered under environmental, regional and cultural policy. Here the traditional heritage concept of landscape seems to prevail (future reference to LIVELAND). In contrast, via the ELC, the Council of Europe explicitly requires signatory countries to establish landscape policies and integrate it with their regional and sectoral policies (Council of Europe 2000, pp. Art.5). Central element of landscape policies are "landscape quality objectives" (LQOs), defined as "*the formulation by the competent public authorities of the aspirations of the public with regard to the landscape features of their surroundings*" (ibid. Art.1c). LQOs are to be met by means of landscape protection, planning and management (Art.6E). The ELC therewith tries to overcome the conservative heritage concept of landscape and takes on an active developmental position with "*the desire to confront, head-on and in a comprehensive way, the theme of the quality of the surroundings where people live; this is recognised as a precondition for individual and social well-being and for sustainable development, as well as a resource conducive to economic activity*" (Committee of Ministers 2008, pp. I.2).

With regard to the 3LP, Belgium and the Netherlands both ratified the ELC, Germany did not sign. However, Germany, similar to the Netherlands, has a long tradition in landscape policy. In the French speaking community traditionally a more culturalist conception of '*paysage*' is common, whereas in Germany a more naturalist approach predominates since the end of the Second World War (Kirchhoff, Trepl 2009). In the Netherlands an integrated approach prevails (see Map3/Annex I.3.4). In Germany and the Netherlands the concept of spatial and landscape functions is used in landscape policy (future reference to LIVELAND results). In Germany landscape functions are broadly defined as the actual or potential capacity ("*Leistungsfähigkeit*") of landscapes to fulfilling human (material and immaterial) demands to ecosystems ("*Naturhaushalt*") and landscape experience ("*Landschaftserleben*") (Haaren 2004, p. 81) (translated). The concept of landscape functions therewith overlaps very much with the concept of ecosystem services (Table 2), a concept which has recently been recognized by the EU's Flagship Initiative for Resource Efficiency and the Biodiversity Strategy (European Commission 2011a, f). Ecosystem services are "*the direct and indirect contributions of ecosystems to human well-being*" (Groot et al. 2010, p. 25). They comprise provisioning, regulating, cultural and habitat/ supporting services (TEEB 2010a). In ecosystem service assessments ecosystems are often delineated according to land use/ land cover classes, which are also typical categories in landscape analysis together with relief, soils and water system etc. (see landscape analysis of 3LP in Chapter 3.2). Thus ecosystems like forests, wetlands, grasslands, croplands, and urban areas etc. can be considered part of landscapes.

Furthermore, ecosystem services are often generated not by single ecosystems, but by discrete spatial-temporal ecosystem patterns and processes in the landscape. Therefore ecosystem services may also been termed “landscape services” (Opdam, Termorshuizen 2009). In the landscape sciences there is a tendency to merge the fields of ecosystem service research and multifunctional landscape development (Groot et al. 2002, p. 394; Kienast et al. 2009; Hermann et al. 2011).

Spatial / Landscape functions[a)]	Ecosystem services[b)]	c)	
Multifunctional landscape	Provisioning of multiple services		
Production/ carrier functions	**Provisioning services**	Provisioning of site and resources	Classical production factors
Site for housing, transportation, energy networks, production	–		
Non-renewable resources	–		
Renewable resources	Provisioning of renewable resources (incl. energy sources, biomass, biochemicals, timber, medicinal & genetic resources etc.)		
	Provisioning of food sources		
Regulation functions	**Regulating services**	Regeneration of life and favourable living and production conditions	Sustainable growth
Climate function and air quality	Carbon sequestration and storage		
	Local climate and air quality regulation		
Water resources function and retention function	Water regulation/ provisioning of fresh water		
	Water regulation/ moderation extreme events		
Natural yield function	Erosion prevention/ maintenance of soil fertility		
(partly covered by two functions above)	Waste (water) treatment and nutrient cycling		
–	Pollination		
–	Biological control		
Habitat functions	**Habitat/ Supporting services**		
Biodiversity function	Habitat provisioning (including habitats along migratory routes)		
	Maintenance of genetic diversity		
Information functions	**Cultural & amenity services**	Recreation of productive human capabilities	Smart & inclusive growth
Landscape experience function (including recreational function)	Recreation and mental and physical health		
	Aesthetic appreciation and inspiration for culture, art and design		
	Knowledge and educational experience		
	Spiritual experience		
	Identity, sense of place, sense of history		
Archive function			

traditionally naturalist conception of landscape (e.g. landscape ecological research)

trad. culturalist conception (e.g. cultural landscape research)

Table 2 Correspondence of landscape functions with ecosystem services and their contribution to smart, sustainable and inclusive regional development

Sources: a) (Kienast et al. 2009), main categories (van Maarel, Dauvellier 1978, pp. 134–164; Groot 2006, pp. 177–179), subcategories: (Haaren et al. 2008); b) (TEEB 2010b), (Millennium Ecosystem Assessment 2005), (Natural England 2009), c) (Brüll 2013)

With the concept of ecosystem/ landscape services it is possible to describe and assess non-commodified value-creation in landscapes largely contributing to smart, sustainable and inclusive regional development (Table 2 above and Annex III.3 – ‘landscape value chain’). This is regarded crucial for a landscape policy linking to both local-regional aspirations and European policy oriented towards economic growth and job creation (European Commission 2010a, 2011b) (Chapters 2.2.3/ 5).

Landscape quality objectives (LQOs) are also critical for identifying values generated in the landscape, as they are based on the values people attach to specific places, features or compositions of landscapes. LQOs may be particularly associated with cultural services. However, LQOs may also relate to further aspects of the landscape such as water (quality) and biodiversity. The landscape perspective developed in this project relates to both 'core qualities' of the 3LP landscape as well as ecosystem/ landscape services (Chapters 3.3 - 3.4). However, no specific LQOs are defined for the 3LP in this project, since this would have required a much broader stakeholder and public involvement.

Nevertheless, 'quality landscapes'[4] – as a potential political goal for 3LP and other European regions – may be considered those landscapes, which not only appear as being of high aesthetic, recreational and heritage value but also meet demand for other key functions and services (Brüll 2013). Landscapes, understood and managed in this way, basically build the foundation of a balanced territorial development. They provide not only the living surroundings of people (inhabitants and visitors), but also the habitats for species as well as (metabolic) environments for industries – and are vice versa shaped by a close interaction of all of these factors. In order to facilitate the integrated consideration of various public and political demands (Chapter 2.2.3) imposed on the landscape – to be met by multifunctional service supply – it is suggested here, in addition to the definitions above, to furthermore conceive the landscape as a 'nature-culture-hybrid' constituting common living & production space of human societies, their economies and other living communities (ibid.).

2.2. The European context of a regional landscape

2.2.1. The example of the 3LP and its geomorphological and historical location within Europe

Landscapes always underlie changes, which are often brought about by political, economic and technological changes in the course of history. This is also visible in the Three-Countries-Park (3LP), which is situated between the plains of North West Europe and the middle mountains of the Ardennes and Eifel, in the center of an ancient and densely populated area that can be considered as 'the heart of old Europe'. Different epochs of European development left their signs in the 3LP landscape. The Roman Empire already structured that part of the territory in terms of occupation pattern and grids, introducing roads and more permanent settlements in the landscape. A North-South urbanized axe appears along the Rhône, Moselle and Rhine valleys and its cultural influences will continue during the middle age. Outside cities, rural areas are influenced by the activities of the "villae", intensely exploiting the soil thanks to an abundant and needed work force and the presence of fertile

[4] The term "*quality landscapes*" was coined in the last stakeholder workshop of the LP3LP project.

loess brought by the last glacial era. The contrast between the openness of the plateaus and the densely occupied rivers starts to be put in place.

In the period between 750 and 850 the 3LP area is in the center of the kingdom of Charlemagne, the Frankish king who expanded his kingdom over extensive parts of Europe. After his death the kingdom was divided over and over again. Around 1150 the 3LP area lost its prominent position in Europe. Quarrels and disputes over power, influence and land, as well as changes in trade and industry caused a patchwork of principalities, counties and dukedoms. This patchwork lasted until 1795 (Leersen, Jansen 1994). Many castles, monasteries and estates in the current landscape testify of this period in time.

During the 12th and 13th centuries, important commercial flows take place between Northern Italy (the Pô plain) and Flanders. Cereals from Venice and Geneva and draperies from Flanders are exchanged in the Champagne fairs (Troyes, Provins, Lagny-sur-Marne, Bar-sur-Aube). Inland navigation is privileged, by using rivers (Pô, Rhone, Saône, Moselle, Meuse, Rhine) or canal (Flanders) whereas the roman roads are rather neglected and degraded. A process of wealth accumulation is growing, based on non-agricultural activities. A strong and organized bourgeoisie emerge whereas central states are weak. The dense city network is reinforced and constitutes the motor of the economic development, such as in the Rhine area (Robert J. 2011). During the 14th century (and already in the 13th), the importance of the Champagne fairs is decreasing due to several factors such as the growing importance of sea routes (Gibraltar), the competition of Paris, the discovery of new passages through the Alpes, the economic and demographic crisis of the Middle age and the growing numbers of conflicts making the land routes less secure (ibid, Vandermotten 2010).

During that period, parts of the 3LP region began to specialize in agricultural production. In the 'Pays de Herve' cattle breeding increased, allowing farmers in South Limburg to trade their surplus of corn to the Aubel market (Ubachs 2000). This specialization probably marks the start of the development of the bocage landscape in the 'Pays de Herve' as hedges were needed to keep livestock in and wild animals out. The rural area though, was still multifunctional at that time, including several rural industries, consisting of groups of workshops using qualified work force.

In the 18th century, new agricultural techniques (such as the disconnection between the breeding and agriculture) contribute to transform the territory, enabling an increase of productivity and a demographical growth. Rural industries are, at that time, groups of workshops using qualified work force. The integration of Belgium and the Rheinland in the French Republic in 1796 ended the political patchwork situation. The treaties of Vienna (1815) and London (1839) divided the region over three nation states, Germany, the Netherlands and Belgium, also introducing further development of the area within the perspective as hinterlands of these three nation states (Leersen, Jansen 1994).

During the 19th century, the industrial revolution reinforces the urban grid and displaces the center of gravity of Europe from Venice to London. Big manufactures are localized in cities and heavy industries in mining regions, inducing a rural exodus and the end of rural craft. As a consequence, rural areas show a more mono functional profile. Around Liège and in the Northern part of the 3LP landscape, (coal) mining developed and gave an enormous impulse to the urban development in the region resulting in a polycentric urban structure (Bosma).

The 20th century is mostly marked by the dynamics occurring after WWII. The dichotomy between rural and urban areas is disappearing, in terms of morphology of space and in terms of life style. The suburbanization is the symbol of that phenomenon. At the same time, agriculture production further specialized and increased due to further mechanization and technical development (Ubachs 2000), also introducing large-scale plots – especially noticeable in the Haspengouw and Jülicher Börde.

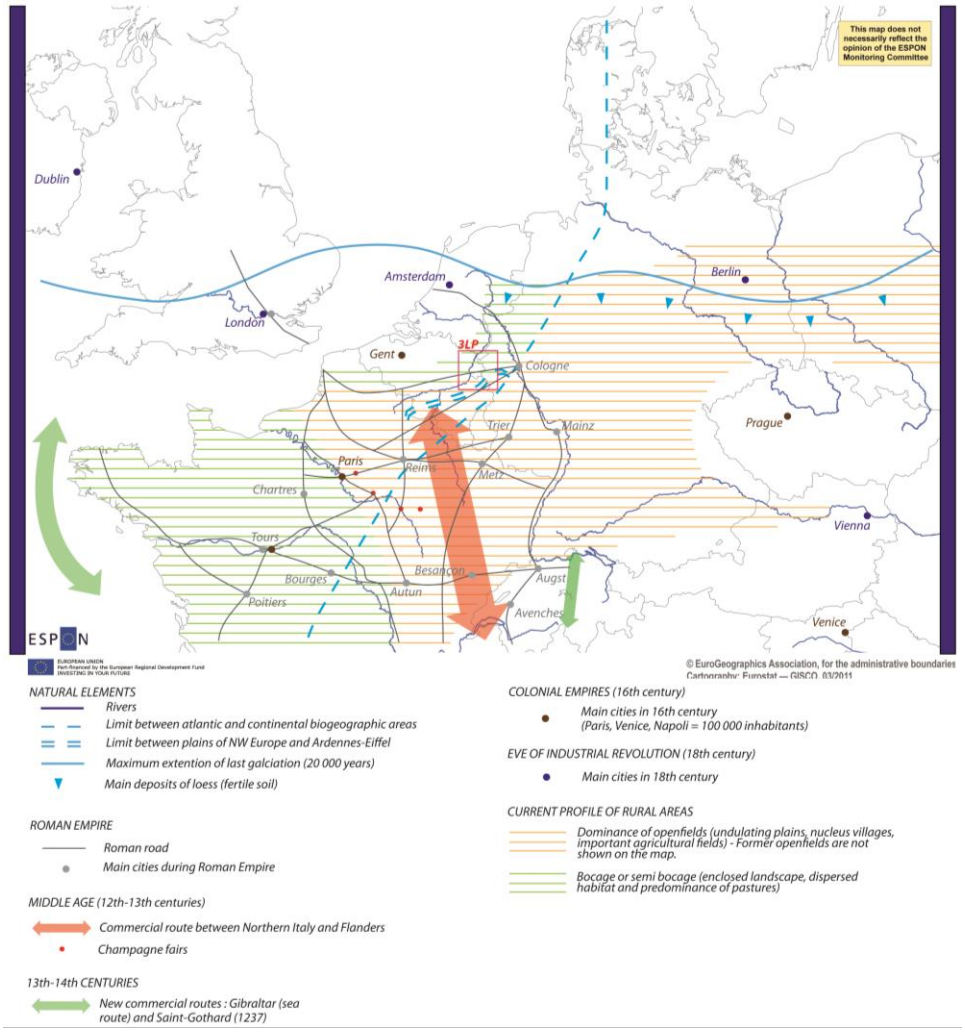
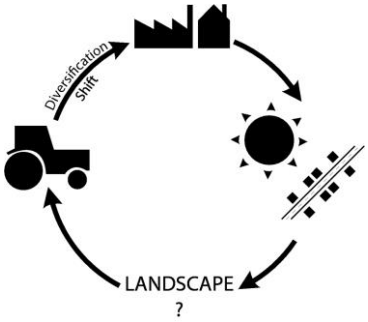


Figure 6 3LP in the N-W European geomorphological and historical context

2.2.2. Territorial dynamics and challenges to regional landscapes

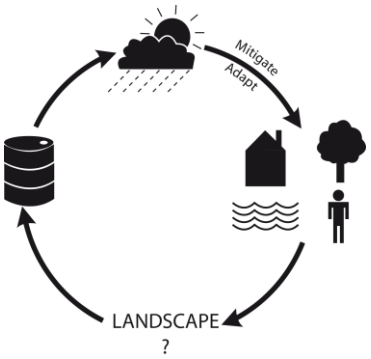
For a landscape policy it is not only important to consider the past and its remnants perceivable in the landscape as a rich source of (European and cross-border) identity, rootedness, sense of place and cultural meaning, but also to consider on-going trends and potential future impacts. In this project, various ESPON studies were used to characterize territorial dynamics likely to impact regional landscapes and to extract particular challenges for the development of the 3LP landscape summarized under the following four categories.

Intensification of land use and economic diversification



The European landscape convention acknowledges the fact that the transformation of landscapes is accelerated by the main sectors of economy (agriculture, forestry, industrial, mineral production, tourism and recreation), by regional and town planning, transport, infrastructure and at a more general level, by changes in the world economy. The dynamic relationships between economic activities and land use have led to an 8.8% increase of the share of artificial surfaces between 1990 and 2006 to reach 4.4% of the EU territory. The NUTS 3 regions including 3LP, predominantly urban and infrastructural related, also have experienced significant increase in land use intensity and high rate of land cover changes. Residential, new infrastructure development and the modernisation of agriculture and of local industries induced by the globalisation have contributed to increase soil sealing, territory fragmentation and standardisation of both landscape and townscape. These trends endanger the landscape amenities provided by the core qualities of the 3LP (see Chapter 3.3) and the supply of authentic experience of natural and cultural assets. On the other hand, the sociological recomposition of the rural society brings new demands about their surroundings (cultural heritage, landscape and nature preservation and/or reconstitution, symbolic and historic meaning of the countryside, communication network, commuting facilities, etc.). Land, landscapes, natural environment but also wider cultural and heritage assets become important factors of the local economy.

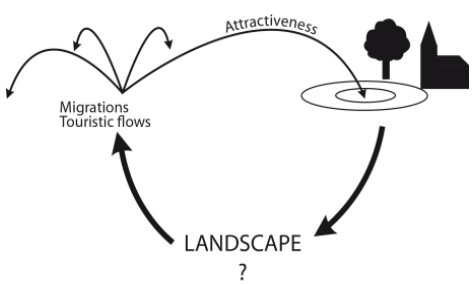
Climate change mitigation and adaptation



The interactions between climate change and European landscapes and ecosystems are numerous and complex. According to Ribeiro et al. (2009) two particular sectors stand out as being sensitive to climate change: namely human health and landscape management. Some measures may affect landscape in an obvious way like the development of renewable energy or flood prevention infrastructures (Ribeiro

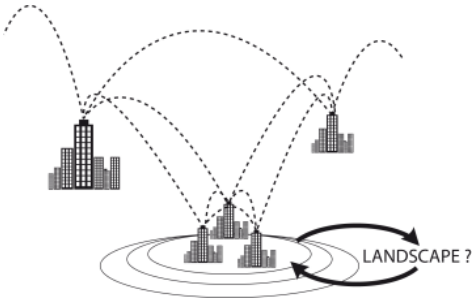
2009). Some changes are more subtle like the improvement of water and ecosystems management, the change in soil carbon management in agricultural and natural systems, the development of bio-fuel crops and resources for the bioeconomy. In the ESPON Climate report, 3LP is located at the fringe of a large area that should experience no or a marginal vulnerability to climate change. Another important issue linked to the new energy paradigm is to evaluate the vulnerability of EU regions to the rise of energy prices, studied by the ESPON RERISK project. The 3LP is part of a wide area characterised by high levels of commuters, of disposable income and industrialization and a medium level of employment in industries with high energy purchase. Therefore, an increase of the level of fuel cost in the future would modify the economic structure of the region.

Demographic change and territorial attractiveness



Demographic trends in Europe are expected to be an important challenge in the coming future. The most important force behind European population change is international and regional migrations. Contemporary societies are indeed characterized by an increasing human mobility taking place within a series of global networks (transnational companies, informal economic network, diaspora, scientific network…). Other challenges are the decreasing population growth, increasing proportions of the elderly and the declining population. The 3LP shows a demographic profile close to the European average: the age structure is slightly older, a stagnating natural population balance and a positive net migration rate are prevalent. Net migrations affecting the 3LP are slightly positive, like many peri-urban regions in North West Europe. Landscape as a local asset can play a more consistent role in the long term attractiveness of the 3LP.

Suburbanization and polycentric development



The core-hinterland relationship is a key element for understanding the most important visual effect of metropolisation: urban sprawl, leading often to homogenization of landscapes and shrinking of agricultural land. In the 3LP territorial context, the phenomenon has its importance as it deeply impact landscape directly through the urban forms of agglomerations or indirectly through related infrastructure (mainly transports inducing new settlement). The picture is nevertheless diversified, between a reurbanization in major cities and a counter urbanization in smaller ones. It has been recognized from the start that the urban areas would be the drivers of the polycentric cross-border structure of Maastricht, Heerlen, Aachen, Liège (MHAL). However functional interactions between the three countries (measured by cross border employees) are weak.

Discussion: These four dynamics have fuelled phase B and C by underlining several major issues for the landscape planning in the 3LP. How can landscape be connected to economic growth? How to achieve territorial cohesion without lowering diversity? How to foster cooperation in cross-border regions? Contribution of landscape to economic growth can be achieved in many ways: diversification through development of regional quality product, even though "counter-globalization" of agriculture is often considered as risky by the farmers. Other pathways are the development of services like camping at the farm, development of bioenergy potential from agricultural wooden sources, e.g. hedges and short rotation plantations. Such landscape assets can improve attractiveness and be turned into economic assets by strengthening the spirit of the place, by raising awareness and making people experience local heritage and landscapes, identify value chains and when it is sensible, find ways to monetize ecosystem services. This connection of landscape to economics and public participation is crucial. To improve support to regional landscape, a more holistic approach as well as a holistic vision for the 3LP landscape needs to be built with the participation of the stakeholders and the public. It may then become an ideal starting point for cross-border cooperation/ beneficial competition aiming at enforcing territorial cohesion.

2.2.3. Landscape demand and support from EU policy

Reacting on challenges as outlined in the previous chapter, the European political context on the one hand - more or less intentionally - imposes demands and risks on landscapes and on the other hand gives support to regional and local policy which can be used for high-quality landscape development. Therefore, both political requirements to landscapes as well as potential instruments for regional cross-border landscape development have been investigated in the project. Figure 7 shows EU policy areas, selected for analysis in accordance with the themes of the development perspective of the 3LP (Projectgroep Drielandenpark et al. 2003) and the Fifth Cohesion Report (European Commission 2010b), which are considered to have major impact on regional landscapes and significance for landscape policy.

EU POLICY AREAS:	Regional policy	Culture (incl. Cultural Heritage)	Agriculture & Rural Development	Transport	Environment > Urban	Environment > Habitats, Biodiversity	Environment > Water	Environment > Air, Waste, Noise, Soil	Energy	Climate	Enterprise & Industry
3LP - THEMES:	Regional Landscape Development (overall theme)	Cultural landscape and history	Agriculture	Urbanization and infrastructure		Nature (ecological structure, habitat, biodiversity)	Water and Environment		(not specifically adressed)	(not specifically adressed)	Tourism

Figure 7 Correspondence of EU policy areas with 3LP development themes

EU Regional/ cohesion policy as an investment policy is strongly devoted to the implementation of the Europe 2020 strategy, which gives overall policy orientation for all sectors by defining three priorities for political action: smart, sustainable, and inclusive growth (further discussed in chapter 5). Economic growth however, usually places high demands on landscapes by an increasing appropriation of site and resources for production and consumption and associated societal development, e.g. housing. The Flagship Initiative for a Resource Efficient Europe is an attempt to decouple economic growth from increasing resource use and environmental degradation (European Commission 2011a). It is thus of major importance for the development of non-commodified landscape values. Instruments mentioned in the Roadmap to a Resource Efficient Europe (European Commission 2011k), e.g. green infrastructure, PES, GPP, innovation partnerships, CAP measures, river basin management plans, soil sealing guidelines are considered in the policy recommendations for 3LP (Chapter 4). Coordination and integration of sector policies, which is another intention of the Flagship Initiative, is also important for landscapes since they basically accommodate all sectoral land uses and are shaped by all their needs and actions (see also chapter 5). With the purpose to identify political requirements imposed on landscapes, policy objectives from significant documents in the abovementioned policy areas have been extracted and translated into 'landscape demands' based on landscape functions and services. Table 3 shows on the one hand, that various conflicting, but also synergistic demands arise from political goals, which need to be managed in a balanced way by those responsible for regional & landscape policy. On the other hand it shows that many services, or service bundles, if supplied in the landscape, largely support European policy objectives. Key for a successful policy of (multifunctional) quality landscapes is therefore communication and integration over multiple disciplines, sectors, territorial units, levels and scales. This is highlighted in the Territorial Agenda 2020 as a necessary ingredient for territorial cohesion as well, along with a focus on evidence-based policy and a place based approach (TA 2020 2011). (How landscape can facilitate place-based policy and territorial cohesion is further discussed in Chapter 5). Such an integrating capacity, however, is often lacking and to be regarded a bottleneck especially in a cross-border situation, where sectors and levels with their different languages, interests, organizational and legal structures of more than one country are to be brought together. This has also been experienced in the 3LP. Within cohesion policy the benefits of "integrated sustainable urban development" are explicitly recognized with financial resources dedicated to the city level (European Commission 2011d). Integrated Territorial Investment (ITI), Community Led Local Development (CLLD) and the LEADER program for rural areas are further area-based tools specifically designed to support integrated local-regional actions (European Commission 2011e, c, j, Art. 42-45). However, no equal promotion of 'integrated sustainable landscape/ or land use development' could be found. With regard to support by cohesion policy and structural funds, most relevant investment priorities under regional development are:

- *"Protecting, promoting and developing cultural heritage"*
- "*Protecting biodiversity, soil protection and promoting ecosystem services […] and green infrastructures" (European Commission 2011h Art.5 (6c-d))*

Most relevant investment priorities under rural development are:

- "*Restoring and preserving biodiversity […] and the state of European landscapes" (European Commission 2011j Art.5 (4a))*

Further investment priorities exploitable for implementing landscape policy relate to adaptation to climate change, strengthening links between agriculture/forestry and research/innovation, quality schemes & promotion of local markets, and renewable resources for the bio-economy. A more detailed list of investment priorities and measures suited for landscape development can be found in Annex III.2. The thematic strategies for 3LP described in Chapter 4 explicitly refer to these priorities and associated measures.

Conclusion: European Union policy places high demands on landscapes, but no direct support for integrated landscape development/ management is provided. However, legal, financial and communicative instruments from different sources may be used. Those are mainly available in the field of sustainable resource management and biodiversity, but to a lesser extent for the management of cultural landscape values. Whether support from the structural funds can be used highly depends on which priorities (due to thematic concentration) are chosen by the national/regional and territorial cooperation programs. Market actors and their representing organizations as well as local communities and the public are to be involved as key stakeholders.

Table 3 ***Landscape demands arising from European policy objectives in selected policy areas*** *(references for policy documents see Annex III.1)*

Policies	Policy objectives	Landscape demand / supply		Challenge
EU overall strategic policy orientation				
Europe 2020 Strategy (2010) / Flagship Initiative Resource Efficieny (2011)	To create growth & jobs in a smart, sustainable and inclusive way	Provide site, resources and conditions for economic and social development in a resource-efficient way	All functions and services	1,2,3,4
EU economic sector policies				
Industrial policy communication (2012)	(Growth and jobs as above) To strengthen industrial competitiveness, to support economic recovery and to enable the transition to a low-carbon and resource-efficient economy	Provide site for production and consumption (incl. housing)	Carrier	1,4
		Provide recreational opportunities for the regeneration of productive human skills and labour fource (human capital)	Cultural	1,3,4
		Provide non-renewable resources for production and consumption	Provisioning	1
Flagship Initiative Innovation Union (2011), Bioeconomy strategy (2012), Action Plan Eco-Innovation (2011)		Provide renewable resources for production and consumption (esp. bio-based economy)	Provisioning	
		Provide site for knowledge/ innovation centers, and opportunities for knowledge generation (esp. eco-innovation)	Carrier/ cultural	1,3
Green Paper on Trans-european Transportation Network (2009)	To provide the infrastructure needed for the internal market and for the objectives of growth and jobs to be achieved	Provide site and media for multi-modal transportation systems (TEN-T)	Carrier	1,4
Energy 2020 strategy (2010)/ climate & energy package (2007)	Competitiveness, security of supply, and sustainability (i.e. decarbonisation-efficiency-renewables 20-20-20-target)	Provide renewable energy sources and site for technical installations for their use	Carrier/ provisioning	1,2
		Provide corridors for energy network installations (TEN-E)	Carrier	
Renewable energy sources directive (2009)	RES BE 13%, DE 18%, NL 14% 10%- Transport fuel target	Increasing demand for biomass resources	Provisioning	
CAP 2020 communication (2010)	(1) Viable food production/ food security, (2) sustainable management of natural resources and climate action, (3) balanced territorial development	Provide high quality, diverse and safe food products	Provisioning	1
		Provide public goods (e.g. farmland biodiversity, resilience to disasters)	Regulating/ cultural	1,2,4
		Provide attractiveness & identity (in rural regions)	Cultural	1,3,4
Communication on a political framework for tourism (2010)	Keeping Europe the world's No1 tourist destination; support the tourism sector, promote its competitiveness, its sustainable and quality-based development	Provide recreational opportunities, landscape attractiveness, accessibility and views, natural and cultural heritage as resources for the tourism sector	Cultural/ regulating	3, 4
EU environmental sector policies				
Water framework directive (2000) / Groundwater directive (2006)	To achieve and maintain good status of all surface and groundwater bodies from 2015	Produce a good quality and provide for renewal of surface and groundwater throughout the whole watershed landscape	Regulating	2
Floods directive (2007)	To reduce adverse consequen-ces for human health, the	Provide area-wide water retention throughout the watershed	Regulating	2

	environment, cultural heritage + economic activity from flood risk	Provide designated retention and flooding areas	Regulating	2
Thematic soil strategy & proposal for a soil protection directive (2006)	Preservation of the capacity of soil to perform environmental, economic, social and cultural soil functions	Provide and maintain high-quality soils in terms of fertility, water & nutrient retention capacity, carbon content, and soil biodiversity	Regulating	2
		Provide sites for raw material extraction and geological and archaeological heritage sites	Provisioning/ cultural	1,3
Biodiversity strategy (2010) / Habitats directive (1992) & Birds directive (2009)	Headline target: Halting the loss of biodiversity and the degradation of ecosystem services in the EU by 2020	Provide a variety of typical natural ecosystems and habitats for listed species	Habitat	1,2,3,4
		Provide genetic diversity and ecosystem services	All	
Green infrastructure working paper (2011) and strategy (2013)	To enhance spatial and functional connectivity outside protected areas, to maintain and restore the capacity of ecosystems to deliver multiple ecosystem services	Provide landscape elements (e.g. hedges, tree groups, wetlands etc.) vital for ecosystem services and habitat quality (e.g. landscape permeability, reduced fragmentation)	All	
White paper climate change adaptation (2009)	To reduce the EU's vulnerability and to improve the EU's resilience to the impacts of climate change	Provide various ecosystem services in resilient ecosystems: e.g. moderation of extreme events, water retention/ flood protection, temperature buffering/ evaporative cooling, disease regulation etc.	Regulating/ habitat	2
Climate action: LULUCF decision proposal (2012)	To increase removals and to decrease emissions of GHG in land use related sectors	Provide carbon sinks in soils and standing biomass stocks	Regulating	2
		Maintain permanent grassland (no conversion to cropland)		
Air quality strategy (2005) and directive (2008)	To achieve levels of air quality that do not result in unacceptable impacts on, and risks to, human health and the environment [mainly relating to anthropogenic pollutants]	Avoid emissions of dust, particulate matter and further pollutants from land surfaces and land uses, provide permanent land cover, filtering & cooling veget ative surfaces	Regulating	2,3,4
Environmental noise directive (2002)	To avoid, prevent or reduce the harmful effects, due to the exposure to environmental noise [mainly relating to industrial and transport sector]	No requirement, but positive contribution of landscapes: Provide noise buffering, quiet open areas and agreeable soundscapes for relaxation from environmental noise	Regulating/ cultural	3,4
Urban waste water treatment directive (1991)/ Sewage sludge directive (1986, presently under revision)	To protect the environment from the adverse effects of urban and certain industrial waste water discharges; Target of secondary treatment; To prevent harmful effects on soil, vegetation, animals, and men	Metabolize effluent from sewage treatment plants in recipient waters	Regulating	1,4
		Provide alternative, eventually land based, waste water treatment in agglomerations of < 2000 person equivalents; Metabolize treated sewage sludge on agricultural soils	Regulating	
EU socio-cultural sector policies				
Social policy TFEU Art. 151 (2010)	Among others: Improvement of living conditions and combating of exclusion	Provide public open space and community space for social cohesion and inclusion	Cultural	3,4
Culture TFEU Art.167 (2010)	Improvement of the knowledge and dissemination of the culture and history of the European peoples; conservation and safeguarding of cultural heritage of European significance	Maintain characteristic cultural and historic landscape features contributing to local-regional and European identity	Cultural	3,4

2.2.4. The "cross-border polycentric" case: 4 regions with similarities to the 3LP

The different components of the landscape policy are to be compared to other regions in Europe with a twofold purpose. First, learn from good practices and successful measures in terms of landscape management and see how transferable they are. That implies that the comparison must be carried on regions that acknowledge the value of their landscape and have initiated actions in order to manage it. Second, comparison allows the 3LP to find potential cooperation, useful for landscape policy implementation and funding. In order to improve the usefulness of previous ESPON results, the first step is to use other cross border polycentric metropolitan regions (CBPMR) as a base, in line with the ESPON METROBORDER (2011) and ESPON 1.4.3 (2007) projects. Further developments can be found in Annex I.4.

Table 4 Similarity of CBPMRs with the 3LP according to identified European challenge (+ = weak, ++ = medium, +++ = strong)

Name of CBPMR	Challenge 1: Acting between land use intensification and diversification	Challenge 2: Climate change mitigation and adaptation	Challenge 3: Demographic attractivity	Challenge 4: Reacting on suburbanization and qualifying polycentric development
Katowice-Ostrava (PL-CZ)	+++	++	++	+++
Wien – Bratislava metropolitan area (AT-SK-HU)	+++	+++	+++	+++
Lille transborder metropolitan area (FR-BE)	+++	++	++	+++
Copenhagen-Malmo (DK-SE)	++	++	+++	+
Nice-Monaco-San Remo (FR-IT-MC)	++	+++	++	+
Saarbrücken – Forbach (DE-FR)	+++	+++	++	+++
Luxembourg metropolitan area (LU-DE-FR-BE)	+++	++	+++	+++
Basel (CH-FR-DE)	++	+++	+++	+
Strasbourg (DE-FR)	++	+++	+++	+
Genève (CH-FR)	+	++	+++	+

Within the 10 CBPMRs, 4 are experiencing similar territorial dynamics (i.e facing similar challenges to the 3LP): Wien-Bratislava (AT-SK-HU), Lille metropolitan area (FR-BE), Greater Region (LU-DE-FR-BE) and Katowice-Ostrava (PL-CZ)[2]. Except for the last one, each show initiatives of cross border cooperation and landscape is mobilized more or less intensively as a lever of development. In the Wien-Bratislava

region, a protected green open area between the two cities is used to decelerate urban sprawl while playing the role of link between the two cities. Lille metropolitan area, with the Deûle Park is in the same logic: the preserved area is the green lung of the city while connecting it to the mining basin conurbation. The Hainaut Cross Border Natural Park, embedded in the same polycentric system than Lille, aims at playing the same role but does not include the towns located in its circumference. The Greater Region shows an example of cross border collaboration through the implementation of the European Grouping of Territorial Cooperation Sarre-Moselle. Even if landscape is not specifically tackled in the strategy, it is integrated in some projects and plays a transversal role in terms of territorial marketing.

In addition, two polycentric (but non-cross border) cases that deal with an open rural area have been added: the Upper Veluwe (NL) and Central Tuscany Natural Park (IT). In the first case, the park functions as an isolate rejecting the urban structures on its periphery. This break occurs both institutionally and functionally. In the second case, the central rural area is used as a tool for the conservation of the (historical) polycentric structure of Central Tuscany by restoring the historical landscape, promoting peri-urban agriculture, and by developing tourism and local food-processing.

These cross-border examples, through the strategies that they have implemented, show that their main concern is mostly to deal with challenge 1 (land use intensification and diversification) and challenge 4 (reacting of suburbanization and qualifying polycentric development). Indeed, these territories focus on the right balance between urban and rural relationships, by decelerating the urban sprawl which is seen as the main threat for the territorial identity and inhabitants' quality of life. The issue is tackled through protection of open areas (Wien-Bratislava, Lille, Upper Veluwe) or by initiating or supporting economic and leisure activities in accordance with the rural profile of the region while at the same time considering landscape as an element of the dynamic (Central Tuscany and the Greater Region).

2.2.5. Cross-border landscapes: reflecting the European challenge of unity and diversity

The previous chapters have explained the chances for more coherent landscape policy in cross-border areas: via reference to the ELC and via the application of unifying concepts such as 'ecosystem services' or 'landscape quality objectives'. Then, shifting to the example of the 3LP, the area's high amount of shared heritage was highlighted as a special feature (both ecological and cultural) in Europe. In contrast, its cultural diversity, but also its division by borders, seems typical for a cross-border area. It was further investigated how the area is facing challenges like e.g. land use intensification or suburbanization, derived from territorial dynamics that exist across Europe. In this relation it was explained at depth, how such issues are reflected also in EU policy: It places strong demands on landscapes, shows low commitment for explicitly landscape-driven approaches, while it offers a variety of

support instruments from different sources. Hence concluding in relation to EU policy development, a not yet fully developed potential of 3 dimensions of landscape for territorial development can be hypothesized (these are further elaborated in Chapter 5):

1. **Landscape as asset:** It enables smart, sustainable, and inclusive regional development, as e.g. formulated in the Europe 2020 strategy. (European Commission 2010a)
2. **Landscape as place:** It sets the scene for place-based policy implementation, as e.g. the Territorial Agenda promotes.(TA 2020 2011)
3. **Landscape as common ground:** It facilitates territorial cohesion, as it is an overall aim since the Lisbon Treaty (TEU 2010)

Finally, it was investigated how other CBPMR have been tackling such issues: 3 among 10 CBPMR show a relatively high amount of parallels with the 3LP, including the application of landscape as an integrative concept. How can such findings become addressed by the 3LP and other CBPMR, representing regions that can become innovative testing grounds for landscape-driven cross-border development that is aligned with EU policy development? How can such CBPMR strengthen cohesion by working on shared problems, while simultaneously enhancing diversity with place based approaches?

An answer seems at first glance difficult, since the planning systems and their interests usually diverge from each other at each side of the border. In the example of the 3LP, the Netherlands and Germany have strong top down landscape planning tools (e.g. *Landschaftspläne* DE and *Landschapsplannen* NL), while Belgium has basically nothing comparable (Schröder et al.; Antrop, Sevenant 2010). Belgium and Netherlands have signed the ELC, while Germany has not. Regarding spatial planning systems, larger differences exist basically among all three countries (Royal Haskoning 2007). Workshops of the LP3LP project partially reflected this set up, while fortunately showing valuable chances to learn from each other via continuing with 'informal', project-based, approaches that make use of existing organizations and their expertise. Such stakeholder initiatives were in focus during the LP3LP analysis of regional policies, which could investigate a variety of cross-border initiatives. Usually projects exist several years with a certain thematic focus partially under the umbrella of the 3LP. For example *Aquadra (2009-2013)*, an Interreg IV supported project, conducted water basin management and habitat development across three borders, including place-based implementation measures like e.g, retention areas or stream 're-naturalizations' (for full list of the stakeholder initiatives analysed, see Appendix III.4, also see Figure 12).

Such initiatives often build up communicative and cooperative channels across boundaries. If further continued and connected within a broader landscape vision they bear the chance to steadily integrate territorial units, such as river basin districts, administrative units, city-networks and landscape areas (Figure 8-11).

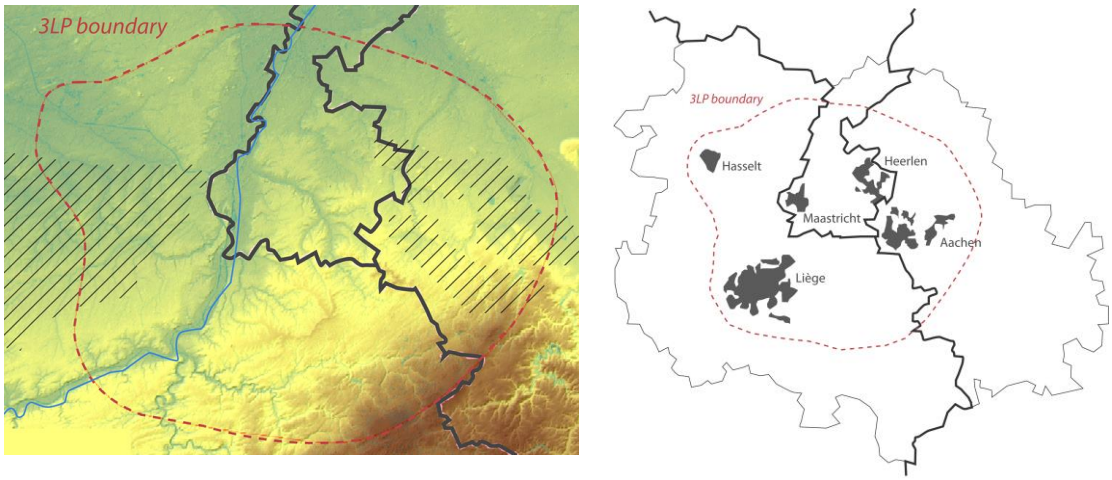


Figure 8 ***The 3LP (red dashed line) in its local geomorphological context, showing e.g. major water courses, the transition from mid ranges to plains, and the European loess band (hatch)***

Figure 9 ***The 3LP and its polycentric arrangement of the MAHHL cities within the Euregio Meuse Rhine***

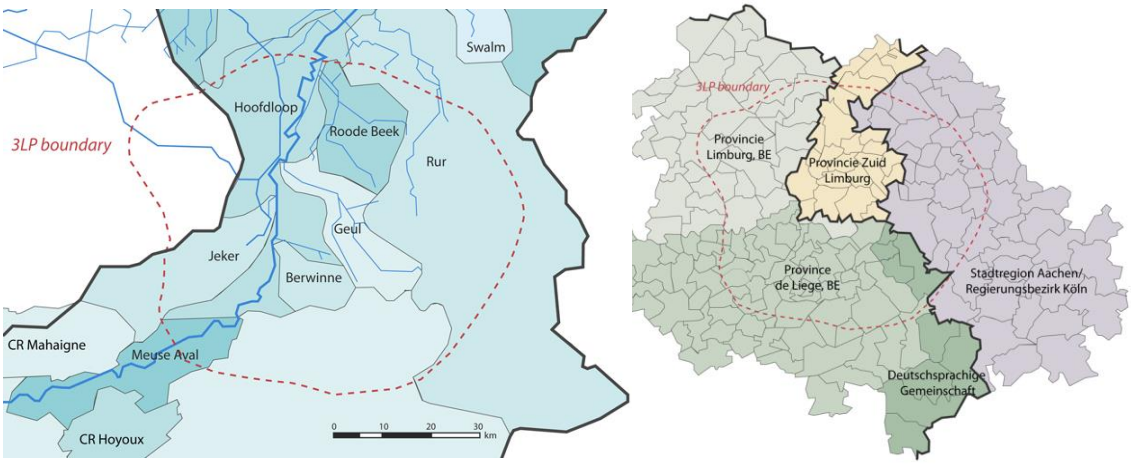


Figure 10 ***The 3LP and sub-basins of the Meuse River***

Figure 11 ***The 3LP, its regional governments (different colors) and municipalities (thin lines)***

Concluding for the investigated example of the 3LP, more broadly understood also for other CBPMR, the following directions for cross-border landscape policy development seem meaningful:

1. **Enable critical mass for synthesis:** A 'light' platform (like the 3LP) under the leadership of one among the national-regional governments, that coordinates actions seems an efficient way forward. However, when intensification of cross-border activities is the goal, it needs to be assured that there is enough critical mass for synthesis (e.g. for finding consensus regarding common goals, for coordinating an increasing amount of project groups and their cross-border communities – or simply for making sure that crucial information becomes available at the beginning of projects, for example regarding geographic

information data). This point is especially addressed by the partnership proposal in Chapter 4.1.)

2. **Consider approaches via the integration of market actors:** Since the landscape is largely under the influence of economic land uses und much EU support is dedicated to economic players, the innovative integration of market actors such as from forestry or agriculture seems crucial, especially if e.g. targeting climate change mitigation and adaptation or e.g. meeting water quality objectives by the Water Framework Directive with payments for ecosystem services (PES). Considering such ideas, the thematic strategies presented in Chapters 4.2-4.5 can innovatively extend the 3LP approach beyond its existing thematic focus.

3. **At the beginning, make use of existing core competences and interests**: In the case of the 3LP, this means focusing on "reality-proven" themes such as habitat development and biodiversity, the provision of access, cultural heritage and their synchronization with established planning systems. This meets available support by territorial cooperation programs and/or EU funds or new ones like e.g. related to the EU's Green Infrastructure strategy. However, 'landscape' should be placed more prominently into the center. This point is especially reflected by the landscape perspective, as described in the next chapter.

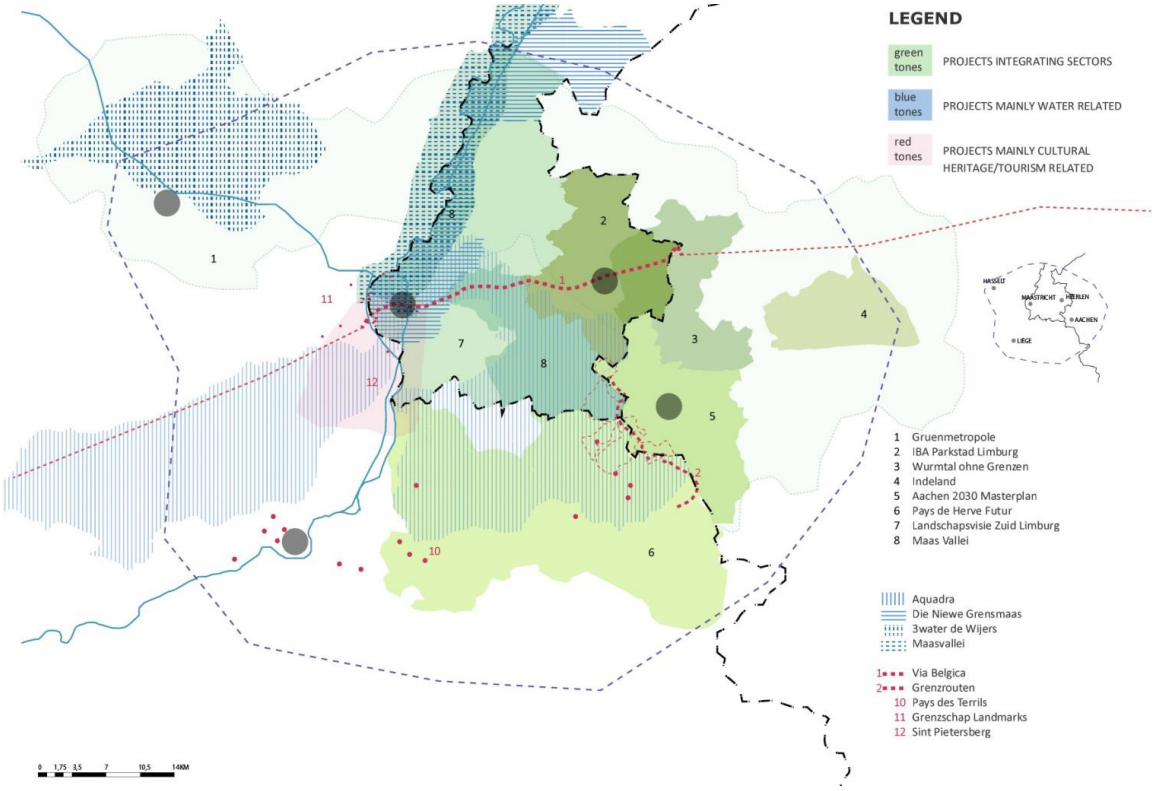


Figure 12 The territories of exemplary regional policy initiatives within the 3LP. *(source: websites of the stakeholder projects)*

3. A landscape perspective for the 3 Countries Park

3.1. Introduction to the landscape perspective

The unique quality and value of the landscape of the 3 Countries Park had already been formally recognized in the first cross border spatial development perspective for the region: the 1993 MHAL perspective. Over a decade later, in 2003, a development perspective was drawn-up for the 3 Countries Park, formulating 26 lines of ambition. Since 2003 several landscape studies have followed, focused on various parts of the 3 Countries Park. Together these cover almost the entire area of the 3 Countries Park (Figure 13). Up until now an overall landscape perspective has been missing, one which crosses the national borders and overarches the differing approaches. This is where the landscape perspective for the 3 Countries Park steps in.

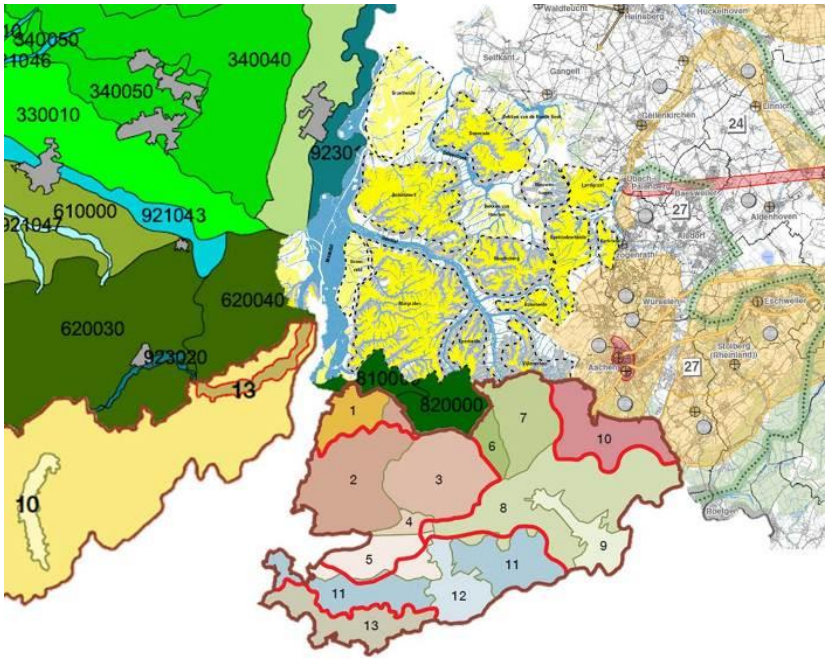


Figure 13 ***Montage of maps from previous landscape studies*** *(Antrop et al., 2002; Cremasco et al., 2008; Kerkstra et al., 2007; Landschaftsverband Westfalen-Lippe and Landschaftsverband Rheinland, 2007; Witte et al., 2009)*

The landscape perspective is a structured plan to preserve, enhance and develop the qualities of the landscape of the region. It aims to guide developments and decisions that affect the future physical form and function of the landscape. Although the Landscape Perspective is made for the cross-border landscape of the 3 Countries Park, the set-up and structure of this landscape perspective can also be used for other regional – cross-border – landscapes. The landscape perspective came about through an iterative working process which entailed desk studies in the form of literature review, an extensive map study and designing, as well as fieldwork such as site visits and visual assessment. In addition, local and regional stakeholders participated through three workshops and individual opportunity for feedback.

3.2. The landscape of the 3 Countries Park

The 3LP landscape slopes from its highest points in the South East to its lowest points in the North West and is criss-crossed by rivers and streams. In the Pleistocene a band of Loess, at some places 10 meter thick, was deposited running from the South West (*Haspengouw*) to the North East (*Jülicher Börde*) of the 3LP area. The Meuse and its tributaries moulded the landscape into a hilly terrain (Kerkstra et al. 2007). This geomorphological structure of the 3LP is visualised in figure 14. In addition to the middle mountains and the plains, two distinct types of relief evolved, plateaus with a-symmetric river valleys and a ridge landscape in the southern part of the 3LP area (Figure 15). The rich and continuous history of occupation of the area has added substantial flavour to the landscape which has been inhabited since 4500 BC (see Chapter 2.2.1 and Annex I.3.2). Many relicts of cultural heritage remain in the landscape and the cultural landscape itself reflects the rich history of the region.

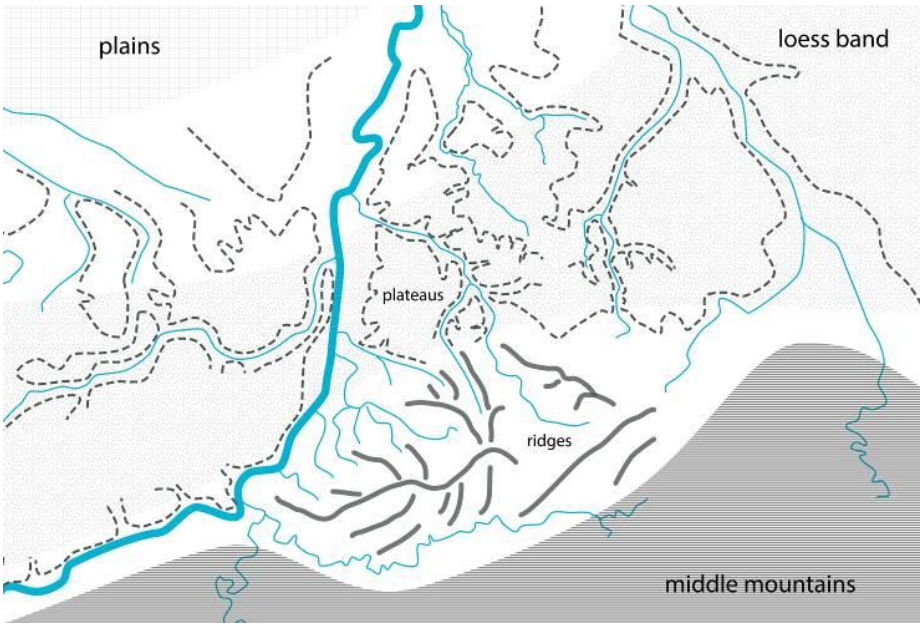


Figure 14 The Geomorphological structure of the 3LP landscape

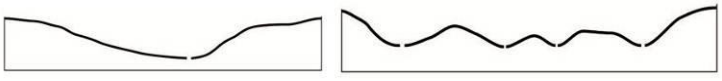


Figure 15 Schematic cross-section of the plateau landscape (left) and the ridge landscape (right)

The development and occupation of this hilly landscape resulted in a polycentric urban structure surrounding an attractive green cultural landscape. Nowadays this attractive landscape not only has an agricultural function, but is also enjoyed by tourists, used for outdoor recreation, and attracts urban dwellers to live in the countryside (Projectgroep Drielandenpark, 2003). Based on the characteristics of the landscape - the differences in relief, the scale of the landscape and the differences in

land use (arable lands, pastures, housing, etc.) - a map has been made for the region identifying seven different landscape types. Figure 16 shows the landscape types and Table 5 describes their characteristics.

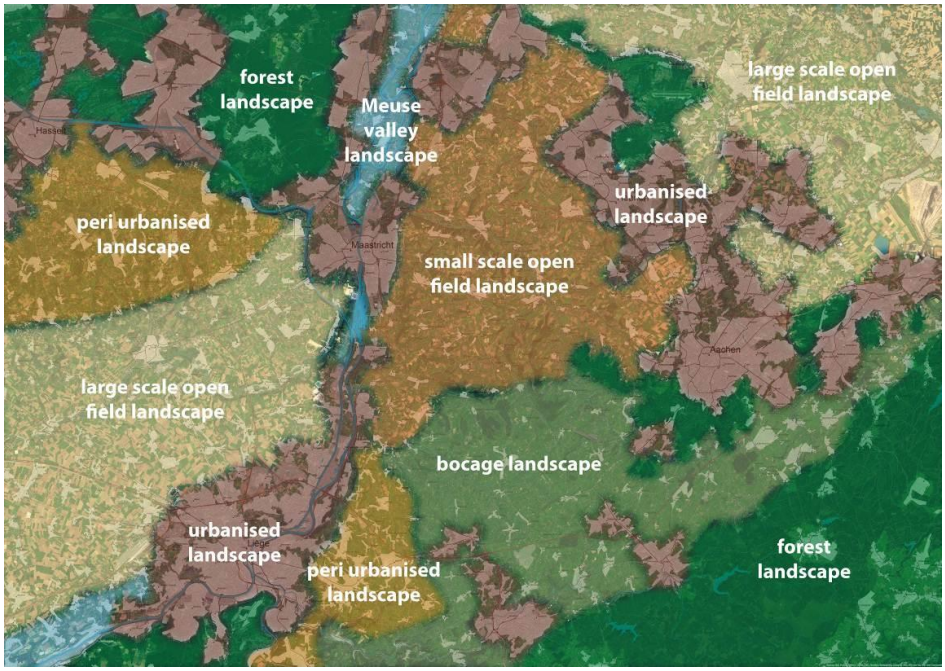


Figure 16 Landscape types of the 3 Countries Park

Table 5 Characteristics landscape types of the 3 Countries Park

Small-scale open field landscape	• Loess plateau with relatively many streams and dry valleys criss-crossing • Open arable land on the plateau with broad views over the surroundings • Green, a-symmetrical valleys, gentle slopes used as pastures/meadows, steep slopes with forest or as pasture land with strip lynchets • (Standard) orchards • Villages in valleys and on plateaus • Castles, estates, monasteries, historic farms
Bocage landscape	• Hilly pasture landscape with many hedge remnants • A-symmetric valleys with gentle slopes as well as steep forested slopes. • Villages and scattered farms • Castles, estates, monasteries, historic farms
Meuse valley landscape	• River landscape bounded by slopes • Excavation areas (gravel and sand) • River-related infrastructure (harbours) • Villages • Arable lands, pastures, standard orchards
Large-scale open field landscape	• Loess plateau with gentle slopes and a few streams criss-crossing • Villages and scattered farms • (Standard) orchards • Large scale agriculture, arable lands • Castles, estates, monasteries, historic farms
Forest landscape	• Hilly forest landscape
Urbanised landscape	• Historic city centres with manifold cultural heritage • 20th century urbanised areas • Industrial sites • Industrial heritage • Urban green • Pockets of historic agricultural landscape
Peri-urbanised landscape	• 20th century suburbanisation interwoven with a small scale open field landscape or bocage landscape

3.3. Five core qualities of the 3 Countries Park landscape

Based on interviews with stakeholders, discussion in workshop-sessions, a map-analysis, the characteristics of the landscape types and the identification of valuable landscape assets in previous landscape studies (Antrop et al. 2002; Cremasco et al. 2008; Kerkstra et al. 2007; Landschaftsverband Westfalen-Lippe, Landschaftsverband Rheinland 2007; Witte et al. 2009), five core qualities of the 3 Countries Park landscape were derived. Below, these five core qualities are introduced including a short description of the appearance of the core qualities in the landscape types of the 3 Countries Park region. In Annex I.1 these 5 core qualities are illustrated and an overview is given of their appearance in the landscape types of the 3 Countries Park.

The diversified relief -caused by the position of the region between the plains and the middle mountains, and the criss-crossing water courses – is one of the dominant features and a core quality of the 3 Countries Park landscape.

The abundance of water appearances is also recognised as a core quality of the area. These appearances relate to the various streams, rivers, creeks, springs, ponds, artificial lakes, castles with wet moats etc.

A varied green character is the third core quality, based on the forested steep slopes, marshlands, the half-natural grasslands - especially the lime based grasslands – hedges, standard orchards, hollow roads, and strip lynchets. This varied green character together with caves, mines, quarries, and reserved fragments of arable lands, provides habitats for many animals.

The polycentric settlement pattern is also recognised as a core quality of the region. The polycentric urban structure, as well as the positioning of the urbanised areas around a green core, ensures the proximity of attractive urban and rural areas throughout the landscape.

Finally, manifold cultural heritage is the fifth core quality, reflecting the rich history of the region that resulted in a cultural landscape which still looks almost medieval, with castles, estates, monasteries, convents, farms and villages, as well as more recent heritage like mining colonies and industrial heritage sites.

Landscapes though, are not static. They develop and change over time due to changing circumstances, developments in land-use and other territorial dynamics. Many changes devalue the existing landscape qualities when they occur at an unsuitable place or in an unsuitable form. These developments seem to ignore the landscape. On the other hand, chances for landscape enhancement are missed because they are not known. A shared and overarching landscape perspective helps to guide smaller-scale decisions about the spatial arrangement of land-use in such a way that they will fit the landscape, as well as show needs and opportunities for active landscape development in order to preserve, enhance and develop the core qualities of the landscape.

3.4. Unity and diversity, a landscape perspective for the 3 Countries Park

The landscape perspective provides direction for an attractive, diverse and history-rich landscape in the future. In the previous chapter several territorial dynamics and challenges to regional landscapes were presented. It showed that the 3 Countries Park landscape is also subject to change. The landscape perspective not only enhances the characteristics and core qualities of the landscape, but also improves its ecosystem services and will make the landscape more robust and resilient to future change.

The landscape perspective builds upon the main principles of unity *and* diversity. On the one hand a shared perspective is given on preservation, development and cultivation of the core qualities of the 3LP landscape: diversified relief, water appearances, green natural character, polycentric settlement pattern and cultural heritage. On the other hand it provides opportunities to respect different identities, to reflect cultural differences and to enable specific place-based solutions.

Unity

The aim of unity is represented by a shared, cross-border set of objectives, derived from previous landscape studies of the different parts of the 3LP region (an overview of these objectives can be found in Annex 2.2). Many of the objectives in these studies relate to the preservation, development and cultivation of the core qualities of the 3LP landscape. A critical review revealed that many similarities exist in content, but that the objectives differ in levels of scale and abstraction. The landscape perspective bridges this gap by synchronizing landscape objectives and objectives related to a cross-border ecological network, creating a shared set of objectives on a joint level of scale and abstraction. The aim of unity raises an urgent need for, and places heavy demands on, a unifying landscape-based framework that creates and reinforces landscape structures across borders and throughout the landscape.

Diversity

The aim of diversity relates to both the policy context of objectives and location-specific solutions. It is especially relevant to the elaboration of shared objectives on a smaller scale. The workshops with stakeholders showed that cross-border cooperation has led to a shared perspective on the quality and future development of the 3LP area - laid out in the 3LP Development Perspective (2003) - but that many differences exist too. National policies and regional cultural differences cause variations in interpretations and elaborations of identical objectives. Rather than considering this as a problem in cross-border cooperation it must be seen as a potentially valuable and respected contribution to the spatial and cultural richness of the 3 Countries Park. The workshops also made clear that specific issues and detailed landscape characteristics arose when looking at the local scale. Local and regional knowledge is needed to develop and implement landscape objectives and guiding principles into meaningful, acceptable concrete measures at a local scale.

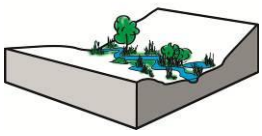
In order to meet the two aims, the landscape perspective is defined on a regional scale, providing opportunities for detailed, tailor-made and culturally-embedded local solutions in landscape planning, design and management. The landscape perspective consists of the following elements:

- Guiding principles: General spatial principles for landscape development, based on shared objectives for preservation, development and cultivation of the core qualities
- Present structures: landscape structure and cultural identities. Important components of the region's identity and physical elements, defining which guiding principles can be applied where, and how.
- Future structures: the green-blue framework and the urban-open space framework show what structures will emerge on a regional scale by applying the guiding principles. The green-blue framework will provide a backbone in the landscape, the urban-open space framework supports this by ensuring space for the green/blue framework and improving the accessibility of the landscape for recreation and tourism.

Local examples illustrate how the guiding principles can lead to place-based solutions on a detailed scale, taking cultural identities and landscape specifics into account. The landscape structure, cultural identities, and the green-blue and urban open-space frameworks were drawn-up on an overarching 1:100.000 scale covering the entire 3 Countries Park region. The local examples were drawn up on a 1: 20.000 scale, showing a more detailed view of the possible elaboration of the guiding principles.

3.4.1. Guiding principles

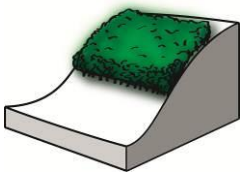
The guiding principles are general spatial principles for landscape development in the 3 Countries Park. They contribute to conserving and enhancing the ecological, hydrological, productive, experiential, and recreational values in the landscape, and explain *what* must be done in order to create a robust and resilient landscape at the regional scale. Guiding principles 1-8 focus on landscape structuring elements, ecosystems and water systems, principles 9-13 on urban areas and open space. The guiding principles for the 3 Countries Park are:



1. Wet valley floors

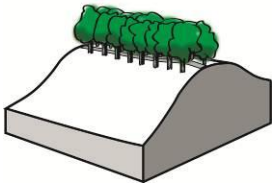
Through wetting valley floors the contrast of the valleys in the landscape with the surrounding slopes, plateaus and ridges is emphasised. Furthermore, this guiding principle adds to the creation of habitat, mitigates of flood risk, improves water quality and could produce biomass for energy production. This principle will strengthen the robust landscape structures in the region, especially the spatial continuity of the valleys.

2. Forest on steep slopes



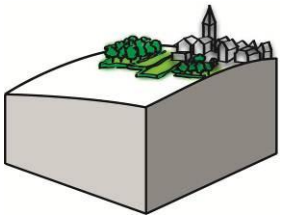
By foresting the steep slopes any contrast with valleys, gentle slopes, plateaus and ridges increases, and existing forests on steep slopes will be supplemented. Besides production of wood this guiding principle adds to the prevention of soil erosion, mitigates flood risk, improves water quality, creates habitats and ecological connections, and improves the recreational potential of the landscape. An important point to consider with this guiding principle is that valuable limestone grasslands can occur on steep slopes. Foresting of these grasslands is not desirable. Furthermore, the forest should not block all views from the plateaus and the ridges. This principle will add and enhance robust landscape structures in the region.

3. Emphasise high ridges



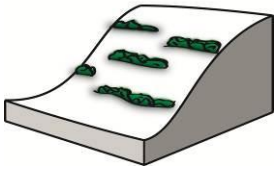
This guiding principle adds to the enhancement of the landscape structure in the bocage landscape. It underlines the ridges in this landscape with linear tree-planting. The planting will also create small-scale ecological connections. The view from the ridges on the surrounding landscape should not be blocked, it is an important feature to keep in mind with this guiding principle.

4. Green village fringes



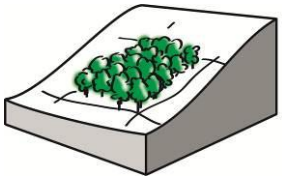
The plateau villages will be surrounded with green fringes, consisting of small paddocks and standard orchards which reflects their historic situation. It will enhance the cultural landscape, improve scenic views on the village edges, create small scale ecological connections, provide space for the production of regional products (e.g. fruits) and biomass, mark the separation between villages and will improve local recreational possibilities.

5. Restore strip lynchets



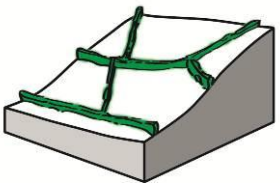
Strip lynchets are a characteristic landscape element for parts of the region. Restoration of strip lynchets enhances the cultural landscape, prevent soil erosion, mitigate flood risk, improve water quality, produce biomass and create small-scale ecological connections.

6. (Re-)develop standard orchards



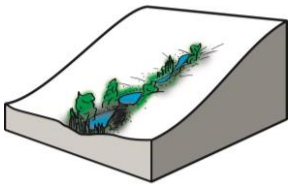
Standard orchards were at one time a common thing in the region, which is known for its fruit production. (Re-)development of standard orchards will enhance the cultural landscape, produce regional products, create small-scale ecological connections, mitigate flood risk and produce biomass. (Re-)development of standard orchards should preferably commence near (historic) buildings and villages.

7. (Re-)develop hedge structures



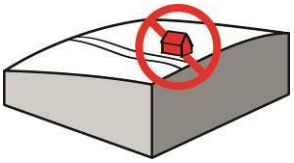
The hedge landscape emerged through generations of traditional landscape management practices, especially on the gentle slopes used for cattle-grazing. (Re-)development of these hedge structures will enhance the cultural landscape immensely. It will also create small-scale ecological connection, produce biomass, mitigate flood risk and improve water quality. An extensive network of hedges can be a valuable and robust regional landscape structure.

8. Restore springs and sources



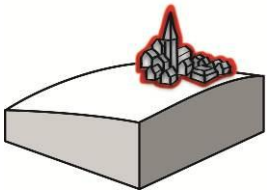
The region contains many springs and sources, some of which have been channelled. When these springs and sources are restored and planted, they will add to the creation of habitats, mitigate flood risk, prevent soil erosion, produce biomass and improve water quality.

9. Restricted building



This guiding principle relates to large parts of the rural areas in the regions - the valleys, plateaus, ridges and slopes. This guiding principle aims to stop urban sprawl, ensure separation between urban areas, preserve and enhance the landscape structure, and preserve migration routes and ecological connections. No building should occur on valley floors, steep slopes, on ridges and on the highest areas on the plateaus. Restricted building with a strong eye for landscape-fitted development such as in the depressions on the plateaus and on the lower parts of the gentle slopes.

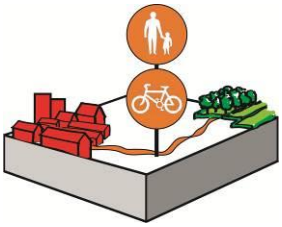
10. Building fitting in village structure and silhouette



Some of the village structures and silhouettes in the region are quite characteristic and unique. New buildings should fit the existing structure and silhouette of a village. This guiding principle will limit urban sprawl and preserve and enhance the landscape structure and cultural landscape.

11. Landscape-based restructuring of built-up areas

Both urban and suburbanised areas can come up for renewal and restructuring. This should be done based on the existing structure of the landscape. It implies careful consideration of where to build and where to remove building, especially where spatial continuity of the valleys is concerned. Buildings on valley floors, steep slopes and ridges should be avoided. This guiding principle will enhance the living environment and the landscape experience, create space for habitats and ecological connections and mitigate flood risk.



12. Urban-open space accessibility for slow traffic

In several parts of the urban areas it is hard to get into the countryside by bike or walking, although it is just a few kilometres away. This guiding principle aims to improve the access to and from the rural areas for walkers and cyclists. It will improve the recreation and tourism infrastructure and enhance the landscape experience.

13. Improved access to heritage and nature sites for slow traffic

Some of the more special places in the landscape often related to cultural heritage or nature, like valley floors, are hard to access and experience for walkers and cyclists. Improving this access to specific beautiful sites will improve the recreation and tourism infrastructure in the region and enhance the experience of the landscape.

All guiding principles relate to the core qualities and preserve or enhance them. The following Table shows which guiding principle preserves or enhances which core quality.

Table 6 guiding principles and core qualities

Guiding principle	Core qualities				
	Diversified relief	Abundance of water appearances	Varied green character	Manifold cultural heritage	Polycentric settlement pattern
1. Wet valley floors	■	■	■		
2. Forest on steep slopes	■		■		
3. Emphasise high ridges	■		■		
4. Green village fringes			■	■	■
5. Restore strip lynchets	■		■	■	
6. (Re-)develop standard orchards			■	■	
7. (Re-)develop hedge structures			■	■	
8. Restore springs and sources		■	■		
9. Restricted building	■		■		■
10. Building fitting in village structure and silhouette				■	■
11. Landscape-based restructuring of built-up areas	■	■			■
12. Urban-open space accessibility for slow traffic			■		■
13. Improved access to heritage and nature sites for slow traffic				■	■

The guiding principles make the landscape more resilient and each provides services from one or more categories of ecosystem (or landscape) services:

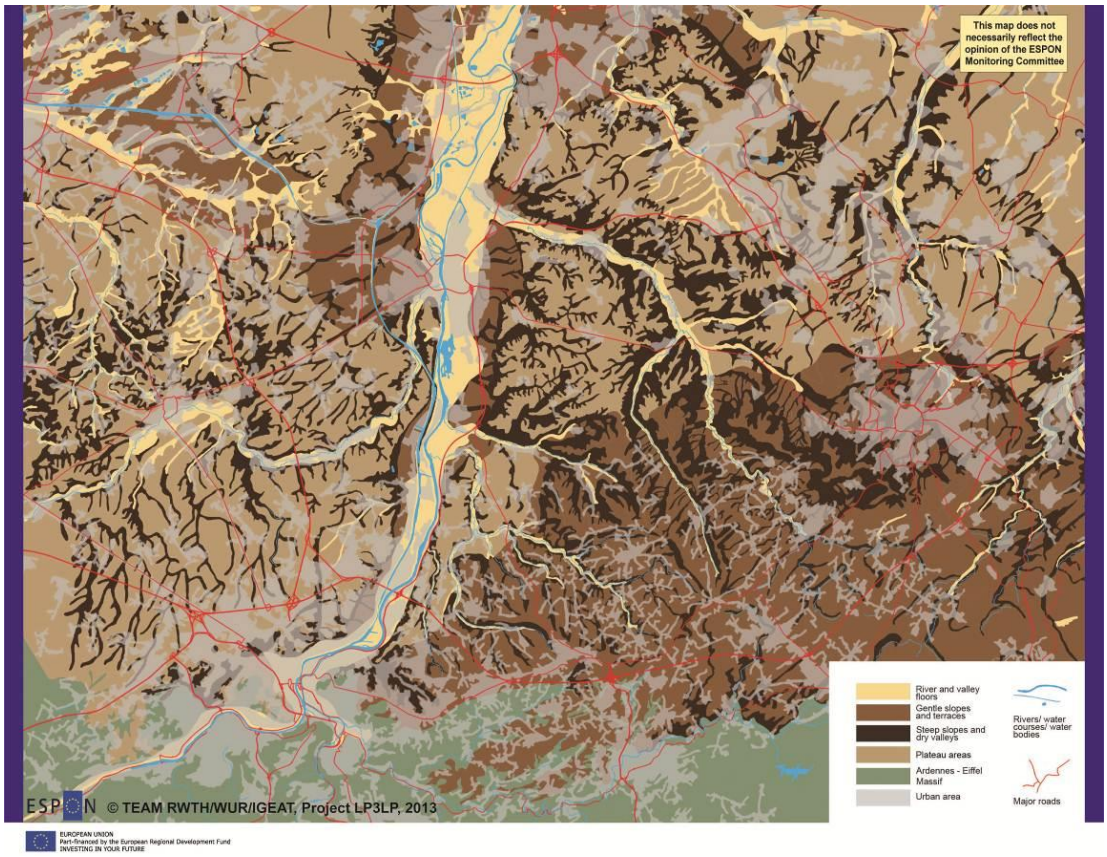
- provisioning services: obtaining products from ecosystems such as food, fibres, fuel, genetic resources, biochemicals, and fresh water;

- regulating services: benefit from the results of ecosystem processes such as water purification and regulation, air quality regulation, climate regulation, erosion regulation, pollination, natural hazard regulation;
- cultural services: gain non-material benefits from our interaction with the natural environment such as cognitive development, reflection, recreation and aesthetic experiences;
- supporting services: necessary for the production of all other ecosystem services including soil formation, photosynthesis, primary production, nutrient cycling and water cycling.

Annex II.3 gives an elaborated overview of the relation between the guiding principles and ecosystem (or landscape) services.

3.4.2. Present context: Landscape Structure and Cultural identities

The basis for the landscape perspective is provided by tangible and intangible characteristics that are considered as determining and lasting. They are important components of the region's identity and a solid base for the five core qualities (relief, green character, water appearances, cultural heritage and polycentric settlement pattern), and enabling both unity and diversity throughout the landscape.

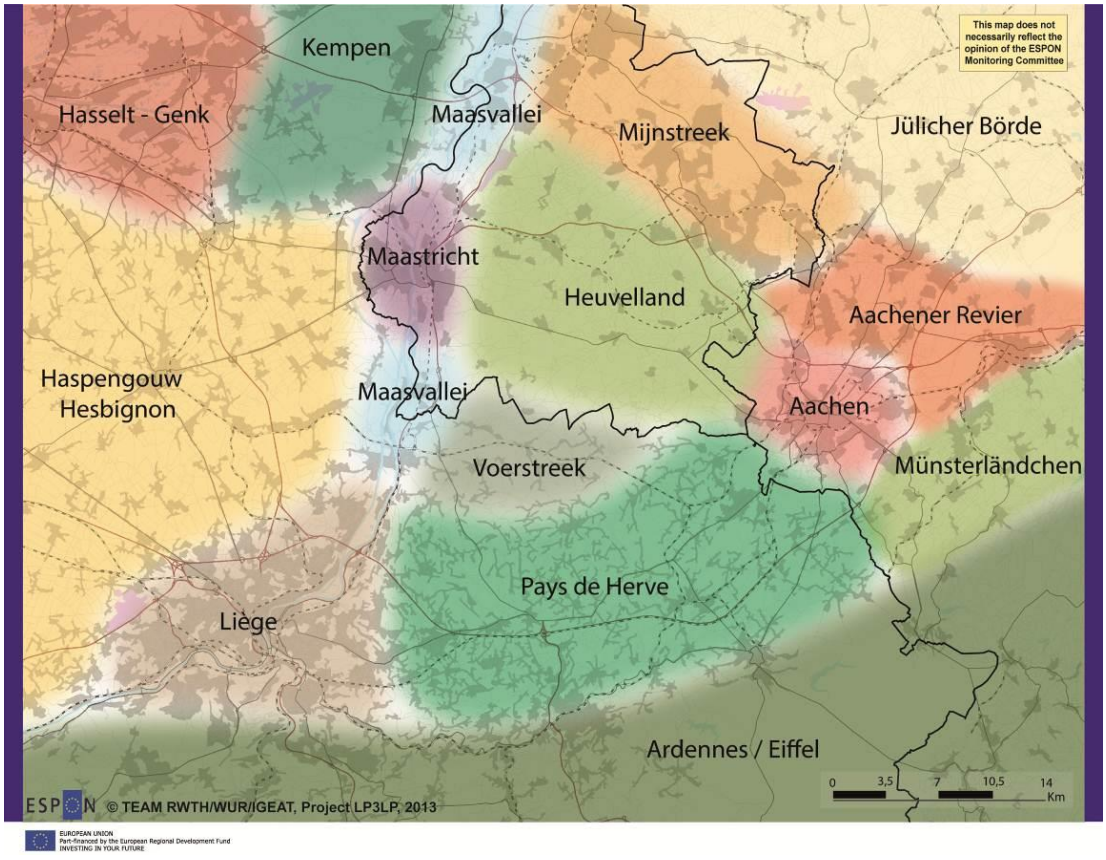


Map 1 Landscape Structure 3 Countries Park (see Annex II.4 for the map on A4 format and key)

The landscape structure map consists of the predominant physical-spatial structures of the region (Map 01). The map shows plateaus, river valleys, steep slopes and dry valleys, gentle slopes, major water features, urban areas and major infrastructure. They provide a coherent structure at the regional and local scale. The landscape structure guides *which* guiding principles can be applied *where* in order to create a coherent and robust landscape.

The cultural identities of the area show that national and regional borders, differences in legislation and regulations, as well as different cultures will cause variety when implementing guiding principles. While the objective and principle may be generic, the implementation will be directed by cultural differences and lead to local specifics. They define how the guiding principles will be worked out in detailed plans, and how – under which laws and regulations and with which instruments – they will be implemented. We distinguish 15 different regional identities in the 3 Countries Park landscape (see Map 02).

The layer of cultural identities reflects cultural differences, which play an important role in the (local) elaboration and implementation of the guiding principles. The spatial expression of cultural identities consists of areas or regions defined by cultural coherence, landscape character, administrative borders and how they are commonly known to people.



Map 2 Regional identities (see Annex II.4 for the map on A4 format)

3.4.3. Future structures emerging on a regional scale: Green-blue framework , Urban–open space framework

As described above, the landscape structures guide which guiding principles can be applied where, in order to create a coherent and robust landscape. Table 7 shows how the guiding principles relate to the physical spatial structures of the region. From this application of the guiding principles two frameworks on a regional scale emerge: the green-blue framework and the urban-open space framework.

Table 7 Guiding principles and physical structures of the region

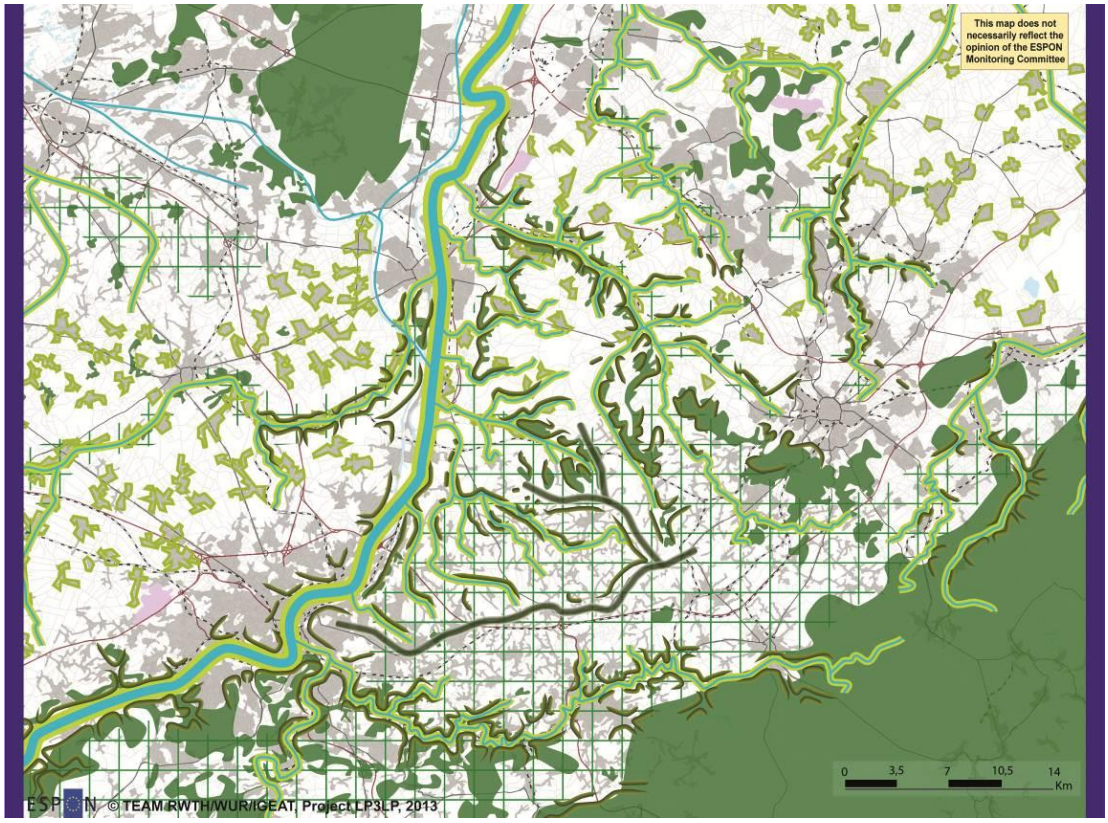
Guiding principle	plateaus	ridges	Steep slopes	Gentle slopes	Valley floors	Urban areas
1. Wet valley floors					■	
2. Forest on steep slopes			■			
3. Emphasise high ridges		■				
4. Green village fringes	■					
5. Restore strip lynchets			■	■		
6. (Re-)develop standard orchards				■		
7. (Re-)develop hedge structures				■		
8. Restore springs and sources			■	■		
9. Restricted building	▨	■	■	▨	■	
10. Building fitting in village structure and silhouette	■					
11. Landscape-based restructuring of built-up areas						■
12. Urban-open space accessibility for slow traffic						■
13. Improved access to heritage and nature sites for slow traffic	■	■	■	■	■	

Green-blue framework

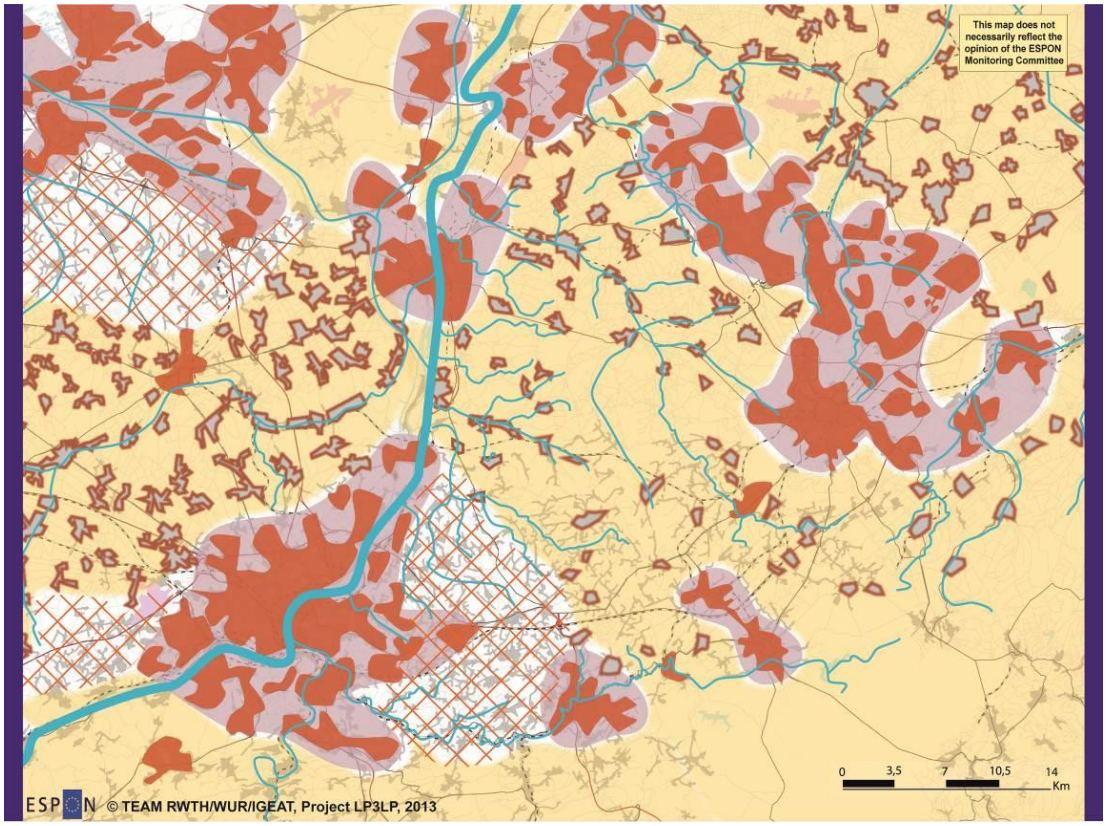
Figure 3.6 shows the green-blue framework that emerges when the following guiding principles are applied throughout the 3 Countries Park landscape:

- Wet valley floors
- Forest on steep slopes
- Emphasise high ridges
- Green village fringes
- Restore strip lynchets
- (Re-)develop standard orchards
- (Re-)develop hedge structures
- Restore springs and sources

This green-blue framework preserves and enhances landscape quality, biodiversity, a sustainable and resilient water system, and a green and lush setting for recreation and tourism by creating a coherent and resilient spatial green-blue ‘backbone’ for the region. Its spatial expression consists of forest, linear plantings, landscape elements, marshlands and watercourses.



Map 3 Green-blue framework (see Annex II.4 for the map on A4 format and key)



Map 4 Urban open space framework (see Annex II.4 for the map on A4 format and key)

Urban–open space framework

The urban-open space framework (Map 4) emerges from the application of the following guiding principles:

- Restricted building
- Building fitting in village structure and silhouette
- Landscape-based restructuring of built up areas
- Urban-rural accessibility for slow traffic.
- Improved access to heritage and nature sites for slow traffic

The urban open space framework supports the preservation and enhancement of the landscape quality by providing guidelines for urban sprawl, urban shrinkage and access and linkages for slow traffic. Its spatial expression consists of open, un-built spaces and fringe areas.

3.4.4. Place-based solutions

The guiding principles as well as the blue-green and urban-open space frameworks are still abstract and on a large scale. They need to be elaborated into place-based solutions that consider the specific physical and cultural situation at hand and take actual spatial-economic developments. This is an essential part of the landscape perspective and can only be done with local people and local knowledge involved. To give an idea what a place-based elaboration could be, we give two hypothetical examples, one for an area in Pays de Herve around Thimister-Clermont and one for the Wurm near Eygelshoven. Note that these elaborations are just sketches based on the application of the guiding principles on a more detailed scale, in these sketches other spatial issues or developments are not included, nor has there been any input from local stakeholders or specific local knowledge. This means that these examples are not 'culturally embedded'. The two examples, including a topographic map and positioning of the location in the 3LP region are shown in Annex II.5.

Example 1: Thimister-Clermont

This example is located in the Bocage landscape of Pays de Herve (BE). Based on its location in the landscape structure the following guiding principles are applicable:

- Wet valley floors
- Forest on steep slopes
- Emphasise high ridges
- (Re-)develop standard orchards
- (Re-)develop hedge structures
- Restore springs and sources
- Restricted building
- Building fitting in village structure and silhouette
- Improved access to heritage and nature sites for slow traffic

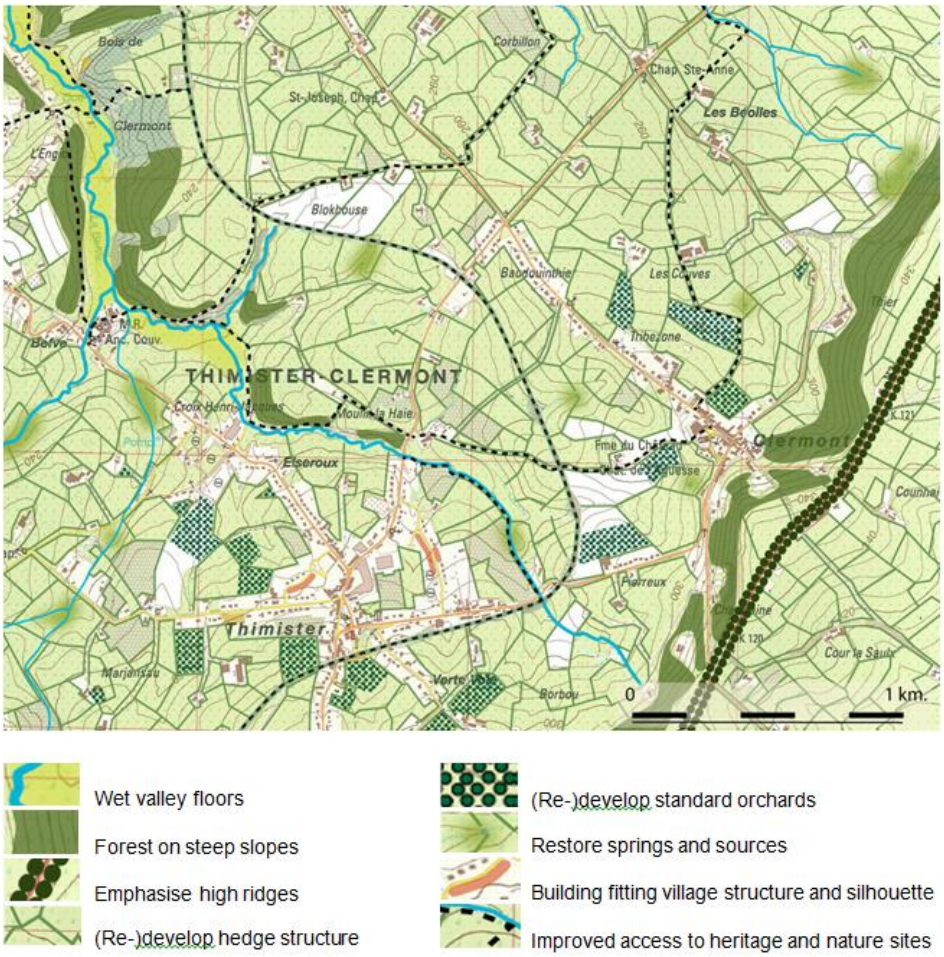


Figure 17 Application of guiding principles: Example Thimister-Clermont

Figure 17 shows the application of the guiding principles in the area. In the south-east along the N3 the high ridge in this area is emphasised by planting trees on both sides of the road. The steep slope on the west side of the ridge is forested, as are the steeper slopes in the north-west. These complement the existing forest on the steeper slopes. The valley floor along La Befve is wetted, allowing a wetland vegetation to develop. The many springs and sources in this area are restored. Throughout the area the network of hedges is intensified. In the neighbourhood of the villages, Thimister and Clermont, several standard orchards are planted. In the entire area building is restricted, in the village of Thimister three locations are indicated where building fitting the village structure and silhouette is possible. Finally a route structure for walking and or biking is indicated, connecting several interesting nature and heritage sites (e.g. the valley of La Befve, historic farms and the village centre).

Example 2: Wurm

The second example is a part of the Wurm river, located at the border of Germany and the Netherlands as well as on the border of urban and rural space. Based on the existing landscape structure the following guiding principles are relevant:

- Wet valley floors
- Forest on steep slopes
- Green village fringes
- (Re-)develop standard orchards
- (Re-)develop hedge structures
- Restricted building
- Landscape-based restructuring of built up areas
- Urban-rural accessibility for slow traffic

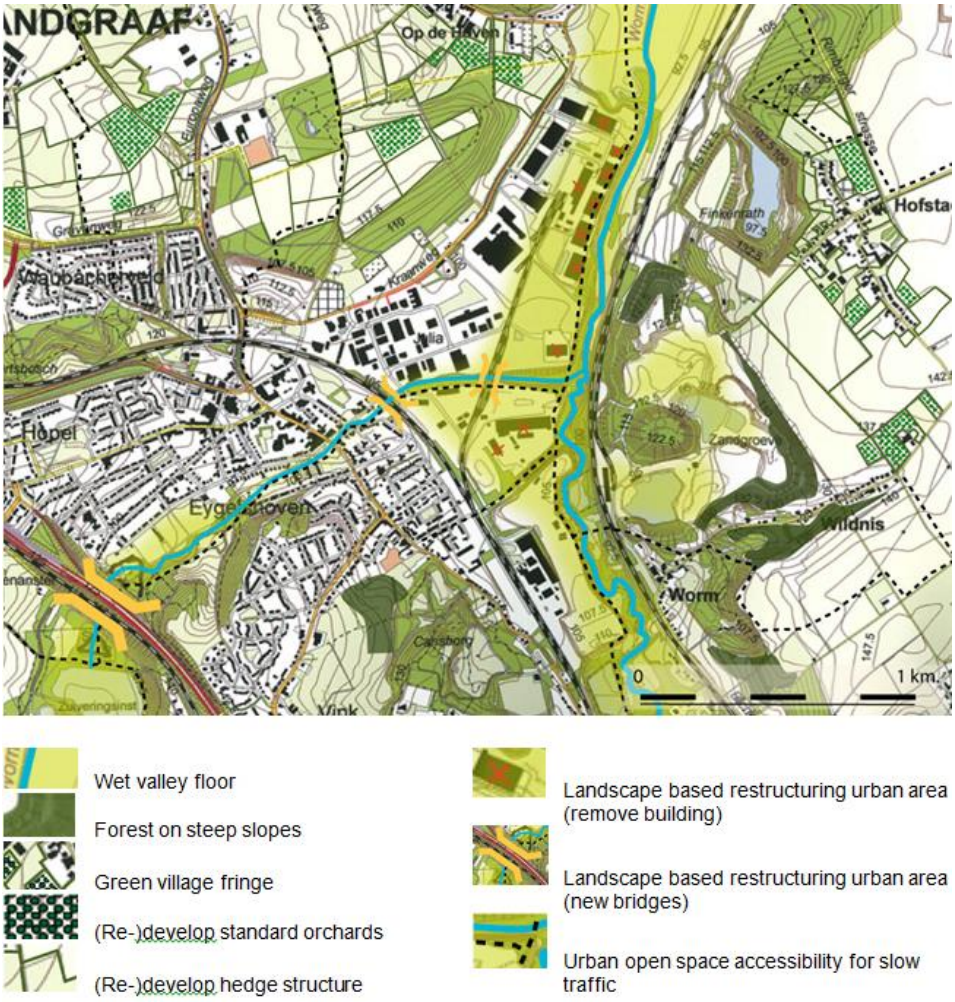


Figure 18 Application of the guiding principles: Example Wurm

In this example, the valley of the Wurm guides restructuring of the urban area. Several buildings in the Wurm valley are removed and several measures are taken to resurface the stream running through Eygelshoven. Three new bridge constructions for the road and railway crossings will be the biggest operations for implementation of this measure. The sandpit east of the Wurm will be part of the wetted valley floor of the Wurm with forestation on the steep slopes. In the north-west corner, hedges and standard orchards are added on the gentle slopes. Along the small village of Hofstadt in the north-east a green village fringe of hedges, small paddocks and orchards is developed. Throughout the area routes for walking and cycling are developed, improving the urban-open space accessibility.

For a broader impression of the relationship between the guiding principles and local, place-based solutions please go to annexes II.6 and II.7. Annex II.6 compares the guiding principles with recent BSc thesis work of landscape architecture students on the Geul-Gulp valley. Annex II.7 compares the guiding principles with existing cases.

3.5. Application and performance of the landscape perspective

The deliberate development of landscapes in Western Europe is not a short-term activity and means working on a regional scale. It implies that many stakeholders are involved; it includes complex relations between a variety of land uses and activities; implementation is not simply a matter of construction, but rather a long and bumpy course of policy making, creative use of financial and juditial instruments, lobbying, finding the right partners and then, hopefully, defining a concrete project. In Annex II.8 the landscape development in the Ooijpolder (NL) is described. It illustrates the performance of a landscape concept, the long term needed, and unexpected coalitions in landscape development. In the search for the right application strategy also other landscape developments could be visited and studied. The Emscherpark for example relates to the urban context that also characterises the 3 Countries Park, as is the cross-border Euro Metropolis Lille-Kortrijk-Tournai. The next chapter of this report addresses strategies for landscape enhancement as well as the question of landscape management and its' relations to the European policy context.

The Landscape perspective for the 3 countries park is developed on a strategic regional scale (scale 1:100.000). As described, the landscape perspective will have to be elaborated in place-based solutions (e.g. scale 1:5.000 – 1: 10.000), that includes the guiding principles but also gives room to the local cultural identity as well as includes the specific spatial and economic developments at hand. Differences in cultural identities for example relate to building plots, architecture and village structures. Spatial and economic developments can vary substantively throughout the region. For example, in several parts of the Dutch territory the population is shrinking over the coming years, whereas in the German and Belgium parts population is expected to grow, ending up in differences in needs for housing and

amenities. The guiding principles, the cultural identity, the spatial and economic developments all are essential to come to proper and comprehensive place-based solutions. This is shown in Figure 19.

We acknowledge that the step from a strategic scale to place-based solutions is quite substantive. It could be considered to 'translate' the still rather abstract guiding principles and the landscape structure maps towards a 1:50.000 – 1:25.000 scale in order to facilitate the development of place-based solutions. Some of the guiding principles, like 'Wet valley floors' will turn out to be rather strict throughout the various scale levels, while others, like 'Urban-open space accessibility for slow traffic' needs local interpretation and elaboration.

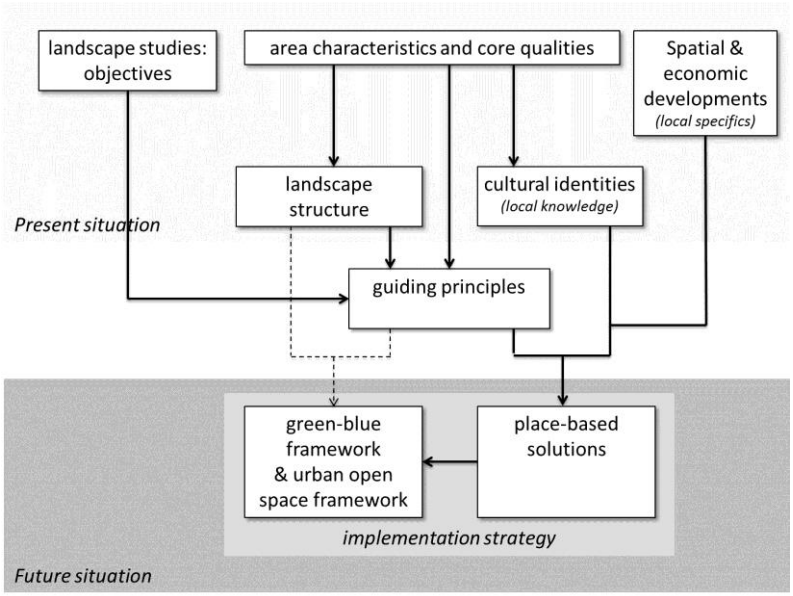


Figure 19 Schematic flow-chart 3LP landscape perspective

Figure 19 shows that the base for the guiding principles lies in the objectives of previous landscape studies, the area characteristics and core-qualities, and the existing landscape structure. It also illustrates that the green-blue and urban open space frameworks will emerge through the realisation of place-based solutions. The maps of these frameworks, presented in this report, should therefore be seen as frames of reference, a long term goal or as ambitions. Smart implementation strategies are needed to take the step from perspective to action. This schematic flow-chart can also be useful for other regions that want to develop a landscape perspective, it summarizes the elements and steps that were taken to develop the 3LP Landscape Perspective. The scheme, including its elements and steps, can be used by other – cross border – regions to develop an overarching landscape perspective for their regional landscape.

4. A landscape policy for the 3 Countries Park: Recommendations at regional cross-border level

The recommendations for a 3LP landscape policy intend to build an interface linking local-regional initiatives across the Dutch, Belgium and German borders with each other and EU policy. The proposed landscape policy basically consists of three parts:

1. The landscape perspective addressing guiding principles and their spatial explicitness as described in the previous chapter
2. A landscape partnership recommendation addressing questions of governance and capacity, including the use of the ELC instrument "landscape management" (Chapter 4.1), and
3. Four thematic strategies linking local/regional initiatives with specific EU priorities and instruments (Chapters 4.2-4.5).

An earlier version of the proposed strategies has been discussed with local experts representing different economic sectors. A list with the participating experts and main results from the expert meetings can be found in Annex IV.6 and V.1. Annex III lists various EU priorities, policies and instruments as well as local-regional initiatives within the 3LP and external reference projects related to the recommendations presented in the following.

4.1. The 3 Countries Park (3LP) as a future "European cross-border landscape partnership" for high-quality and innovative landscapes

Implementation of the landscape perspective requires concerted action by various land users. This will already be difficult in one country and even more challenging in a cross-border setting. To enable some sort of 'transboundary landscape governance' we propose to develop the 3LP as a "European cross-border landscape partnership" for high-quality and innovative landscapes. By "partnership" we basically mean a cross-border collaborative network of existing institutions and organisations – a basic partnership and strategic partnerships – working on the basis of partnership agreements with a European orientation[5]. The basic structure comprises the partners of the existing 3LP initiative, i.e. governmental institutions and competent authorities for spatial/landscape policy and planning, as well as local/regional landscape organizations. Besides "Pays de Herve Futur" we propose to further invite dedicated landscape organisations such as "Regionaal Landschap Haspengouw en Voeren", "Landschaftsverband Rheinland" etc. These landscape organisations in most cases are associated with municipalities and can thus provide communicative channels to

[5] It should be noted that the research team has no competence in institutional and legal affairs. This proposal therefore is to be understood as a rough draft to be further investigated by legal experts in terms of type of contracts, decision making power and advisory competences etc.

local decision makers. The basic partnership should be governed by a common interest and goal, e.g. the protection and enhancement of 'quality landscapes'. What quality landscapes actually mean needs to be further refined. With a view to the European level we suggest that quality landscapes are characterized by distinctiveness and a high level of achievement of environmental & landscape quality objectives as well as provisioning of ecosystem services and biodiversity in relation thereto. The partnership may choose from the policy recommendations developed in this study to agree on a 3LP landscape policy and develop a work programme. A first step may be to adopt the landscape perspective as a guiding framework for partners' individual and coordinated policy actions as well as to prioritize and select from the thematic strategies (presented below under 4.2.).

In order to conduct the partnership and to execute a work program, it is recommended to invest into a lean operational "landscape management", performed by a multilingual interdisciplinary core team of e.g. three professionals representing each country. I.e. we propose to invest into facilitating and coordinating capacity making use of the ELC instrument "landscape management" defined as "*action, from a perspective of sustainable development, to ensure the regular upkeep of a landscape, so as to guide and harmonise changes which are brought about by social, economic and environmental processes*" (Council of Europe 2000, pp. Art. 1e). The informal instrument of landscape management may work best in a cross-border situation, where legal conditions and institutional arrangements for more formal instruments of landscape protection and landscape/ land use planning are very different in each country. However, landscape management could catalyze the transfer of ideas and results arising from the 3LP partnership into more legally binding instruments according to the country-specific situation. Furthermore, it will not only provide the critical mass for cross-border synthesis but also creative and innovative stimulus by cross-linking various sectors.

The EU offers the cohesion policy tool of Integrated Territorial Investment (ITI) especially for "*integrated sustainable urban development*" (European Commission 2011d) as well as for cross-border territorial cooperation (European Commission 2011e). With this instrument it is possible to combine different EU Funds and to bundle different investment priority axes for integrated strategies and projects. Thus, this option may also hold promise for 'integrated sustainable landscape development or management', although not explicitly mentioned by the Commission. The key elements of an ITI are:

(1) a designated territory
(2) an integrated territorial development strategy
(3) a package of actions to be implemented
(4) governance arrangements to manage the ITI

Point 1 and 4 are already given by the 3LP initiative/ partnership. Regarding point 2 and 3 the partnership may draw from the landscape perspective and thematic strategies presented here and link them with the Euregio Maas-Rhine territorial

development strategy EMR 2020 (Lenkungsgruppe EMR2020 2013). Another option especially for 'project communities' e.g. taking further the thematic strategies, may be the instrument of Community Led Local Development (European Commission 2011c) based on the formation of local action groups.

With regard to cooperation with various land-use sectors the basic partnership should seek to gradually build up strategic partnerships through concrete projects with further stake- and knowledge holders. Partnering with river basin organisations, nature organisations, tourism agencies and agricultural advisory services etc. will be essential for pursuing the thematic strategies. Thereby extensive use should be made of already existing pathways of communication and cooperation with individual land owners/ users and market actors. Furthermore, we regard the active involvement of the public as key for widespread acceptance, recognition and success of the landscape partnership. Therefore the partnership may build on or launch participative processes conducted by the landscape organisations or the competent authorities potentially responsible for defining LQOs. The use of creative tools such as mapping, drawing, photographing and storytelling etc. e.g. in combination with awareness raising land art events should be considered. A landscape information platform (as proposed under the second thematic strategy) will facilitate such processes. Last but not least the integration of volunteer actions, like maintenance of small landscape elements, and respective organisations will also be highly beneficial as well as exchange of experiences with other CBPMR.

The landscape partnership and its operational landscape management, even if a lean one, certainly need a budget and further resources to execute its activities and projects. The partnership may start operation with internal resources and seek external funding for capacity building and the proposed projects. In the long run a more elegant option would be to develop an independent 3LP fund from both public and private sources. Public sources may be e.g. a national lottery. Private money could be raised from responsible industries benefiting from quality landscapes e.g. like the water, food and tourism sectors. Also small amounts of a large number of citizens could make a difference. Therefore, it may be considered to transform the agreement-based partnership into another legal institutional form like a 3LP foundation, a 3LP landscape trust allowing citizen membership or even a citizen shareholder company granting social-ecological benefits as return on investment (see references in Annex IV.1).

4.2. Thematic strategies

4.2.1. Green infrastructure strategy

The most promising instrument at EU level for realizing the proposed 3LP landscape perspective is the promotion of green infrastructure (GI) as a designated investment priority of regional development (Chapter 2.2.3**Fehler! Textmarke nicht definiert.**).

While no exact definition exists, green infrastructure basically is a strategically planned network of green areas and landscape features, which connect fragmented habitats for the protection and rehabilitation of biodiversity, while simultaneously delivering a wide range of ecosystem services – in a multifunctional way. The concept can be understood as a lens bundling sectoral views of e.g. water management, climate change adaptation and mitigation, biodiversity conservation, and ecosystem restoration etc. It can be applied in an open landscape but also within a rather urban context. Integrated spatial planning and land-user involvement is considered a precondition for successful implementation (European Environment Agency 2011, pp. 30p). We therefore recommend developing the 3LP landscape perspective into a Green Infrastructure Plan. Such a plan will particularly apply the 'blue-green principles' on a more detailed scale based on other projects' results (e.g. INTERREG projects Habitat Euregio and Aquadra), a synthesis of further data (e.g. digital terrain model, flood risk etc.) as well as regional and local knowledge. To reduce complexity a clear focus should be set both in urban and rural parts of the landscape on the following key services:

(1) Habitat services with regard to biodiversity targets. Territorial units: habitat networks

(2) Basic regulating services mediated by the water flow in the landscape, i.e. soil and water quality regulation, erosion control and flood prevention, as well as climate regulation (temperature and moisture buffering) with regard to adaptation. Territorial units: small river basins

(3) Cultural services (esp. identity, sense of history, aesthetic appreciation, recreation, and as a resource for the tourism sector) with regard to landscape quality objectives[6]. Territorial units: landscape identity areas (as shown in Map 2 and Figure 21)

In the 'cityscapes' of Liège, Maastricht and Aachen etc. and the suburbanized landscapes GI may actually include all green open spaces plus built structures like green roofs. Air flow and quality regulation could be additional services to be considered in an urban context. In the more rural parts of the 3LP landscapes NATURA 2000 and other protected areas and the (missing) links between them (e.g. ecological corridors) will form the core structure together with elements along rivers, valleys, ridges and steep slopes as suggested m by the landscape perspective. However the GI network may also traverse the plateaus and hills. In addition to the blue-green principles and their vegetation structures typical components of a 3LP green infrastructure can involve unmanaged features like small wet depressions and

[6] In cases where LQOs have been already defined, cultural services may be interpreted from the results of public consultations. Otherwise, the assessment of cultural services, e.g. in the form of spatially distinct 'hotspots and coldspots' Plieninger et al. 2013 may be linked to creative methods of public participation within the process of defining LQOs.

tree groups within pastures and croplands, or managed elements like contour hedges and agroforestry as well as built structures like ecoducts or constructed wetlands.

The Green Infrastructure Plan is to be understood as a strategic plan which will guide individual actions by the members of the landscape partnership and further competent authorities, organizations and land managers. The plan can help to prioritize public purchase areas and governmental measures, but much of the change will need to happen on privately owned land. Besides rural development measures like Natura 2000 payments or support for afforestation etc. (see Annex III.2), another EU instrument which can be used mainly on croplands is the designation of 7% ecological focus area (5% until 2017) of farms receiving direct payments (European Commission 2011g Art.32). In this latter regard the 3LP initiative should seek partnership with the competent authorities and agricultural advisory systems responsible for direct payments as well as farmers' organizations. Under a cooperative arrangement individual farm solutions - regarding which type of GI element could be best designated or applied as ecological focus area and where - could be worked out with interested farmers or groups of farmers. In sum this would yield much higher benefits than uncoordinated, somewhat arbitrary, single actions. However, this instrument is limited insofar as it does not apply to permanent grasslands as well as to participants of the small farmer scheme.

Beyond the mentioned sources for compensational payments, financial resources will be needed for synthesis of existing knowledge and data, further studies especially for cultural services, as well as planning/ management, and actual investments. The European Commission announces "to set up an EU financing facility by 2014 to support people seeking to develop GI projects" (European Commission 2013a, p. 11) and points to the possibility of "multi-partner deals involving public and private funds" (ibid. 9). The establishment of a working cross-border green infrastructure will require a long-term strategic process. However with the implementation of such a strategy the 3LP could position itself as a pioneer and key node within a potential future trans-European Network of Green Infrastructure (TEN-G). "Member states and regions are encouraged to seize the opportunities for developing GI in a cross-border […] context through European territorial cooperation programs" (ibid.)

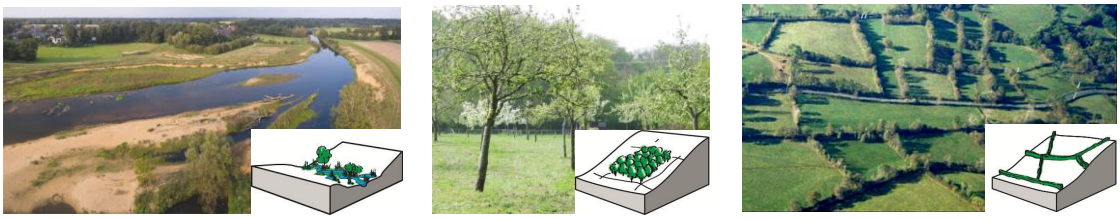


Figure 20 Examples of physical measures enabled by the Green Infrastructure strategy: re-development of wetlands/buffer strips (left), orchards (middle) and/or hedge networks (right) *(image sources: bezreg-muenster.nrw.de; nfg-borken.de; profudegeogra.eu)*

Note: For a map related to the Green Infrastructure strategy see the blue-green framework Map 3

The European Commission points to the need to mainstream green infrastructure into other key policy sectors and "*to ensure that it becomes a standard part of spatial planning and territorial development*" (European Commission 2013a, p. 8). This is especially relevant for the application of the urban-open space framework of the landscape perspective and its 'red principles'. Since municipalities and local communities are key decision makers for designating building areas and giving single approvals/ building permits, their involvement will be critical. Therefore it is recommended to discuss various stages of GI planning in workshops with local planning divisions and explore the transfer of results into local zoning plans. Furthermore, workshops with planning authorities and design professionals could also explore alternative 'growth models' for villages as well as the question how green infrastructure in cities can qualify (sub-)urbanization processes. Such activities can draw on valuable experiences with inter-municipal 'land pools': Making use of GIS land inventories and abandoned land recycling by redevelopment, a variety of examples from Germany (e.g. the Stuttgart Region) may serve as examples (Preuss et al 2005).

With regard to EU instruments the Soil Sealing Guidelines should be noticed presenting best practices to limit, mitigate or compensate soil sealing (European Commission 2012). The proposed Soil Protection Directive (European Commission 2006) was rejected by some member states und could not enter into force yet. It represents a missing piece in European environmental legislation. As its objective of preserving environmental, economic, social and cultural soil functions (ibid. Art.1) is to a large extent coherent with the sustenance of landscape functions or ecosystem services this directive would most likely benefit sustainable landscape development. However, working on indicative targets for reduced soil sealing could be another informal cross-border option.

4.2.2. Cultural heritage and accessibility strategy

Cultural landscapes, including their characteristic elements (e.g. cultivation patterns, land use mosaic, monuments, architectural style etc.) provide identity/ sense of belonging and recreational opportunities. They constitute a valuable resource for the tourism sector and provide for overall demographic attractivity within any region. The 3LP offers a great variety of at least 15 different landscapes, each with manifold cultural heritage and diverse touristic attractions. Overall, the region has a dense network of interesting roads, bike paths and trails. However, an overview of such assets is difficult to obtain and navigation through the many choices is complicated. Therefore it is proposed to introduce, in cooperation with existing landscape associations and the tourism and transport sector, a cross-border access hub network as a structuring element, which makes use of the existing situation by

punctual interventions: Within each of the 15 landscapes (including the major cities), one single access hub is located at a representative location, always at crossings of historic major roads with important bike and hiking trails. Supplementing the plethora of locally specific networks with their individual characteristics and development, each hub provides 3 forms of access simultaneously:

First, **informational access** is offered with web-based infotainment (e.g. about landscape's formation and history, 3LP symbolic sites and European heritage, quality landscape projects, sustainable touristic offers etc.) Second, **emotional access** is enabled by different storylines/ narratives within the information system as well as temporary events of participative action, including land art installations, storytelling/ guided tours and the enjoyment of regional products. Finally, **sustainable physical access** can be enhanced by adding/ strengthening nodes within the already growing public mobility network (e.g. including bus, e-car, e-bike sharing and/or P&R, etc.). The virtual and physical access hub network will raise awareness and appreciation of 3LP's landscapes and support for their protection and management. Single heritage sites and their maintenance (e.g. castles and their landscape-water relationships) may then receive greater public and private attention.

In order to select from an abundance of cultural heritage destinations (= elements of high priority regarding their upkeep), it is proposed to apply filters for choosing from existing routes, destinations and narratives at 3 scales: A European scale filter can highlight sites of European significance or those representing the development of the European community (European narrative, e.g. Carolingian times, coal and steel community, treaty of Maastricht etc.) A 3LP scale filter can collect sites, areas and elements symbolic for the Three-Countries-Park and border situation (e.g. 'Drielandenpunt', old transition points, viewpoints 'looking over to the other country' etc.). Particularly, a local identity filter can identify the different landscapes of the 3LP by names (e.g. Pays de Herve, Heuvelland, Jülicher Börde etc.) and their specific characteristics, and touristic and civic potential. Subsequently, it will be possible to promote a selection of each landscape's sites and routes offering best landscape experience (including views[7], access to water, biodiversity hot spots, traditional elements, quality farm access, direct purchase etc.). The access hub network should especially provide a scene for sites and projects representing models for innovative high-quality landscape development highlighting that **the landscapes we create today are the natural-cultural heritage of future generations**.

As a starting point not only for this strategy (serving also the green infrastructure strategy) we recommend to develop "A landscape information platform for the Three-Countries-Park" consisting of 2 basic elements: (1) a web-portal including various apps for target groups and (2) an interactive 3LP exhibition and public event touring

[7] With regard to the blue-green principle of afforestation on steep slopes it may be considered to further develop hiking paths along the contours of slopes at the running edge between forests and open fields/pastures to further allow for wide and fascinating views.

the different landscape identity areas (e.g. two areas per year). Starting small and growing big, the knowledge base should at least collect the following elements:

1. Basic mapping in layers (→ understanding the landscape)
2. Character profiles (→ identifying with the landscape)
3. Value-creation profiles based on public perception combined with expert evaluations of ecosystem services (→ appreciating the landscape)
4. Touristic info for most symbolic 3LP sites linked to European epochs and for existing innovative quality landscape projects (→ valorizing the landscape)

Point 1 and 4 may 'just' require a synthesis of knowledge and data from past projects in a form attractive to the public. Point 2 and 3 will probably involve further studies, which however will be critical for GI planning as well. Thus, the landscape information platform may actually be part of a GI project both as a basis for integrative planning as well as a tool for public participation and mainstreaming across sectors. Furthermore, EU support may be available under regional development programs, especially if involving smart specialization, the IT sector and the cultural and creative sector (e.g. landscape architects, artists and communication specialists etc.) (Working group of EU member state experts on cultural and creative industries 2012).

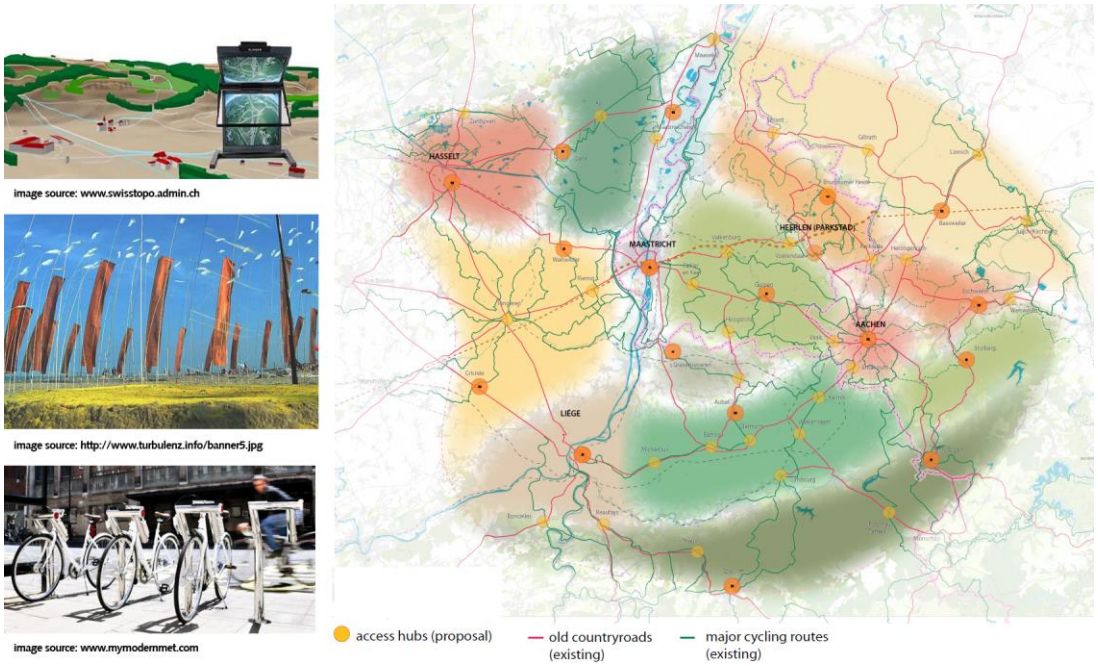


Figure 21 Diagram showing major elements of the 'cultural heritage and accessibility strategy'

4.2.3. Complementary biomass strategy

The EU strongly promotes the use of bioenergy, especially biofuels, in the course of climate/ energy and rural policy. In this respect, it is often criticised that biomass

production for bioenergy use threatens food security and biodiversity, and simplifies the landscape, e.g. by growing maize and rape monocultures, besides various other environmental impacts. However, biomass production systems based on a much wider variety of (especially perennial) energy crops and land use systems can also enrich the landscape and deliver positive environmental effects. From a technical perspective even a small percentage of bioenergy can provide valuable energy storage capacity within a regional renewable energy mix. In this sense we propose to develop a complementary biomass strategy adding further beneficial elements to the green infrastructure and cultural heritage strategy, while opening up diversified income sources for farmers as well as opportunities for innovative technologies and entrepreneurial services. "Complementary biomass strategy" means to strategically introduce suitable bioenergy crops, practices and techniques into a landscape's land use system with the purpose of improving ecosystem services and landscape quality (Brüll 2013)[8]. Traditional and innovative practices like agro-forestry, contour hedges, permanent grassland, and short rotation plantations, for example, do not only produce biomass resources, but can also retain water, prevent erosion, treat waste water, provide habitat and create attractive landscape features, etc. They can be integrated with systems for food production and thus do not necessarily compete with but complement agricultural production. The maintenance of alleys and roadside vegetation may form additional, yet largely unused, potentials as well as the use of residues. In contrast, mobilizing bioenergy sources from forests seems limited in the 3LP, as this would actually compete with the well-established timber industry already using much of the wood potential.

Economically viable bioenergy use of traditional and innovative green infrastructure features may reduce landscape maintenance cost (e.g. payments for hedge maintenance) in the future. However, since many complementary practices in combination with innovative conversion technologies are not ready for the market yet, it is proposed to test this strategy in a pilot project before upscaling the results upon feasibility to a regional scale. A pilot project "Complementary biomass production in the Three-Countries-Park" based on field experiments could comprise the following biomass sources and GI elements:

- Mixed cuttings from (restored) hedges and strip lynchets as well as new hedges or agro-wood strips planted along contours
- Grass cuttings from permanent grassland not used for livestock or hey production, e.g. grassed waterways, residential lawns and meadows or even golf courses eventually involving mowing services.
- Wood chips and reed pellets from short rotation (e.g. willow) plantations and constructed wetlands for wastewater/ effluent, drainage water or storm water treatment

[8] An overview of bioenergy related EU policies as well as a full elaboration of the complementary biomass approach and various exemplary case studies can be found in that PhD study.

- Wood logs/ chips from agro-forestry systems
- Use of manure and residues (protecting the landscape and waters from smell and eutrophication)

While e.g. methanization of manure and maize is a proven technology, conversion of grass and reed cuttings or mixed branch and leave cuttings are still under development. We therefore recommend analyzing innovative case studies (such as the Geotexia Mené cogeneration plant aimed at protecting the bocage landscape in Brittany); and establishing partnerships with competence and research centers, such as for example the Holzkompetenzzentrum Rheinland, the Bioeconomy Science Center or the Biofuel center at RWTH Aachen University on the German side (references see Annex IV.4). Smart specialization and the EU research & innovation program Horizon 2020 are relevant instruments. Furthermore partnering with (regional) energy suppliers, bioenergy agencies and agricultural advisory services will be essential in the long run to provide interested farmers and other entrepreneurs with the necessary security of investments (e.g. long-term-contracts). European support is most likely to be found under programs and measures of regional and rural development. The complementary biomass strategy complies with the investment priority for regional development: "*promoting the production and distribution of renewable energy sources*" (European Commission 2011h Art.5 (6c-d)) and the priority for rural development: "*facilitating the supply and use of renewable sources of energy […] for purposes of the bioeconomy*" (European Commission 2011j Art.5 (5c)).

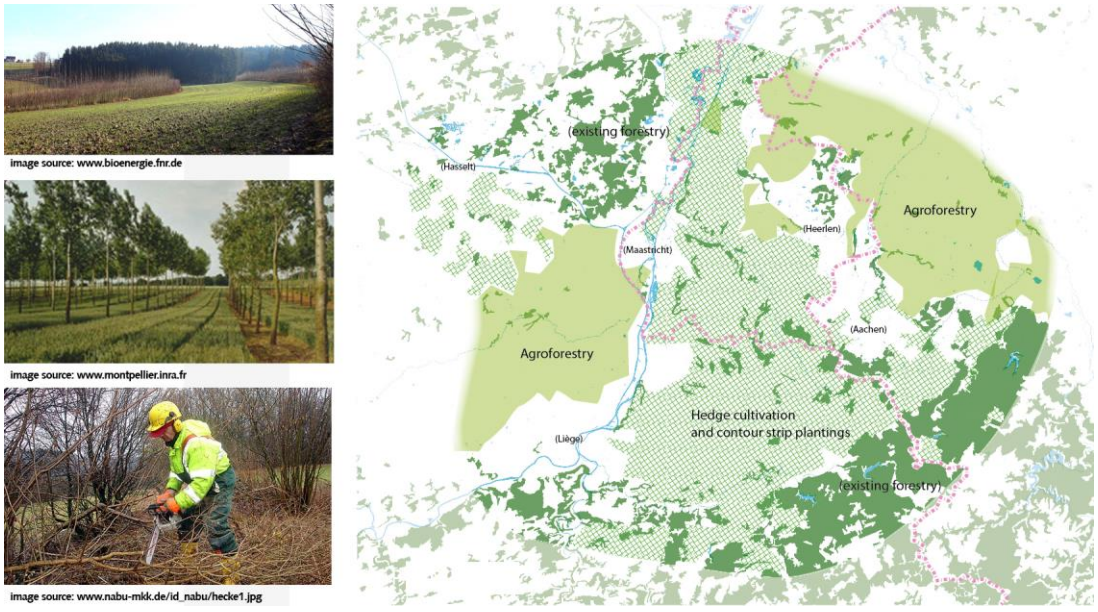


Figure 22 Diagram showing major elements of the 'complementary biomass strategy'

4.2.4. Quality production strategy

Cultural landscapes are in many cases a result of locally adapted traditional farm structures and farming practices. Various changes like technological innovations and globalization of the market have rendered traditional systems uncompetitive. This often involves landscape change due to the need of increasing farm size, productivity and yields (see chapter 2.2.2 challenge 1). However, agriculture is still to be considered the main actor in maintaining 'open landscapes' while facing increasing societal expectations, risks, administrative burden and the need to proof compliance with environmental and sustainability standards. Since the global market does not honor non-commodity outputs of farming activities other incentives need to be found to compensate farmers for supplying public goods such as desired landscape characteristics and qualities. Internationally, payments for ecosystem services (PES-schemes) are discussed. The EU offers water-framework-directive payments, agri-environment-climate payments and forest-environmental/ climate services payments, and it promotes the participation of farmers in quality schemes as measures of rural development (see Annex III.2). The use of these instruments for a long-term quality production strategy should be investigated, with the aim to encourage and support farmers to simultaneously co-produce high-quality (food) products and quality landscapes.

We recommend developing a pilot project "Payments for transboundary ecosystem services" within 3 different landscape identity areas or small watersheds of the 3LP. The pilot project would test the use of different funding sources to compensate interested farmers and foresters etc. for implementing practices for water retention, water quality production, habitat creation, and public access (e.g. foot paths, gates), etc. on their land beyond legal requirements. These actions may comprise GI features but can also stretch further over the land area such as no till practices. Away from intensification with the purpose of maximized yield this will provide incentives to diversify and improve production practices towards a true multifunctional output. Existing channels of cooperation between the competent authorities, agricultural advisory services and research institutions of the 3LP should be used or further linkages established for mutual knowledge exchange and innovation. The European Innovation Partnership for Productive and Sustainable Agriculture intends to provide support for a knowledge based agriculture (European Commission 2011j, Title IV). With regard to financial resources, in the best case a part of an already established 3LP Fund can be dedicated to quality production. Otherwise different sources have to be found e.g. from identifying beneficiaries of these services. An inventory should be made on whether and how the abovementioned payment opportunities from the EAFRD Fund are programmed in the national/regional programs of the three countries, and whether and how they could be used for such a pilot project. A first step would be to investigate how to set up such a PES-scheme by learning from best-practice guides and international case studies (see Annex IV.5). Such a scheme may also involve life-long learning and vocational training – another EU investment

priority – for the increasing future responsibilities and tasks of farmers as energy, water and service providers beyond their primary role of 'feeding the growing world population'.

A possibility for enhancing quality of life in urban and suburban areas through "*integrated urban management*" (EEA 2009) may be the designation of urban agricultural parks: Agricultural ensembles at the fringes of cities hold special economic potentials, because of their proximity to urban consumers of food, recreational- and social services. Due to its polycentric settlement structure, the 3LP contains many examples of this situation. To harness this potential, it is proposed to promote urban agricultural parks as interest alliance between farmers and urban citizens. A motivation may be the common desire to prevent fertile soil and green open space from increasing land-take and soil sealing. The parks could further serve as experimental ground for alternative business models offering 'urban agricultural services' like do-it-yourself gardening, therapeutic work, or agri-educational training at schools etc. Urban agricultural parks could also exist as designated elements of an urban green infrastructure network.

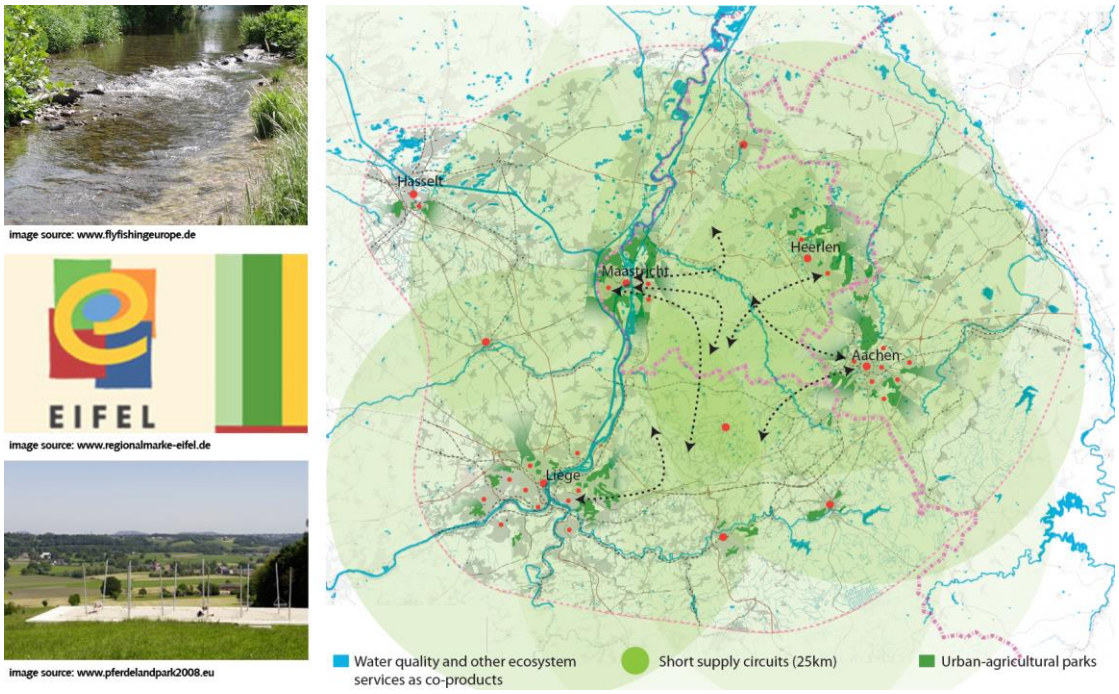


Figure 23 Diagram showing major elements of the 'quality production strategy'

A long-term option with regard to the trend of expanding sustainability standards from biofuels to all agricultural products is the development of a regional 3LP quality scheme based on international standards and contributions of individual producers to ecosystems services and specific landscape quality objectives. As a first step an inventory of existing regional labels and quality schemes together with an investigation of barriers of previous attempts to promote regional quality products should be conducted. A voluntary quality scheme would offer its participating

producers competitive advantages of group certification and promotion in the regional cross-border market e.g. by involving food-processors, retailers and green public procurement on a long-term contractual basis. However, we do not recommend developing a 3LP brand, but instead using the different local landscape identities and most symbolic core qualities (e.g. Pays de Herve and bocage image) for branding compliant products under the 3LP as an umbrella. The EU offers support for new participation by farmers in quality schemes as a rural development measure (European Commission 2011j Art. 17) with aim of "*better integrating primary producers into the food chain*" (ibid. Art. 3a). The 3LP scheme however, may also apply to other land uses and their products than agriculture, such as forestry, tourism, aquaculture etc. Since setting up a certification system is very complex, a more simple option could be to label products from producers showing high commitments and performance regarding ecosystem services and landscape quality with a '3LP stamp' combined with promotional campaigns.

4.3. Synergies and conclusions

The landscape perspective and thematic strategies complement each other and offer synergistic effects. They attempt to cover main ambitions of the 3LP initiative of maintaining and enhancing an attractive multifunctional cultural landscape, by e.g. diversifying agriculture in sensitive areas into the direction of regional quality products, recreational services or water and nature management, by enhancing access to cultural heritage, addressing diffuse urbanization, connecting habitat areas and improving water retention capacity and water quality etc. (Projectgroep Drielandenpark, 2003, pp. 41–59). These topics are also important EU ambitions. The topics climate and energy were added to the 3LP agenda in this project, since they will have major effects on landscape and have a high priority in EU policy. The stakeholders regard energy not as their main competence, but recognize, however, the impact from renewable energy on landscape. As bioenergy has the closest link to landscape and can support green infrastructure in a complementary way, this field may serve as an entry point to also deal with other forms of renewable energy from a landscape perspective in the future.

The presented policy proposals are in large parts coherent with findings of the 'Destreé study' investigating in parallel the potential future of the Three Countries Park (Cutsem, Demulder, 2012). Specific overlaps are indicated in the tables in the Annexes IV.1-5). Van Cutsem and Demulder equally highlight the appraisal, that 'landscape' – handled in a dynamic and future oriented way – can serve as a common denominator for challenges of the 21st century like sustainable development, energy, climate change and urbanization (ibid, 11). We share their opinion that the 3LP initiative should further deepen this core competence and work towards local and international recognition of this innovative dimension of its landscape approach.

5. European landscapes providing values and context for EU policy: Recommendations at European level

The previous recommendations at regional level give advice how selected European policy instruments can be used in regional landscape development (i.e. for the integral development of spatial/ landscape functions) and in particular for the implementation of the 3LP landscape perspective. The recommendations targeted at European level described in the following address potential impacts of EU policy on the quality of 3LP and other regional landscapes, linked with the questions of how investments in landscape can support European Union policy, and how a landscape approach could be strengthened by EU policy. To approach these questions, the hypothesized interpretations of landscape (1) as asset, (2) as place, and (3) as common ground (Chapter 2.2.5), representing pairs of *risks* and *chances* in the European policy context, have been discussed in a meeting with international landscape science and policy experts (see Annex IV.6).

5.1. Landscape as asset - enabling smart, sustainable, and inclusive regional development

European regional/ cohesion policy is oriented towards economic growth and job creation (European Commission 2011b). Growth is supposed to be smart, sustainable and inclusive (European Commission 2010a). However, the headline targets measuring success (ibid. 10p) do not include any landscape values. This principally bears the *risk* of growth at the cost of landscape degradation. On the other hand an understanding and recognition of value-creation in landscapes – both commodified and non-commodified – is a *chance* for a balanced territorial development. As mentioned in chapter 2.1.2 landscape functions, services and quality objectives are suitable concepts to describe these processes of value-creation and -assignment and to link various landscape features to smart, sustainable and inclusive growth:

- Carrier/ production functions and provisioning services provide site, energy and material resources as classical production factors.
- Regulating services continuously deliver favorable living & production conditions (e.g. fertile soil, flood protection, reliable climatic conditions, etc.) as the basis of sustainable growth.
- Cultural services actually recreate human capital, namely healthy human labor force, but also smart capabilities, such as concentration, inspiration and motivation etc. They are an important component of cultural identity and support social relations. Thus, they largely contribute to smart & inclusive growth (Brüll 2013).

While site, energy and material resources are clearly involved in any economic activity, the contribution of the other services is less obvious, but equally important. Essentially, regulating and cultural services provide the ‘reproductive sphere’ of

economic production and consumption and therewith enable any territorial development (Brüll 2013) based on (Biesecker, Hofmeister 2006, 2010). Furthermore, as indicated by the political landscape demands in Table 3, an integrated management of ecosystem services within a context of quality landscapes can highly contribute to the achievement of various European policy objectives.

The 3LP landscape value chain in Annex III.3 illustrates how the 5 core qualities, representing characteristic and appreciated landscape features in a spatial pattern yield exemplary services and various commodified and non-commodified values. However, a conceptual gap was experienced in the project between the two political agendas of landscape quality objectives (ELC) and landscape functions/ ecosystem services (EU), requiring further research (compare Natural England 2010, p. 43; Natural England 2009, pp. 42pp). It is unclear, for example, whether and how to link the concepts within one landscape policy or to address them separately; whether LQOs only fall into the cultural services realm or can be also associated with other services (e.g. regulating/habitat). Further questions are whether landscape quality objectives could be part of the EU political goal of improving environmental quality (TFEU 2010, Art. 191(1)) or whether environmental quality objectives, like the good status of water (European Parliament and Council of the European Union 2000, pp. Art. 4(1)), may also be set for other ecosystem services as targets for cross-cutting landscape policies. The 20/20/20 energy and climate target for sustainable growth (European Commission 2010a, 10p) in any case does *not* adequately represent sustainable development of regions and their landscapes (compare SIESTA 2012). Therefore the development of a "dashboard of indicators" including indicators on ecosystems and natural capital is announced (European Commission 2011k, p. 21), see also (European Commission 2013b).

While Europe 2020 does not account for landscape values, the Territorial Agenda 2020 recognizes them in priority 6: "Managing and connecting ecological, landscape and cultural values of regions" (TA 2020 2011, §(37)-(38)). Thus, the newly introduced political goal of "territorial cohesion" (TFEU 2010, Art. 174) may serve as an entry point for a stronger consideration of landscape in territorial development and cohesion policy. However, often there is a resistance against a landscape approach, since 'landscape' in the political arena is mostly perceived as a conservationist heritage concept hindering economic development.

Recommendations:

- Recognize 'landscape' beyond an aesthetical & heritage concept as the physical and visual expression of territory and peoples' living environment, applying to the whole territory including outstanding, ordinary and degraded landscapes as promoted by the European Landscape Convention
- Dedicate a focal research area to the linkages of landscape quality objectives with ecosystem services/ landscape functions and smart, sustainable, inclusive regional development

- Consider within the dashboard of indicators ecosystem service indicators in relation to (regionally defined) environmental and landscape quality objectives and targets

5.2. Landscape as place – setting the scene for place-based policy implementation

The Territorial Agenda promotes a place-based policy approach to build on specific regional potentials and to avoid 'territorially blind' standardization (TA 2020 2011, pp. 11-12). Standardization is an intrinsic principle of EU policy. Creating equal conditions for its citizens and the internal market lies at the heart of the European Union. There are many useful aspects of standardization in a cross-border context: The standardized process of the Water Framework Directive, for example, synchronizes work across borders and makes quality judgments comparable. The Natura 2000 areas of the Habitats and Birds Directive were found in this project to be the only equal protection categories; all others differed substantially and lacked interpretation with regard to international IUCN criteria. Thanks to the Urban Wastewater Treatment Directive a newly built treatment plant for the city of Liege in Belgium allows fish species to return and people to canoe again in the Meuse River downstream in the Netherlands (as students could realize in a summer school associated with this project). However, there is also the *risk* that standard setting policies create uniform landscapes, especially if a single output or technology is rewarded or promoted as experienced with the former CAP and may further be experienced with the promotion of biomass/ bioenergy production. Therefore mechanisms are needed that can translate standardized policies into place-based solutions.

Landscape is a place or a composition of places with a unique setting and distinct character. So it has the *potential* to serve place-based approaches and to provide the concrete 'spatial-temporal matrix' for the implementation of standardized policy objectives and principles with a territorial dimension. Vice versa, the place-based territorial policy approach seems conducive to the development of diverse quality landscapes. However it still appears 'fuzzy' to policy outsiders (Böhme et al. 2011).

Recommendations:

- Develop a guidance document for the place-based policy approach with a focus on landscape
- Encourage the inclusion of landscape analysis in territorial analysis for evidence-based policy
- Provide support for mechanisms contextualizing standardized policies within the scope of regional/ cohesion policy

- Enhance standardization of geographic data generation on regional to local scale – and guarantee free data access for non-commercial uses on basic topics such as relief and soil, water system, land cover/ use, infrastructure and production, natural/ cultural heritage

5.3. Landscape as common ground – facilitating territorial cohesion

Traditionally, European Union policy is of sectoralized nature as member states via European treaties transfer specific competences to the European level in a historic process. There are several efforts to coordinate various policy actions, e.g. the flagship initiatives. However, multilevel processes of breaking down European policies to the local scale bear the *risk* of a one sided implementation of sectoral policies in a non-integrated manner, which may cause land-use conflicts and trade-offs between various landscape demands. In light of the recently introduced policy goal of territorial cohesion the need to horizontally integrate sectors, to vertically integrate levels across scales and to territorially integrate functional units is stressed (Böhme et al. 2011, pp. 23–27).

Although landscape conceptions may vary, it becomes obvious when looking at landscapes, that basically all land uses and their sectors are (to be) involved. Furthermore, the landscape provides a sense of belonging and local-regional identity. It therewith contributes to social and territorial cohesion and the "*consolidation of the 'European identity'*" (Council of Europe 2000, pp. preamble). Thus landscapes offer a *chance*, to facilitate territorial cohesion especially in a cross-border context. However, there are still many barriers to vertical, horizontal and territorial integration, e.g. too much focus on competition rather than on complementarities, a lack of facilitating and coordinating capacity, and the requirement of comprehensive transdisciplinary and synthetic knowledge and skills. Another point often mentioned by stakeholders and experts is the desire to work in continuous processes rather than in '3-5-year-projects' for which European funds are available.

Recommendations:

- Encourage cooperative mechanisms and training activities which closely link regional development to landscape management within the scope of regional/ cohesion policy
- Consider setting up a landscape management knowledge & exchange platform as a joint operation with the European Landscape Convention
- Provide tools for 'integrated landscape development' similar to "integrated urban development" within cohesion policy

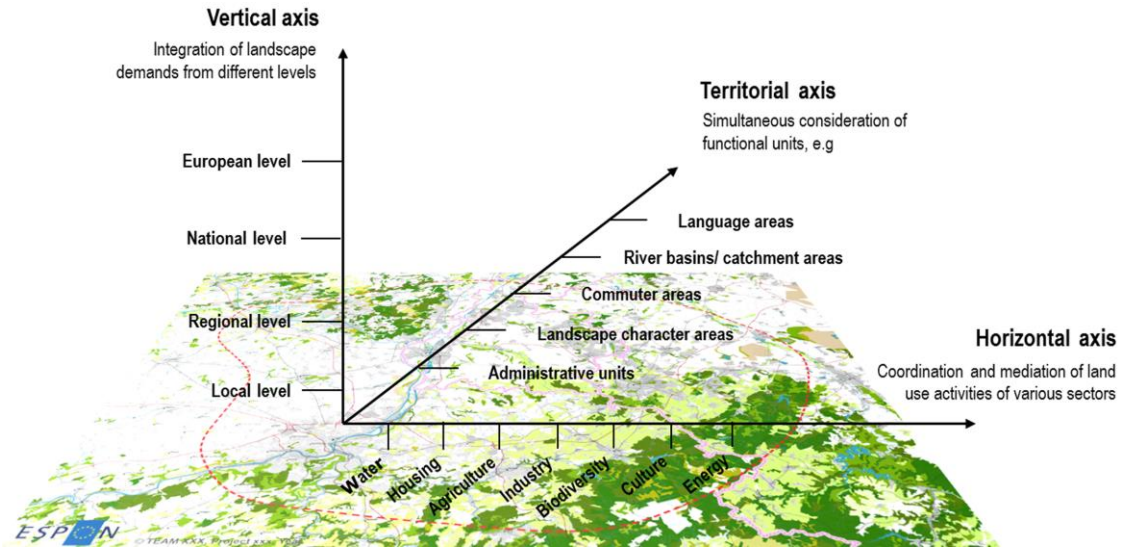


Figure 24 Vertical, horizontal and territorial integration via landscape management

6. Conclusions and transferability

6.1. EU/European level

As shown in the previous chapter European landscapes hold major potentials not only for quality of life of local people but also for a place-based pathway of policy integration. Landscapes – understood as both physical and visible expression of territory and environment – and their ecosystems provide not only site and resources as classical production factors, but also the 'reproductive' conditions of economic activities. Therewith landscapes, their functions, qualities and values lay the basis for any territorial development. The maintenance and management of quality landscapes therefore is not only of cultural and ecological, but also economic concern. The Territorial Agenda 2020 and the political goals of improving environmental quality and territorial cohesion offer various entry points for a stronger consideration of landscape in EU policy. Especially area-based tools of cohesion policy may be further expanded to support integrated approaches to landscape development.

6.2. Cross-border level

All cross border regions are experiencing their own territorial dynamics and have their specific landscape characteristics and potential. The relevancy of a direct transferability of the present document is therefore difficult to determine. Nevertheless, other cross-border regions (and especially those identified in chapter 2.2.4) may consider the following elements:

- Position the territory in a EU territorial context in order to define the large driving forces of landscape change
- Take stock of the existing landscape capital and define core qualities

- Develop guiding principles based on landscape features
- Overall, the LP3LP approach of the landscape perspective may be transferred to other (cross-border) regions. (for a visualization of the approach, see Figure 19).
- Harmonize the geographical data
- Identify existing organizations active in the landscape and their specific field of intervention
- Think of potential strategies, and validate them by (thematic) experts.
- In this relation, the general approaches of the 4 thematic strategies of the LP3LP may be transferable (e.g. the Green Infrastructure strategy and its unifying effect or the complementary biomass approach)
- Link strategies with existing EU policy documents and funds. In this relation, the knowledge of the LP3LP project is transferable. However EU policy will be subject to change after the present decade

6.3. For the 3LP area

The landscape perspective for the 3LP landscape, presented in this report, envisions three clear outcomes:

1. it enhances the characteristics and core qualities of the landscape,
2. improves and expands its ecosystem services,
3. and makes the landscape more robust and resilient to future change.

The landscape perspective is defined on a regional scale, providing opportunities for detailed, tailor-made and culturally embedded local solutions in landscape planning, design and management. The landscape perspective synchronises landscape objectives – developed in previous and existing landscape studies - and objectives related to a cross-border ecological network; and creates a shared set of objectives on a joint level of scale and abstraction. Local examples illustrate how the guiding principles can lead to place-based solutions on a detailed scale, taking cultural identities and landscape specifics into account. This will enhance the distinct character of the local landscapes. Nevertheless, solutions found in one part of the 3LP may be transferred to other parts of the 3LP with similar characteristics. In any case mutual learning from the different mentalities, perspectives and approaches in the three countries will be very fruitful. Successful implementation or good performance of the Landscape Perspective relies on structural support from local, regional and national authorities, and on smart adaptation to unexpected stakeholders and local initiatives.

As a follow up on this project the region, or the 3LP initiative, should develop smart implementation strategies that on the one hand relate to opportunities opening up from a European perspective – e.g. the 4 thematic strategies presented in this document – and on the other hand adapt to local initiatives and organisations willing

and able to contribute to landscape development. We think this means the 3LP initiative should consider broadening its network and develop a partnership approach.

We also advise to consider the deliberate development of the landscape as a long term process. To bridge the gap between on the one hand still rather abstract guiding principles, landscape perspective maps, thematic strategies (esp. the Green Infrastructure) and on the other hand local implementation, we suggest that a translation of the Landscape Perspective is made to an intermediate scale. As the 3 Countries Park covers a substantive area we think it is wise to choose only a few (2 to 3) identifiable and recognisable parts of the 3 Countries Park to start with the application of the ideas of the Landscape Perspective, like Pays de Herve, Voeren or Heuvelland. In these areas several landscape focused initiatives have already started. Joining forces with these local initiatives could empower both the 3LP landscape ambitions as well as the local initiatives themselves. Finally we suggest to share the 3LP Landscape Perspective and the ideas for implementation with the 'urban' counterpart of the 3LP initiative: the MAHHL network with representatives of Maastricht/Heerlen, Hasselt/Genk, Aachen and Liège).

7. Further work and research

Dissemination LP3LP (dates for discussion at next Steering Committee meeting)**:**

2013, October: It is suggested that the group of stakeholders consults politicians and colleagues with submission of this document. This may initiate concrete steps by others (outside the LP3LP project's scope) regarding the next programming period.

2013, end of year, time to be confirmed: The coming steering group meeting of the 3LP project may present another opportunity to involve politicians or at least professionals in direct contact with politicians.

2013, time to be confirmed: In order to involve upper-level planning officials and municipalities, RWTH gave e.g. a separate presentation of this project to the Städteregion and Stadt Aachen in May 2013, where e.g. leaders from environmental departments were present. In a similar direction, the lead stakeholder and WUR will meet with a broader group of Dutch stakeholders at some stage in 2013.

2014, spring, time to be confirmed: Along with planning the final public dissemination event of the project in 2014, the lead stakeholder and the TPG are in discussion about a publication that can convey the LP3LP project in summarized and simplified form to a broader public (incl. politicians). This possibility is yet to be agreed upon.

First steps for regional implementation:

For the stakeholders, next steps are suggested as follows:

- 2013/2014: communicate the LP3LP landscape perspective and the 4 thematic strategies (See above under "dissemination")

- 2014: Discuss the landscape perspective and the necessity to implement strategies developed in the present document. In this regard, confirm whether a start with the 'green-blue framework' and a) the 'Green Infrastructure-' and b) the 'Cultural heritage and access strategy' can be agreed upon. Projected implementation measures are to be aligned with existing landscape features, with relevancy of guiding principles varying according to local context.
- Regarding above: A process including public participation may form the most effective way to legitimate choices.
- 2014-2016: the landscape information platform (an element of the cultural heritage and access strategy) and eventually a process to define landscape quality objectives could offer additional support.
- 2014: Call for projects (i.e. the strategies or parts of them) by the 3LP partnership (i.e. the Steering Group of the 3LP)
- End of 2014: Formation of "cross-border communities" per project
- Beginning of 2015: Applying for funding per project
- End of 2015: Project organization
- 2016: Pilot measures related to the new projects
- In parallel, investigate options for setting up a 3LP foundation or trust

Europe and pioneers of cross-border landscape development:

From the EU perspective, further analytical work is to focus on how policy makers can hear more about regional and subregional concerns in the field of landscape transformation and management. Structures such as 3LP, all over Europe, are working as a continuous observatory (but also actor) of landscape. A way of facilitating the echo of their message to higher levels is to be found.

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