P U R E

The PURE Guidebook to Multifunctionality

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A route direction towards spatial quality in the urban fringe zone

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Dear Reader...

In your hand you hold one of the five guidebooks that the PURE North Sea partnership produced during our successful transnational co-operation over the years 2002 – 2006. The main objective of the PURE project has been to create attractive and sustainable urban-rural fringe zones with Multifunctionality in the partner cities and regions.

The aim of these guidebooks is to summarize and disseminate the results of the PURE project. This particular guidebook has been
produced to offer you our knowledge and experience on Multifunctionality.It explains how planners can contribute to an increase of spatial quality in the urban fringe zone, taking advantage of the socio economic benefits of an attractive and sustainable area. Through workshops, expert meetings, peer review discussions and pilot projects, professionals from three countries and four partner cities and regions have contributed with their expertise and knowledge. This transnational process of learning and sharing has been a very exciting experience for all of us who have participated in this project!

Even though this guidebook is primarily addressed to professionals, managers and politicians working with various aspects of water in the urban fringe zone, we do believe that the content here can be rewarding to anyone with a keen interest in the development of rural urban fringe zones of cities.

We hope that you will enjoy reading this guidebook!

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1 Introduction

1.1 Objective

This guidebook supports planners to contribute to the improvement of the spatial quality of the urban fringe zone. This zone has a lot of potential to become an attractive area for citizen to recreate, especially at the surroundings of the watercourses. The challenge for planners is to seize the opportunities to develop an attractive blue and green area, in harmony with the present – often rural – use. We are convinced that a harmonious and sustainable multiple use of the urban fringe zone will lead to an increase in the social economic benefits.

Therefore, this guidebook elaborates the concept of Multifunctionality to support planners in their actions to guide the use of the area towards spatial quality. The heart of this multifunctional approach is to achieve a shared understanding of the values stakeholders attach to the area. Subsequently, planners can take the lead to translate these values into ideas for Multifunctionality. The implemented ideas will contribute to the development of an attractive and sustainable – since valued – urban fringe zone. We hope the learning experiences of the PURE pilot projects in Deventer (The Netherlands), Groningen (The Netherlands), Newcastle (United Kingdom) and Götenborg (Sweden) will inspire the reader to take action for a valuable urban fringe zone.

The disposition of this guidebook is organized to allow for the reader to easily navigate through the PURE North Sea project. Chapter 1 in this guidebook provides the reader with a general introduction tot the PURE North Sea project. In chapter 2, the working methods of PURE are presented. Chapters 3-8 describe in detail the development of a methodology, enabling planners to contribute to the spatial quality of the urban fringe zone, and the accompanying social economic benefits. The final chapter 9 presents the learning experiences and our conclusions. In each chapter you will also find a set of blue boxes in the margin with useful summaries and additional information.

Map showing the North Sea with the four PURE partners.

PURE

The acronym PURE stands for Planning Urban-rural River Environements.

The PURE logotype symbolizes the flow of water in an urban-rural landscape. It was designed by Harry Jansen from Groningen.

SUMMARY
INTERREG IIIB NORTH SEA PROGRAMME

The Interreg IIIB North Sea programme is one of the European Community Initiatives to stimulate transnational cooperation in the EU between 2000 and 2006. Interreg IIIB programmes cover larger transnational areas and the North Sea programme comprises areas of Sweden, Denmark, Germany, The Netherlands, The Flemish Region of Belgium, United Kingdom and Norway. The areas in the region share many of the same problems and challenges and by working together and sharing knowledge and experiences it is hoped ta a sustainable and balanced future will be secured for the whole region.

The programme is financed primarily through the European Regional Development Fund (ERDF) and finances different projects covering a range of themes from urban and rural development tot transport and flood protection. All projects involve the cooperation of two or more countries and all projects activities have to be carried out in the eligible area in the North Sea region.

www.interregnorthsea.org.

1.2 PURE North Sea

Planning for Urban-rural River Environments in the North Sea Region or PURE North Sea is a co-operation project between Göteborg in Sweden, Deventer and Groningen in the Netherlands and a partnership composed of several cities and organisations in north east England ("PURE North East" or "North East"). The aim of PURE North Sea is to develop and implement sustainable solutions for the problems of flooding, dehydration, poor water quality, and the lack of spatial quality and identity in the rural-urban fringe zone.

The idea behind this co-operation began in 2001 when partners that each had similar problems and issues involving the planning of the built environment and water areas in the rural-urban fringe zone, and decided that co-operation could generate stronger and more sustainable solutions. Co-operation intensified during 2002, and an application for a joint project was made to the Interreg IIIB North Sea Programme. This project was approved and commenced in 2002.

1.3 PURE Transnational themes

The PURE North Sea project structure provides a framework for the exchange of knowledge and experience between project partners. To effect this four transnational themes were formed, each one being administered by one of the projects regional partners.

Multifunctionality: This theme (administered by the city of Deventer) has been developing a method of unlocking the values of water in a process of co-operation with relevant stakeholders and governmental organisations, for promoting multifunctional land use and achieving a range of social and economic benefits. The results of this theme can be found in the 'The PURE Guidebook on Multifunctionality'.

Planning with Water: This theme (administered by the city of Groningen) has been working out how water can be given a more central role in the planning process. Lessons from the past and from the making of 15 different PURE plans are combined in a toolkit with guidance models on both local and regional scales, which planners can use. The results of this theme can be found in 'The PURE Guidebook on Planning with Water'.

Water Systems Restoration: This theme (administered by the city of Göteborg) has been evaluating different physical measures for the remediation of water systems and rivers that are implemented in connection with Pure North Sea's various pilot projects. It has produced the concept of the 'Water Structure Plan' to connect the water systems of rural and urban areas and to provide a carrying structure to connect other land uses to it. The results of this theme can be found in 'The PURE Guidebook on Water System Restoration'.

Participation: This theme (administered by the North East Region, UK) has been identifying different ways of involving the public and stakeholders effectively in water management and planning processes. It has

also explored methods of integrating ideas and practices common to the PURE partner countries. The results of this theme can be found in 'The PURE Guidebook on Participation'.

The Water Systems Restoration theme delivers promising technologies; the Participation theme promising participation strategies, the Multifunctionality theme promising multifunctional solutions and Planning with Water a promising toolkit. Altogether they constitute the "Water Connects" approach to the realization of social and economic benefits in fringe zones.

1.4 The Multifunctionality Theme

The Multifunctionality theme pays attention to the guidance of the landuse in the urban fringe zone, in order to increase the spatial quality. Spatial quality will not evolve automatically, since the activities people (would like to) employ in this area may conflict. Furthermore, these combined activities must fit the blue and green character of this border zone.

Often, the urban fringe zone is crossed by watercourses. These watercourses offer good opportunities to guide the landuse, since they can function as a backbone for the development of the Multifunctionality. Also, the watercourses unlock many values, attracting people to the area. Therefore, we develop our ideas on Multifunctionality on the water present in the urban fringe zone.

Seaton Burn Multifunctionality.

SUMMARY
Multifunctionality

The four Regional Partners in PURE have each developed a transnational theme. The city of Deventer has developed the theme ‘Multifunctionality’. This theme provides a step by step methodology for implementing multifunctional landuse in the urban fringe zone. Also, this theme expresses the socio economic benefits of a valued urban fringe zone and provides examples of learning experiences. The methodology is based on the idea that multifunctionality must be coherent to the way people value an area. Because watercourses in urban fringe zones offer a great opportunity for mulitfunctional use and unlock many values, they are considered a backbone for the development of multifunctionality.

The theme Multifunctionality deepens the current discussion on the combination of several types of landuse by stressing the importance of the way people value an area. We are convinced that a smart combination of types of landuse is not enough to reach spatial quality. Additionaly, the Multifunctionality must be coherent to the values people attach to the area, expressing their motives to be and to do in the area. This guidebook aims to contribute to planning by putting forward the importance of valuation.

To support planners to involve the valuation of people in their guidance of the landuse, the Theme Multifuncionality develops a methodology. This enables planners step by step to discover and to discuss the values people attach to the urban fringe zone and to translate these values in proposals for multiple land use. Furthermore, this theme expresses the socio economic benefits of a valued urban fringe zone, encouraging administrators to invest in the increase of spatial quality in this area.

The theme Multifunctionality concludes with the learning experiences, following from numerous discussions with the PURE partners on the application of Multifunctionality.

Lamesly Reedbed.

1.5 “Water Connects”

A PURE approach to water management and spatial planning in fringe zones of cities

1.5.1 EXECUTIVE SUMMARY

The Pure partnership has developed a new approach – ‘Water Connects’ - to tackle the problems of flooding, lack of spatial quality and sustainability in rural urban fringe zones in order to cope with high dynamics and pressure on land use there. The Water Connects approach is meant to overcome the flaws of the traditional planning approaches and consists of three steps to create an effective participation and planning process.

Applying the new approach will result in attractive rural-urban fringe zones with multiple land use, generated by the implementation of water system and/or river restoration projects, such as the Westrand Waterstructure plan[1]. Implementing a Waterstructure Plan connects rural and urban water systems and helps to prepare for climate change and rising sea levels, and to reduce flood risks. The subsequent water structure characterises the new landscape and is a modern way of river restoration, creating a more resilient, efficient water system.

“Water Connects” means connecting users and residents to water planning at an early stage. Where town meets countryside in the urban-rural fringe, there are a lot of dynamic activities creating high pressure on land use, since government policies tend to preserve the rural areas. Consequently, solutions have to be found in these areas to accommo-

[1] Waterstructure plans - are spatial plans addressing water management and spatial planning issues. They outline improvements to the existing water systems of drains, dykes, rivers and other water courses to improve the ‘water stucture’ of the area.

Urban fringe zone of Groningen, Huskanaal.

date housing needs, businesses, recreation, water storage and biodiversity. Water Connects aims to accommodate these demands by combining them with the realisation and maintenance of an attractive and sustainable urban fringe environment.

'Water Connects' consists of three steps:

1. Unlock values that people and stakeholders living in the area attach to water and their living environment as part of a participation process, in order to identify opportunities and issues concerning the development of the area.
2. Reflect these shared values into a Development Vision based on the two networks strategy and on the concept of water as an agent of change
3. Realize the vision by implementing material projects and organize arrangements for appropriate maintenance

Connections, trust and commitment are the basic elements needed to realize the vision. In developing the approach, we consistently found that water is the agent of change as it:

- Physically connects water systems of the urban and rural areas gives coherence to other spatial functions;
- Provides a shared reference point for participants in decision making about spatial quality and identity, water quality and quantity;
- Connects people and stakeholders, and improves their mutual;
- Co-operation connects theory and practice.

Applying 'Water Connects' will lead to:

- Improved safety by reducing flood risk and pollution;
- Attractive, multifunctional environments with high, spatial quality;
- Sustainable environments that residents appreciate a range of social/economic benefits: better use of space ; improved quality of life; more support from stakeholders and population and more effective co-operation between them.

Prerequisites

Water Connects calls for early participation of stakeholders in the planning process, including those who normally come into the picture after plans have been made, like implementation and maintenance specialists. People who are living and working in the fringe zones are often more interested in how things will stay than how they will change. It is important, therefore, to connect to the values that people attach to the area. Within the framework of a shared Development Vision, stakeholders can become enthusiastic about tangible projects and co-operate in realizing them. They are not bound by the limitations of a fixed plan.

Water Connects also calls for a broader perspective than short-term economic costs. Investment in short-term fixes is not sustainable and can result in poor spatial quality of the area, resulting in a slow process of deterioration.
Instead of that, PURE promotes the generation of social/economic benefits from the beginning of the process in order to realize a more-sustainable quality for the area. This can be done by following the

'Water Connects' approach, creating favourable conditions for people and stakeholders to co-operate and invest in the development and maintenance of the area. It focuses very much on aspects of process and upon building trust between stakeholders.

An interactive process is needed, whereby stakeholders communicate, learn from each other and co-operate to achieve their common goals. It's all about dealing with uncertainty, mutual dependency and investing in each others' interests.

Building stones and lessons learned

The PURE project has developed this approach through 'learning by doing' - analyzing traditional planning processes and exploring alternative ways of dealing with developing areas. We have produced 15 projects and plans at different spatial scales, ranging from strategic Development Visions for entire catchment areas to material implementation projects like reed beds.

Implementation of material pilot projects was a very important part of these planning processes for each partner, and this taught us that effective implementation is important for getting support from stakeholders and that it calls for a stronger focus on values, making these part of the planning process.

Experience and knowledge from each partner has been integrated into Water Connects. We have developed the Pure Check procedure to generate and identify learning points for setting up effective water management and planning processes.

Implementation Honeywell, North East.

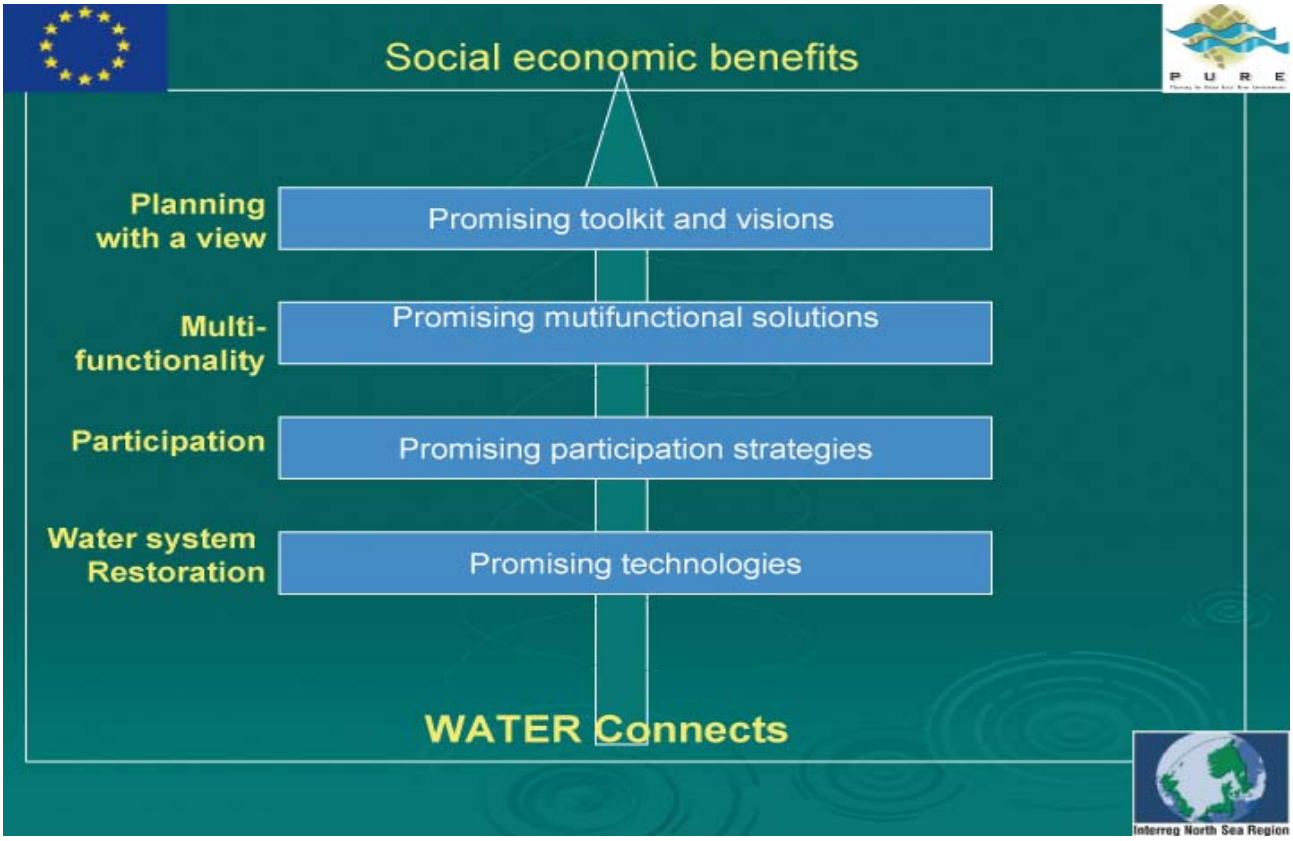
[2] These guides principles have been developed by the Dutch enviroment ministry VROM plus reference as a more natural and sustainable way of dealing with water in comparison with the traditional focus to get rid of the water as soon as possible.

Crucial elements in the "Water connects" approach from each partner's experiences are:

- The importance of a seductive development vision on a catchment scale, based on the Dutch planning practice;
- Consideration of water as a friend, using it to generate multiple land use and enhance safety by applying the principles of holding, storing and releasing water[2];
- The UK experience showed us the benefits of facilitating and cherishing community initiatives as a driving force to implement projects, generate support for the development plans and visions, and to raise awareness with the general public about water quality and flooding problems;
- The Swedish are very pragmatic, keeping both feet solidly on the ground using 'informal' meeting structures to involve people and stakeholders with the development of the area. They also have a keen understanding that if you want to improve the living quality of an area you have to start investing in the landscape to prepare areas for future uses and make them attractive for that.

Besides these general lessons, building stones for the new approach have been generated from the four transnational themes PURE project worked on: Multifunctionality, Planning with Water, Water System Restoration and Participation. The Water System Restoration theme delivers promising technologies; the Participation theme promising participation strategies, the Multifunctionality theme promising multifunctional solutions and Planning with Water a promising toolkit. Altogether they constitute the 'Water Connects' approach to the realization of social and economic benefits in fringe zones.

Water Connects



2 PURE's Work Methods

2.1 Transnational and Exchange Meetings

The objective of the Interreg project is to generate an exchange of knowledge between the participating nations. In this project, this has taken place via several transnational meetings in the various countries. During these meetings the ongoing projects have been studied on-site on so-called PURE Hike excursions, discussed in workshop form and finally analysed and summarised in a specially produced checklist, the so-called PURE Check. These work methods, which have been developed during the progress of the project, are described in more detail in this chapter.

As a part of these transnational meetings or during separate meetings, an exchange of knowledge and thoughts has taken place between the countries. An example of the exchange meetings was a get together between the operational managers from the various counties, where it was discussed how the maintenance and management of water systems and wetland areas can be carried out in the best manner, and how the layout of water areas influences maintenance. Other meetings have been aimed at gathering knowledge that has later been presented in the reports from the different themes of the partners.

2.2 PURE Hike

During the meetings held at the various places field visits have been important for understanding the project in question. Various forms of transportation have been used, such as bus, cycle and hiking, in order to

SUMMARY

PURE Check
- Peer reviewers
- Transnational meetings
- PURE hike
- Workshops
- Comparative studies
- Exchange meetings

PURE THEME

PURE Check is not intended as a detailed technical appraisal of the project, but rather as a means of exploring the wider picture of water catchment management. The scope of the Checklist explores a very wide range of social, economic and environmental questions, across the four Transnational Themes of PURE.

The PURE partners gathered for the transtaional meeting in Göteborg in September 2003.

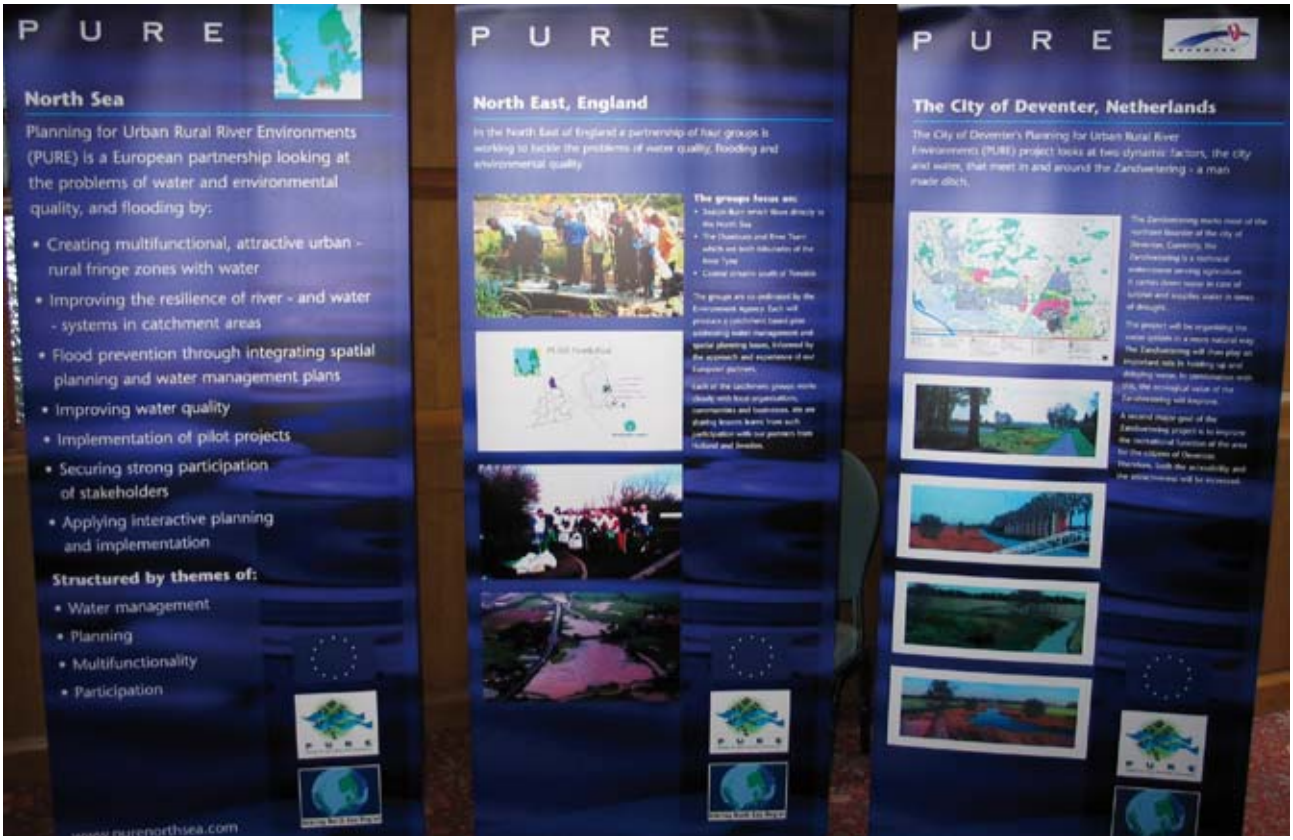
cover these vast areas. Those responsible for the detail design of the projects have been present during these Hike-excursions, often in addition to local experts such as archaeologists from the city museums.

In preparation for these Hike-excursions the participants have received descriptive material of varying kind and proportion, depending on how far the particular project has advanced. As the common language has been English some of the material has been translated from other languages.

2.3 Workshops

Another important element at these transnational meetings has been to discuss the issues related to specific technical and scientific fields in smaller groups in the form of so-called workshops. The purpose of these has been to create the opportunity for various professional specialists to meet colleagues from the other countries in order to discuss and exchange ideas. It has been rewarding to compare everything from basic approach to choice of technical solutions based on practical cases. In order to facilitate discussion, there have been some questions that the groups have had the opportunity of starting off from. Each group elected a secretary who has compiled the points of view ventilated during the discussions. To conclude the workshop sessions a gathering of all the participants was held where the different groups presented their ideas. Some workshops have focused on the project that was visited during the meetings, and the questions posed have been directed towards comparing the participants' views about the material and the solutions that were presented for this specific project. The groups have

PURE Banners.



then been divided up according to subjects, such as for example ecology, water quality, water and sewage engineering, recreation and participation. Other workshops have dealt with more overall subjects concerning water restoration projects.

2.4 Comparative Studies

At some of the transnational meetings comparative studies have been carried out involving subjects affecting the restoration of water environments. Each participating group has prepared in advance a short presentation about how certain issues are dealt with in their own country or in the project. One study dealt with how the participation process appears according to each nation's legislation, in order to see how this has influenced the projects. Another comparative study was intended to illustrate the view of how the catchment area as a whole has been treated in the investigation concerning the project (the catchment approach). There the issues were about whether there are documents that have a steering influence of the choice of extent or demarcation, which stakeholders are affected and if the measures have been adapted to an overall view of the water area.

PURE workshop.

2.5 What is PURE Check

The aim of PURE Check is to provide a simple structured method for the peer-review of the PURE river restoration sub-projects, allowing the partners to follow a common system of environmental, social and economic appraisal, as a basis for mutual comparison and learning. It is based on a peer review process, supported by a formal system of documentation.

Each of the transnational meetings of the project, normally involving between 40-60 people, including senior management and occasionally political representation, is structured around a process of peer-review of a local project or initiative. A panel of 'experts' (the 'Peer Review Team') from the visiting partners makes a site visit accompanied by their hosts, who provide presentations, maps and other information sources to the visitors. Seeing the activity on the ground is an essential aspect of the learning process. A Checklist system provides a structured series of broad questions upon which a critique of the project can be based. A number of thematic workshops are held to explore the key issues affecting the project. Towards the end of the transnational event, the Peer Review Team presents their hosts with their first impressions of the performance of the project, and follows this up with a formal report within three weeks of the transnational meeting. In addition to this, each partner commits to exploring how at least one aspect of the project can be exported for use at 'home'. At a subsequent transnational meeting of the PURE partners, the Project Team will present their reaction to the Peer Review recommendations.

PURE workshop.

It was intended that PURE Check would be used in a range of contexts, from abstract visions at an early stage of the planning cycle, to implementation of plans, at a late stage in the planning cycle. The questions on the Checklist are consequently shaded / colour-coded to assist in focussing on those most appropriate to the stage that the project has reached in the planning cycle, at the time at which the Review takes place.

It was agreed that a programme of eleven formal PURE Check reviews would take place during the course of the PURE project. Guidelines for the PURE Check review process were developed during the first eighteen months of the PURE project. Preliminary testing of the system took place by implementing PURE Check firstly in a variety of small projects in North East England. Testing then took place in a transnational setting, using the Osbäcken project in Sweden as the focus of attention.

The scope of PURE Check, and the detailed questions contained in the Checklist were developed initially by reference to work carried out in Sustainability Appraisal systems developed during Interreg IIC projects. These were then updated by means of discussion and subsequent experience within the PURE project.

Insert: Transnational meeting participants on PURE Hike, Ouseburn, North East, England.

SUMMARY

In order to generate and exchange knowledge between the PURE partners, there have been several transnational meetings in the participating countries. During these meetings, PURE projects have been studied, discussed, analyzed and summarized. This has been done by field-trips (PURE Hike excursions), workshops, comparative studies and the so-called PURE Check. The PURE Check is a structured series of broad questions, based upon a peer review process and supported by a formal system of documentation.

2.6 The Peer Reviewers

The Regional Co-ordinators work with the PURE Check Co-ordinator to appoint a Peer Review Panel of seven members for each Review. Each member of the Peer Review Panel contribute to the 'Peer Review Comments', and each has a specific responsibility as follows:

- A 'Theme Advocate' examines the way in which the activities of the project relate respectively to each PURE Theme. One Theme Advocate focuses on multi-functionality, one on participation, one on planning with water, and one on water systems restoration;
- A 'Learning Advocate' represents each of the three visiting partners. Each Learning Advocate takes responsibility for integrating relevant issues from the PURE Check Review into their home project or scheme.

The Peer Reviewers.

3 Problem analysis

SUMMARY

This guidebook focusses on urban fringe zones. In these border zones, an increasing pressure on landuse often leads to a deterioration of the area. However, by harmonizing the values people attach to different qualities of 'city' and 'land', multifunctional use of urban fringe zone can result in an attractive and sustainable area. This offers interesting socio ecomic benefits. In order to realize multifunctional use of urban fringe zones, planners need to pay attention to valuation and administrators need to choose for spatial quality. In order to realize spatial quality, three major bottlenecks must be overcome. These bottlenecks are:

- An uncertain outcome of the development process;
- There are mostly long term benefits which are often hard to put to money;
- The fact that the investors may not be the ones who |directly benefit.

This guidebook offers a methodology which enables planners to enrich planning with valuation and also introduces the 'Let's build Paris' strategy to deal with the bottlenecks in realizing spatial quality.

3.1 Attention for the urban fringe zone

Border zones are fascinating areas. Also the urban fringe zone is such an interesting area. In this zone, 'city' and 'land' come together. Both 'city' and 'land' have their own dynamics. 'City' is the place where a lot of people live and work together in a small area. 'Land' is nature, in a more or less cultivated state. The challenge of this guidebook is to support planners in their task to guide the connection of 'city' and 'land' , so that an attractive and sustainable zone evolves.

The focus of this guidebook on the urban fringe zone is not by coincidence. In the first place, we observe an increasing pressure on the landuse. Cities swallow up the surrounding area by creating new residential or business areas. Furthermore, citizen flee from the urban rush and try to find rest an peace in the countryside. As a consequence breaker's yards and riding stables pop up out of the soil. The increased pressure leads to a collision between 'city' and 'land', often resulting in deterioration and finally disappearance of the area. In the second place planners tend to overlook the urban fringe zone – as a border zone – gets secondary attention. Conversely, we think that a multifunctional use of the urban fringe zone contributes to an attractive and sustainable area, on the condition of harmonisation of the different values people in 'city' and 'land' attach to this zone. In our view, spatial planners working in municipalities can and must play a vital role for harmonising these values and this guidebook supports them to take up this challenge. Then the urban fringe zone will be valuable for both 'city' and 'land' by offering citizen a place of rest and by reducing urban (environmental) pressure.

The watercoarse present in the urban fringe offer opportunities to increase the spatial quality. Water is suited to connect and tune different types of urban fringe landuse, such as farming, nature and recreation. Water is not only useful, it is also attractive. Water invites people to stand at the shores. The presence of water has the potential to create an attractive and multiple urban fringe zone. The question is how.

This guidebook states that Multifunctionality the key answer to this question. Multifunctionality as a guiding principle to combine several types of landuse and fit the Multifunctionality to the specific characteristics of the urban fringe zone: nature areas, watercourses, rural areas and the short distance to cities. The development of a coherent Multifunctionality offers interesting socio economic benefits. To take advantage of these benefits, at least two conditions must be met. Planners need to pay more attention to valuation and administrators need to choose for and invest in the spatial quality.

Valuation expresses what people moves when they work or walk in the urban fringe zone. A farmer works on the inherited land of his forefathers. Through history his live is interwoven with the land. Also he has an economic motive – to support his family. A women jogs alongside a watercourse, because of the quietness and the openness of the land-

scape. How people valuate the land tells why they are using it. We state that if the landuse of the urban fringe zone corresponds to the values attached by a majority of the stakeholders spatial quality will evolve, provided that valuation is harmonized. Therefore a lively debate is essential. This guidebook offers a methodology which enables planners to provide this debate and to translate the outcomes into proposals for Multifunctionality. The methodology enables planners to enrich planning with valuation. The PURE pilot projects form the breeding ground to give birth to a practical and useful methodology.

Additionally, administrators must be invited to aim for spatial quality in the urban fringe zone. There are three major bottlenecks. Firstly, the uncertain outcome of the development process. Proposals for Multifunctionality are put forward by stakeholders and preceding the process, the costs of these proposals are unknown. Secondly, the fact that a significant number of socio economic benefits are on the long term and hard to put to money. Thridly, the fact that the ones investing aren't the ones who receive directly the benefits. This guidebook names the socio economic benefits of the Multifunctionality of the urban fringe zone, based on values. Additionally, it introduces the 'Let's build Paris' strategy to invite administrators to invest. The grandeur of Paris is also a result of step by step investment in high quality architecture. We believe, in the end an urban fringe zone with spatial quality is profitable, since the landuse will be attractive and sustainable and the people living, working or recreating in this area, take care for the maintenance and further development.

Urban fringe zone Newcastle.

We hope this guidebook increases the attention planners pay to the development of the urban fringe zone. If not, this zone will be a victim of new (urban) developments in future, moving the border onwards. A valuated urban fringe zone will stand grounded and have its unique spatial quality. Urban development has to hold or jump over the zone, leaving a healthy green artery for urban life. Furthermore, we hope this guidebook will add a new dimension to planning. 'Value planning' invites planners to interact with stakeholders discussing the (desired) quality of the urban fringe. This discussion can only take place in the field, meeting people and to take notice of their stories which express the meaning they attach to the urban fringe zone. This value oriented approach challenges the professionalism of planners. They have to convince stakeholders of the usefulness of the planning concepts they use they have to search jointly to feasible and acceptable solutions.

During the PURE project, we discovered it is quite an enterprise to bring valuation by interaction into traditional planning. But we also learned that it makes planning much more fun, since the aim is no longer a theoretical exercise, but to unlock values while interacting with and getting appreciation of people.

3.2 A guide for reading this guidebook

This paragraph supports the reader in choosing the relevant content of this guidebook. This chapter examines the causes of the lacking spatial quality of the urban fringe zone more in detail and explains why planning sometimes fails in changing this situation. Based on this problem analysis the following chapters elaborate concepts, tools, examples and learning experiences which support the reader to contribute to a qualitative urban fringe zone.

The way planners understand Multifunctionality is part of the problem not being able to reach spatial quality in the urban fringe zone. The 4th chapter points to a new dimension of Multifunctionality, the motives of people using the land for several purposes expressed in values.

Chapter 5 illustrates different perspectives stakeholders may attach to the urban fringe zone. This chapter learns that the differences between perspectives bring forth a fruitful discussion on the desired land use, rather then blocking the development of a plan for Multifunctionality.

The 6th chapter is interesting for planners who want to work with a methodology. There are three steps: value mapping, identifying ideas for Multifunctionality and a reality check on these ideas. Additionally, this chapter positions these steps into the traditional planning process. Also this chapter describes the conditions for a successful application of the methodology.

Chapter 7 develops the 'Let's build Paris' strategy to convince administrators to invest in multiple land use in the urban fringe zone. The socio economic benefits of an attractive and sustainable area are worthy to take into consideration. Furthermore, this strategy is confronted with two temporary strategies for funding, called 'Buy a Volvo' and 'Cheese

slicing'. The core of the 'Let's build Paris strategy' is that quality creates its own funds.

Chapter 8 demonstrates the methodology by applying it to the Zandwetering case, the Dutch pilot project in PURE. Also, the (possible) contribution of value based planning to the other pilot projects is presented. This chapter shows how the methodology works and the possible outcomes.

The learning experiences of the past three years of thinking and testing the methodology form the content of the '9th chapter Conclusions.' These are the do's and don'ts when working on Multifunctionality. We hope to serve a wide range of readers in their struggle for the preservation or development of the valuable green zone surrounding our cities.

3.3 The urban fringe: a potentially attractive zone

The urban fringe zone is an exciting area. It has to reconcile rural and urban claims on land use. The main colours of the area are green and blue. The (former) agricultural use results in a patchwork of green fields. There is also some uncultivated land. Watercourses gather the water and lead it out of the city.

This landscape unlocks many values, especially since it is – by definition - so near to the city. It is rather easy for citizen to enter the area. How people value the area differs. They may appreciate the water meandering through an open landscape as a guide. Sometimes the watercourse leads to grazing cows in meadows, other times to flats bordering the

Hiking alongide the Zandwetering, a watercoarse in the urban fringe zone of Deventer.

shores. Also they may be attracted by the fresh air, the pleasant quietness or the open view. Another remarkable experience may be the biodiversity in the area. Good quality of the water attracts rare species of plants and birds. Furthermore visitors may appreciate the historic character, for example some old farms in the rural landscape, shaped by years and years of farming. Additionally, citizen may enjoy canoeing on the watercourse and farmers work hard on the land they inherited from their forefathers. A hike around the town shows the many qualities of this area. The urban fringe zone is potentially an attractive area, but if (desired) activities of people living, working or recreating in it are not guided, the quality will fall down. It proved not to be easy to integrate all these values into a positive development of the urban fringe zone.

3.4 The lack of spatial quality

3.4.1 Urban and rural dynamics

As stated in the introduction of this chapter, the urban fringe zone is a border zone. Describing the urban fringe as a border opens the eyes for the drivers causing unguided spatial development. The urban fringe zone is the transition field of urban and rural areas. In this zone these two main types of land use need to be reconciled.

There are a number of differences between urban and rural land use. Rural land use results in an open landscape transacted by a (artificial) water system aimed to supply or drain water in the area. Conversely, urban land use leads to built-on areas. It is hard to create a qualitative rural and urban combined landscape. A major difference between rural

Cluttered border zone at Groningen west.

and urban areas form the economic drivers. Macro-economic developments on global scale put farmers in western Europe under pressure. The other main types of land use - nature and water - require high investments, with little return in money. Nature has an important intrinsic value, not an economic value. Furthermore improving the water system costs a lot of money, but the benefits of the reduction of the risk of damage by flooding arise on long term and fall to other areas. And the water system too, has little economical value. Instead, urban areas do have strong economic drivers. People pay a lot of money for their houses and companies pay for their factories and offices. As a result, urbanisation is the driving factor for change of land use in the urban fringe zone, in which the value of rural activities, nature and water needs to be protected and integrated. Durable urbanisation requires these rural conditions, for example the space for water storage to cope with the effects of climate change. The art is to utilise the qualities of (former) rural land use for the growing city, but this seems hard to accomplish. Mostly urban activities are employed in the urban fringe zone, making rural use impossible and resulting in a cluttered border zone.

The challenge for planners is guide these developments. But, as a border zone, it is easy to overlook the area and focus on urban or rural planning. We have learned from practice when planners do not give enough attention a fall of spatial quality is likely.

Spatial Quality in the urban fringe zone of Groningen.

3.4.2 What is spatial quality?

In short, the problem is that the urban fringe zone lacks spatial quality, but what do we mean by that word? 'Quality' is hard to define (Pirsig, 1984). This guidebook uses the characteristics of spatial quality given in Table 3.1 (VROM, 2000). Each characteristic is applied to the urban fringe zone, so the lack of quality becomes clear.

Table 3.1 Analysis of spatial quality in the urban fringe zone.

Characteristic	Urban fringe zone
Spatial diversity by accentuating differences between urban and rural landscapes;	Urban and rural landscapes are clutterly mixed, resulting in an unattractive area.
Economic and social functionality by combining and tuning functions;	Farming is driven out the area, removing an economic basis. This leads amongst others to arrears in maintenance.
Cultural diversity by making history visible in the landscape and by giving identity to a place;	By urbanization, the historically formed rural landscape is mostly destroyed.
Social justice by giving access to the public landscape for all social groups.	The urban fringe zone is hard to access by inhabitants of the city. Visitors may have a negative impact on rural activities.
Sustainability by tuning the three layers: the physical layer of water and soil, the layer of infrastructure and the layer of occupation by human activities	The basic level of the water system is mostly not functioning properly, which leads to structural problems in the infrastructure an occupation layer. If the water system is not improved before urbanization, water problems in the new build residential area can be expected.
Attractiveness by attention of design, local solutions and creativity	Too little attention is paid to small scale solutions, creative combinations of types of landuse.
Human measure by gearing to the people's perception of the landscape.	The urban fringe zone has view elements which can be recognized on the scale of visitors, such as historic farms or attractive water courses. The present infrastructure is build for transport and not for people visiting the area.

SUMMARY

Spatial quality exists and evolves because people valuate the land. In multiple landuse, it results from creating shared values by interacting stakeholders. In an urban fringe zone, the spatial quality has certain characteristics. These are spatial diversity, economic and social functionality, cultural diversity, social justice, sustainability, attractiveness and human measure.

Spatial quality is not static. Quality exists and evolves because people give meaning to the land, like farmers, recreating citizens, planners, water managers, maintainers, etc. They all have a different understanding of spatial quality based on their valuation of the urban fringe zone. Only by interaction, a common understanding of several characteristics of spatial quality evolves. Spatial quality is therefore an emerging property which means it cannot be predicted in front of a planning process, but has to come out of the process from planning to realisation of multpile landuse. Spatial quality is a result of the implementation of shared values by interaction of stakeholders. The outcome of the interaction of stakeholders and the implementation of this outcome in the urban fringe zone cannot be predicted, but emerges during the process. Interaction is a condition for spatial quality, not a guarantee. Spatial quality seen as an emerging property learns that reaching quality is closely related to the valuation of stakeholders. Thus, a planning process must be open to involve stakeholders.

3.5 The struggle of planners to realise spatial quality

3.5.1 The promises of Multifunctionality

The unguided landuse is a main problem for the lack of spatial quality in the urban fringe zone. This problem is caused by the fact that it is difficult to combine or reconcile different types of landuse. The unguided landuse results in an incoherent urban fringe zone and therefore a poor spatial quality.

A view on spatial quality in the Gooiermars.

We put forward the concept of Multifunctionality to tackle these problems in the urban fringe zone, since it has an eye for tuning different and possibly conflicting types of land use. The concept points to the opposite direction for spatial planning, from separation towards combination of functions. The aim is to create an attractive and sustainable area. Several studies define Multifunctionality. This guidebook uses the conclusion of Lagendijk & Wisserdorf (1999) who have compared a number of studies. They find four dimensions:

- The use of land by making it more efficient;
- Combining the use of space: the use of more functions in the same area;
- Making use of the third dimension: building underground and in the air;
- Making use of the fourth dimension: time: functions taking place at different times.

The third dimension is mostly applied in urban areas and has little meaning for the urban fringe zone. In short, the activities which follow from the concept of Multifunctionality is three folded: intensifying, combining and transforming the land (VROM, 2000). Multifunctionality is a helpful concept for planning spatial developments in the urban fringe zone for two reasons. The first reason is that Multifunctionality aims to combine several types of landuse in order to improve the spatial quality. The idea is to find solutions for spatial problems within the boundaries of an area. The second reason is the aim to relieve surrounding areas by using scarce space more intensely. Multifunctionality is not an aim in itself, but must be regarded as an innovative concept in order to come to more efficient land use *(Priemus, Nijkamp & Dieleman, 2000).*

SUMMARY

Unguided landuse results in a poor spatial quality. Multifunctionality is an innovative concept to create an attractive and sustainable area by intensifying, combining and transforming the land.

The urban fringe zone of Great Park, North East.

Areal photograph Lamesly urban fringe zone, North East.

3.5.2 The water system as a backbone for Multifunctionality

It is not by coincidence that water is clearly present in urban fringe zones. A lot of urban areas were founded because of nearby water and if possible on a junction of water courses. Water flows into the city. Besides, urban areas use the fringe zone to discharge water because in the city self there is not a lot of space. In most European countries, the water system in the urban fringe is more or less tailored to suit the needs of agriculture or nature development. The watercourses form the backbone of the land use.

Two complicating factors assert. Firstly, the water discharge consists of ever changing amounts. Secondly, the water is of poor quality. Because of the quickened discharge of storm water out of cities, the supply of water is not constant. Serious rain events may cause flooding down-stream, or dry periods may result in water shortage (dehydration). The design of the water system reinforces these problems on water quantity, since it is primarily aimed to transport water and not to store it. Besides, transport of rain through the urban area results in pollution of the water. This transport may be via the sewer system and treatment plant or via surface waters. The poor quality of the supplied water may cause problems in nature development, farming, or recreational use. These problems grow worse by the effects of climate change. In short, the design of the water system and the accompanying water quantity and quality problems hinder Multifunctionality.

On the other hand the water system has the potential to enforce the quality of the urban fringe zone. Therefore, PURE chooses to take the

Urban fringe zone Ouseburn, Newcastle

present water as a motor for improvement of the quality of the urban fringe zone. The presence of water in the urban fringe zone is a driver to increase spatial quality by multiple landuse, on condition that the water system is improved. The characteristics of water are very suited to integrating several types of land use (Priemus, Nijkamp & Dieleman, 2000). The two main characteristics:

Water unlocks many values. Water attracts people and invites to use it for many purposes: nature and ecological development, recreation, transport, cooling- and process water, enjoy the cultural historic value, protection from flooding.

Water as an organizing principle. Water is a useful structure to organize activities, since water forms - together with the soil - the basis for other types of land use such as nature development, farming or housing. Since the water system functions as a back bone for the land use, it is important to improve the sustainability of the watercourses. Two principles will help. The first is on water quantity: hold the water, slow it down and then release it. This principle leads to a water system with retention areas upstream which prevent disasters downstream. The second principle is on water quality: to have the water clean, to keep it clean and then to make it clean. These principles on managing water quantity and water quality arrange multiple landuse, for example to position polluting activities downstream, while trying to diminish or to clean the pollution upstream. For an elaboration of these concepts, we refer to the PURE guidebook on Planning with Water.

SUMMARY

In an urban fringe zone, creating a clean, sustainable water system can be used as a driving force to increase spatial quality by multiple landuse. Water is used for many purposes, and therefore unlocks many values. It also provides a basic structure and can therefore be used as an organizing principle. Furthermore, it has legal power, offers opportunities for new rural activities and is an innocent subject for discussion.

Zandwetering, recreational use.

Lamesly longhorns & church.

Furthermore, we discovered the next characteristics in the PURE project.

Water can have a lot of 'legal power'. Through history a lot of regulations have been developed for water management, resulting in safety from flooding or a bad water quality. These regulations give water managers a lot of legal possibilities ask for attention for water.

- Water offers opportunities for a new rural activity, i.e. farmers as water managers. This is important for European countries where the economic future of farming is under pressure.
- Water is quite an innocent subject for discussion and is therefore suited to start up a process with stakeholders for improving spatial quality.
- In short, the presence of water in the urban fringe zone has the potential to develop coherent multiple landuse, because of the connecting and attractive characteristics of water.

3.5.3 A superficial concept of Multifunctionality

Currently, there is little knowledge about and experience in the conscious applying of Multifunctionality (Priemus, Nijkamp & Dieleman, 2000). To understand the concept of multi-functionality, we have to look at the historical development of the planning approach.

The definition of different types of functions was the first step in planning history, in the early years of the 20th century, when economic activities of men (housing, industries, transport) needed more space

Poor water quality in the Zandwetering (Deventer).

then available. The followed approach to solve conflicts in the use of space was: to distinguish different types of functions and to spread them as much as possible. A function is defined as a certain way of using the space in order to satisfy (a group of) people. This planning approach is called mono-functional land use. Because of this development we have industrial areas, residential areas, green areas, water areas, rural areas, nature areas, etc. The kernel of this approach is to break a complex problem into little ones, solve the little problems and glue the solutions together. The strategy worked, until a few decades ago. Then we discovered a lack of spatial quality because of a monotonous, predictive, vulnerable and inefficient use of land. Besides, the transportation of people and goods between spatial functions became jammed. To overcome these problems, a new step to the old strategy was added: after defining the functions, try to combine them. This strategy is called Multifunctionality and is nowadays widely applied in planning.

However, the application of Multifunctionality does not automatically lead to an increase of spatial quality. The main reason is the primary focus of Multifunctionality on the combination functions and not on the identity of the area. This has a number of consequences.

Planning takes place behind a desk by professionals. These professionals are educated to define a number of functions and merge them according clear planning principles, such as ‘red pays for green’. The aim is objectivity and therefore knowledge of the area itself is not part of the planning approach. This approach will fail in implementing the

SUMMARY

In the early years of the 20th century, mono-functional landuse was common practice: each function was assigned to a specific area. This led to a lack of spatial quality and congestion of transportation systems. As a reaction to these problems, functions were combined within an area, and multifunctionality was born. However, multifunctionality focuses primarily on functions, provides no stimuli for integral decision making and fails to really involve stakeholders in the planning process. In its current form, the concept is therefore not suited for developing multifunctional urban fringe zones.
This guidebook deepens the concept of multifunctionality by focusing on activities in stead of functions and by considering time as a condition for the guided growth of coherent multiple landuse, in stead of regarding it as an inconvenient period between design and implementation.

Recreation Zandwetering (Deventer).

plans on for the urban fringe zone.

- No stimuli for integral decision-making, because of an unbalanced power division among institutes, which were given form for mono-functional policy making and so reducing complexity of decision-making (Priemus, Nijkamp & Dieleman, 2000).
- Incapability to involve stakeholders in the planning process in such a way that they are ready for multiple use of land.

Therefore, the concept of Multifunctionality should shift its aim towards the maintenance or improvement of the spatial quality of an area by interaction with stakeholders. As a consequence, the focus is on combining activities, in stead of functions. Functions are abstract concepts used by planners to create a world on their own; activities take place by people in the area itself on a specific moment in time and under specific circumstances. Activities have a 'local validity'. Combining activities requires to know the characteristics of the land and to know the people employing them. When new activities are planned in the urban fringe, people must be invited to employ them by creating local conditions such as the accessibility by footpaths, attractiveness of nature or the water level. In summary, the concept of Multifunctionality needs to be deepened in such a way that it stimulates planners to widen their view from functions to people using the land.

Before the 20th century Multiple use of land was common use, although implicitly (Priemus, Nijkamp & Dieleman, 2000). People exploiting economic activities could simply integrate different functions of the land. Stressing the importance of Multifunctionality can be con-

Lamesly longhorns & tree.

sidered as a step back in time, but with the lessons learned from the mistakes of the mono functional planning approach.
In our view, the kernel of Multifunctionality is to know the area itself and to stimulate or guide the development of a coherent multiple land use. Hence, time becomes important. Time is not the inconvenient period between the design on paper and the implementation of the design. In that case, a perfect future is projected on the present. By chucking time in to pieces, the implementation is carried out. This view of time leads to a lack of coherence and synergy of the landuse. The deepened concept of Multifunctionality considers time as a condition for the guided growth of coherent multiple landuse, based on the values stakeholders attach to an area developed over time. One of the major consequences of this view on Multifunctionality is that planners need to shift from writing nailed up plans towards a developing strategy and propagate a flexible vision on the landuse (see chapter 4).

To cope with the dynamics of the urban fringe zone, traditional instruments need to be revised, because they lack in visualizing private and public stakes (Priemus, Nijkamp & Dieleman, 2000). According to Webers (2001), these instruments should support:

- To gather the right stakeholders at the right moment;
- To identify the spatial, social, cultural, economic and ecologic context and meanings layers;
- To utilize and strengthen the (potential) core qualities;
- To gain insight into the conflicting and relating interests;
- To use the available means optimally.

Gooiermars implementation.

3.6 Problem definition

We conclude that the unguided and incoherent spatial developments in the urban fringe zone result in a downwards spiral of spatial quality. The current application of the concept of Multifunctionality is too superficial to turn the tide. We recommend adding a new dimension; involving the values people attach to the urban fringe zone. The water system is suited to serve as backbone for coherent multiple landuse, because of the connecting and attractive characteristics of water.

The key problem of this guidebook is stated as follows:

How to increase the spatial quality in the urban fringe zone by applying the concept of Multifunctionality?

This guidebook develops a methodology to discover and discuss the values people attach to the urban fringe zone and to translate these values into proposals for coherent multiple landuse, geared to the water system. Furthermore, this guidebook describes the accompanying socio economic benefits of the increased spatial quality. The methodology will support planners to work progressively on an attractive and sustainable urban fringe zone.

4 A new interpretation of Multifunctionality

SUMMARY

The characteristics of Multifunctionality are:
- Integration of valuation;
- Attention for time;
- Stimulating growth of identity.

4.1 Introduction

This guidebook argues strongly in favour of the realization of multiple landuse in interaction with practice. Practice learns that a 'cold weld' between a master plan and the implementation does not to work, since the public support of a plan is not the same as the public support for the implementation. An approach based on Multifunctionality should result in a shared valuation of the urban fringe zone. A plan is paper work, valuation is what stakeholders find important for the land use. The central thesis is that ones stakeholders share their values, they will put effort in developing multiple landuse in time. The only way to discover the valuation of stakeholders is by interaction.

This aks of planners to connect the world of planning - including the principles, maps, concepts and designs - with the world of stakeholders. We expect this will increase the implementation of plans in practice.

The accent on valuation raises the question of the right type of use of the urban fringe zone. Do farmers have a right on enough and good land to ascertain an economical healthy future? Does the water board have the right to buy land and transform it into retention basins? Do citizens have the right to recreate? With the focus on puzzling, it might be forgotten to answer these questions during the planning process. Only when stakeholders can discuss and defend their motives for employing or desiring new activities in the urban fringe zone, a shared valuation can grow. At least stakeholders start to understand each others motives.

The attention for practice in realizing Multifunctionality leads to the next three characteristics:
- To integrate valuation of stakeholders in the design;
- To pay attention for development of Multifunctionality in time;
- To stimulate growth of identity of the urban fringe zone.

These characteristics illustrate our interpretation of Multifunctionality. Applying these characteristics in a methodology will connect the professional world of planners with the living world of the people farming, hiking or biking in the urban fringe zone. And it will correct and supplement the present planning process.

Multifunctionality at Lamesly, North East.

4.2 Integration of Valuation

The values stakeholders hold for the urban fringe zone, reveals their motives. Different levels of valuation are possible. The aspect theory (Woudenberg, 1992) defines these levels. From the aspect theory, twelve different levels of valuation are derived, see the icons below. Each of these aspects is a way to assess the motives to maintain, develop or block types of land use in the urban fringe zone. For an explanation of the aspect theory, see appendix 1.

The aspects cover both the physical as the human domain of Multifunctionality. The physical domain covers the matter the urban fringe is build of, categorized by the physical, chemical and ecologic aspect. The human domain covers the other aspects. The next paragraphs elaborate these aspects for the urban fringe zone for both domains.

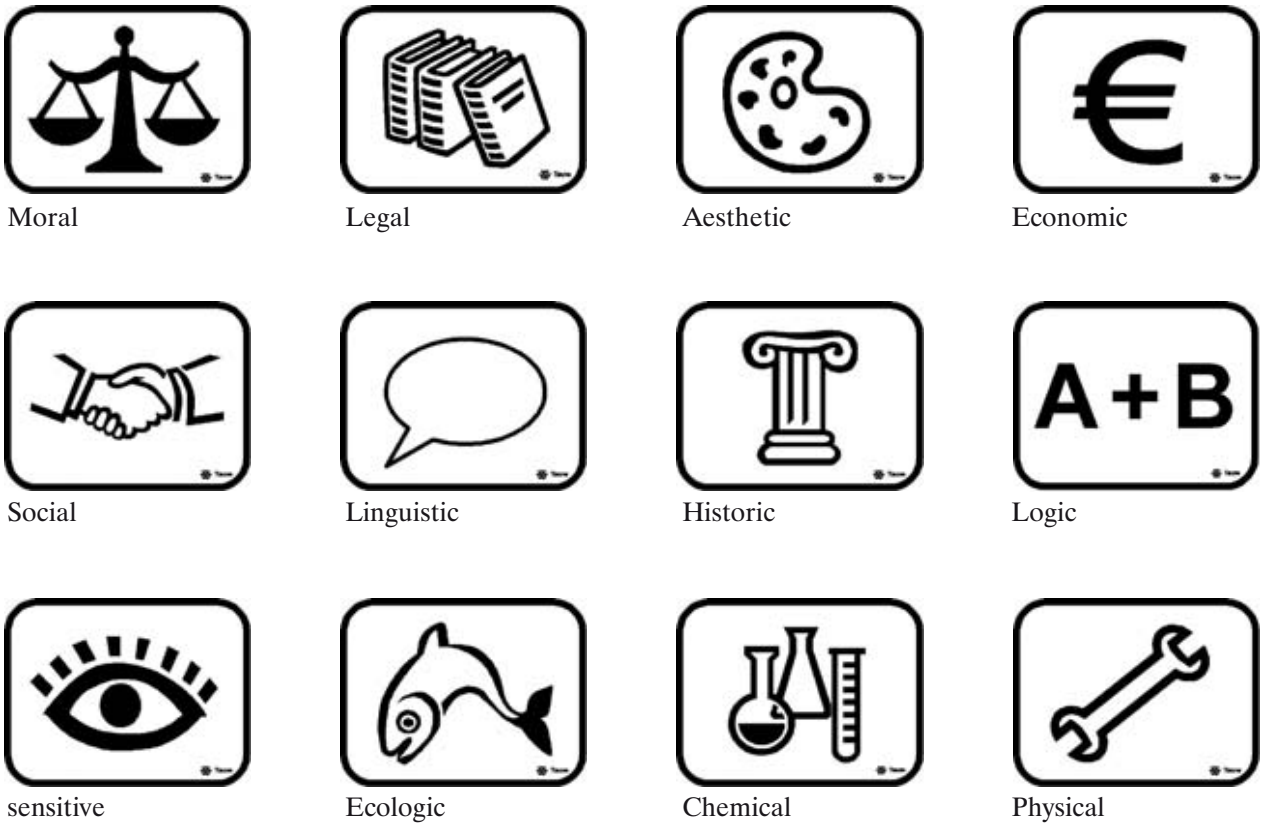
SUMMARY

The values stakeholders hold for the urban fringe zone reveal their motives for land use and determine the way they act in the planning process. In order to assess these motives, twelve aspects are used. In the physical domain, these are physical, chemical and ecologic aspects. In the human domain, these are sensitive, logic, historic, linguistic, social, economic, aesthetic, legal and moral aspects.
A major goal in multifunctionality is to achieve a shared valuation by connecting the physical and the human domain.

4.2.1 Physical domain

The urban fringe consists of sand, water, trees, fish, farms, roads, etc. The physical domain of Multifunctionality is to 'organise' these building bricks in order to stimulate a type of land use. A hiking path attracts visitors to the area, the water makes flower beds grow. The three aspects of the physical domain describe three different knowledge fields essential for building Multifunctionality in the urban fringe zone. The physical and chemical aspect cover the field of natural laws. Water flows from high to low places, nutrients will hamper rare plants to grow. The ecological aspect covers the laws of nature. Pikes only live in clear water. The green zone surrounding a water coarse lets animals move

The twelve aspects of the urban fringe zone.



between habitats. The examples of the three aspects make clear that the physical, chemical and ecologic knowledge field have a strong mutual influence.

Experts represent the three fields of knowledge. They calculate water flows, measure the water quality or make an inventory of species in the urban fringe zone. Together they work on the foundation of the land use. The challenge of Multifunctionality is to connect the foundation with the building. Or, in other words, to connect the physical with the human domain.

4.2.2 Human domain

People valuate the urban fringe zone on different levels. Insight in these values is essential to apply Multifunctionality. The aspects which cover the human domain are described below.

Sensitive

The sensitive aspect describes how people sense the urban fringe zone with their senses: Fresh air, cold water, colourful flowers. An attractive urban fringe zone stimulates the senses of citizen. On the other hand, negative stimuli will people hold back from being in the urban fringe zone. Analysis of the stimuli of different senses is a useful tool for determining the (un)attractiveness of Multifunctionality. See Table 4.1 for an example.

Biotic aspect of the Zandwetering.

Table 4.1 Stimuli of the senses in the urban fringe zone.

Sense	Positive perception	Negative perception
Sight	Sight lines in the landscape	Troubled waters
Touch	Benches at the river side	Swampy wetlands
Smell	Blooming flower beds	Dress with manure
Taste	Fresh water	-
Ear	Singing of birds	Traffic noise

Logical

The urban fringe zone is built on a type of logic. This logic may be natural, in case of the physical domain. This logic may also be human. Especially planners bring logic into the area. A hiking path follows the water course and lead to a central pick nick site. Parking places are at the borders. Planners use logic to reach an aim. The mentioned examples make the area accessible for users. Another aim may be ecological development. This aim may lead to the logic of creating a high level of ground water and to protected areas.

The logic may not only be visible in the urban fringe zone itself (hiking paths, nature areas), but also in the organisation to maintain or develop the area. An environmental interest group may organise guided excursions for visitors of the area, to protect ecological development and to educate them.

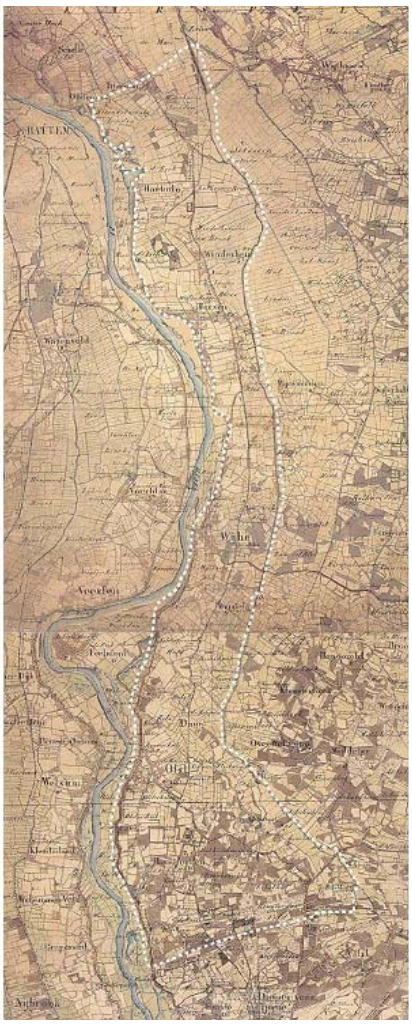
In time, an aim may alter. It is not easy to change the logic. For example the change in aims of water management in The Netherlands. The

Seaton Burn, North East.

Perceptive value Zandwetering.

former aim of water management was to discharge water as quick as possible out of the area. Since quickened discharge led to new problems on the long term, such as dehydration, the aim has altered. By now, the new aim is to hold and store the water within the area as much as possible. It is not easy, though, to build retention basins.

In conclusion, the logic of the urban fringe zone is dependent of the aims people have for the area. Thus, stakeholders may valuate the logic of the urban fringe zone differently, because they have different aims. The analysis of the logic of the urban fringe should start with the aims and subsequently clarify the logic to reach the aim. The relation between the aim of an actor and the logic he or she uses, shows that arguments used are not objective, but serve the individual purpose of a stakeholder. To discover the aims of stakeholders, the higher aspects may help.



Historical aspect of the Zandwetering.

Historical

The historical development of the urban fringe has a major influence on the nowadays use of this area. Most urban fringe zones in The Netherlands for example, were pastures in former times. The infrastructure of roads and water courses was meant to support agricultural use. This led to steep water courses with pumps and dams. The Dutch urban fringe zone bears the stamp of this historical development.

The historical valuation of the urban fringe zone is about the memories people have. In time stakeholders become attached to the area. A farmer who inherited his farm from his fathers father, will make him want to preserve the farm for his children. Visitors may think back to the time they played at the water side when they were children. These memories take on the form of stories.

The historical development gives identity to the urban fringe zone, therefore planners should be cautious to come up with rigorous plans for improvement of the area. A plan will only work when it gets a place in the people living, working or recreating in the area. Furthermore, if planners know the stories of the urban fringe zone, they can understand the behaviour of stakeholders. An important principle for planners is not to cut off historical development, but to guide it into the multiple land use.

Linguistic

The linguistic aspect does not focus on the urban fringe zone itself, but on the people wanting something in the area. When plans are developed, people have to cooperate. An essential condition for cooperation is that stakeholders can understand each other and speak the same language. A lot of problems in planning find their origin in speaking a different language. Different languages are: expert-language, policy language or local language. Locals speak often in the form of stories as mentioned at the historical aspect.

Stakeholders aiming to make a change in the present use of the urban fringe zone must be willing to translate their knowledge in a language

others can understand. Else, they will not succeed to build cooperation. This problem occurs often when experts try to involve civilians. Civilians are not interested in a decrease of water discharge of 5 m¬3 per second, but in the effects of this discharge to the growth of flower beds. Furthermore, communication tools used among experts may not be suited to use in the communication with other stakeholders. Only 20 % of civilians can understand a map. Civilians start to understand when they see an excavator in front of their house. Planners must find suitable forms of communication: a site walk, a report, a flyer, graphs, personal conversation, photographs, pilot projects, etc.

The linguistic valuation of the urban fringe zone means to pay attention to different languages stakeholders use. This principle effects the communication in the planning process. Communication should result in a shared understanding of problems in the urban fringe zone and contribute to common agreed solutions to these problems.

Social

The social aspect is about people meeting each other. The urban fringe zone attracts people to meet. The infrastructure of the urban fringe zone can stimulate the meeting of people. A pick nick place with benches attracts groups of people, a twisting path alongside a river may invite a couple for a walk outside.

The social aspect also points at the meetings during a planning process aimed at the maintenance or development of the urban fringe zone. The organisation of meetings forms the heart of the planning process.

Social aspect of the urban fringe zone of Deventer.

These meetings are necessary since stakeholders need to cooperate. A water manager is dependent of farmers to sell their land for retention areas. A planner from the municipality is dependent of property developers to invest in the area. Cooperation is the key word of the planning process, seen through the social point of view.

The social valuation of the urban fringe zone keeps one's mind to the organisation of the planning process with the aim to build cooperation. The two conditions for cooperation are trust and mutual dependency. A helpful tool for building cooperation is a stakeholder analysis, which points out the motives of stakeholders to join or frustrate the planning process. The success of cooperation is partly determined by the personal characteristics of stakeholders. Thus, when building cooperation among stakeholders, planners should not focus too much on formal representation, but also on their enthusiasm.

Economic

The urban fringe zone has an economic function. A lot of different types of land use in this area have an economical reason or component. Farming is in the first place an economic activity. Recreation attracts people to the area, who rent canoes. The land is not for free, the water board has to buy land to create retention ponds. Thus, the urban fringe zone has an economic value.

A significant economic problem in the planning process of the urban fringe zone in The Netherlands is that development of the water system or development of nature requires high investments, without having benefits on the short term. A complicating factor is that the benefits of the water system are not tangible, but that the benefits are the fact that disasters do not happen (Koffi Annan). Relative high investments are necessary to prevent even higher investments of repairing damage. Another complicating factor is that the benefits of blue and green development cannot always be expressed in a hard currency.

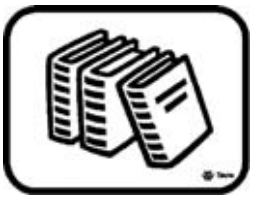
Another specific economic problem of multiple land use is that the combination of human activities may require higher investments then mono functional land use, for example by creating a hiking path alongside a water course, or even small bridges to cross the water. In general terms: infrastructure must be created to enable people to visit the area. Some examples: an attractive water system, diversity of the ecosystem, people relaxing by hiking in the planning area, the historical identity of the area. Not being able to express these benefits in money, does certainly not mean these are not important. Practical experience learns though, that these type of benefits often have little place in the final decision making. Explicating the benefits of a blue and green urban fringe zone by applying several aspects to the area, may help to give this benefits a position in the decision making process.

The economical valuation of the urban fringe zone means to identify the costs and benefits of an area. Chapter 7 describes the benefits of multiple land use in the urban fringe zone.

Aesthetic

The aesthetic aspect focuses our attention to the beauty or ugliness of the urban fringe zone. People appreciate the quietness of this area, for example. There is a strong relationship with the sensitive aspect. People like or do not like the way they experience the area with their senses.

The aesthetic valuation is the professional perspective of designers. The design must improve the harmony of the urban fringe zone. Multifunctionality is one of the means to enlarge the aesthetic valuation of the urban fringe zone. The aesthetic aspect tells us that Multifunctionality is not only about combining functions, but helps to improve the spatial quality of the area.



Legal

The legal aspect describes the relevant laws and policies on the planning area. Mostly there are many. New policy may be an important stimulus to rethink the use of the urban fringe zone. This may be policy on nature development, water storage, or urban growth. Furthermore the formal responsibilities and competences of stakeholders is part of the legal aspect. Public organisations have received authority and responsibility to guide the development of the urban fringe zone.

The organisation of the planning process is a logical outcome of regulation. Stakeholders with different and sometimes conflicting responsibilities must cooperate. A number of activities in the planning process are enforced by law, for example a period of participation or a period for final decision making.

It is important how stakeholders value the legal framework. Will they use it to block off other stakeholders, or to stimulate development of the area? If stakeholders distrust each other (social aspect), they fall back on their formal responsibilities.

Moral

The moral aspect highlights the basic principles stakeholders carry. These principles are not often said loud, but they have a strong influence of the behaviour of stakeholders. The basic principle expresses why a stakeholder stands for a certain activity in the urban fringe zone. An important principle for the municipality is the ‘common interest’, or what is best for the community as a whole. The principle of ecologists is the importance of ecological development. A principle for water managers is a safe and sustainable water system.

The values stakeholders hold, do not only determine their motives for land use, but also the way they act in the planning process such as the trust they put in other stakeholders, fairness and participation.

The different levels of valuation are interrelated. Higher aspects unlock lower aspects. The higher aspects describe why and how people use the urban fringe zone, for example the moral motive of sustainability for an ecologist to stand for the creation of nature. Or the water manager who models the water flow (physical valuation) because of a legal motive to

store more water. Or a farmer who holds the economical motive of earning money to provide for his family. When stakeholders are asked to explain their values, a rich complexity becomes apparent. During interaction a shared understanding of valuation must grow.

4.3 Attention for Time

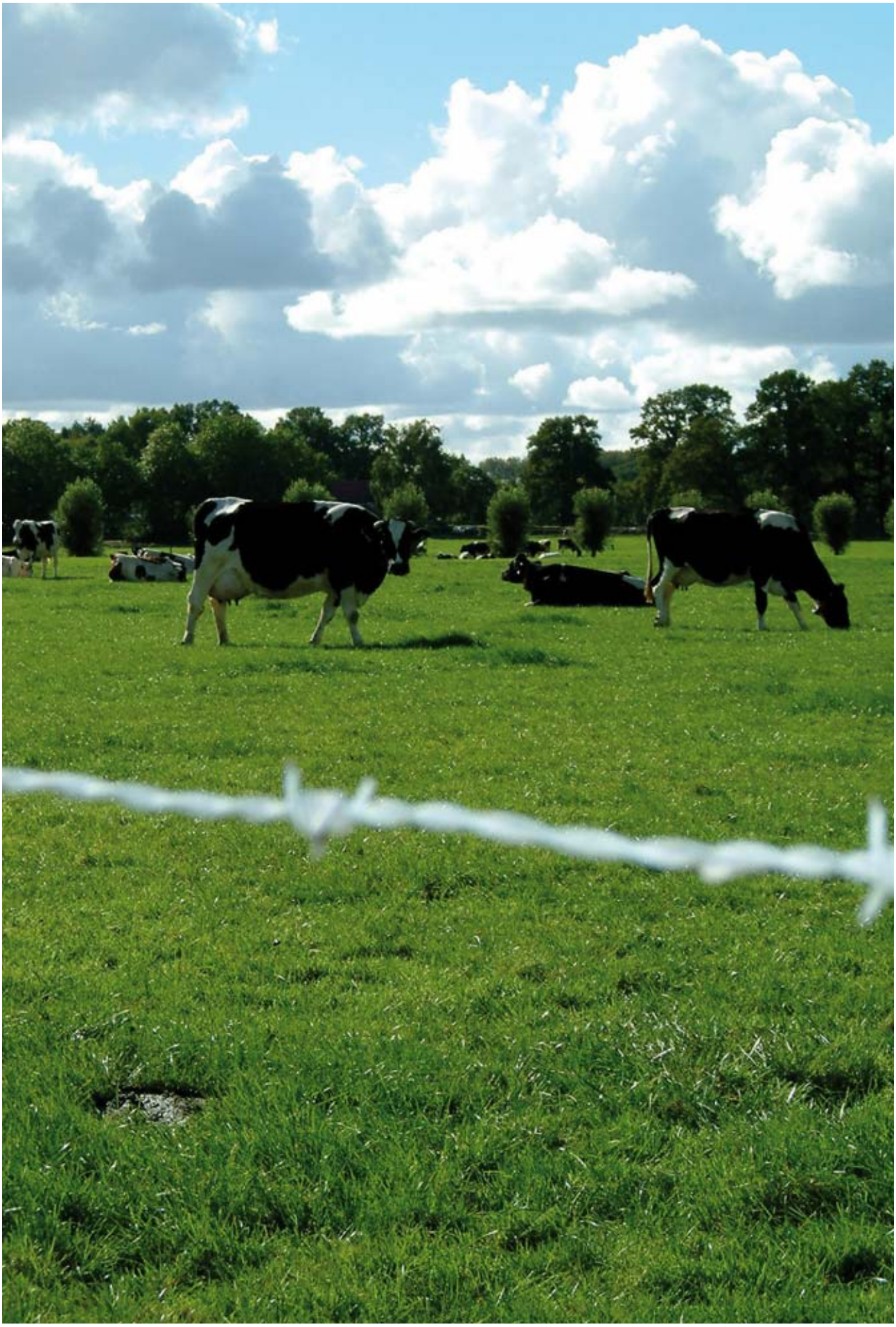
4.3.1 Conditional Multifunctionality

Time is the second element we need to pay attention to, when speaking of multiple landuse. The aim of Multifunctionality is not to deliver an optimal design in a certain point in time. It is conditional. This means that Multifunctionality should create conditions which enforce the development of spatial quality in time. The first and most important condition is a shared valuation. But conditions can also be physical (widening the shores of a watercourse), or social (founding an association of inhabitants for maintenance of the nature in the area). The conditional character of Multifunctionality, makes it dynamic and not static. The dynamics arise by activities stakeholders want to employ or block in time. A municipality may aim for urbanization of the urban fringe, a water board may aim to extend the capacity for water storage. The several conditions in the urban fringe zone should be strong, that it can guide the development of activities. Strong conditions will be created if stakeholders have a mutually shared positive valuation of the urban fringe. Then a local interest group will employ activities which preserve or develop the spatial quality of the area or block activities which possibly hamper the valuation. Again, we see the importance of (a shared) valuation to increase spatial quality.

SUMMARY

Multifunctionality has to pay attention to time. In the planning process itself, time is not regarded as a predefined sequence of deadlines and milestones, but is used to allow stakeholders to mutually develop the identity of the area. Throughout this process, the history of the urban fringe zone is taken into account and implementation and maintenance play an important role.

Seaton Burn, North East.



Gooiermars, Deventer.

4.3.2 Learning from history

The attention for time is not only important for looking at the future, but also looking at the history of the urban fringe zone. The historical developments – positive or negative – are part of the dynamics of the area. If ten years ago the municipality did not keep its promise to build cycling paths to improve the accessibility of the urban fringe, for example, people will not cooperate with new plans. There is mistrust which first needs to be cleared. If these facts are not for taken granted in the planning process, the implementation of new plans will fail. Therefore, the aim of the planning process is not to come to a fixed layout of functions (i.e. the picture of the puzzle). In stead, it aims for bending historic developments into a desired form of Multifunctionality, attracting appropriate activities. To bend dynamics is one of the major challenges of the planning process.

4.3.3 Importance of implementation and maintenance

To cope with dynamics, the design of multifunctional solutions is insufficient. Implementation and maintenance becomes much more important in the planning process. The aim of the planning process should not be to design a multiple used urban fringe but to stimulate the growth of it. Therefore, the design should be more supporting to the implementation and maintenance phases. By doing so, learning experiences can be integrated in the design, increasing the feasibility.

4.3.4 The planning process evolving in time

Also the planning process must have attention for time. It takes time for stakeholders to get to know each other positions, it takes time to

Gooiermars, Deventer.

overcome conflicts and build trust between stakeholders. It takes time to come up with creative solutions. Also the planning process must have a dynamic character and should not be too static and work with tight deadlines. When time is given to the planning process, the outcome is not predictable. The outcome is emerging from interaction between stakeholders. This will only work when time is not a pre defined sequence of deadlines and milestones. It is important to consider that politicians and citizen need to get used to this approach. However, when Multifunctionality gains a more social and a less physical character, an increase of the feasibility of proposals is likely.

4.4 Growing Identity

The aim of Multifunctionality is spatial quality, which will evolve if the urban fringe zone can develop its own identity. Identity stands for the specific and valuable character of the urban fringe. People attached to an area, give it an identity. Therefore these stakeholders must be involved. If stakeholders start to share their values of the urban fringe zone, they become more and more attached. Hence, they will devote themselves to maintain the land use or employ new activities which express the valuation even more. To discover the identity of the urban fringe, again it is essential to reveal how people valuate it. Farmers attach to the area, since it gives them their daily bread. Citizen attach to the area since they had their first kiss at the water side. Therefore, Multifunctionality is much more then a plan on paper. It is about people living, working and recreating in an area they are attached to.

Gooiermars, Deventer.

4.5 Some remarks

Before we start with the explanation of a methodogly which supports planners to implement the characteristics 'Integration of Valuation', 'Attention for Time' and 'Growing Identity' in planning practice, it is good to be aware of the next remarks.

4.5.1 The harmonization of values

The first remark is that a shared valuation of the urban fringe does not imply that stakeholders interact until they agree on the main values. Interaction should result in a mutual understanding of the choice of this main values in the urban fringe. For example, the choice to maintain the agricultural use as the most important economic activity, or the choice to increase the accessibility to invite citizen to visit the urban fringe zone because of the easthetical value, or the choice to construct a retention basis because of the moral obligation to prevent flooding downstream. In an ideal situation the main values are shared, but mostly a choice is necessary. This choice will be made by the public authority as representative of society and as an expert in planning. The issue for planners is to know the right time to stop the inventarisation of values and to start choosing the main values. This depends largely on the course of interaction. Generally speaking, the convergence should take place after the conflicting values are clear. For example the aesthetic value leading to increased accessability of the area or the ecologic value leading to protection of vulnerable natural development. A discussion on motives of landuse creates understanding of landuse on the longer term.

Ouseburn, North East.

Zandwetering, Deventer.

4.5.2 Valuation and decision making

The second remark concerns the reaction of decision makers on value based planning. The uncertainty about the outcome of the interaction with stakeholders may result in significant investments in the urban fringe. Though this may put administrators off, on the other hand there are two benefits which shall please them. Firstly, the shared acceptance of stakeholders for the spatial development. Secondly, the benefits of a durable and attractive fringe zone. The (multiple) landuse funded by the values of stakeholders, makes them feel more responsible for the area. They will put energy themselves in the maintenance or development and less guidance by public authorities is necessary. For further details on this argument, see chapter 7.

We expect that value based planning will result in spatial quality. Our main argument is the fact that a shared valuation is the condition for activities people employ. Values drive people to action. If they value the nature, they will put effort in the maintenance and development. Thus, shared valuation directs the landuse. This landuse will have spatial quality, because it has meaning to people and because coherent landuse will evolve. The shared valuation will direct further development of the landuse of the area. Our aim is to underpin the current planning process with valuation, so it will lead to an attractive and durable urban fringe zone.

Urban fringe zone Seaton Burn, North East.

4.6 A sketch of a methodology for Multifunctionality

The valuation of people of an area has always been the motor of the development of the land use in time, no matter if planning has an eye for it or not. This is also the case in the urban fringe zone, with its rural identity. Farmers cultivated the land for their living. Their mainly economic valuation has led to a land with pastures, fields, country roads and ditches. But, the rural land use in the urban fringe zone suffers more and more from the spatial pressure because of urban growth. Citizens attach other values to the land then farmers. Multifunctionality is a way to integrate and harmonise different valuations and to increase the valuation of the urban fringe zone. This will not always require high investments. In stead, removing 'forbidden access' plates are enough for the growth of valuation. Small measures can have significant effects on the increase of valuation of the urban fringe zone.

The different valuation of the urban fringe zone cannot always be harmonized, sometimes there are conflicting values. A city council may decide on basis of economic motives to build a new residential area. The question is which economic motives may prevail in scarce space: the motives of farmers or citizen. The three developed characteristics 'Integration of Valuation', 'Attention for Time' and 'Growing Identity', hand over the conditions for a methodology to combine or choose between different valuations.

SUMMARY

The conditions for a methodology to involve valuation in the planning process:

- Making visible the valuation of involved stakeholders.
- Coming to a shared valuation of the urban fringe, giving this process the time it needs.
- Translating the shared valuation into ideas for Multifunctionality. These ideas must function as conditions for further development of spatial quality.
- Focus on the growth of identity of the urban fringe zone.
- Fruitful interaction with stakeholders, with an eye on historical developments.
- Revaluation of implementation and maintenance.

Gooiermars, Deventer.

Illustration of the possiblity of simple measures as removing the 'access forbidden' plates and fences to stimulate multiple land use, which increases the valuation of the Zandwetering for the citizen of Deventer.

Urban fringe zone Newcastle.

5 Different perceptions drive Multifunctionality

5.1 Perception and land use

Stakeholders hold different perceptions on the problems and qualities in the urban fringe zone, because they hold different values. When perceptions of problems and qualities are discussed, stakeholders are challenged to explain the way they wish the urban fringe zone should develop. These – sometimes temperate – discussions are essential to come to multiple land use, because it clarifies the position of the stakeholders, but also the drive of the stakeholders to put effort in the protection or development of the urban fringe zone. And in this drive stakeholders can recognise each other.

This chapter demonstrates that perceptions of stakeholders may differ and lead to conflicts. Fictitious stakeholders discuss the problems and qualities of the Zandwetering area, one of the pilot projects in the PURE project: an employee of the water board, a citizen, a country planner and an administrator. Each stakeholder explains his main problem with regard to the urban fringe zone and how he perceives the position of other stakeholders.

5.2 Employee of the water board

"The present water system of the Zandwetering is not as it should be", declares mr. Control of the water board. "The watercourse cuts deep into the groundwater", he explains, "and the result is that the watercourse has a large drainage effect, which causes in summertime a short-

Seaton Burn, North East.

age of water. By supply of water from the Overijssels kanaal the shortage is filled up. A second problem of the watercourse is that in times of heavy precipitation, the surplus of water is discharged. The fastened discharge of water from the city of Deventer into the Zandwetering causes flooding downstream, nearby the city of Zwolle. Therefore, the water system of the Zandwetering requests another lay-out. We follow the next basic principles. Firstly, hold back the water and to give the water the opportunity to infiltrate locally in the soil. Secondly, store the water in order to prevent flooding downstream. This requires more space for water. Thirdly, maintain a dynamic control of the water level, to maximize storage capacity."

"These principles will result in an increased claim for space for the water system. To hold the water, municipalities must be forbidden to discharge the rain water via the sewage system. Underground basins are necessary to store the water and to transport it to a treatment plant. At the border of cities retention ponds are necessary to store water. If farmers do not want to sell their land, we may force them to do so. It is for the cause of safety of us all."

We experience that stakeholders have little clue about the urgency of water. Our task is to defend the position of water in planning. This is necessary to guarantee safety in the future. Luckily we have strong regulations, giving us the power to block spatial development. Our ongoing frustration is that stakeholders do not see the importance of a sound and safe water system. They have only attention for making money, as soon as possible."

Gooiermars implementation.

5.3 Citizen

“I live at the border of the Zandwetering. It was a deliberate choice to come to this place. It’s a quiet place, with a good view at the agricultural area and trees.”

The Zandwetering is a very interesting watercourse. It used to be an area with summer beds with lots of flowers. In wintertime the beds flood, after heavy rainfalls. Amazing to see how quickly the water level rises! Unfortunately, it is not possible to row on the Zandwetering anymore. I have heard a story that people rowed to Diepenveen. Also farmers have taken the land, where many flowers grew.

At this moment the Zandwetering is not of much interest. There is little activity. The most visitors of the area are cows. On the one hand that’s fine. It makes the area quiet. Otherwise, I would like paved areas, alongside the shores of the Zandwetering. I also prefer more interesting nature at the borders. For me it’s uncertain what will happen on the other side of the Zandwetering. I’m sympathizing with the people of Diepenveen, who demand that the area between Diepenveen and Deventer stays open. I’m afraid that the area will be a gathering place for youngsters, with scooters and gettoblasters. I have joined to the master plan sessions of the municipality of Deventer. It offered an opportunity to get involved. But, the abstract level of the master plan made it hard to be involved. Multifunctionality is an idea of the professionals. I’m still interested to be involved, but until now I have not heared the argument to convince me to alter the situation.

Urban fringe zone Skinningrove, North East.

5.4 Country planner

“Zandwetering forms the frontier of the city of Deventer. The development of the living area Steenbrugge en the industrial area Linderveld results in a jump over the Zandwetering. With that the Zandwetering becomes part of the urban environment. To create a connection between the old and new development the Zandwetering is positioned as a green shell around the city. The zone around the Zandwetering is a typical example of an urban rural fringe zone of a medium sized city. The ecological, spatial and hydrological quality is inferior. The pressure on the land use is enormously. More and more people want to live or recreate in the countryside. There is a clear need for more coherent spatial development planning for this zone. There is also a strong need for integrating water management and spatial planning in order to prevent flooding and create a more resilient, effective water management.”

“In the Zandwetering we start a pilot to use water as an organizing principle, as an under layer of multi functionality in the urban-rural fringe zone. By combining spatial functions such as agriculture, nature conservation, recreation, business interests and housing, a dynamic, attractive and therefore sustainable area in the rural-urban fringe zone will be produced. By restoring the course of the Zandwetering, the cultural and historical identity of Deventer will be improved.”

“The project is executed in the usual plan stages. In the development study (ontwikkelingsvisie 2000) is the first step set towards a joint ambition of the city of Deventer and the water board. This is elaborated in the Masterplan Zandwetering. This will get soon an approval of the city council.”

“Participation is an important subject during the development of the Masterplan. Therefore intensive meeting with the residents are held. The meetings result in more understanding of the viewpoint of those present and of the development of the Zandwetering area. Comments are that the residents like to contribute on concrete measure in the living area. To think along about the headlines (master plan) is not of interest for the residents. That’s the responsibility of the planner.”

5.5 Administrator

“Water is an important issue for the city of Deventer”, entrusts us the elderman Score. “Deventer is beautiful suited at the shore of the river IJssel. This visit card of our city attracts many people. It would be a good thing to give water at the other side of Deventer more meaning to the city. I mean the Zandwetering area. This will enlarge the attractiveness of our citizen. Moreover, it will persuade people to buy houses in new residential areas. So Deventer can grow. It is a fact that water attracts people. This has also positive effects on the price of grounds.”

“The water board has an important stake in creating more space for water, told my public servant. We will stimulate the water board to buy the land and make nice and attractive water. This should also solve our discussions on compensating water in planned residential areas.”

5.6 Conclusions

The fictive stories show the different perceptions on the Zandwetering. It is not hard to imagine that conflicts will arise during interaction. This guidebook develops a methodology to cope with different valuations. The main focus of this methodology is to reach a mutual understanding of the different valuation of land use and to develop a common perception of the problems which occur in the area. This mutual understanding, which is not the same as mutual agreement on different valuations, is a basis for Multifunctionality.

Multifunctionality at the Peizermade, Groningen

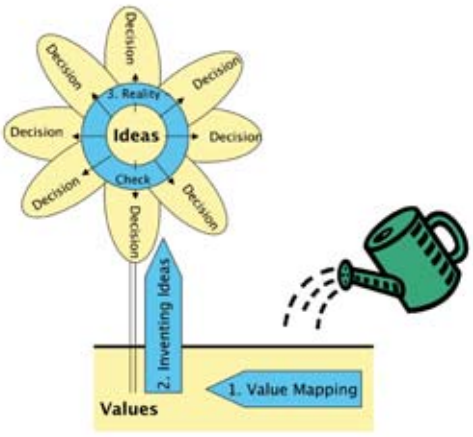
6 A methodology

SUMMARY

The main idea behind the methodology for realizing multifunctionality, is to broaden the scope of the stakeholders by showing them how each one valuates the urban fringe zone. This is done by (1) clarifying the valuation of stakeholders, (2) stimulating creativity to formulate ideas and (3) testing feasibility to decide on ideas.

6.1 An overview

Multifunctionality is not the same as puzzling with functions. There is more to it. The core of the realization of Multifunctionality is not the definition of functions, but the attention for valuation. That is not easy. As we have seen, valuation can be very different among stakeholders and even conflicting. Furthermore the valuation of a stakeholder has many dimensions and these dimensions are interrelated. This chapter develops a methodology to create Multifunctionality by unlocking valuation. Basically, there are three steps, see the figure along side. The main idea behind the methodology is to broaden the scope of involved stakeholders, by showing them how other stakeholders valuate the urban fringe zone.



Value planning a fertile soil for Multifunctionality?

Integrating valuation is like the growth a flower. First the soil needs to be prepared to create a fertile ground. Value mapping clarifies the values of stakeholders. Then the flower takes in the nutritions. The shared understanding of values leads to inventing ideas for Multifunctionality. After a while, the flower will blossom. The petals are the feasible ideas, called decisions. The feasibility is determined by the reality check. The decisions, in which the values are united, are ready for integration in the design, or for direct implementation.

It should be stated that, although the methodology is presented linearly, the process it aims to portray is iterative by nature. At any given moment, earlier steps can be repeated, if the need to do so arises, due to newly involved actors, a different stage in the planning process.

6.2 Step 1 – Value mapping

6.2.1 Aspect theory as tool

The aspect theory, introduced and developed in section 4.2, forms the theoretical framework for the detection and analysis of the values of stakeholders. Practice learns that the application of the aspect theory has the next advantages for coming to Multifunctionality.

- The aspects show the problems and qualities in the area experienced by stakeholders and supports to understand them, since the valuation becomes clear;
- The aspects give not only insight into the different opinions stakeholders have on the desired type of land use, but also on the different valuations. An analysis with the aspect theory points out where the real differences are between stakeholders;
- The aspects give planners the opportunity to store all kind of information of the urban fringe zone in a conveniently arranged structure. This information is brought in by the stakeholders. It servers as a common memory.

6.2.2 Process description

In step 1, actors meet and start to discuss the aspects of the case at hand. They exchange views on either one of the aspects. This can be done in a very structured way: the group starts with physical aspects and works its way up to the moral aspects. Even if one starts off like this, practice shows, however, that quickly a more random discussion of the aspects follows. The discussion of one aspect triggers the discussion of totally different aspects, or appears to carry implicitly a valuation of

Urban fringe zone Lamesly, North East.

another aspect. Whichever way the exercise is done, crucial is to conduct a proper mapping of the results: either by drawing a large matrix that cross aspects with actors (valuations are written down by a facilitator in the boxes), or by taking notes on a flipchart, or by having the actors fill out brief notes with their valuations of the different aspects, that are then grouped together. The choice for either one of the methods depends on the culture and preferences of the group. Crucial to either method is, however, that a proper joint discussion takes place. It is precisely this discussion that opens receptiveness towards the position of the other; it prepares the ground for the following steps.

The process will inevitably reveal conflictive issues, and this is fine, even needed. It is important that the stakeholders put all their interests on the table. This clears up positions, and enables to deal with it in a proper way. It avoids the generation of unmanageable tensions. In this sense it can be said that it is fine that conflictive issues 'grow'. The aspect-approach helps to identify the conflicts. For example, a Dutch water board has a legal responsibility for a save and sound water system, so they hold on their demand to enlarge the surface waters. The municipality governs the public interest, so they want to stimulate recreation activities. Farmers want to farm, since they have to take care of their family. These examples demonstrate the different positions of stakeholders, resulting in conflicts. Conflicts can also occur when stakeholders speak different languages, or use a different logic. By identifying conflicts with the aspect theory, the real causes may become visible. Then there is a sound basis for a possible solution.

6.2.3 Outcomes

One of the most important results of the joint discussion, is that stakeholders acquire a better and shared understanding of the perspectives of other stakeholders, even if they hold on to their own perspective. It is certainly not bad to have an own (professional) perspective. Stakeholders defend their stake and this is a necessary ingredient to come to integral design. But a one-sided perspective of stakeholders is not sufficient. They will need to value the valuation of other stakeholders. This does not mean that stakeholders agree with other stakeholders' perception, but they have learned to understand it. This understanding is a healthy condition to come to a feasible design of multiple land use.

A logical second result is an overview of overlapping perspectives, blank items and conflictive issues. In step 2, action is taken to come to solutions for conflicts and shared problems. The value map can show that the municipality and the water board have converging interests in increasing biodiversity, and possibly conflictive interests as regards house building in flood prone areas. A major conflictive issue is found between farmers and water board; changing water levels affects directly the management and productivity regime of the farms. Attention is needed for the conflict between municipality and citizens, regarding recreational use of verges of the watercourse.

SUMMARY

The aspect theory is used to point out how the involved stakeholders differ in their valuation of an urban fringe zone and also serves as a common memory. The process of Value Mapping involves

- Creating a shared overview of the comcomplexity;
- Developing a shared view on overlapping, complementary and conflicting values and;
- Setting up a priority list of conflictive values to be sorted out.

Step 1 should end with prioritising the different conflictive issues to be sorted out. This list will be the basis for the work to be done in step 2.

Table 6.1 Overview of the aim, activities, results and participants of value mapping.

Step 1 Value Mapping	
Aim	Insight into the valuation stakeholders attach to the urban fringe zone. The problems and qualities in the urban finge zone, perceived by the stakeholders, become clear.
Activities	Aspect analysis with stakeholders in workshop(s) Conflict analysis with stakeholders (bilateral or in workshop) resulting in a choice of most important values for the urban fringe zone. Site visit(s) Description of the development of the area leading to a better understanding of the observed problems and qualities.
Effect	Each stakeholder can explain his motives for participation and his wishes. Detection of hidden frames of stakeholders. Common understanding (not agreement) on the problem perception of stakeholders. The creation of a *forum* in this first step leads to a fertile soil for multiple land use.
Results	A value map (several levels of valuation are described) A shared view on overlapping, complementary and conflicting values. Problem description and analysis of the land use. Priority list of conflictive issues to be sorted out.
Participants	Focus group of urban fringe zone. Public servants of government (water board, municipality). Process manager

6.3 Step 2 – Inventing ideas for multiple land use

A result of the discussion of values is an overview of overlapping perspectives, blank items and conflictive issues. The next step is to transform these issues into ideas. Ideas are possible solutions for experienced problems or ways to utilise qualities. Ideas express how stakeholders see the (near) future of the urban fringe zone.

6.3.1 Ideas on design, maintenance and process

Ideas usually comprise the design. To develop and maintain spatial quality we distinguish two other fields: the maintenance or the process. These items effect the sustainability of the ideas.

Design

The ideas concerning the *design* are solutions as changing the upstream profile of a watercourse, as in the case of the Zandwetering in Deventer, The Netherlands (see also chapter 8). This adapted profile solves e.g. downstream floodings, periodic droughts upstream and increased nature potential in the upstream areas. This solution matches the valuations of stakeholders as diverse as the Water board, the municipality of Deventer, and local nature interest groups. Farmers' interests, however, are not fully addressed.

Maintenance

Ideas concerning *maintenance*, focus on the durability of the multiple land use. They may include a major involvement of inhabitants in the protection of the nature, or to set up business plans with farmers who want to change to extensive farming.

Process

The last type of ideas concern the process: *how should we move on?* Taking the case of the before mentioned farmers as an example, a process idea may be to conduct a study on the impact of the adapted watercourse profile on their yields and farm exploitation, with an agreement that the outcomes of this study should be awaited before further implementation takes place.

The generation of these ideas involve creativity and expertise. Specific brainstorming sessions with actors that possess both characteristics can be organized to generate long-and shortlists with potentially rich ideas.

SUMMARY

Overlapping perspectives, blank items and conflictive issues are transformed into ideas for multiple landuse. This transformation leads to local and practical solutions about design, maintenance and process on a small scale level.

Urban fringe zone Skinningrove, North East.

In this step, other professionals as landscapers and architects can contribute. But, they have to take the valuation as a starting position.

6.3.2 Outcomes of step 2

It is important to understand that the ideas are local and practical solutions, on a small scale level. It must be avoided to build a coherent plan. Local ideas communicate the values hold by the stakeholders.

The exact outcome of this step depends on the phase in the planning cycle one has arrived at. In general, the outcome is a list of ideas to address conflicts and shared challenges. The nature of these ideas can vary from immature to fully mature. Depending on the planning traditions in the various regions, one or more workshops can be held. It is possible to start with the same actors that participated in the first step. In succeeding workshops, experts could be joined in to give their view, deliver studies etc. For example, the PURE report 'Planning with Water' contains a set of guiding principles for planning in urban fringe zones, that can be very helpful this step. Our proposal assumes that ideas for conflictive issues and challenges need to grow gradually. It also assumes that the generation of ideas, in whatever domain they are, are likely to go 'in ounds', with go-no go points, at which feasibility should be tested before the idea can be further developed. This feasibility test is what occurs in step 3.

Discussing Multiple Landuse.

Table 6.2 Overview of the aim, activities, results and participants of inventing ideas.

Step 2 Inventing ideas for multiple land use	
Aim	Inventory of local options for multiple land use in the urban fringe zone, based on values judged as most important by the stakeholders.
Activities	Workshop(s) with stakeholders aimed at developing ideas Presentation of inspiring examples of value based ideas Harvesting ideas of people with local knowledge by participation.
Effect	Enthusiasm because of the translation of motives of stakeholders into local ideas. Perspective on action for multiple land use, expressed in local ideas
Results	List of creative ideas on the design or multiple land use, the maintenance or the process to come to multiple land use. Insight into mutual dependence of stakeholders for realizing ideas. Local ideas, having the potential for quick realisation, function as stimuli for further development of multiple land use (planning options).
Participants	Focus group. People with local knowledge (depending on the nature of issues). Public servants of government (water board, municipality). Professionals (landscapers, architects)

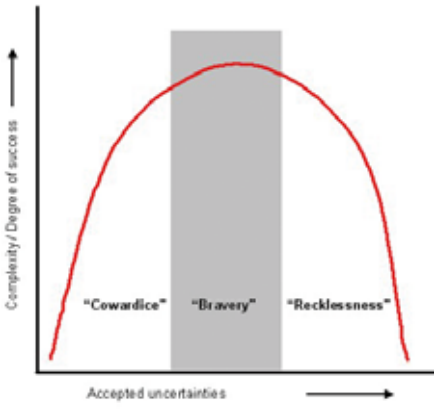
During this step, the accent will shift from values to ideas. It takes a lot of effort to clarify the values, but ones they are clear the foundation is laid. Subsequently, stakeholders put their effort in finding, maintaining, developing and implementing ideas which express these values.

6.4 Step 3 – Reality check

Ideas that result form step 2, need to be checked against reality for their feasibility. This enables decisions to be made, for the further development of the ideas. The 'Reality Check' is a tool designed to this purpose.

6.4.1 Selecting brave ideas

A tool that facilitates decision making is the so-called 'reality check'. The 'Reality Check' (RC) is a self-evaluative tool that enables users to develop their own standards for action. The RC connects the workshop ideas with the complex field of everyday practice, involving securing financial means, support of stakeholder constituencies, technical feasibility, legal and policy approval, political feasibility etc. The RC matches ambition and complexity with accepted levels of uncertainty.



Dealing with uncertainty : Cowardice, Bravery or Recklessness.

SUMMARY

The Reality Check evaluates the feasibility of ideas for multiple landuse. The ideas are classified as reckless, cowardice or brave.
The reality check has three advantages:

- Stakeholders focus on uncertainties and brainstorm on possibilities to tackle these uncertainties;
- They want to be 'brave', so the ambition level is relatively high;
- Stakeholders learn by reconsidering their position during a discussion.

The Reality Check can be performed on all decision making levels and leads to an overview of feasible options, a shared understanding and a positive attitude.

It draws upon the Aristotelian notions of bravery, recklessness and cowardice, being bravery the most desirable position. To achieve one's object i.e. to implement an idea, despite all limitations and uncertainties, is the Aristotelian notion about the way of living. Brave steps are required to overcome the limitations and uncertainties.
Each idea produced to overcome shared problems or conflicts, whether it falls in the design, maintenance or process domain, can be judged as representing a coward position, a reckless position or a brave position. Coward ideas involve minimal risk, but at the same time lack innovativeness and quality. The so-called bloodless 'compromises' are a result of coward ideas. Reckless ideas may be very innovative and ambitious, but involve a lot of risk and uncertainty, and are therefore likely to fail; they are not sustainable. Brave ideas provide an optimum mix of risk taking, ambition and quality.

The nice thing about the reality check is that it is not an expert judgement, but an auto-judgement: the actor who judges does so taking his/her own terms of references and degrees of uncertainty his/her organisation is able to deal with, as a mirror. The tool is quite powerful, for three main reasons: it easily brings out the uncertainties involved, and it almost automatically propels involved actors to brainstorm on possibilities to tackle these uncertainties. On the other hand, all actors want to position themselves as 'brave', and are inclined to seriously consider higher ambitions and quality. It thus leads to higher, yet more feasible and confident standards Thirdly, the RC invites actors to reconsider previously taken positions, and thus enhances learning. Professionals become more reflective on their own practice.

Zandwetering, Deventer.

The Reality Check can be performed at all decision making levels, in all phases of the spatial planning process. In the end, it is a useful tool for politicians to take brave decisions.

6.4.2 Outcomes

Step 3 generates the following concrete results:

- An overview of feasible options for Multifunctionality. This overview is accompanied by a list of activities that will be needed to bring the feasible options further;
- A shared understanding of pros and cons of options for Multifunctionality. Hence, decisions on how to proceed;
- A positive attitude towards bringing feasible options further.

Table 6.3 Overview of the aim, activities, results and participants of the Reality Check.

Step 3 Reality Check	
Aim	Checking ambition and feasibility of generated ideas in order to decide on favourable ideas.
Activities	Defining the ambition for the list of ideas: cowardice, bravery and recklessness. Uncertainty analysis (focus on scenario uncertainty and acknowledged uncertainty)
Effect	Common basis for implementing agreed ideas, knowing the mutual dependency among stakeholders to realise the ideas. Move to higher ambitions for Multifunctionality and thus an improvement of the quality of the urban fringe zone
Results	List of chosen and elaborated ideas, defined as decisions. Ideas ready for decision making and integration into an overall design. Conditions and plan of action for the further development or implementation of ideas.
Participants	Actors who have a defined role and responsibility for the issue in question. Public servants of government (water board, municipality). Plan economist. Administrators (possibly)

6.5 Fitting valuation in the planning process

The approach itself is a contribution to the current planning process. The aim of this paragraph is to link this approach in the formal overarching planning procedure that prevails in the region or country. Next to this fit on an organisational level, it is important to draw attention to the participation level of the planning process, more specifically, the fit of valuation in the field of interests and power of stakeholders.

SUMMARY

Spatial planning usually involves the following steps:
- A stakeholder initiates the process,
- A 'programme' is assembled;
- Designers and planners come into play;
- Decision makers are involved;
- A decision is made. Value oriented planning will be most fruitful in the program definition phase.

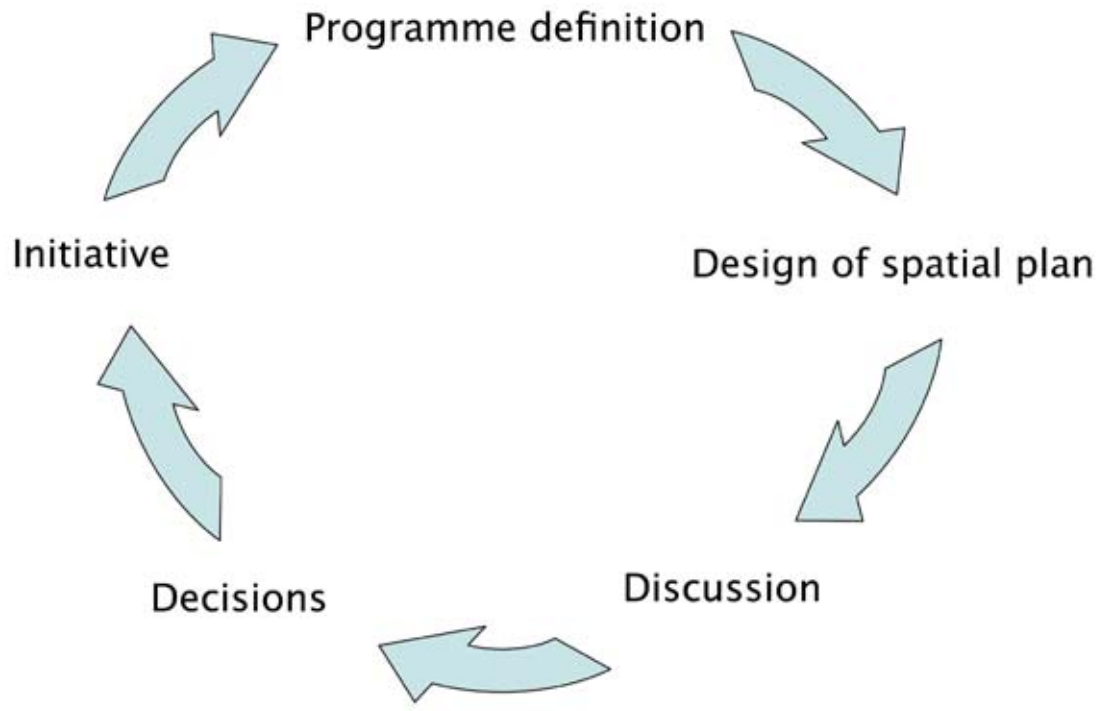
Before starting a value oriented spatial planning process, framing the process is an important step. This framing gives insight in the process environment. The process environment can be classified as volatile, surpressed, fragmented and collaborative.
The value oriented process stimulates moves towards a collaborative environment. It is applicable in all kind of stakeholder settings, helps to identify the context, focuses on the core qualities of the area and provides insight into conflicts and interests.

6.5.1 Fitting valuation in formal spatial planning procedure

All countries have different procedures for arriving at decisions on spatial planning. In this guidebook, we assume our approach to be working in a planning process that is open to include the views of stakeholders, either in a direct, interactive way, or in an indirect, representative way. The approach won't work in strongly top-down oriented planning schemes.

Despite differences between countries, some general observations can be made. First, spatial planning starts with a stakeholder (usually a government body) who initiates, claims and convinces decision making actors that a spatial plan is needed for a specific area. Second, a so-called 'programme' is assembled, a set of criteria that should be met with in the spatial plan to be designed: number of houses, recreation facilities, nature, agricultural conditions etcetera. Third, designers and planners start to work with this programme and come up with proposals. Fourth, these proposals are discussed with decision makers, in different rounds. Finally, a decision is taken, and the plan is approved or rejected by politicians. It depends a lot on planning traditions of the various countries which stakeholders are involved and to what extent they are granted a say and role in the process. Furthermore, the process can be as iterative as needed and supported by the decision making stakeholders. That means e.g. in phase 4, a decision can be made to reconsider the programme (phase 2) which will lead to a new spatial proposal. In a picture, this reads as follows:

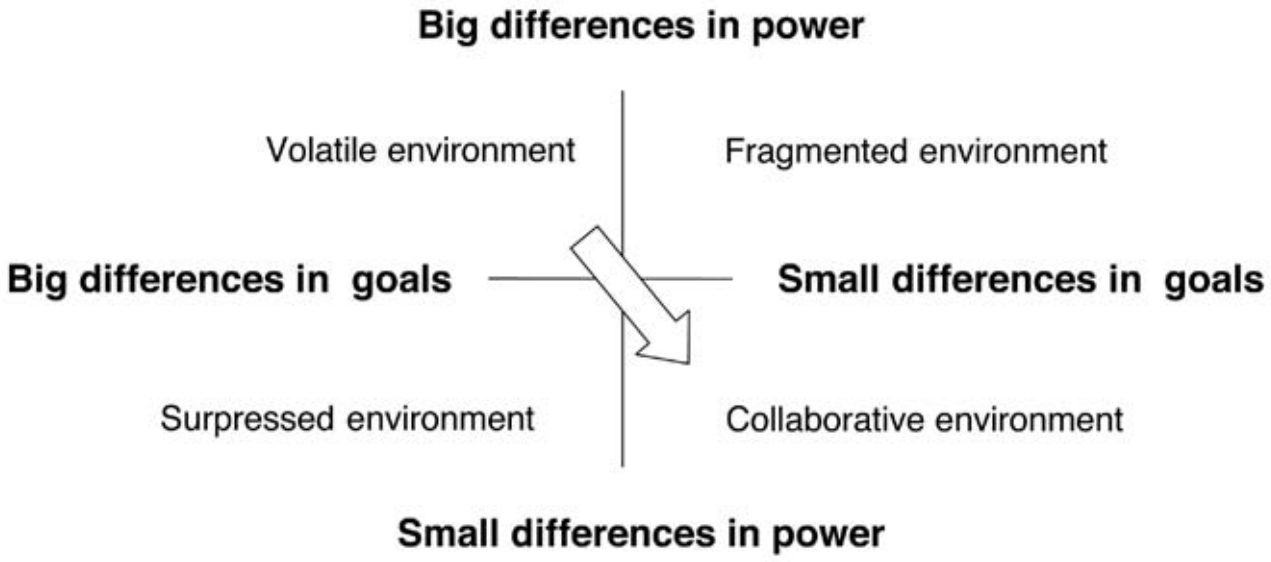
The phases of a planning process.



We assume that, depending on the nature of the planning procedures that prevail in the various countries, this iterative cycle will be repeated a number of times, and will finally end up in a formal decision to approve or reject the spatial plan.

Our view is that a value oriented planning process can be of use to assist and strengthen programme definition, design, discussion and decision making. Arguably, value oriented planning will be most fruitful when it can play an important role in the programme definition phase, applying step 1 of the methodology, value mapping. In this phase, the 'ground is prepared', and will decidedly influence any follow-up. So the more attention is paid to this phase, the more possibilities arise for multiple land use. It is up to the responsible authorities to decide the number and variety of stakeholders that participate in the definition of the programme. It should also be noted that government bodies should have the possibility to decide which items can and which cannot be discussed. In brief, this means that attention should be paid to a proper preparation before starting a value-oriented planning process. It involves stakeholder search, farming an institutional context and content, and framing a process. The reason why this is so important will become clear in the next paragraph.

Just a last word before going over to the next paragraph. The method presented here is quite versatile in its use. It can be used either to conduct a real-time planning process with stakeholders. It can, however, also be used to prepare this real-time planning process. It is imaginable that responsible government bodies conduct an in-house value mapping



Different process environments framed by the disparity in power and differences in goals.

process, imagining themselves in the role of possible stakeholders. This will give them insights not only in the scope of relevant stakeholders that can be involved in the real-time planning process, but also gives them a possibility assess the variety of issues, positions and possibilities at stake. Finally, the Reality Check is a method that can be applied to all circumstances that require a reflective type of decision making.

6.5.2 Process environments

Framing the process before starting a value oriented spatial planning process is important. Aspects to be framed are (perceived) disparity of power among stakeholders and (perceived) disparity of interests and goals among stakeholders. The first issue deals essentially with the relationship between the stakeholders, the second one with their goals. The figure on the following page shows the relation between the two (adapted from B. Gray, 2004).

In each phase of the planning process, it is advisable to check the disparity of power and goals among the stakeholders, but especially so in the very beginning. Any of the environments depicted above, generates a different dynamism, that inevitably affects the depth with which spatial planning issues can be tackled. Here is a brief characterization of all environments.

Lamesly, North East

Volatile

In a volatile environment there are big differences in goals that stakeholders pursue, and they have big differences in power to get their views through. One can imagine that stakeholder who consider themselves to have little power, will not be very willing to cooperate, as they don't believe they can really make a difference. This is the situation many citizens find themselves in The Netherlands, they don't believe that government will listen to them, and they furthermore believe they have large differences of interest with government or other parties. So they don't show up or conduct sabotage. If a power-holding stakeholder, e.g. a municipality, is keen on having these citizens participate, it is evident that this municipality must be very transparent on how it will deal with the input of the citizens, and be very accountable, explain how input was handled, and what arguments have led to a rejection or admission of the input. NB: levelling out differences in power is not necessarily a prerequisite to work in a volatile environment. Government bodies have, in the end, certain responsibilities to watch over. First the integrity of powerful stakeholders should be dealt with, through a focus on transparency and accountability. The blue box provides some orientation as regards to the degree of influence and participation a public authority can give to stakeholders.

Suppressed environment

In a suppressed environment, equally big differences exists in perception of power differences, but stakeholders believe that goals are likely to match. It may also result in dropping out of participants, as they think their voice will not be heard, and their goals will be more or less taken care of. Yet, having similar goals doesn't mean that there are similar perspectives on how to attain these goals. Therefore, if a powerful stakeholder aims to include in spatial planning less powerful stakeholders, it should make very clear that there are various ways of arriving at a certain goal. Their creativity is needed. So, next to transparency and accountability, an emphasis on the creative capacities of stakeholders is essential.

Fragmented environment

In a fragmented environment, stakeholders believe they have a reasonably possibility to make a difference, perceived power differences are small. Yet, there are big differences in goals. This can easily lead to a very competitive environment, in which stakeholders struggle to get their opinion heard, but have no 'ear' for the position of others. Stakeholders are fragmented and don't come together. What is needed in this situation is clarity on the process: how and when will different views be enabled to put forward? Can all stakeholders express themselves in a way that is most proper to them? This clarity is needed to ease the nerves, and make stakeholders receptive to listening to each others views. This will often also involve an independent process leader, that moreover is able to intelligently compose a process. So, clarity and cleverness of process design constitute, next to transparency, accountability, and emphasis on the creativity and value of all contributors, a crucial element to successful planning for multiple land use.

PARTICIPATION LADDER

As a useful instrument to orient stakeholders in identifying levels of influence, a so-called participation ladder can be used. This ladder contains the following degrees of participation (adapted from Edelenbosch, 2000).

- Inform: interested actors only receive information;
- Consult: stakeholders may participate in the discussions, but the administrative body does not necessarily commit itself to the outcomes;
- Advise: administrative body commits itself to the outcomes of participation, and can only arrive at different conclusions when properly argumented;
- Co-produce: administrative body and stakeholders mutually agree an agenda of problematic issues to be dealt, administrative body commits itself to the outcomes regarding final decision;
- Co-decide: administrative body and stakeholders jointly decide on outcomes of participation, or accepts the outcomes of participation.

Design Zandwetering catchment area.

Collaborative environment

Finally, the collaborative environment. Differences of power are perceived to be small, and stakeholders believe there are little differences in goals. This is the environment where a diversity of views can co-exist, and where it is most likely to come to an open exchange on values people attach to different aspects of an area. It is in such an environment that most creative and integral solutions may be generated. An essential quality that should not be forgotten here is effectiveness. After some rounds of deliberations, decision have to be taken.

6.5.3 Fitting valuation in process environments

The value-oriented planning process for Multifunctionality we propose in this guidebook, moves towards a collaborative environment. That means that the method can be used in any of these environments, and not only in a collaborative one. However, working in any other area than the collaborative environment, demands more work in the preparatory phases of possible meetings. Special preparatory efforts must be undertaken, when there is a big (perceived) power disparity between the stakeholders. As said before, stakeholders must have a minimum of trust that their input and efforts are worthwhile, and that they can make a difference. In practice, there will often be a public body that has a lot of formal power. As such, this is no problem; yet, this public body must make clear what kind of input it will take on board, and how it will deal with suggestions and ideas it won't take on board. Therefore, it is of great importance that the planning process itself is agreed upon by all stakeholders involved, and that roles and

Zandwetering, Deventer.

responsibilities are clear. This usually implies interactive efforts prior to the actual operation of the valuation method.

However, it should be emphasized that the method can be very useful also in crisp environments, environments with a lot of tension, with big power differences, differences of interest and even when the positions of the involved actors are not clear and known. The principal precondition that should be met is agreement among the stakeholders on sharing a process of aspect-valuation together. Then they may come to understand each other better, and to come to an identification of issues to be resolved. See table 6.4 at the next page of this chapter for a comprehensive overview of the use of value-oriented spatial planning related to preparatory tasks.

Urban fringe zone Skinningrove, North East.

6.5.4 Preparation for fitting valuation in the planning process

Next table presents the preparatory steps planners should take, before starting with the methodology.

Table 6.4 Preporatory steps for applying methodology.

Steps	Partner search	Framing the institutional context	Framing the process
Activities	List the actors that have a possible stake to deliver	Specify the conditions to operate in the project.	A quick scan of the perceptions of the actors to involve.
		Define what issues can/should be discussed, what issues not?	Identify the so called 'troubled issues'
		identify own goals	Set up the standards of transparency, reciprocity and integrity
			Describe roles, responsibilities and levels of participation for all actors
			Define the process (timing, content and methodology of sessions)
			Create space for less powerful actors to identify the conditions under which they esteem reasonable to participate in the project, and incorporate the outcome in the final process design
			Organise a kick-off meeting to explain the methodology to stakeholders
Outcomes	An overview of actors to be involved / invited	The institutional frame	The process definition

6.5.5 Conclusion

Summing up, the value-oriented planning methodology presented in this guidebook can be applied in a variety of ways. Yet, it performs best in the following conditions:

- Best at the start of a project or planning exercise, when a lot still has to be defined.
- It can be used within an administrative body, in order to get a feel for the range of stakeholders, and their views.
- When there is a minimum of willingness among stakeholders to express their views and listen to those of other stakeholders. This is often the case when stakeholders recognize that without the help of a structuring method, they won't be able to oversee the 'mess' they are in.
- When there is a minimum of faith that the view of the less potent stakeholders will be taken into account.
- When stakeholders feel there is a need for an evaluative break during the project or at the end of it, in order to draw lessons for the remainder of the project or other future projects.
- As a final check for a chosen plan, to see if and which values have been incorporated.

6.6 Valuation the missing link to Multifunctionality

The analysis of the struggle of the planning approach to come to spatial quality by applying Multifunctionality, described a number of activities which should be part of a new approach (see section 4.4.3). We can conclude that the presented methodology is suitable in all kind of stakeholder settings, because it ignores power relationships. Furthermore it helps to identify the context by offering all kinds of viewing angles to the land use of the urban fringe zone. Also it focuses on the core qualities of the area which rise from stakeholder discussions on the main values. And it gives insight into conflicts and interests, exposing the motives of stakeholders for the land use they desire. Therefore, this guidebook will contribute to the efforts for developing an effective contributing approach for Multifunctionality.

7 Socio-economic Benefits of multiple landuse

SUMMARY

Plans to upgrade urban fringe zones by Multifunctionality often don't come into practice, or don't lead to the desired results. This is the case because it costs a great deal of effort and money, results are uncertain, some benefits are long term and hard to put to money and often the investors are not the ones who directly benefit. Besides that, the traditional planning process is not suitable for multifunctional landuse.
The strategies thus far used to overcome the problem of raising money have been labeled 'Buy a Volvo' and 'Cheese slicing'. They are not generally applicable. This chapter therefore introduces a new strategy, called 'Let's build Paris'.

7.1 Introduction

Given the limited space, combined with the lacking spatial quality, Multifunctionality is a necessity in urban fringe zones. This sounds dramatic, but is in fact a blessing in disguise, since it offers the chance to solve existing problems and to make the most of given opportunities. Through Multifunctionality, it is possible to create a highly qualitative and sustainable environment. More and more administrators and civil servants acknowledge this, and they want to upgrade urban fringe zones by applying the concept of Multifunctionality in their plans. However, these plans often don't come into practice, or don't lead to the desired result. By means of workshops, brain-storm sessions, literature study and case studies, we have tried to discover the mechanisms behind these failures.

When we started our research, we assumed money was the main problem. We knew realising Multifunctionality takes a lot of effort and requires high investments. The results are uncertain, some of its benefits are long term and hard to put to money and often the ones investing the money aren't the ones who directly benefit. Therefore decision makers and other stakeholders are reserved to fund the development of urban fringe zones. All these things are true, but we found out that the central issue is the process by which governments try to implement Multifunctionality. Traditionally, developing an area is a straightforward process. A plan is created, funds are raised, contractors are hired and the plan is executed. This process is very effective in realising a small number of functions in an area. However, it doesn't work well with Multifunctionality.

The first problem has to do with the multiplicity. In Multifunctionality, there are many stakeholders involved, each with their own interests. When a stakeholder is confronted with a complete plan and feels its interests are not well represented in that plan, he will not cooperate, will certainly not invest and may even start legal proceedings against it. The more stakeholders, the bigger the chance of stepping on someone's toes. And even if a stakeholder doesn't feel put down by the plan, he will not be inclined to invest in items that are outside his field of interest. This brings us to the second problem. Functions like water storage, nature and scenery, which can greatly enhance spatial quality in an urban fringe zone, don't directly generate money and therefore often come at the bottom of the list. The third problem is that the well established instruments traditionally used for validating these 'imponderables', Multi Criteria Analysis and Social Costs and Benefits Analysis, are not suitable for Multifunctionality. The main reason is that these instruments are based on the principle of cutting down costs and benefits into a number of unrelated items (which is essential for an objective comparison). While Multifunctionality is based on the principle of increasing benefits by integration, and therefore puts a great emphasis on the relations between functions and projects. A fundamental difference.

SUMMARY

It takes time, effort and money to realize Multifunctionality. However, it provides a high spatial quality and effective use of space, cooperation between stakeholders and is cheaper in the long term. Hidden benefits are the disasters that did not happen.

We have come across two strategies to overcome the problem of raising money. The first strategy is called the 'Buy a Volvo strategy'. The second strategy is called the 'Cheese slicing strategy'. Both of these strategies have their pros and cons, and are not generally applicable. We have therefore developed an alternative strategy, called the 'Let's build Paris strategy'. The Let's build Paris strategy differs from the other two in the way that it breaks with the traditional sequence of making plans, involving stakeholders, developing an area and finally maintaining it. In the Let's build Paris strategy, stakeholders develop a shared vision, and then immediately start with actual projects.

7.2 Costs and benefits of Multifunctionality

7.2.1 Costs

From a socio-economic point of view, there are two aspects of multiple land use that collide with the way things are organised at present. Firstly, multiple land use requires high investments that will (partly) profit in the long term, or doesn't have direct tangible benefits. For example, creating a pathway next to a river can facilitate mowing and dredging as well as stimulate hiking, but costs money. Secondly, the profits don't always directly benefit the investors. Given the fact that there are several parties involved, and that some of the benefits are not tangible and hard to monetarise, it isn't hard to understand that raising the necessary funds to realise Multifunctionality is not an easy task. Politicians think twice before making decisions that will cost their voters a lot of money, since election time is always nearby. Developers are primarily focused on short term profits. Farmers are afraid of changes that

Urban fringe zone Zandwetering, Deventer.

may force them to close or change their business. This demands a great effort in creating trust and building cooperation between stakeholders.

7.2.2 Benefits

The main goal of Multifunctionality in the urban fringe zone is to increase spatial quality by solving a number of problems inside and outside the area and to make optimal use of the space the fringe zone offers. A mono-functional area is transformed into an area in which functions like housing, industry, farming, water, green and recreation are combined. The result is an improvement of the spatial quality. This is in fact the biggest social-economic benefit. It creates work, attracts investors, increases land prices and has an overall positive influence on the surroundings. The process that is involved in achieving Multifunctionality, also has benefits. Multifunctionality can only be accomplished when all parties involved work together. In order to do that, they have to trust each other. Since these parties have different interests at heart, this trust has to be earned and its value should not be underestimated. Once a bond between the stakeholders is created, the threshold for future cooperation is lowered. In other words: next time, it takes less time (and money).

An increased spatial quality and a promise of smoother cooperation in the future do have an economical (though often not a monetary) value, but are in itself not conclusive arguments in favour of Multifunctionality. However, there is one other appealing economic aspect: in the long run, it is cheaper. This has everything to do with maintaining a high spatial quality, something we will explain in paragraph 7.4.3.

Urban fringe zone Zandwetering, Deventer.

SUMMARY

Multifunctionality of an urban fringe zone creates a complex dynamic system. In such a system, there are different states of preference, called attractors. These attractors are separated by a theoretical plane called the separatrix. Because attractors are stable states, it takes energy to cross the separatrix.
For an urban fringe zone, both a low spatial quality and a high spatial quality act as an attractor. Coming above the separatrix will result in an urban fringe zone with a high spatial quality, getting below the separatrix will result in a low spatial quality. Breaking through the separatrix takes a lot of energy and money, but it can be done.

7.3 Attractors and separatrix in Multifunctionality

7.3.1 Multifunctionality as a complex dynamic system

Multifunctionality of an urban fringe zone creates a complex dynamic system. In order for people, animals and plants to live together in a small area, a lot of things have to be organised. Traffic has to be regulated, garbage and wastewater must be disposed of, infrastructure has to be maintained, and so on. Such a system has different states of preference, called attractors. An attractor can be defined as a stable dynamic pattern (Geldof, 2002).

Attractors are often described in terms of phase space. The phase space of a system is the collection of possible states of behaviour for that system. The phase space of an area consists of the (indefinite) number of possibilities for (multiple) landuse. In phase space, an attractor is found in a field of attraction that is separated from other fields of attraction by a separatrix (see figure 3.1). Once a system has launched the development in the direction of a certain attractor, it is unlikely that it will later develop in the direction of another attractor. Thus, despite an indefinite number of possibilities for (multiple) landuse, the development of the landuse restricts the number of possibilities. However, since the development is an attractor, it is hard to reach a desired type of (multiple) landuse if this landuse is out of the range of the development. It takes a lot of effort to change a development. The separatrix is the boundary to cross to reach another domain of possible landuse. To reach the desired type of landuse. This guidebook has the aim to support planners to cross the separatrix and turn a decline of spatial quality

Schematic presentation of two attractors and their separatrix.

into an increase of quality by multiple landuse. No doubt, this will cost a lot of effort. But, there is also a hopeful message. Once multiple landuse and consequently spatial quality is common, it requires little effort to guide this development.

The separatrix is not often a measurable or calculable plane. It is the theoretical plane between two attractors. Because attractors are stable states, it takes energy to 'push' a system through the separatrix. There are plenty of examples to demonstrate this principle. One example everybody will recognise is that of the teacher and his class. If a teacher fails to keep order on day one, he or she will have great difficulties in maintaining order for the rest of the year. But if the teacher earns the student's respect from the start, it is unlikely things will get out of hand.

For an urban fringe zone, both a low spatial quality and a high spatial quality act as an attractor. If the spatial quality of an area is high enough from the start (above the separatrix), users respect the environment, maintenance is easy, investors are interested, and so on. If the spatial quality of an area is too low from the start (below the separatrix), users are unsatisfied, people get careless and investors lose interest. In other words: coming above the separatrix will result in an urban fringe zone with a high spatial quality, getting below will result in a low spatial quality. Breaking through the separatrix takes a lot of energy and money, but an example in Malmö shows it can be done. In Malmö, the district Augustenberg dealt with a low spatial quality. A lot of houses were unoccupied, the housing corporation did not want to invest in the area and the district was going downhill. Despite this fact, the city council decided to invest in an attractive water system. The spatial quality improved and people started to buy houses again. Soon the housing corporation started to invest too, and now the district is very beautiful indeed.

7.3.2 How to come above the separatrix?

In our research, we have come across different ways to realise coherent multiple land use. In this guidebook, we have worked out two extremes, which we call the Cheese-slicing strategy and the Buy a Volvo strategy. The Cheese-slicing strategy does not achieve a high spatial quality, it stays below the separatrix. The buy a Volvo strategy stays above the separatrix, but at high costs on short terms and without direct participation of the different stakeholders. Also, we have developed an alternative for these strategies, which we call the Let's build Paris strategy. This strategy focuses on getting above the separatrix, while avoiding high initial costs and involving the stakeholders in the process of reaching and maintaining a high spatial quality.

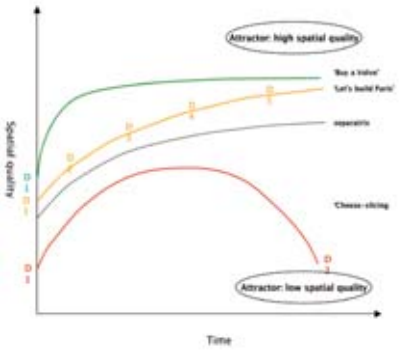
In the figure along side, we have put the three strategies together with the attractors and the separatrix. All strategies start with a decision (D1). This is the decision to use a particular strategy (involving certain investments). When decision makers decide to use the Buy a Volvo strategy, they are sure there will always be a high spatial quality that takes huge investments. When using the Cheese-slicing strategy, they know it will take far less money in the short term, but also know that in

SUMMARY

How to stay above the separatrix?

- The first blow wins the battle;
- The first blow is half the battle! The first investment must be high enough to get above the separatix;
- Clearly name uncertainties and risks involved;
- Create enthusiasm and build upon it;
- Check if projects contribute to a high spatial quality. Each project can be regarded as a point of decision;
- Regularly reflect with decision makers and other stakeholders upon the state of the area.

Augustenberg, Malmö



The three strategies in relation to the attractors and the separatrix.

time the spatial quality will drop and new investments will have to be made. At that time, they will have to decide to reinvest (D2). In the Let's build Paris strategy, the goal is first to get above the separatrix and then to stay above it, without investing large sums of money. This means investments must be made to achieve a high initial spatial quality from the start (D1). Stakeholders are invited to invest in projects. Realising these projects offers the opportunity to celebrate success and creates enthusiasm. They are used as a springboard to convince other investors to join in (D2...Dn). A high spatial quality within an urban fringe zone will sell itself. As the economists say: 'Those who have, will get...' We believe that to be above the separatrix acts as a self-full-filling prophecy. Commitment, enthusiasm and trust form the base. When other stakeholders than the government are willing to invest in activities that increase the spatial quality, the area is selling itself. If decision makers are aware of the separatrix and its mechanisms, they can evaluate the process as well as projects to make sure that the desired end result will be reached. The value-orientated planning process as elaborated in chapter 6, offers instruments to arrange a planning process which results in a spatial quality above the separatrix.

7.4 Traditional ways to realise multiple land use

7.4.1 Introduction

The way things developed in the case of the area Leegkerk / Dokwerd (North-west of Groningen in The Netherlands) are a fine example of how difficult it can be to realise multiple land use. The region has many problems. Historically it is a farming area, but economic prospects are bad and now many farms are occupied by commuters who work in Groningen and regard their farm as a hobby. It is an open landscape, which could be attractive for hikers and bikers and contains terps (mounds), a cultural heritage. However, the area is enclosed by the highway Groningen-Amsterdam and the Van Starkenborgkanaal and since there are no recreational routes the accessibility is poor. In addition, the area contains a depot for storing contaminated soil, the neighbouring north-west part of Groningen has problems of its own and the development of housing estates threaten to take up space.

It was clear that action had to be taken. In 2000 a study was conducted and a plan for multiple land use was launched. But even though the area offers opportunities for a combination of recreation, water retention, extensive habitation and conservation of a typical Dutch landscape, this plan was never executed. The water board, the city of Groningen and the Province of Groningen could not agree on who was to be the lead partner and how the money could be obtained.
In our studies, we have come across different methods governments use to establish multiple land use. From these methods we have distilled two extremes, which we have, as an overstatement, named the 'Cheese slicing strategy' and the 'Buy a Volvo strategy'. Different though these strategies may be, they have two things in common. First, they fit within the traditional planning sequence of planning, designing, developing and maintaining. Second, they focus primarily on the result, not on the process.

7.4.2 'Cheese-slicing' strategy

When confronted with tight budgets, planners often use the Cheese-slicing strategy. With this strategy, the focus is on (the lack of) money, while sacrificing spatial quality. As much as possible is done according to plan, but as cheap as possible. Everyone involved tries to save money in order to make money, hiring contractors that hire sub-contractors, employing cheap labour and using cheap materials. In this survival of the cheapest, often no one has an overview and stakeholders are not working together to achieve their goals. Another feature of this strategy is that costs are reduced by removing parts of the solution. This results in a low spatial quality throughout the entire process and a less than desired end result (see the figure along side). One way to look upon this, is to regard Multifunctionality as a house of cards. While many of the cards are interconnected, they make a stable whole. However, if some cards are removed, the house becomes unstable. Remove too many cards and it will lead to a progressive collapse.

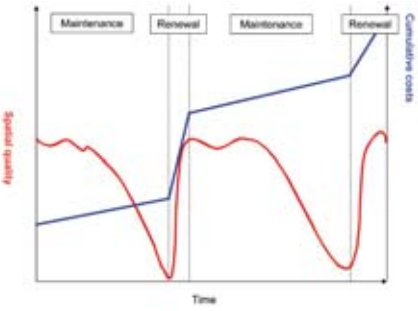
The cheese-slicing strategy does not give the initial thrust needed to get above the separatrix, and the phase space of the urban fringe zone comes within the field of attraction of a low spatial quality. The thing to keep in mind, is that there is no linear relation between investments and spatial quality. 80% of the necessary money will not lead to 80% of the spatial quality. If the obtained spatial quality of a region is too low, maintenance will not suffice to uphold it and spatial quality will decline as time passes. This creates a feeling of 'taking one step forward, slipping two steps back'. A drop in spatial quality calls for renewal, which requires high investments in terms of effort and money. If renewal leads to a spatial quality about as high as the initial spatial quality, in time it will drop again and the cycle will repeat (see the figure along side).

A striking example of this process is what happened in a housing estate called De Leigraaf in Westervoort (Holland). This estate was built on former agricultural ground nearby a large river, the Nederrijn. No drains were applied, but instead the ground was raised by applying sandy soil. The applied soil did not have the required quality and inhabitants immediately faced the consequences: water nuisance in gardens and crawl spaces. To solve the problem, drains were applied, but to lower the costs the original design was down-sized. This also didn't work. Research lead to the conclusions that the soil was not penetrable enough for water to pass. Drains were sometimes placed too high, the drain capacity was too low and in several spots drains were clogged. The contractor made repairs and cleaned some drains, but the situation only slightly improved. In the following years, drains were connected to the sewer, disposing of clean water as wastewater. The latest research suggests that as a final solution drains must be applied to a large area of the estate, which requires a considerable investment. In the meantime, inhabitants have had to deal with water nuisance for over 20 years.

SUMMARY

The Cheese-slicing strategy is a well-known strategy, which requires relatively low investments and involves an easy process. Costs are reduced by taking away parts of the solution, employing cheap labour an and using cheap materials. However, it leads to a low spatial quality, which will drop in time and which results in periodic renewal at high costs. Stakeholders are passive and there is not much governmental control.

Saving money by cutting down on quality or removing parts of the solution.

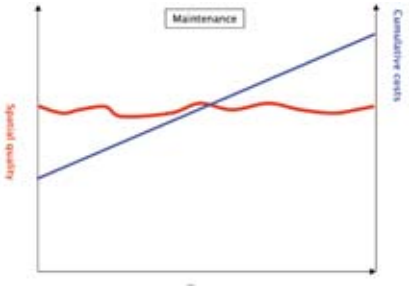


The consequence of low spatial quality: periodic drops followed by periodic renewal.

SUMMARY

With the Buy a Volvo strategy, by making the necessary investments a high spatial quality is established. This results in a high spatial quality and saves money in the long term. Since the government makes the required investments, it has a lot of control and the process is easy. However, this type of planning leads to an inflexible situation and leaves no room for stakeholders to interact.

A high spatial quality throughout the entire process by means of high investments.



4.4 After large investments spatial quality remains high through maintenance.

7.4.3 'Buy a Volvo' strategy

Some planners are aware of the fact that in the long term, it is cheaper to uphold a high spatial quality, than to periodically invest in upgrading a declining spatial quality. In that case, the government may choose to play a central role in spatial developments and execute a lot of control. It can invest the necessary money and can constantly keep a finger on the pulse. This result in a high spatial quality throughout the entire process and in realising the intended end result (see the figure along side). Since the accomplished spatial quality is high, maintenance is relatively easy and adequate and users respect the surroundings and are therefore inclined to self-maintenance. As a consequence, the spatial quality remains high and expensive periodic renewal is not necessary (as illustrated in the figure along side).

With this strategy, the focus is on spatial quality, regardless of the costs and often seen from the government's point of view. In other words, the buy a Volvo strategy gives a huge impulse to get above the separatrix, so the phase space of the urban fringe zone comes within the field of attraction of a high spatial quality.

It's like buying a Volvo: it costs a lot of money, but you get a great car that will last a lifetime. But as in ordinary life, not everybody can afford a Volvo. And not everybody wants to drive one for the rest of their lives.

7.4.4 Intermezzo: MCA's and SCBA's

To help decision makers to make choices in complex situations, tools have been developed. Two well established tools are the Multi Criteria Analysis (MCA) and the Social Costs and Benefits Analysis (SCBA). Both these tools are aimed at facilitating the choice between alternatives. They both use a verifiable method to describe alternatives in the same unit, making comparison possible between beforehand incomparable aspects, like for example money and ecology.

Though MCA's and SCBA's can be valuable tools for decision makers, they have some built-in disadvantages:
The first problem lies in describing costs and benefits in one basic unit. Costs and benefits of measures can differ considerably, it's not always possible to quantify them and even when they can be quantified, it may not be in the same (economic) unit. It is easy to calculate the costs of building and maintaining a bridge. It's difficult, but possible to calculate the sales that come from an increase in recreational activities. It's impossible to calculate the worth of a child's smile when mom buys him an ice-cream in the park.

Even though the methodology itself is objective and verifiable, the (subjective) party that performs a MCA or SCBA has a big influence on the outcome. MCA's and SCBA's are tools that have to be applied by professionals. Decisions based on these instruments however, are made by civil servants and administrators. The choices and nuances that are made when using an MCA or SCBA are often lost when the final decisions are made.

Despite their disadvantages, MCA's and SCBA's are very useful when it comes to relatively small projects where it is easy to see the whole picture. When dealing with Multifunctionality, a complex situation where no-one has complete overview and the exact outcome is not clear, they will not suffice. First, MCA's and SCBA's cut down costs and benefits into a number of unrelated items. Overlap between these items would lead to double counts and is therefore not allowed. In contrast, Multifunctionality is based on the principle of increasing benefits by integration, and therefore puts a great emphasis on the relations between functions and projects. Another reason is that these tools have been designed to compare alternatives. When it comes to Multifunctionality, often a single vision is created and there are no alternatives to compare.

The thing to keep in mind when thinking about applying multiple criteria analysis and societal costs and benefits analysis is that Paris would not have been built if these instruments were used. No Eiffel Tower, no Champs-Elysées, no Arc de Triomphe, simply because the costs would exceed the calculated benefits. And yet Paris is a beautiful, flourishing city which attracts millions of tourists every year. Because Paris was not built from scratch by calculating administrators; Paris has developed through the years. This brings us to the core of our alternative to the Cheese slicing and Buy a Volvo strategy. When your goal is a high spatial quality through Multifunctionality, do not work out a detailed plan that is hard to realise because it has to be financed. Take one step at a time towards a shared vision, with confidence and enthusiasm. Let's build Paris!

SUMMARY

Multi Criteria Analysis (MCA)
The goal of a MCA is to attribute a score to each alternative. By means of giving weights to qualitative and quantitative criteria and by using specific counting rules, a conveniently arranged overview of alternatives can be presented.

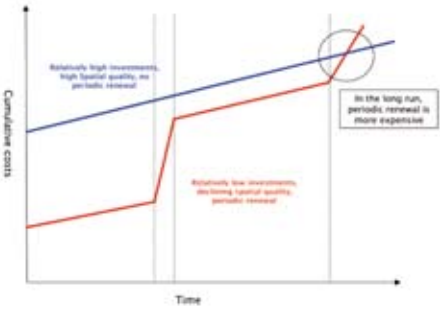
Societal costs and benefits analysis (SCBA) By means of giving monetary values to costs and benefits, a conveniently arranged overview of alternatives can be presented. The scores are added up, and when the benefits are larger than the costs, the project is societal profitable. In this way, it is possible to give insight in the social, cultural, physical and historical yield.

Ouseburn, Newcastle

7.5 ‘Let’s build Paris’ strategy

SUMMARY

In the Buy a Volvo strategy, a high spatial quality is realized with huge investments. In the Cheese-slicing strategy, money is saved in the short term, but in time the spatial quality will drop and new investments will have to be made. The Let’s build Paris strategy aims at making a first investment that is just high enough to get above the separatix. Once above the separatrix, it acts as a self-full-filling prophecy. Commitment, enthusiasm and trust form its base.



In the long term periodic renewal is more expansive than upholding a high spatial quality.

7.5.1 Introduction

When we compare the Cheese slicing strategy with the Buy a Volvo strategy, we learn an important lesson. In the long term, a high, maintainable spatial quality will be cheaper than a low, declining spatial quality that requires periodic renewal (as illustrated in the figure along side). So a high spatial quality should be the main focus for an urban fringe zone, from the view of its users, as well as from the view of investors.

In the Buy a Volvo strategy, large investments are made to acquire a high spatial quality. But not all governments are willing or able to invest large sums of money. Besides that, the result is so definite that once a plan has been realised, the developed area will remain that way for years to come. Regardless of changes in neighbouring regions, ideas, population or climate. It has cost too much money to make big changes. So the ideal strategy would be one that leads to a spatial quality that is high enough to maintain, does not require large investments and provides flexibility. With the Let’s build Paris strategy, we claim to have developed just that.

7.5.2 Let’s build Paris

As explained, an urban fringe zone either ends up in the field of attraction of a high spatial quality, or in the field of attraction of a low spatial quality. The ‘trick’ is to get into the right field, staying just above the separatrix in the beginning. The first blow wins the battle. If the blow is

hard enough, you're heading towards the right attractor. But since the separatrix is not a measurable unit, how can you be sure you are on the right side of the line? Well, this is where the rule of thumb comes in that economy consists of 20 percent money and 80 percent feeling. People know when they are on the right track. It has to do with co-operation, trust, keeping an open mind and sticking one's neck out. A fine example of sticking one's neck out is the commission of the Angel of the North by the Gateshead Council.

The Angel of the North has been created by Antony Gormley and is Britain's biggest sculpture. It is at the entrance to Tyneside. The Angel was built in 1998 and earmarks the site of former pit head baths. On this site, mining ceased in the late 1960s, leaving a relatively deprived area. The sculpture cost almost £ 800.000 and was therefore very controversial. However, now it is considered a landmark for the north-east of England, visited by over a 150.000 people a year. It has lured a great number of companies to Tyneside (A1, Angel of the North is a great way to let your customers know where to find your company).

The greatest obstacle in following the Let's build Paris strategy is that it is not (yet) common practice. It requires a different way of organising spatial developments. So governments have to be convinced, resistance among stakeholders has to be overcome, systems have to be transformed. This calls for a transition, a social transformation that takes a long time (often more than a generation) to establish. Basically, the Cheese-slicing strategy is bound to achieve a low spatial quality and the Buy a Volvo strategy is certain to achieve a high one. The Let's build Paris strategy is all about dealing with uncertainty.

SUMMARY

The Let's build Paris strategy aims at achieving a high spatial quality at a minimal costs. This saves money in the long term and actively involves stakeholders.
Participants have to deal with uncertainty, it takes a lot of effort and is not yet an established strategy. For the Let's build Paris strategy to be effective, three requirements must be made.

- Stakeholders must reach a shared perception of the problems;
- They must develop a common basis for solutions;
- Cost and benefits of these solutions must be distributed among the shakeholders.

The Angel of the North.

The Let's build Paris strategy breaks with the traditional sequence of government-made plans, negotiations with stakeholders, developing an area and finally maintaining it. In the Let's build Paris strategy, stakeholders first develop a shared vision, the 'Grand Design' (not a detailed plan!), and then immediately start with actual projects. Within the framework of the shared vision, professionals from water-boards, provinces and cities develop and execute ideas for the urban fringe zone, in cooperation with inhabitants, companies and the middle class. Stakeholders aren't bound by the limitations of a fixed plan and can get enthusiastic about real projects. There is no longer a fixed sequence of planning, designing, developing and maintaining, but these stages run parallel to each other. There is constant interaction between practice and study, maintenance and design.

In order for the Let's build Paris strategy to be successful, the initial investments must lift the spatial quality above the separatrix. The first step to success is taken by creating commitment, trust and enthusiasm amongst stakeholders, who share a vision about the direction in which an urban fringe zone should develop. The second step is a continuous process, involving the stakeholders working together in actual projects and dealing with uncertainty and risks. In this step, it is essential to keep in mind that the spatial quality is high enough if the mechanism works and stakeholders remain enthusiastic and active. It is, in fact, a self-fulfilling prophecy.

The Let's build Paris strategy is not a recipe. It is an interactive process in which stakeholders communicate, learn from each other and work

Peizermade, Groningen.

together in order to achieve their common goals. It's all about dealing with uncertainty, mutual dependency and investing in each others interest. To establish the necessary trust between the stakeholders, the three basic efforts have to be met. How this works out in practice is demonstrated in the case study of Masterplan Zandwetering and the development of Gooiermars near Deventer, Holland. (See chapter 8).

7.6 Recommendations

As stated earlier, the Let's build Paris strategy is a new approach to spatial developments. It puts a lot of emphasis on the process and has to deal with uncertainties. It relies heavily on the participation of stakeholders and a shared belief in success. If economy consists of 20 percent money and 80 percent feeling, the strategy focuses more on the 80 percent. Money, of course, will always be necessary to achieve a spatial development. To increase the chance of success, the following recommendations are made:

- Create commitment from the beginning. The first blow wins the battle, so it better be good. One way of doing this, is to ask a financial commitment from all stakeholders;
- Especially in the beginning of the multi-functional development of an urban fringe zone, it is necessary to keep the momentum. Therefore, having regular meetings and making actual decisions is essential;
- Calculate long term costs. To be able to distribute the costs and benefits, costs have to be known. Honesty and openness are essential for the process;
- Combine budgets and make use of subsidies.

Decision makers (governments) should not try to control the entire process, but should leave commercial partners the opportunity to make use of chances that occur. Quality can be used as a distinguishing feat. The government could guarantee a minimal spatial quality and invite other stakeholders to lift it to a higher level.

When commercial partners play a part in maintaining an area, they will be inclined to make sure the spatial quality is high from the beginning.

Urban fringe zone Zandwetering, Deventer

8 Practical experiences

SUMMARY

The Zandwetering zone is a rural area in transition. The Municipality of Deventer and the Groot Salland water board have developed the Zandwetering Master Plan to create an attractive and distinctive urban fringe zone. Part of this Master Plan is the Gooiermars, the source area of the Zandwetering. The Gooiermars area is under spatial pressure, being a farming area with a potential for water storage, ecological development and recreational activities. The Masterplan Zandwetering has served as a case study for developing and testing the methodology. In several workshops the added value of the methodology is also tested in the other PURE projects

8.1 Introduction

The Zandwetering, as one of the four PURE cases, has served as laboratory for the development of the methodology for Multifunctionality. Before the PURE project started, the municipality of Deventer and the water board Groot Salland started to think of Multifunctionality for this urban fringe zone, resulting in the master plan Zandwetering. The research has profited from the learning experiences of the process which has led to the master plan. The methodology is developed by looking back and evaluation.
This chapter starts with a short description of the Zandwetering case. Next, the introduced methodology in chapter 6 will be illustrated for the Zandwetering and the other PURE pilot projects: Groningen Westrand, Newcastle Great Park and Götenborg Klare Mosse.

8.1.1 General description of the Zandwetering

The Zandwetering is an as yet unremarkable watercourse in the shelter of the urban area. After springing up in the natural environment of the Gooiermars, it follows its way through the rural area around Schalkhaar to the edge of the Keizerslanden quarter, leaving the municipality of Deventer past and through Diepenveen, and finally flowing out into the IJsselmeer at the 'Zwarte Water' near Zwolle. The Zandwetering was primarily set up as drainage for the agricultural area and is of little natural interest. Moreover, the current usage possibilities for the population of Deventer are small.

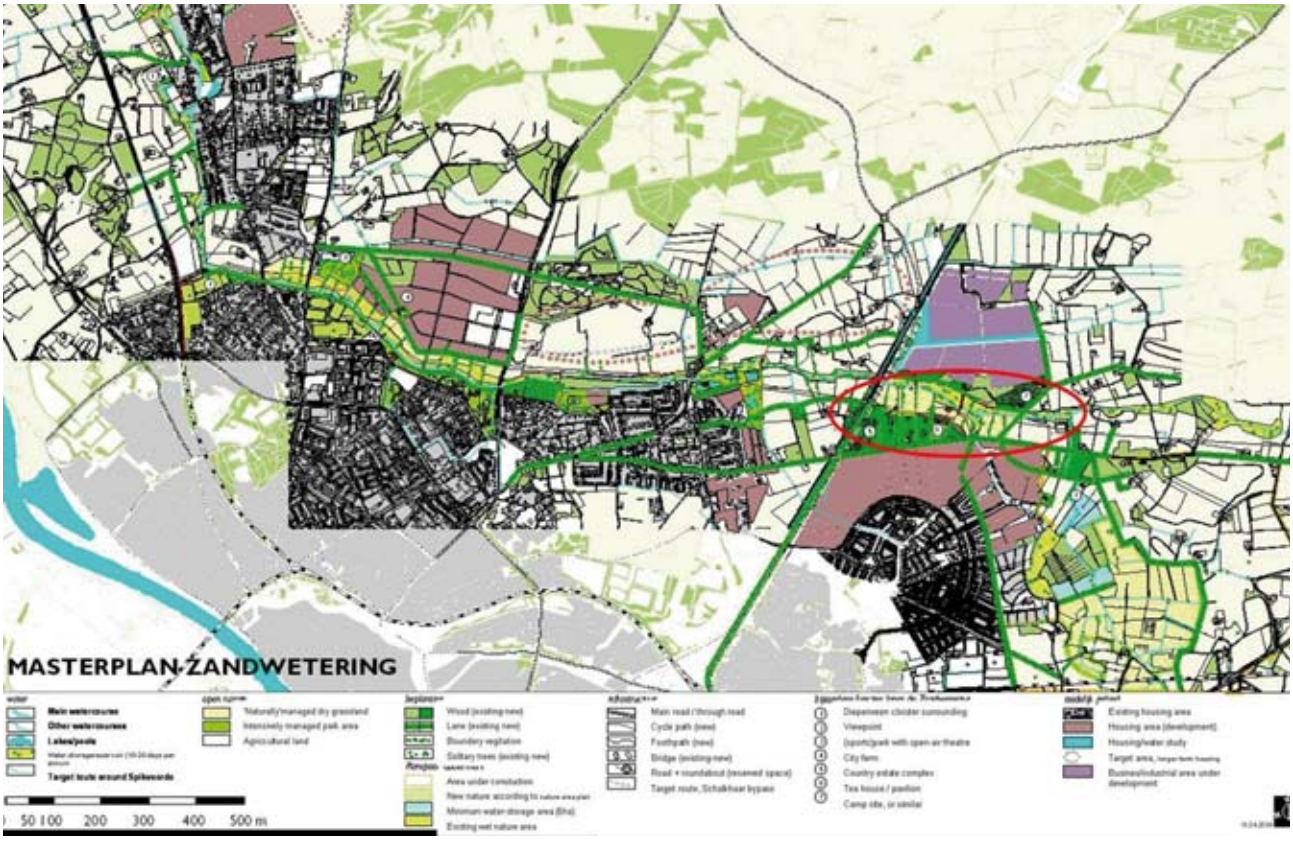
Urban finge zone Zandwetering, Deventer.

The Zandwetering zone is clearly a rural area in transition. In a number of places, the city has grown right up to the banks of the watercourse. A variety of urban influences are already being felt in the area. In the Gooiermars, there is an emphasis on landscape and cultural heritage as well as nature. Farming has a lesser emphasis here. In the flanks of the zone around the Zandwetering, the land-based agriculture has a sustainable position (where not in contact with urban growth). This sustainability is combined with special attention for landscape and cultural heritage. Under the influence of the growing city, the area to the north of Deventer will be transformed further.

Deventer wishes to capitalize as much as possible on the many developments underway on the border between the urban and rural area, and to provide for synergy between city and countryside. The Municipality of Deventer and the Groot Salland water board have created the Zandwetering Master Plan to accomplish this. The goal is to create an attractive and distinctive area in which recreation, a sustainable water system, nature and agriculture come together. The Zandwetering zone will gain significance for the neighbouring districts, the city as a whole and as a regional link for cycling and walking.

The theme of water is the basis for the planning of the Zandwetering, with the restoration of the natural water system as an important objective. Within the Master Plan, another objective is the development of a sustainable urban periphery, in which a variety of functions alongside each other are given a place that fill a role for the residents of both the urban and rural areas. The plan development is being carried out

The masterplan of the Zandwetering.



according to an intensive trajectory in which residents, users and institutional parties play an important role.

Stakeholders with a strong voice in the planning are the municipality and the water board. By restructuring the Zandwetering they can satisfy policy goals on recreational area or water storage. Stakeholders who oppose to alter the use of the Zandwetering are farmers, since adding new functions to the Zandwetering will probably result in hand over their land. But these important stakeholders are not the only ones: organised inhabitants, the fish club and NGO's. The planners of the Zandwetering have organised a participative planning process in which different stakeholders were able to discuss their stakes in the urban fringe zone. In the end, this has led to the fact that stakeholders know the plans and the most participants are enthusiastic about it.

8.2 Case 'Gooiermars'

The Gooiermars – the source area of the Zandwetering – is a hollow enclosed by high ridges of drifting sand. By Dutch standards, the vertical differences are extreme. The landscape is characterized as a mosaic with meadows dotted with copses of trees, thickets and wooded banks and groves. In this area, there are a variety of viable commercial farms. It is this diversity that makes the area so attractive. Because the area is not opened in an intensive way, recreational use is modest.

Implementation plan Zandwetering, Deventer.

The Gooiermars is historically a wetland area. Over the years, many watercourses have been dug to drain the area and make it suitable for agriculture. The water quality is high, making the area suitable for the province's standard of 'quality water.' The seepage water is clean, low in nutrients and hard (calcareous). Due to the high-quality seepage and isolated location, the area has extreme potential for seepage-dependent ecologies. For this reason, in its Nature Reserves Plan, the province has proposed the development of new nature reserves in the Gooiermars.

In conclusion, the Gooiermars area is under spatial pressure. There needs to be more room for water storage, there is a high potential for valuable ecological development and inhabitants of the adjourning residential area 'De Vijfhoek' like to recreate in the area. The next two examples demonstrate that the methodology helps to come to ideas on multiple land use, based on valuation.

The Gooiermars, Deventer.

8.2.1 Water storage

Step 1 Value mapping

The first step is to map the values hold by the stakeholders. The values express the problems and qualities they perceive in the Gooiermars area, related to water storage.

Aspects	Water Board	Municipality	Farmers	Citizen
Physical aspect	The quickened discharge of water of rural and urban areas causes flooding downstream.		The rise of the groundwater level will have a negative impact on the growth of crop and makes the work on the land harder.	
Chemical aspect	Manuring the land and CSO's cause an increase of pollutants in the receiving waters			
Biological aspect	The salamander needs wide green corridors around water courses to change from habitat.	More biological diversity in the vicinity of the city is good.	Pesticides will protect land production from harmful insects.	Quiet and shallow waters attract mosquito's.
Social aspect		People are attracted by water. This offers possibilities for recreational activities.	Visitors are not welcome on the property, because they may spread diseases for the cattle.	The water side is a nice place to walk and to meet people.
Economic aspect	The purchase of (rural) land for water storage requires high investments for buying land. The benefit is that water storage upstream will prevent damage by flooding downstream.	A park in the urban fringe zone will invite citizen to recreate nearby and contributes to the attractiveness of our city. This may attract new people to move to our town which will in the end feed the municipal accounts	Profits rise with an improvement of the productive capacity of the land. An enlarged watercourse and extra land crossing visitors make it difficult to attain productivity	An attractive water course nearby my house, will increase its price.

Aspects	Water Board	Municipality	Farmers	Citizen
Legal aspect	National policy obligates the water board to reserve more space for water storage. The EWFD prescribes norms for the maximum load of pollutants in the water system	The municipality is obliged to involve citizen in planning	Farmers must reduce the spread of nitrates in the environment (nitrate directive).	
Aesthetic				An attractive environment nearby, improves the happiness of people.
Moral aspect	The water system must be sustainable and function properly.	Development of the urban fringe zone must serve the public interest of the inhabitants of our town.	Farmers must be able to make a living to their families.	We want to be involved when public authorities plan to alter our living environment.

This value map gives a basis under discussions on the desired type of land use. Stakeholders understand each others motives for what they want to achieve in the Gooiermars. This essential outcome is of most importance for developing ideas on the (multiple) land use.

Different values may lead to conflicts on the desired type of land use. The challenge is to combine different values as much as possible in ideas for Multifunctionality or otherwise to choose between values. The next table shows a short analysis of the conflicting values for creating water storage in the form of a retention basin in the Gooiermars area.

Stakeholder	Argument	Aspect	Value
Water Board	More space for water storage is essential to prevent flooding downstream	Legal Logic Physical	• National policy obligates to create more space for water. The water board is held responsible for finding and implementing water storage. • Water storage prevents quick discharge of water and thus flooding downstream. • A retention basin must be near to a water course
Municipality	The claim for water storage must be in balance with the claim for other types of land use and the final result must improve spatial quality as much as possible. An integral decision is necessary.	Moral Economic	• The municipality is responsible for a decision between different (and conflicting) stakes in favour of the public interest. Farmers must have perspective on a healthy economical future, surplus water must be stored in order to prevent damage, citizen must be able to enjoy the urban fringe zone and maintenance may not cost too much effort en money. • The effects of water storage must balance the costs of realising a retention area.
Farmers Citizen	The land is a necessary production factor for making profit. We must be able to walk along the water side	Economic Physical Aesthetic Economic	• There must be a financial healthy perspective on farming, giving chance to entrepreneurship. • Water storage on the land will reduce production capacity • Attractive water increases happiness. Attractive water will increase the price of houses

What may seem a conflict in terms of space (how many hectares to reserve for water storage?) is in reality a conflict of values (how to give farmers an economic healthy perspective, as compensation for their loss in production capacity to make a more sustainable water system, reducing the risk of flooding downstream?). A clear insight into the values stimulates the development of ideas for Multifunctionality.

Step 2 Inventing Ideas

The main idea to solve this conflict is to reward the farmer for making available his land for a more sustainable water system and an increase of attractiveness of the Gooiermars area. This land must be suited for water storage and thus situated nearby the water course. On the other hand, farmers need new possibilities for entrepreneurship. This implies to compensate the loss of their land and thereby production capacity and to offer them the possibility to employ new activities must compensate the farmer. In the end the multiple type of land use must lead to an increase in the spatial quality of the urban fringe zone.

Step 3 Reality Check

We may question the feasibility of the idea to compensate farmers for making available their land for water storage. The reality check helps to determine if further elaboration and integration of this idea in the planning process will be fruitful. The reality check has the following outcomes.

Cowardice	Brave	Recklessness
• To give up a search for space for water storage in the Gooiermars area, because farmers do not want to cooperate. • To use research as an excuse for not coming to a solution • To wait on macro economical development.	• To reach mutual understanding of the costs and benefits, also the benefits in non-economical terms • A step by step strategy for buying land and changing the land use in water storage. • To research the feasibility of making farmers responsible for the maintenance as mean for income. • To stimulate farmers to think of new activities, when the valuation and thus the attractiveness of the area will beincreased.	• To develop a plan for water storage without involving farmers. • To make farmers responsible for maintenance, since there are major uncertainties for the long term effects of this idea.

The reality check learns that involving individual farmers is a critical success factor, looking for local solutions. This insight helps to design a process for decision on and implementation of this idea. Looking back, we can say this approach worked. During interaction with farmers, it appeared to them that development of the urban fringe zone not only threatens their future, but also offers new opportunities. Nature development, water retention areas, clean water and extensive farming and an improved water quality challenges entrepreneurship: Bed & Breakfast, selling local products to the citizen of Deventer and nature conservation. Moreover, during interaction it became clear to farmers that the proposed development advances on more strict regulations such as the European Framework Directive. So, the proposed offered farmers the time to prepare themselves on this development. Additionaly, to implement the plans for the Gooiermars area, money came available for farmers enabling them to alter their economic activities, based on an economic plan for each farm. Without involving farmers individually and discussing the values they attach to the Gooiermars area, the implementation of the plans would not have taken place.

8.2.2 Nature development

Step 1 Value mapping

The Gooiermars area has a high ecological potential, because of seepage water. Currently, the potential for nature development is not utilised because of the farming activities in this area. Farming requires a relatively low groundwater level. Furthermore there is a residential area nearby the Gooiermars, called De Vijfhoek. The inhabitants of this area like to recreate, which will also damage ecological development. How to come to Multifunctionality? The first step is to map the values of nature development.

Aspects	Water Board	Municipality	Farmers	Citizen
Physical aspect	Seepage flows			
Biological aspect		Seepage is a condition for ecological diversity. Rare plants will grow, creating a habitat for rare animals such as the salamander.	A high groundwater level has a negative impact on the production capacity	
Logic aspect				Inhabitants should acquire more knowledge on the effects of their behaviour in nature areas and the impact on ecological diversity, i.e. disturbing birds in the brood season or the effect of litter.
Social aspect			Farmers do not like inhabitants visiting their property.	
Economic aspect		The cost of nature development should balance the benefits	Profits rise with an improvement of the productive capacity of the land.	
Legal aspect	The potential for ecological development determines the norms for water quality	Regional policy contains aims for creating corridors for connecting habitats.		

Aspects	Water Board	Municipality	Farmers	Citizen
Aesthetic aspect				Inhabitants are attracted to nature areas to come to rest.
Moral aspect	Development of nature is in danger, so more nature areas need to be created.			

Step 2 Inventing Ideas

Here again, the main conflict is about the land which must come from farmers. The idea is to compensate farmers for their contribution to nature development in the Gooiermars area, giving them perspective on economical development. This idea is developed in the search for space for water storage and can be translated to this problem on the development of nature. The focus here is on the idea to develop vulnerable nature which will be endangered by intensive use of recreants.

Stakeholder	Argument	Aspect	Value
Water Board	Nature development should be protected from pollution or disturbance by the use of visitors	Physical	Maintain and improve seepage flows by holding and storing water in the area.
Municipality	Nature development at the urban fringe zone should be accessible for inhabitants	Economic	One of the important benefits of nature development is the amenity value.
Farmer	Visitors are not welcome at the properties because of the risk of spreading diseases	Economic	Risk of loss of production must be minimized.
Citizen	Nature is only valuable if people can enjoy it.	Aesthetic	Nature development nearby residential areas improves the happiness of people living there.

The idea is to make the Gooiermars area partly accessible for citizen. The positive valuation of nature should function as a trigger to influence the behaviour of visitors.

Step 3 Reality Check

The outcome of the reality check is as follows.

Cowardice	Brave	Recklessness
To close the Gooiermars area for visitors not trying to reconcile urban and rural pressure on the land use.	To make inhabitants responsible for the nature development in the area by forming a committee who organizes guided tours and involves inhabitants in the maintenance of the area. This will increase the valuation of the area, with a positive influence on further development and protection.	To give the area free for visitors and see how it develops. If necessary, additional measures can be taken to prevent damage.

Design of Zandwetering

Which design of a watercourse unlocks the most values?

8.2.3 Towards the design

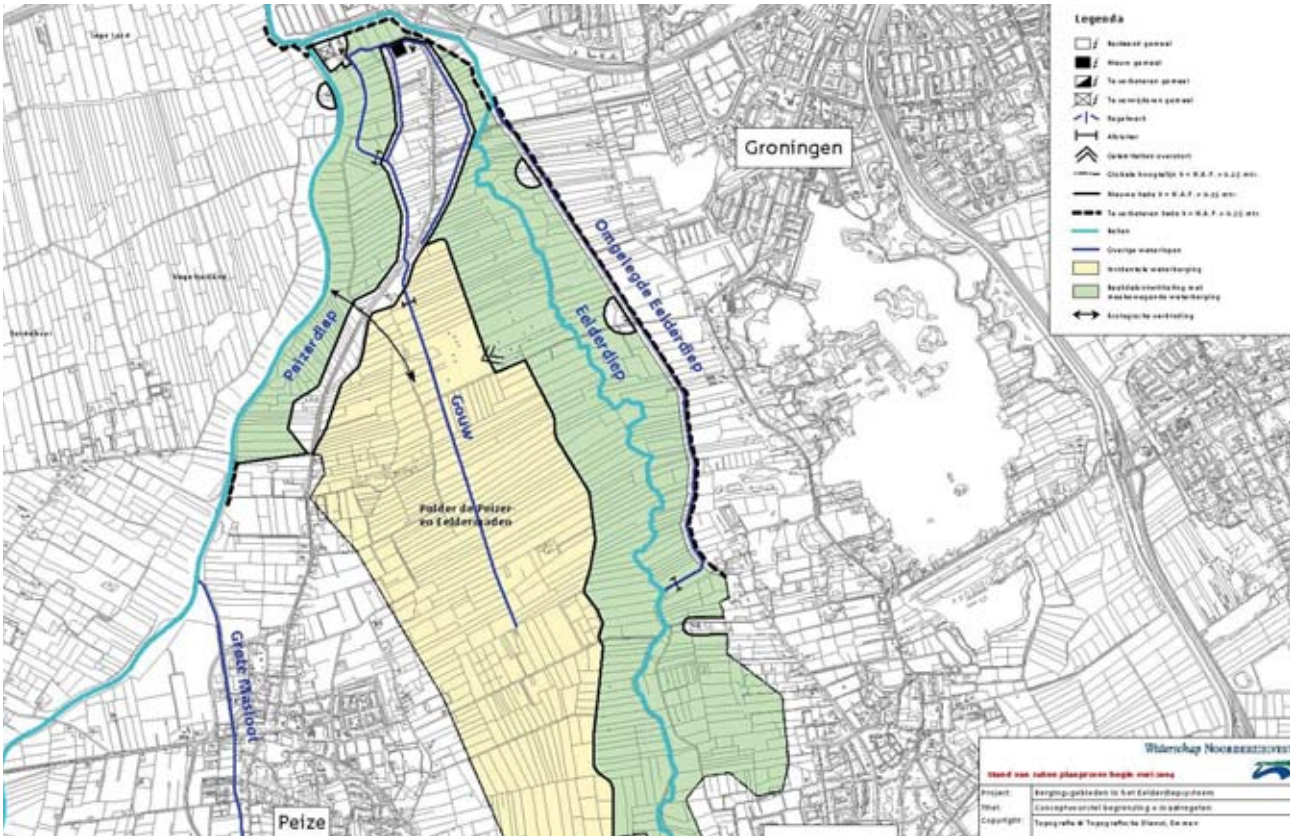
The previous Gooiermars examples demonstrate how the methodology works and the corresponding outcomes. These outcomes support the design of Multifunctionality. The feasible ideas inspire designers to develop multiple ideas which unlock many values. See for example the two different designs of a water course.
The Masterplan Zandwetering has served as a case study for developing and testing the methodology. In several workshops the added value of the methodology is also tested in the other PURE projects.

8.3 Case 'Westrand Groningen'

The development of the Westrand of Groningen suffers from a lack of political and public attention. The water structure plan Westrand Groningen describes an optimized water system, combined with ecological development, but politicians do not show much enthusiasm for financing the project and developers are not wiling to invest in the creation of green areas, while water and nature potentially increase the value of the land. In this case, the methodology of this guidebook can contribute by deepening the discussion of functions (what function should be where?) to valuation (what is the importance of the problems in the Westrand and what should be the (future) quality of this area?).

The polder Peizer- and Eeldermaden is part of the Westrand Groningen. The area, existing of meadows, is about 1500 ha. The peat soil settles due to oxidation, which is a common problem in The Netherlands. The surface level lies below sea level. There is one water level in the polder, which meets the agricultural water demand.

Map of polder Peizer- and Eeldermaden.



Aspect	Inhabitants	Water board	Nature Monuments	Municipality of Groningen
Sensitive	The wide view of the landscape is threatened by urban development at the borders of the polder.			
Historic		Agricultural use has led to a water system aimed at quickened discharge of water, which causes settling of the peat soil		
Social	The attack on the agricultural land for water storage or nature development binds inhabitants together in their resistance.			
Legal		The aims for nature development in the polder give also a change to create room for water storage.	Due to Dutch policy on ecological development, half of the polder area is property of the Nature Monuments Board, who turn meadows into nature	
Economic		Creating water storage and improving the sustainability of the water system requires significant investments.		An attractive natural area offers possibilities for recreational activities for citizen and to develop housing estates.
Moral	The government makes an improper use of the fact there are view inhabitants, so that they suffer for the better sake of the inhabitants of Groningen.			The increase of safety and amenity of the inhabitants of Groningen outweighs the agricultural use.

A discussion on the basic values of the polders may attract attention of politicians and developers. Politicians might become interested by expressing the recreational value for the citizen of Groningen, supported by concrete ideas on recreational activities. The Westrand has the potential to increase the attractiveness of Groningen. Future inhabitants might become interested because of the green environment and the quietness of the area. Enthusiastic future inhabitants will make project developers enthusiastic and invite them to invest in the development of the area. Involving future inhabitants will also stimulate them to take care of the area, once they live there. Their contribution to the development of the living environment will motivate them to maintain it. Only when stakeholders have a shared value of the Westrand, they will invest attention, time and money in the development of the area.

8.4 Case 'Newcastle Great Park'

Newcastle Great Park (NGP) is an urban expansion scheme of about 500 ha or 5 sq km. It sits within the catchment of a small watercourse, the Ouseburn, which is about 60 sq km in total. The Ouseburn is about 16 km long from its source west of the NGP to its confluence with the River Tyne to the south. Roughly half of the catchment is urbanised. The rural part of the catchment is generally statutory Green Belt. The larger part is farmland, mostly arable but with some livestock remaining. There used to be a much larger proportion of livestock, but this has reduced over recent years. A little strangely, the largest concentration of cattle in the catchment (in the summer, anyway) is on the Town Moor, which is a large area of open space within the urban area. Stakeholders expressed the next values of NGP.

Areal photograph of Newcastle Great Park (red borders).

Aspect	National Government	Municipality of North East	Water company	Inhabitants
Sensitive		The green landscape invites inhabitants to recreate in the area.		Fencing open water is unattractive.
Social		The Green Belt should be a highly qualitative and attractive border zone stimulating affluent citizen to move. In Newcastle social housing can grow.		
Economic			To minimize costs, SUDS are placed underground, missing the opportunity for visible clear water to contribute to the spatial quality.	
Aesthetic		The NGP has the potential to become a landmark, increasing the name of Newcastle.		
Legal		Because of a claim culture, safety measures such as fences are given a lot of attention.		
Moral	The Green Belt is sacred in Britain and firmly anchored in national policy. Improvement of spatial quality by Multifunctionality is not done.			

Areal photograph Lamesly reedbed, North East.

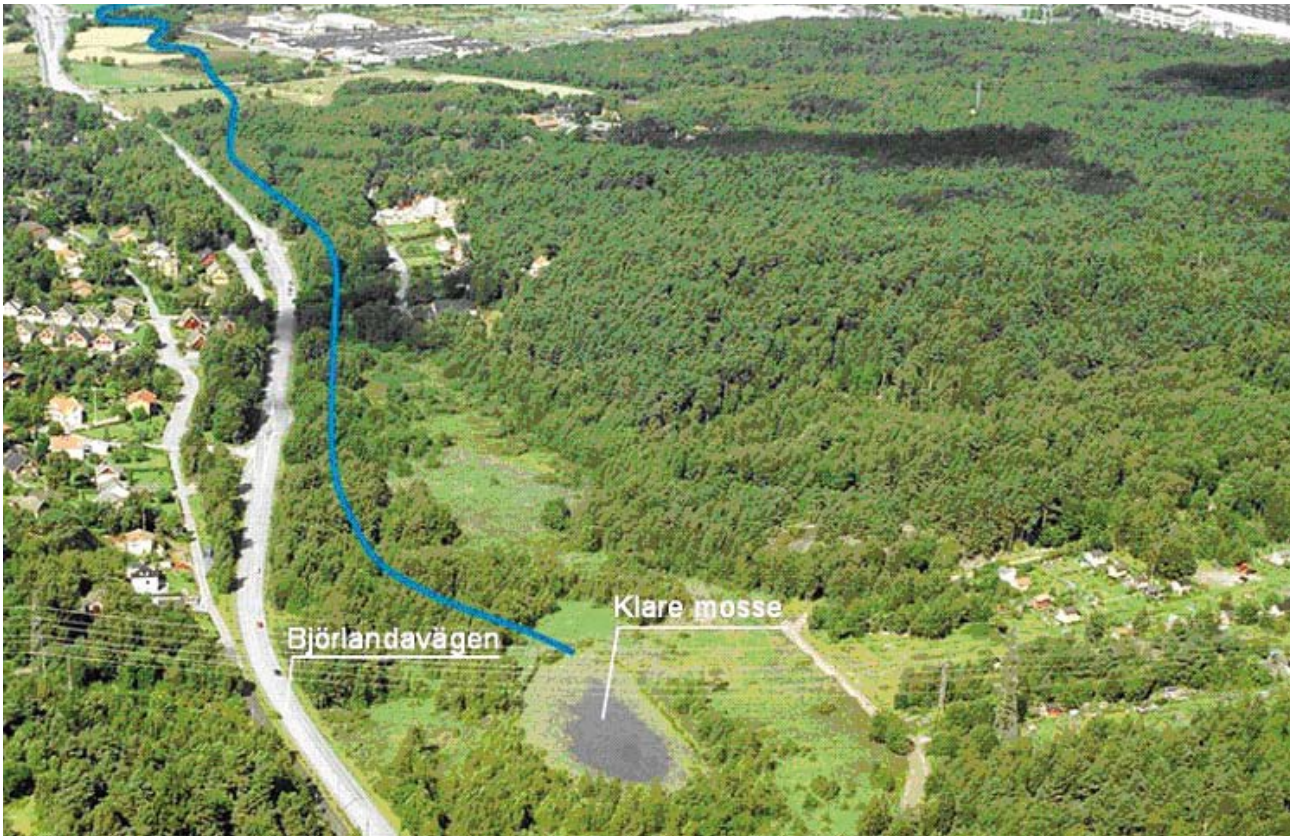
Design Lamesly Reedbed, North East.

The methodology led to the discovery of the influence of the higher valuations on the planning process, while the current process has its focus on the raw material of NGP. Important discoveries were:

- The green belt as a paradigm for town development.
- The potential of the green belt as a landmark, attracting people and companies
- The short term focus on costs leading to the choice of SUDS underground
- The claim culture resulting in (costly) safety measures such as fencing.
- The inclusion of these discoveries in the planning process may stimulate Multifunctionality and therefore spatial quality in the area.

8.5 Case 'Klare Mosse'

Klare Mosse is a small wetland of about 8 ha located at the top end of the water catchment area for the stream Osbäcken. Klare Mosse recieves storm water both from surrounding natural land and hard-surfaced residential areas and this water supply can, if properly managed, secure more water into Osbäcken during dry periods which among other aspects will benefit the salmon trout there. Klare Mosse is also an important habitat for batrachians and birds. Klare Mosse is strategically located between a larger recreational area to the north and a housing area to the south. The park Hisingsparken is one of the largest recreational areas in Göteborg, 380 hectares in size. The residential area Länsmansgården has more than 5 000 inhabitants. It has been suggested that Klare Mosse could function both as a recreational area in itself as well as an attractive entrance point between the surrounding areas.



Aerial photograph of the Klare Mosse area with the Osbäcken stream marked in blue.

Step 1 Value mapping
For characteristic values of the Klare Mosse, see the table below.

Aspects	Municipality	Special interests (archaeologists, biologists, PURE Check etc.)	Citizens
Physical	Klare Mosse has the ability to function as a water supply for the Osbäcken stream during dry periods in the summer. Excavations in the wetland are necessary in order to create a larger open water area and the water level in the wetland must be regulated.		Residents living very close to Klare Mosse sometimes experience flooding of their cellars and prefer a lower water level in the wetland.
Biological		Klare Mosse has a very rich fauna of birds and batrachians that can be affected by extensive implementations around Klare Mosse.	
Logical	It is difficult to enter the park Hisingsparken from this direction because of the current status of Klare Mosse. After the implementations Klare Mosse will become a very natural entrance point to the park.		

Aspects	Municipality	Special interests (archaeologists, biologists, PURE Check etc.)	Citizens
Historical	Extensive archaeological investigations can be very expensive and have considerable impact on the measures carried out within the project.	The Osbäcken catchment area has numerous ancient remains from the Bronze and Iron Ages that need to be preserved for the future.	
Social	Local residents will have greater possibilities for recreation in the area.		People living in Länsmansgården will have much easier to reach Hisingsparken.
Economic	Flooding in houses close to Klare Mosse could be very expensive for the City of Göteborg.		
Aesthetic	After the implementation have been carried out in Klare Mosse, the entire area will be more attractive.		A larger open water area will attract more people to the area. Local residents will have a beautiful recreation area close to their homes.
Moral		Technical solutions for water regulations should be avoided in favour of natural solutions.	

Step 2 Inventing ideas

Even though there has been general approval for the Klare Mosse project with no formal objections, there has been a minor conflict concerning the size and level of the water area and the water regulations in Klare Mosse. The desire by the City of Göteborg to control the water level in the wetland and the water flowing from Klare Mosse, in order to reduce the risk for flooding in nearby houses among other things, led to a more technical solution.
During the PURE Check for this project, this was however discussed and questioned and arguments for a more natural water solution were

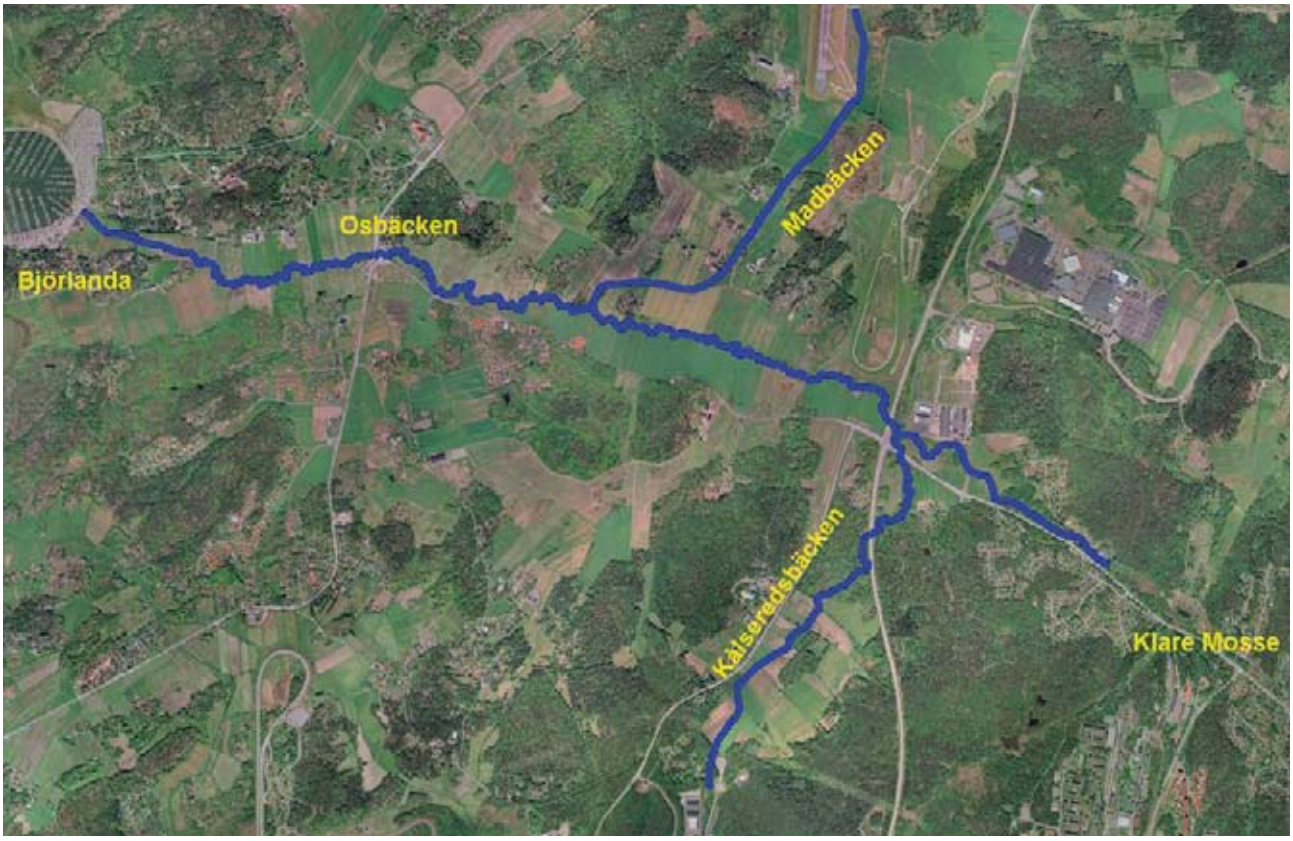
put forward. Eventually this led to a redesign of some of the proposed implementations for the Klare Mosse area. The technical solution for water regulation was abandoned in favour of a semi-natural solution where peat in the wetland is used to retain the water together with a weir at the lower end of the wetland.

Step 3 Reality Check

Based on the PURE Check and discussions in the project team regarding water levels, flows and regulation in Klare Mosse the reality check could be described as follows:

Cowardice	Brave	Recklessness
To "play it safe" and use technical solutions for water regulations in the Klare Mosse area. You know what you get with no surprises.	A semi-natural solution for Klare Mosse where nature values and the desire for water regulation can interact in a harmonious way.	To preserve a completely natural solution (as it is today) would probably give the highest nature values but would also provide insufficient water flows into Osbäcken and unacceptable risk with regard to flooding around Klare Mosse.

Proposed implementations around Klare Mosse that aim to create a multifunctional environment for recreation, ecology and water management.



Catchment area Osbacken, Göteborg.

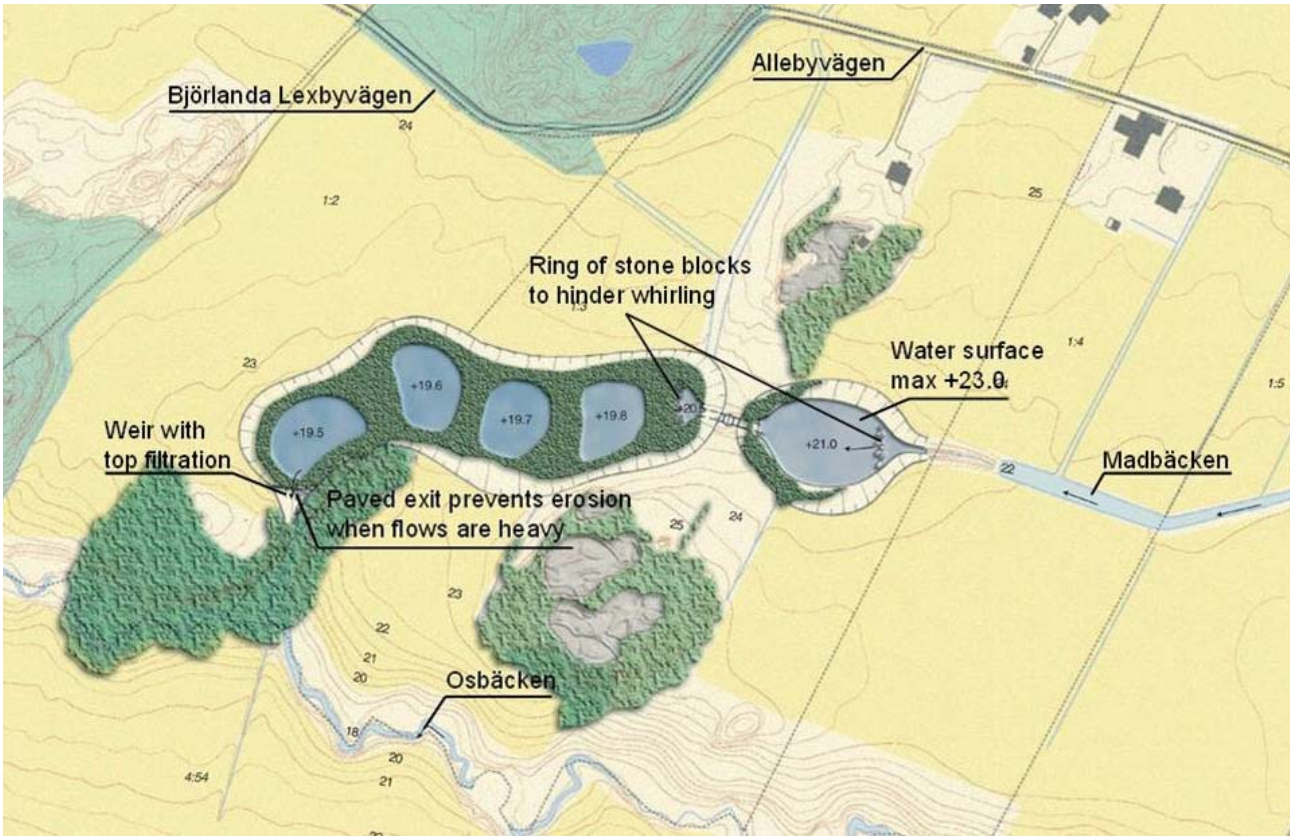
Multifunctionality at the Zandwetering, Deventer.

8.6 Conclusion

The presented examples demonstrate the positive influence of explicating the values of stakeholders, before developing ideas on multiple land use. Discussion on valuation brings stakeholders together and deepens planning from a technical level to a social level. The discussions are lively and animate. Step 2 and 3 help to bring the values of stakeholders – packed in ideas - into the 'traditional' planning process. It is remarkable how the reality check stimulates to search for brave solutions. The positive effect on the group process cannot be demonstrated by text, but is worthwhile to discover in practice.

A second conclusion concerns the reality check. Both Gooiermars examples show how bravery leads to ambitious, but still feasible ideas on multiple land use. Core concept of implementation of these ideas is cooperation, which is a middle way between 'do it on your own' and 'strong guidance'. Furthermore the reality check leads to more detailed research questions to be solved before implementation.

Implementation plan Osbacken, Göteborg.



9 Conclusion

As we have seen, the concept of Multifunctionality supports planners to increase the spatial quality of the urban fringe zone, on the condition they include the values of stakeholders into the guidance of multiple landuse. We offer a methodology to discover and discuss these values and to translate them into ideas for landuse, which are checked on their feasibility and acceptability and incorporated in a development strategy. This strategy, called 'Let's build Paris!', guides the landuse towards spatial quality, based on people in the field feeling responsible and resulting in long term socio economic benefits, counterbalancing the investments. In this way, the guidebook contributes to attractive and sustainable urban fringe zones all over Europe.

Catchment area Lamesly, North East.

The methodology for adding values in planning, has been developed in close interaction with the PURE partners, with the aim to make it practical. As an extended conclusion, we like to present to you added value of this guidebook according to the partners. Therefore, this chapter contains the learning experiences of using the proposed methodology.

Seaton Burn, North East.

9.1 Learning experiences

One of the drivers behind Interreg is to enhance transnational learning. The development of this handbook has therefore been designed so as to stimulate transnational learning as much as possible. A series of interactions were conceived between the authors of this handbook and the PURE partners, with two objectives.

- Develop an approach towards Multifunctionality that has bearing in practice, and is more than a collection of 'fine thoughts'. The conceptual approach is enriched by practical examples.
- Create possibilities for PURE partners to enrich their practices with new conceptual approaches, and possibly implement some of the suggestions delivered.

The approach thus is a two-way learning oriented development approach. To achieve the objectives, subsequent workshops have been arranged, timing them together the International Meetings of the PURE partners, and following the PURE Learning philosophy as described in a separate paper by the PURE consortium. See appendix 2 for a list of workshops and topics.

The Deventer case has been used as a 'tester' for the development of the methodology. The lessons that were learnt were related to process and workshop design, as well as to the focus of the methodology vis a vis the timing within the planning cycle.

9.2 Learning points for PURE partners

Partners indicated the following key-qualities of the method:

- Proces and people's involvement. The approach pays respect to all actors and their valuations. They can be viewed in their own right. At the same time, the approach allows you to view a case through somebody else's eyes. Hence, you can more easily understand a point of view that is not your own. The approach thus provides mutual understanding and respect. By bringing all the angles on the table, the approach also raises awareness of the complexity of an issue. This makes people more prone to adopt a more modest attitude, and makes it easier to come to a joint problem perception and solution.
- Design and decision making. The approach increases design options by including maintenance aspects early on. It provides a good set of arguments to explain decisions and actions

The partners provided also these more specific comments:

North-East (UK)

- Categorising the hierarchy of aspects is a useful model for assessing in a logical manner the many complex issues involved in catchment planning and helps to develop a holistic approach.
- The approach demonstrates how value systems transcend a number of aspects and allows linkages to be made to draw out the most important issues.
- The model can be built upon to form a matrix of interlinking values, to illustrate common views and conflicting views between the various 'actors' or stakeholders. This can assist conflict resolution.
- As such, it seems to be a good model for community consultation purposes. It can help the community express their feelings in a logical manner and assist in generating a greater understanding of many different viewpoints.

Götenborg (SE)

- The most important insight was the possibility to look at a project with somebody else´s eyes. The aspect theory, properly used, can be a good help to do this.
- The approach allows to systematically explore a project on a broad range of aspects, not only technically, financially etcetera, but also things like linguistic aspects. It can really contribute to sustainable and multifunctional solutions. In Sweden we have a lot of space, so scarcity of space is not a main driver for us to come to multifunctional land use. However, the approach has helped us to see that spatial quality is also a strong argument to aim at multifuctionality. Multifuncionality thus means that our land is better valued.

Groningen (NL)

- The advantage of this approach is that planners are 'cross-examined' profoundly on the arguments behind their planning decisions. They are invited to reconsider their assumptions.

Partners indicated the following issues that require specific attention:

Process

The dynamics of politics and the tendency of politicians to engage in short term opportunities and gains, may jeopardize the intentions behind the approach. The approach demands a preparedness to engage in participatory actions. Therefore, specific attention should be paid to a political back up of the process. And hence, the selection and timing of involvement of others actors is crucial. Not too early, not too late. The method thus requires good preparation. Hence, the approach demands specific competences of planners to work with the methodology. Communication skills, the ability to respect all actors no matter their position and to conduct interactive working sessions, and the ability to manage different kinds of expertise of involved actors (professionals, citizens, politicians etc) are only some of these competences. It is likely that independent expertise of process developers may on the short term be needed to assist the actors responsible for planning. The nature of some aspects are difficult to make understandable in an international context, e.g. the linguistic aspect. As the method approaches Multifunctionality from a totally different perspective than is usually done, it is somewhat troublesome to 'quantify' or 'materialize' the added Multifunctionality of a certain piece of territory, especially vis-à-vis persons who operate form a mainstream approach. Hence, specific communication efforts should be performed to remain in contact with mainstream spatial planning.

Design and decision making

It is important to be aware of the fact that combing ideas not only precedes choosing from them, but that the two may take place at the same time.

Seaton Burn, North East.

Urban fringe zone Durham, North East.

9.3 Transnational impact

In June 2005, an inventory among the PURE partners was held to measure transnational impact of the learning oriented development approach.

In general, partners feel they have gained substantial understanding of multifunctional land use in urban fringes. There has been quite a lot of discussion at home on the topic, and the concepts are starting to transpire in policy documents. They also see quite some potential to apply the concepts in practice. Yet, the environment the partners work in is not always very favourable to bringing Multifunctionality forward. It is a gradual process of learning and negotiating. In future projects, bringing and keeping on board collegues and organisations of those who operate in an Interreg project should receive specific attention. Finally, it is questionable whether the PURE partners themselves have acquired a fully identical understanding on Multifunctionality. It is an ongoing learning process; due to the cultural differences and differences in planning traditions.

More specifically, the following observations can be made, following the questions that oriented the meeting:

What is the growth or decline of your conceptual understanding of Multifunctionality over the course of the PURE activities on the theme?

- "Multifunctionality was always part of the Dutch regional debate, so the term was not new, but conceptual clarity has increased.
- "We learnt about the incorporation of Multifunctionality into traditional planning schemes (Göteborg). We see it back in reading and writing."

Is there any growth in your perspective to apply (elements) of the developed method?

- There is a quite remarkable difference between the personal ambition and enthusiasm of participants, and the real possibilities of applying the approach in practice. This is especially so in the case of Sweden and the United Kingdom, where there is a big ambition, but a reserved notion on applicability in practice. The Dutch partners observe changes in their organizations, but are not sure whether they should be attribute to PURE, or to the timing of the issue.
- In short, developing Multifunctionality land use both in content and organization-wise is a gradual process.

Can you recall having undertaken, since May 2003, concrete actions as a follow-up of the input received through the Multifunctionality workshops?

- All partners have had discussions on the theme at home, and most of them made it an issue at more than a meeting. It is popping up in policy documents, even in those that are not written by themselves. This is especially noticeable in Sweden, where Multifunctionality was hardly debated before PURE. Now, other departments are now using 'the word'.

- In Groningen, there is an emerging interest, but more actions are needed. There is a specific need for practical cases, in which the approach is being developed
- In the UK (Ouseburn), Multifunctionality is incorporated into the plans. The 'breakthrough' of Multifunctionality depends also on national consultation; if it receives a warm welcome, then Multifunctionality can become a more common issues in regional policies.

Can you describe the most ambitious (and potentially impact-rich) action you undertook as a result of Multifunctionality input?

- Deventer: A major action concerned the step to establish specific consultations with the landowners first. Another one is that the Waterboard and the municipality of Deventer do increasingly see that they need each other to achieve their own goals, and have become more susceptible to each others concerns. The Deventer partners would have done things differently, had they known concepts before.
- North East: the Ouseburn plan has incorporated Multifunctionality priniciples in the planning, which gave the plan new meaning and purpose.
- Gothenburg: The most concrete action was changing a plan for the Klare Mosse region. The original plan didn't allow for people to walk alongside the river, after a PURE visit, the plan was revised.

Zandwetering PURE hike.

9.4 Final Remark

Almost at the end of this guidebook we would like to challenge the reader to involve valuation in his or her practice. When challenged with improving urban-rural fringe zones, the valuation method as described is a promising one. The approach allows for a better tuning to a dynamic and complex reality. No simple solutions for complex problems, but 'simplex' solutions. It allows for a gradually emerging solution, instead of a predetermined, yet not shared nor sustainable result. Thinking in terms of values and meaning allows for fruitful discussions among stakeholders, and increases their understanding of the issues at stake. It leads to better solutions with a higher spatial quality.

How will our Guidebook contribute to planning practice?

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Appendix 1

Aspect Theory

The theory of aspects is one of the main ingredients for achieving multiple land use in the PURE projects. The aspects help to get insight in all kinds of use of receiving waters in the urban fringe zone, as a starting position for intensifying, combining and transforming land use. The aspects help to determine the position and the acting of an actor. For a clear discussion in the workshop on multiple land use, it is essential to have a clear understanding of the different aspects. This document contains the descriptions of these aspects, described in Table 1.

Table 1 The aspects of multiple landuse.

Aspect	Essence	Description and examples
Moral	Convictions of right or wrong	People act on basis of what they think is right or wrong. The moral view accounts for example for the position of the public interest. Determines the public interest the development, and is the individual interest of minor importance. For example the attention for water storage in order to enlarge safety from water overflows is an public interest. The moral aspect contains a view about sustainability, solidarity, public health, democracy, safety, trust, etc.
Legal	Law	The regulations can stimulate or curb multiple land use. Regulations also determine the responsibilities and competences of actors. Examples are: Spatial planning law, water management laws and agreements, rules, “entrance prohibited”, European Water Mainframe Directive, etc.
Aesthetic	Beauty	The aim of multiple land use is to improve ‘spatial quality’, expressing the beauty of a certain place. Beauty stimulates actors for participation in projects for multiple land use. Examples are: Quality of landscape, meandering, nice houses reflecting in the water, proportions, etc.
Economic	Efficiency	The economic aspect stresses efficiency in multiple land use, by tuning different economic functions. Costs and benefits of measures to be taken, water as a carrier of economic activities, no waste of natural resource, storm water fee, sharing the costs, full cost recovery, etc.
Social	Interacting with people	The (future) land use can stimulate the meetings between people, for example by attractive environment. The second meaning of the social aspect is project management preparing multiple land use. Project management is in other words the organization of meetings between certain actors in order to make agreements. Common words are: Water as a barrier, water as a meeting place, cooperation, focus groups, fishing, boating, recreating, falling in love, etc.

Aspect	Essence	Description and examples
Linguistic	Symbolic significance	The linguistic aspect expresses the languages used by actors: maps, reports, jargon. The use of different languages is the origin of a lot of misunderstandings between actors. Examples are the communication with the public in an information-meeting or in a personal encounter.
Historical	Former events by acting of man	Man interferes with nature or people surrounding him, in order to create a better living environment, for himself or for others. The history of the development of a certain area, including the way people handled each other in this development, has an important influence on the success of multiple land use of this area. Historical aspects are: experiences in the past, old buildings, realised plans, heroes, symbols, etc. Linguistic aspects: plans, poems, stories, etc.
Logical	Analytical distinction	Reality is complex and hard to understand fully. Therefore actors use thinking models or logical frameworks, which guide their acting. A thinking model expresses the goal of acting and the way to reach that goal. Examples are Working with alternatives to optimalize the land use, The water management model Hold back, store and release.
Sensibility	Perception	The perception of actors of an area, or of other actors. The smell of water or plants, the sounds of birds, the view over the water, etc.
Biotic	Life processes	The ecologic systems or nature in a certain area. Subjects are: Ecological zone, fish, aquatic nature, plants, biodiversity, etc
Physical Chemical	Matter	The matter of an area, obeying natural laws. Physical subject are Water levels, soil conditions, seepage, flowing, hectares of land, flooding, etc. Chemical subjects are: Water quality, pollution (point and non point), water treatment, etc.

Appendix 2

Overview workshop multifunctionality

Date and location	Wsh. no.	Goals of workshop	Participants	Description of workshop	Main learning point for methodology development
May 20th, 2003, Deventer (NL)	1	Introduce workplan, first conceptualizations of Multifunctionality, taking stock of first	All Pure partners (about 40 persons)	After a general lecture, partners were split up in 6 groups consisting of representatives of two PURE partners, questioning each other on their views on Multifunctionality	partners have very diverse experiences with multfunctionalty
Sep. 2004, Gotheborg	2	Presenting elements of an approach to socio-economic benefits of multifunctional land use	All Pure partners	Lecture with discussion	phrase the approach in a less complex way.
Nov. 2003,. Groningen (NL)	3	Lecture on progress of work on Multifunctionality	All PURE partners	Lecture with discussion	
Jan. 15th, 2004, Deventer (NL)	4	Analysis of aspects of Deventer Zandwetering case	Deventer representatives (municipality and Waterboard)	Inventory of stakeholder values relevant to the Zandwetering planning process. The Deventer representatives also speak for absent stakeholder	Method is useful in an evaluative sense for professional involved in a case.
Feb. 16th, 2004 Deventer (NL)	5	Process analysis of Zandwetering case, how have values been transformed into (multiple) functions? What kind of design solutions were the result? Can we measure that Multifunctionality has increased?	Deventer representatives	Focus on analysis of the nature of interactions that were held during the Zand-wetering design process	It is not easy to pin down Multifunctionality

Date and location	Wsh. no.	Goals of workshop	Participants	Description of workshop	Main learning point for methodology development
March 22nd,. 2004 Deventer (NL)	6	Conflict Analysis of Deventer Zandwetering case	Deventer representatives	Group-examination of values resulting conflictive issues. How were they tackled? What ideas were raised to do so?	
April 19th, 2004 Newcastle (UK)	7	Test complete methodology on the case of North East Great Park	All PURE partners, larger representation of UK partners All PURE partners,	In two groups of 8 persons, the methodology so far was tested.	Sufficient time is needed to conduct all steps in one event.
May 26th, 2004, Deventer	8	Test complete methodology on the case of Eelder en Peizermaden (Groningen)	larger representation of Groningen partners	An improved version of the methodology so far was tested	Possibly inventory of aspects can be separated from generating ideas to overcome potential conflicts
Sep. 26th, 2004, Groningen	9	Test Reality Check (RC) Method	All PURE partners	First lecture, than groupwork applying RC to three cases from UK, Groningen and Gotheborg	RC method is quiete powerful to define potentiality of an idea, as well as underlying issues
Jun 6, 2005- Deventer	10	Measure learning and transnational impact of the work on Multifunctionality over the course of the PURE project	A representation of all PURE partners	participants were requested to fill out 5 questions, than group discussion	


Interreg North Sea Region