

**Value  
Added  
Planning**

# Value Added Planning; Yes, in my backyard!

*Understanding  
Value Added Planning  
in the city of Amersfoort,  
the Netherlands*





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the Netherlands

E. Diemont, J. Cilliers, D.J. Stobbelaar, W. Timmermans  
University of Applied Sciences Van Hall Larenstein

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## Abstract

Urban green space is under pressure due to expanding cities and urban pressure. Green space within cities has to compete with other functions of space, which often have a direct economical return. Even though the direct economical return of green space is difficult to prove, the importance of green in cities in relation to the liveability has become the focus of many international studies in the past decade (Caspersen et al, 2006). Green space can contribute to give cities a specific identity, can offer a wide variety of activities and can give opportunities to people of all ages to interact (Baycan-Levent et al, 2008). In the Netherlands the importance of green space has been recognised and the demand for green living is catered for, giving many residents good access to green space on foot or by bicycle (Caspersen et al, 2006). Amersfoort Local Municipality would like to renew the quality of the green spaces within the urban areas, to enhance the value of these spaces and to determine the economic value of green spaces. The concept of Value Added Planning was introduced to address these objectives.

This report is part of the European INTERREG IVB programme VALUE; Valuing Attractive Landscapes in the Urban Economy. Within this programme the economic value of public green space in several cities in the EU is analyzed and assessed. The municipality of Amersfoort, as part of this programme, is interested to determine the economic benefit of green spaces, through various methods, amongst which 'Value Added Planning'. It is the third in a series of three reports named *Value Added Planning*. In this report emphasis is on *Planning for Added Value*, more specifically the additional value of green that can be added via integrative planning processes.

The report is based on an evaluation of existing research reports and methods that were applied in Amersfoort to understand the value of green and how it can be designed for, modelled for, captured or planned for. Aim of this report is to evaluate these methods on two aspects, namely the effectiveness of the method for assessing the value of public green space and impact of the method on the value increase of public green space. The evaluation is conducted by researchers with a background in spatial planning and sociology. The evaluation is based upon various reports, of both students and experts. The methods that will be discussed thus are:

- designing public green space (student workshop Park Randenbroek – Amersfoort, 2010)
- modelling values of green (Academic Consultancy Training, student report WUR, 2010)
- capturing the value of green (MSc report, A. Goossens, 2009)
- understanding future spatial planning in Amersfoort (Economic vision Amersfoort 2030, Commissie van Ek, 2009)

What can be concluded from these four perspectives? It becomes clear that catching the value of green in a concrete model or design is difficult. The value of green is highly dependent on the specific local environmental circumstances, but also on broader developments such as the market tendency and overall economic trends.

Designing in such manner that green will add an economical value to property is possible as has been proved in many studies. A specific design of green space can impact on house prices and the total property value. Designing for added value is thus an interesting option. However, the value increase can often not be guaranteed or forecasted in advance, because it is dependent on the overall market tendency, as also became clear in the report of Goossens (2009). Furthermore, from several studies in

Amersfoort it proved that the increase in taxes on property due to the added value of green space was often not sufficient to cover investment costs.

Modelling the value of urban green gives municipalities the opportunity to assess what green values are there. Consequently they can strategically invest in public green space. When bringing the qualities of green together into a comprehensive model, such as the model for Strategic Green Investment, insight is given in a wide spectrum of benefits that could be derived from public green. These could consequently be measured against the costs. The model however, although comprehensive, is not completed into detail yet. Therefore it is not easily applicable for municipalities at this stage. Besides, modelling green qualities could lead to a static vision on the benefits of public green space. It proves difficult to include the non-tangible and indirect benefits of public green space on the long run in such models. In case the value of green seems very low according to the model, this does not necessarily mean that people would not value or appreciate this green space. Whilst the direct economic value might appear very low, not investing in public green space as a consequence thereof will most likely not increase the quality of the living environment. The outcomes of such models might thus easily be misinterpreted, and impact on green spatial planning in a negative sense.

Could value capturing help to increase the value of public green space? As was discussed in the report of Goossens (2009), the value increase of real estate appears to be an important financial value of green. Therefore he argues that, in relation to value capturing of investments made in public green space, it is worthwhile to specifically reflect on the value increase of property and real estate.

However, although value capturing seems an relevant strategy for municipalities to capture the added value of their investment in public green space, it proves that this method cannot always be applied successfully at any moment of time. There are a couple of preconditions that should be met to make value capturing feasible and worthwhile, amongst which sufficient pressure of the housing market and a thriving economy. At the moment the pressure on the housing market and the impact of green on the actual increase of the house price in the Netherlands is low. Hence, value capturing does not seem to benefit public green spatial planning at this moment of time. At the same token, not investing in public green space is not an interesting option, considering the indirect impact of green on a wide range of aspects, from social to health and environmental values.

What will the economy of Amersfoort look like in the coming years? How can municipalities plan in such a manner that above named values come to their right? From the economic perspective 2030 written by Commissie van Ek (2009) several conclusions can be drawn. First of all, what becomes clear is that working from home, and creating so called work-landscapes is likely to become a future trend. This means that people will not only use their neighbourhoods for residential purposes, but their direct environment will also serve as their office space, their meeting grounds, and their lunch place. People thus will spend more time than they did in the past in their 'local environment'. Besides, it becomes clear that cities will have to plan developments more efficiently, since more building will have to take place within city boundaries. This will imply that more inhabitants will be confronted with developments in their local environment in future.

These two developments illustrate the context in which spatial planning will take place in future. It becomes clear that the living environment will also become the working environment more and more often, and that more people will be confronted with developments within their living and working environment. In this context it can be argued that it will become more and more relevant to consider who the people are that will eventually value their local environment.

Taking into account these trends and expected developments in the economy and society of Amersfoort (as elaborated by Commissie van Ek, 2009), active stakeholder involvement seems an inevitable aspect in future spatial planning. As developments are more and more likely to take place



in the direct living environment of stakeholders, it is important that they will welcome value added planning in their locality; yes in my backyard!

Reflecting on the various perspectives in this report it is argued that, in order to support value added planning in future it is relevant to consider the *process* of planning rather than *direct benefits as outcomes* of planning processes. The spatial planning process should be designed in such a manner that local stakeholders are involved from the beginning of spatial planning processes. In this manner the appreciation of local stakeholders for spatial designs and plans is likely to increase and the valuation of the local environment can be expected to be higher. Even though direct economic returns of public green space cannot be captured or assessed directly through stakeholder involvement, it can have an important impact on sustainable and efficient spatial planning and quality of place. Involving local stakeholders could thus support value added planning processes and increase the valuation of public green space by the public. This could be the key to adequate and durable valuation and incorporation of green in spatial planning.

## Scientific Context

This report is the third in a series of three reports named *Value Added Planning*. In this report emphasis is on *Planning for Added Value*, more specifically the additional value of green that can be added via integrative planning processes.

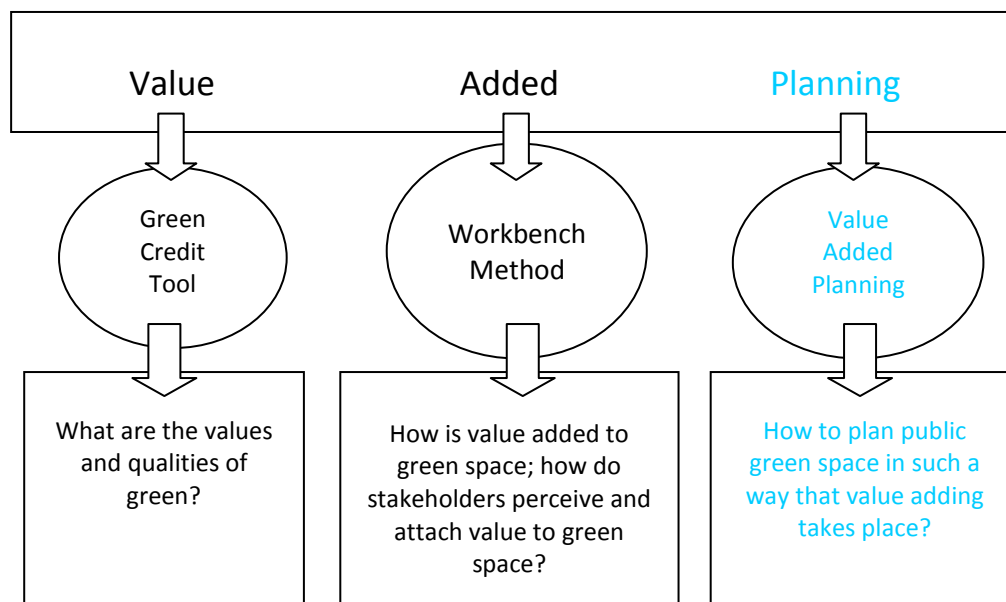


Figure 1: Scientific context of research

The first report focused on a tool that can be used to enhance green planning, ensuring the *Value* thereof, by means of the Green Credit Tool. The second report focused on determining the various green values that needs to be *Added*, by means of the Workbench Method.

The focus of this report is on *Value Added Planning*: taking into account the knowledge gained in these first two reports and how municipalities can *plan* public green space in such a manner that value is adding takes place.

# 1

## Introduction

Urban green space is under pressure due to expanding cities and urban pressure. Green space within cities has to compete with other functions of space, which often have a direct economical return. Even though the direct economical return of green space is difficult to prove, the importance of green in cities in relation to the liveability has become the focus of many international studies in the past decade (Caspersen et al, 2006). Green space can contribute to give cities a specific identity, can offer a wide variety of activities and can give opportunities to people of all ages to interact (Baycan-Levent et al, 2008). In the Netherlands the importance of green space has been recognised and the demand for green living is catered for, giving many residents good access to green space on foot or by bicycle (Caspersen et al, 2006).

### 1.1 Value Added Planning in Amersfoort

Amersfoort Local Municipality would like to renew the quality of the green spaces within the urban areas, to enhance the value of these spaces and to determine the economic value of green spaces. The concept of Value Added Planning was introduced to address these objectives.

Spatial planning is constantly faced with conflicts between pro-development approaches and pro-environment approaches. Despite the vision of integrated, holistic planning processes, the environment and urban development are seen as opposing concepts. Current reality reveals that the environment is often sacrificed in order to benefit urban development (Cilliers *et al.*, 2010:23), mainly because green-spaces are seen as a luxury, a visual attribute of the city, and not a necessity. Recently the environmental dimension gained importance when literature and case studies proved that cities which integrate the environment in spatial planning processes benefits in many ways. Such cities are more liveable, more equitable, and more inviting to investors (Liveable Cities, 2007:66). Simultaneously, public's demand for green-space is becoming stronger in terms of aesthetic enjoyment, recreation, and access to clean air or quiet environments (Liu et al, 2007:1), as everyday environments are of great importance to the health levels of communities (Stigsdotter, 2007:3). It is thus clear that the environment (green-spaces) are gaining importance, especially from a sustainable development point of view, but the value of nature is not defined in literature, and it is worth trying to quantify this value, since green-spaces are crucially important to the realization of sustainable development and our quality of life (Ministry of Agriculture, Nature and Food Quality, 2006:9). This, together with the comparative evaluation of existing urban green-spaces and its value, is new challenging tasks for urban development and urban research (Kasperidus *et al.*, 2007:1).

Many Dutch municipalities are also confronted with a general problem concerning the planning of green spaces. Decision-making within municipalities takes place within a broad framework of actors and stakeholders. Several targets have to be reached and objectives have to be met. It is not always possible for municipalities to take the green qualities into account and integrate them into spatial planning. In order to be able to stimulate the economy it is important that development in the city continues. Development seems to have greater priority in comparison to green planning. For the city of Amersfoort this implies that more should be built within the city, while at the same time quality of life and sustainable growth have to be ensured (Commissie Van Ek, 2009:9). At the local level the

municipality is confronted with many other demands, requests and objectives when it comes to spatial planning. Besides natural values, spatial planning has to take housing demands, infrastructure facilities, and business development into account. Within this setting green space has to compete with other spatial uses. Therefore, the city of Amersfoort stated in the Economical Vision 2030 (Commissie van Ek, 2009:12) that future economic growth of the city are subject to overcoming current contradictions between economy and ecology, wellbeing and welfare, population growth and environmental pressure. The aim should rather be interconnect and integrate economic, social and ecological capital. This will be the biggest challenge to build and enhance a sustainable society. The city of Amersfoort is expanding (see following figures) and should try to take a leading role in the Netherlands in this respect (Commissie van Ek, 2009:12). Hence, it is important to understand the possible values (whether economic, social or environmental) of green in the city-centre, and to seek for manners in which the multiple stakeholders in planning can come up with solutions for green space which are beneficial to all.

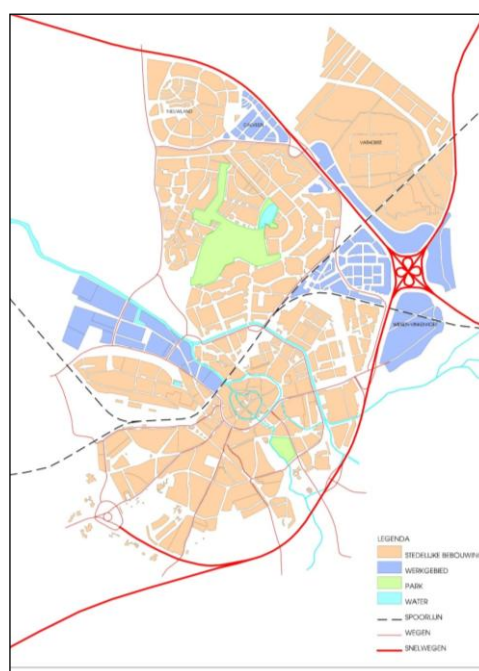
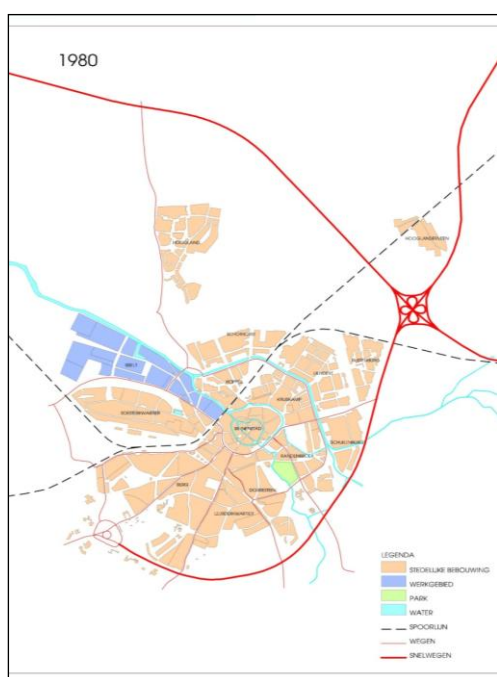


Figure2 : Amersfoort 1980 (Amersfoort municipality)- left

Figure 3: Amersfoort 2010 (Amersfoort Municipality)- right

In this context, Amersfoort would like to plan in such a manner that the enhancement of green planning within the spatial planning processes is ensured. Planning and development initiatives are guided by the Green-blue Structure of Amersfoort Local Municipality. The objective of the green-blue structure (Amersfoort, 2009:13) is to develop a network of water and green systems, in and adjacent to the city centre, in order to enhance qualitative living spaces and environments, to stimulate economic quality of the area. Various projects were identify with the focus to (1) manage the parks, (2) redevelop green areas and recreational spaces, and (3) protect green areas. It is important for the municipality to generate money from all development projects, but in the case of green space development, the revenues are hard to quantify. The following figure illustrates the current approach, and why the term “value added planning” is important from a municipal point of view.

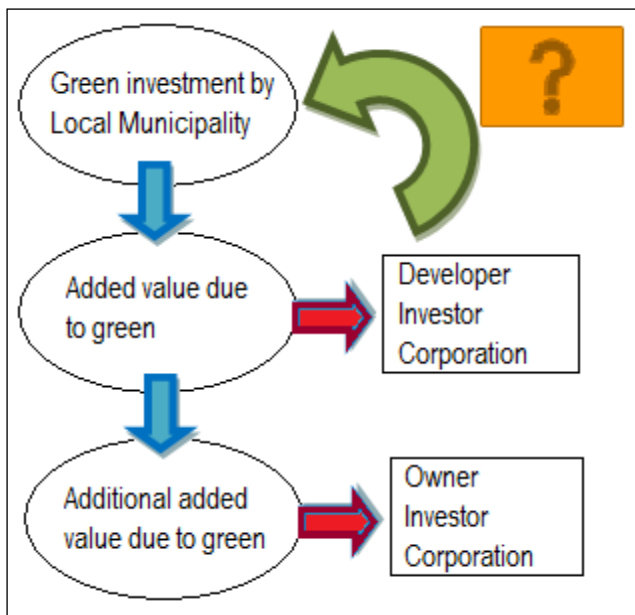


Figure 4 Value Added Planning structure (Amersfoort Local Municipality, 2009:60)

The municipality puts great amounts of funding into green space development and thus needs to be able to determine the benefit thereof. Value Added Planning is thus a way to determine the impact and benefit of green planning, even before the start of a development project. The concept of Value Added Planning arized from the need to ensure sustainable economic development. The concept is based on the assumption that adequate, qualitative planning will ensure added value (in terms of social aspects, environmental aspects and economic aspects) in the future. Adequate, qualitative

planning include a holistic approach to development, focussing on details aspects that will enhance the good perceptions of a place, create visual attractive spaces and ensure sustainable developments with economic benefits. The Value Added Planning method is a new concept and still needs to be refined. It was implemented in some case studies in Amersfoort, and tested and evaluated by experts and students within the urban planning, environmental, developmental and architectural fields.

## 1.2 Problem Statement

Spatial planning is constantly faced with conflicts between pro-development approaches and pro-environment approaches. Current reality reveals that the environment is often sacrificed in order to benefit urban development, mainly because green-spaces are seen as a luxury, a visual attribute of the city, and not a necessity. There is no monetary value connected to the green-spaces, as it is hard to quantify and measure it in economic terms (Commissie Van Ek, 2009:9).

Urban (non-green) spaces on the other hand are believed to be more valuable, due to their direct benefit which can be determined in monetary value. The exponential increase in the urban population places further pressure on the development sector, leading to a reduction in the amount of available greens-spaces (Herzele & Wiedemann, 2002) and enhancing this unbalanced prioritization even more. The value of nature is not defined in literature, but it is worth trying to asses this value, since green-spaces are crucially important to the realization of sustainable development and our quality of life (Ministry of Agriculture, Nature and Food Quality, 2006:9).

How can the value of green be assessed, and how can value adding of green space take place in practice?

## 1.3 Evaluation of methods for Value Added Planning

In the European INTERREG programme VALUE (Valuing Attractive Landscapes in the Urban Economy), the added value of green in cities is analyzed. Various methods are tested to see if it is applicable to asses and increase the value of green in cities. The focus of this research, as determined by the municipality of

Amersfoort within the context of the programme VALUE, is to determine the economic benefit of green spaces by means of Value Added Planning.

In this report the Value Added Planning method, as it is applied in Amersfoort, will be evaluated. The evaluation is based on several methods that were applied or studied in Amersfoort to understand the value of green. The evaluation is conducted by researchers with a background in spatial planning and sociology. The evaluation is based upon various reports, of both students and experts.

The methods that will be discussed are:

- designing public green space
- modelling values of green
- capturing the value of green
- understanding future spatial planning

These methods are evaluated on two aspects:

- effectiveness of the method for assessing the value of public green space
- impact of the method on the value increase of public green space

#### **1.4 Methodology**

The various methods are described by manner of evaluation of existing research reports and reports from student workshops and consultancies:

- designing public green space (student workshop Park Randenbroek – Amersfoort, 2010)
- modelling values of green (Academic Consultancy Training ‘Consultancy 644’ , student report WUR, 2010)
- capturing the value of green (MSc report, A. Goossens, 2009)
- understanding future spatial planning in Amersfoort (Economic vision Amersfoort 2030, Commissie van Ek, 2009)

A literature study explains the concept the Value Added Planning method. Besides this there will be a special focus on the role of green public space and economical value and benefit derived from green spaces.

The Value Added Planning method was furthermore evaluated by a student group during a workshop held in Zoest (2009) who tested the method by making designs for public green space and implemented it on Park Randenbroek in Amersfoort. Besides, a student group evaluated Value Added Planning and its applicability by government agencies such as municipalities (Consultancy 644, 2010). They developed a model for Strategic Green Investment.

To get an insight in what value capturing could imply the report ‘Value capturing of green investments by municipalities in urban development’ (MSc report, A. Goossens, 2009) has been studied. In this report it is discussed how the value of public green space can be captured by municipalities, so that this can be re-invested in public green space.

With regard to trends in future spatial planning in the city of Amersfoort the report ‘A vital city in a complete region, Economic vision Amersfoort 2030’ (Commissie van Ek, 2009) is reflected upon. Commissie van Ek is a commission of eight Dutch experts, who investigated trends in the economy of Amersfoort and developed an economical vision for Amersfoort 2030. From this report it becomes clear that there are several factors that impact on the economy of Amersfoort.

This report has been arranged as follows:

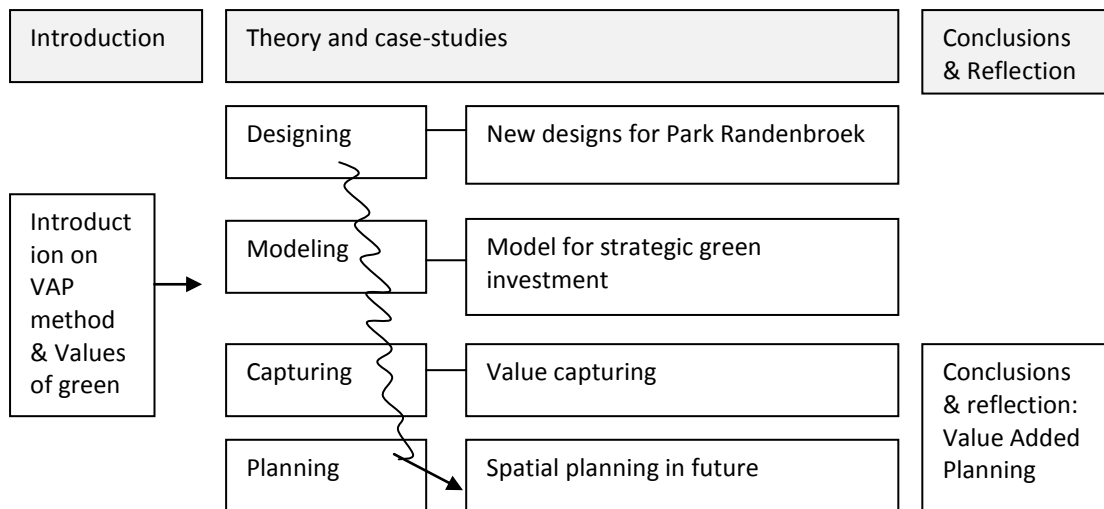


Figure 5: Set-up of report

### 1.5 Limitations of the research

It is important to note that this study was done within a specific reference framework, from a green planning and spatial development perspective, evaluating green space planning concepts and the added value and benefits thereof. Other impacting forces also contribute to the green planning concept, but were not the main focus of this study and thus were analysed in general and not in detail.

It is noteworthy to mention that part of the research is based on short term student-projects and reports, which means that the validity of this part of the research might not always be very high. However, these reports are included as they give interesting insights and new viewpoints which can help to further develop the notion of value added planning. Lastly, complex relationships between urban green spaces and surrounding areas were not evaluated. However, it did not lead to the non-recognition of such components in achieving the conclusions and recommendations.

## 2 Values of green

*'Community green space provides ecologic, social, and economic benefits, but these benefits are often overlooked in the land development process. As growth pressures intensify, undeveloped land is converted to other uses, often with little regard for parcels that are better suited for green space preservation'* (Mahon & Miller, 2003:25).

In this context it is important to identifying important open space and to institute a framework to protect it before development takes place. This can help to safeguard critical natural areas, preserve highly productive farmland, ensure recreational land and services for residents, and maintain the community's or region's historic, cultural, and natural character (Ahern 1991). Problematically, a tragedy of the commons arise in this case, as open space and green space are considered one in the same concept. VROM, the national planning authority in the Netherlands, defines green-space according to function. Parks and public gardens are referred to as functional green-space, with high quality and maintenance connected thereto. Experiential green-space on the other hand is often referred to as green-space with high aesthetic qualities which contributes to the overall 'green-feel' which users consciously or unconsciously experience within a certain areas. However, these distinctions are not mentioned within policies and legislative frameworks and are being addressed under the umbrella-term of green-spaces. The development of green-space is thus highly subjective to the demand of the actual users of the particular area, and the function thereof – functional or experiential (Galaieva et al, 2010, student report).

### 2.1 Open space versus green space

It is commonly accepted that open-space and green-space are similar concepts. Mahon & Miller (2003:25) also used these two concepts as one in their research and defined open space as: *"open space is a subjective term that could refer to land categories ranging from forest and farmland to ball fields and vacant lots. For this project, the terms "green space" and "open space" were used interchangeably to describe forests, wetlands, grass/brush lands, parks, outdoor recreation areas (both public and private), and cemeteries"*. However, current practice proves the there is quite some difference between open space and green space, as Table 1 illustrates. .

*Tabel 1: Open space versus green space (Green-space design, 2010)*

Open Space	Green Space
Any type of open land	Preplanned and preserved open land
Isolated parcels of open land	An interconnected system of open land
Value may not be known or apparent	Have cultural, ecological, developmental, agricultural, recreational value

Open space is an increasingly important component of community development. Unfortunately, typical planning regimens do not effectively resolve open space issues or preserve land for the public realm. This lack of resolution in regard to open space exacerbates many of the negative conditions associated with sprawl.



The key differences between green space design and conventional community planning lie in the open space delivery mechanisms of each approach. When using the green space design approach to community planning, green space moves to the forefront in the eyes of the community and developers, as Table 2 illustrates

Tabel 2: Planning for open space versus green-space (Green-space design, 2010)

Issue	Conventional planning	Green Space Design
Location of open space	Determined by developer	Determined by public policy
Fragmentation of open space	Guaranteed fragmentation	Fragmentation eliminated
Greenways or trails	Piecemeal greenway systems	Greenways guaranteed
Timing of open space	Open space planning behind development	Open space planning prior to development

Differentiating between open space and green space in urban spatial planning is thus of importance in order to keep the values of green space alive and create qualitative green spaces within cities.

## 2.2 Values of green space

Green space has been subscribed many virtues over time. These virtues range from social to economic, aesthetic, and of course environmental.

A wide range of values for urban green spaces has been presented for instance by Baycan-Levent et al. (2009). The authors have defined a variety of urban green space values classified according to five categories:

- (a) *ecological values*: intrinsic natural value, genetic diversity value, life-support value;
- (b) *economic values*: market value;
- (c) *social values*: recreational value, aesthetic value, cultural symbolization value, historical value, character building value, therapeutic value, social interaction value, substitution value;
- (d) *planning values*: instrumental/structural value, synergetic and competitive value;
- (e) *multidimensional values*: scientific value, policy value.

This framework offers an approach which embraces the complex and multidimensional structure of urban green areas. What is striking, however, is that most of these values are 'non-priced' benefits. These include for instance pleasant urban landscapes, peace and quiet, and thus potential recreational opportunities. (Leeuwen et al, 2006:4).

Over and over it proves that green urban infrastructure offers many social benefits, however, evaluating these in economic terms appears to be difficult. The fact that these values are so difficult to translate into economic terms also makes them susceptible to urban pressures (More et al., 1988). This is also stressed by Defrancesco (et al. 2006:40), stating that environmental protection decisions are often based on comparisons of monetary values. This stresses the need for reliable valuation methods, accessible to public decision makers. In this respect, Luttik (2000:161-162) also states that if environmental factors could be translated into monetary terms they could have more weight in decision-making processes.

It is important to describe the values of green space. Currently there is a focus on the indirect benefits of green-space, such as the aesthetic, psychological and social values (Baycan-Levent et al, 2008:2). However, these values are hard to quantify in monetary terms (Harnik, 2009:6). Indirect benefits of green space include the following:

These indirect benefits include the following:

- Social benefits: The most common social benefit derived from green-spaces is the **aesthetic** value it offers, creating a qualitative living environment for all residents. Ahmed & Hassan (2003:9) conducted a study to evaluate the perception of the respondents in terms of urban green-space-values, in relation to socio-economic factors including income, occupation and education. They concluded that the lack of green-space and the exponential increase of the population enhance physical, social, psychological and environmental hazards. **Community cohesion** is built through the use of green-spaces, as users are bound by location and common interest. **Social interaction** manifest within the green-spaces, further contributing to **cultural** and **historic** values of the area itself. Human **health** and mental health are also part of the social benefits of green-spaces. Human health refers to contribution of green-space usage (**recreation** possibilities) to decrease chronic disease, such as diabetes, and traumatic diseases, such as cancer and heart disease. Mental health is a second arena of health benefits with economic consequences. Recent studies have established that the presence of trees and “nearby nature” in human communities generates numerous psychosocial benefits. A series of studies (Kuo, 2003) has determined that having trees in public housing neighbourhoods lowers levels of fear, contributes to less violent and aggressive behaviour, encourages better neighbour relationships and better coping skills. Other studies confirm that hospital patients recover more quickly and require fewer pain-killing medications when having a view of nature (stating **therapeutic** value).
- Environmental benefits: Ecological systems provide a myriad of services to human societies. Trees and green spaces are elements of the ecosystems that clean air and surface water, provide or renew potable water, and reduce energy consumption, thereby contributing to **life support systems**. The greatest environmental benefit derived from green-spaces is the enhancement of **biodiversity**. The Centre for Urban Forest Research scientists have conducted micro-scale studies, focusing on street tree costs and benefits. Costs include tree planting, irrigation, pruning and other maintenance. Calculated benefits include energy savings, reduced atmospheric carbon dioxide, improved air quality, and reduced storm water runoff. This economic data is mathematically combined to generate a per tree net benefits figure (McPherson *et al.*, 2002). Environmental benefits modelling is often based on the economic principle of **deferred costs**, that is, if trees are not present, homeowners or municipal government would have to invest in additional engineered infrastructure or equipment to remedy environmental problems (Wolf, 2004:3).
- Future benefits: The quality of life or ‘liveability’ which a city offers is important in ensuring its future economic performance. Environmental resources are assets to a city and green-spaces contributes to the **competitiveness** of a city. It is far less costly to avoid environmental degradation than it is to live with its consequences, or to repair its damage (Liveable Cities: 2007:26). Green-spaces contribute to the **sustainability** of an area.

Alongside the social, environmental and future benefits, green-spaces also have economic benefits (increase of house prices or rents when green space is present) and are known as the direct benefits (Perman *et al.*, 2003). On these grounds urban green-space can have a positive contribution to the competitiveness of places and their economic development (Arvanitidis, 2007:2). Direct benefits of green-spaces can be measured in monetary terms, but it is this value that is neglected within current planning procedures. The revenue of urban development is always calculated, but the revenue of green-spaces is mostly not calculated, as this direct benefit of green-spaces is overlooked, believing that it cannot compete with the urban development benefit. The fact that green-spaces are not articulated in monetary terms is one of the most important reasons for

their susceptibility to urban pressures (More *et al.*, 1988). Green-spaces needs to be expressed in monetary terms in order to become comparable to economic factors and consequently have more weight in the decision making processes (Luttik, 2000:161-162). The direct benefits of green-spaces are not limited to, but include the following:

- Direct benefits: Green-space increases **property value**. More than 30 empirical studies have shown that parks have a positive impact (of 20%) on nearby residential property values (Harnik, 2009:6). All things being equal, most people are willing to pay more for a home close to a green-area, the green-space this being reason for an increase in the market value. This phenomenon is called “hedonic value.” Hedonic pricing examines the effect the environment has on economic decisions through housing prices. From an economic perspective good quality green-spaces can add value to the surrounding property, both commercial and residential (Luttik, 2000), consequently increasing tax returns to local authorities. This was proven in Windsor (Canada) where homes of 30 feet from a green-space were valued \$6,995 more than those at a mean distance of 1,035 feet (Environment Canada, 1991). In four British Columbia urban communities it was found that a 10% to 15% increase in property value could be attributed to the land’s proximity to a riparian greenway system (Evergreen, 2009:1). In Bellingham (Washington) it was found that views of natural green-space increased property values by an average of 26% (Benson *et al.*, 2000). In regards to commercial property, Wolf (2003) investigated the role of trees on shoppers’ behaviour in retail business districts using contingent valuation methods, and found that people claim they are willing-to-pay about 10% more for products in a shopping area with trees, as compared to a comparable district without trees. Studies conducted by Evergreen (2009:4) found that 85% of visitors (**tourists**) surveyed indicated that they value the green-space within cities even more than attractions including theatre, concert productions and art galleries. A study by Environment Canada (1991) found that greenways can have a positive effect on spending by tourists as easy access to green-spaces has become a new measure of community wealth – an important way to attract business, visitors and residents by guaranteeing both quality of life and economic health (Ives, 1999). Green-spaces thus create a favourable image for a place, boosting retail sales, attracting tourism (Woolley *et al.*, 2003) and inward investment in the area (CABE Space, 2005), encouraging employment and even exerting a pull on skilled labour, thus enhancing **production** values. Green-space thus makes cities more **competitive**. Other direct benefits can be found in **natural system values** in terms of direct savings as a result of reduction in costs of water retention and air pollution.

### 2.3 Economic value of green-space and urban-green

The economic value of nature can be defined as the total amount of welfare that nature generates for society. In this respect it is necessary to highlight the difference between the economic and financial values: financial values show the amount of money payable for a good (market price) and economic values consider positive and negative externalities which do not include money transfers (Rodenburg *et al.*, 2001). The investment in green infrastructure is justified in terms of calculated profits. The calculated benefits (i.e. energy savings, reduced atmospheric carbon dioxide, improved air quality, and reduced storm water runoff) minus calculated costs (tree planting, irrigation, pruning and other maintenance) equals this calculated profits in question.

Human capital is the key to the economy. Safe, green and sustainable neighbourhoods are essential magnets for attracting those who will drive future creative industries. The valuation of urban green is expressed in the demand and appreciation thereof, as Figure 11 illustrates.



*Figure Demand and appreciation for urban green (Green Consult, 2009:13)*

The report produced by ECOTEC Research and Consulting for Natural Economy Northwest (NENW), established possible links between planning, managing and investing in Green Infrastructure and generating economic benefit for a locality, district, and Region (Natural Economy North West, 2007:5). It provided a menu of ten KeyTests that can be applied by different stakeholders in different circumstances seeking to quantify the economic value of Green Infrastructure investments. The report outlined the economic benefits of Green Infrastructure and seeks to demonstrate that economic benefit can be linked directly to investment in the enhancement and management of Green Infrastructure by four types of economic benefits:

- Direct economic outputs.
- Indirect economic outputs.
- Cost reductions to the public and private sectors.
- The management of risk.

The key economic benefits of Green Infrastructure identified by the Natural Economy North West (2008) include:

- Climate change adaptation and mitigation.
- Flooding alleviation and water management.
- Quality of place.
- Health and well-being.
- Land and property values.
- Economic growth and investment
- Labour productivity.
- Tourism, recreation and leisure.
- Land and biodiversity.

However, determining the economic value of a city park system is still a very complex task. Cities and universities should together research and analyse this further into depth. If more data would be collected on park usership, park tourism, adjacent property transactions, water runoff and retention, and other measures, this would be beneficial for green urban space (Harnik & Welle, 2008:22).

Green space provides economic benefits when (Kramer & Dorfman, 2006:5):

- It is near houses and business locations
- It is welcoming to people (parks and greenbelts)
- It connects to other green spaces
- It connects to places people want to go (shops, libraries, recreation areas)

According to Kramer & Dorfman (2006:7) the category for economic benefits focuses on three main impacts that green and open spaces can have on a community.

Firstly, they state that green spaces can raise the property values of adjacent and nearby properties. From several studies it proves that the average increase is 5%. Therefore it is suggested that it is relevant to include some parks, greenways, greenbelts, and other developed or semi-developed elements within the green space plan that are in or near residential and light commercial districts. Stated differently: 'The more homes or business sites within one-quarter mile of the green spaces, the better'(Kramer & Dorfman (2006:7) ).

Secondly, Kramer and Dorfman (2006:7) state that connectivity is important. The more connected these types of green spaces can be, both with each other and with neighbourhoods or other destinations, the greater the increase in property values. Hence, they argue that planners should strive to include such people-usable green spaces in their plans and to work for connectivity, continuity, and linkages both between neighbourhoods and such other destinations as libraries, local shopping areas, recreation sites, and schools.

The third major economic benefit from green and open spaces is according to Kramer and Dorfman (2006), in attracting business attraction and making sure that they are interest to stay. Creating parks and other open spaces near existing business sites or potential future ones can bring businesses and jobs to a community. Thus, it is argued by Krmaer and Dorfman, that 'these types of green and open spaces should be designed with small businesses in mind, including both retail shopping and professional services'. If they can be linked to greenbelts or greenways that connect to residential neighbourhoods, the business-attraction effect can be increased even more (Kramer & Dorfman, 2006:8).

## 3

# Designing for Added Value

How can public green space be designed in such a manner that the added value thereof increases? During a student workshop held in Soest (the Netherlands), three groups of students were asked to evaluate the concept of Value Added Planning in terms of development initiatives and proposals currently active in Amersfoort. The objective was to conduct research to determine the impact of Value Added Planning in Park Randenbroek, an area located in Amersfoort.

### 3.1 Designing for green added value

How does green space impact on the value increase of property? And how can designs be made in such a manner that green impacts maximally on value adding?

From literature it proves that the environment is mostly responsible for the determined price of a place. The physical environmental dimension is based on:

- Green spaces within 50 meter
- Parking
- Recreational areas within 50 meter
- % of green within neighbourhood
- Density, including the ratio between old and new buildings

Detailed results and conclusions as conducted from the RICS (2007) study is summarized as follows:

- There is a positive but not statistically significant effect on the sale prices of homes adjacent to (within 30 metres of) open space. At distances greater than 30 metres, and up to 450 metres, from open space, homes were found to sell for statistically greater prices than homes located over 450 metres from open space (Rics, 2007:4).
- City and local parks are valued most highly by occupiers of detached properties, whereas proximity to amenity green space is valued most highly by occupiers of non-detached properties (Rics, 2007:7).
- Rectangular or oblong (long/narrow) parks are preferable to square or circular (short/wide) parks. A rectangular park, for example, would potentially offer greater opportunities for access – suggesting that accessibility as well as proximity is important to households (Rics, 2007:7).
- Being in close proximity to open spaces does have positive impact on property values, but this is largely dependent on the type of open space and distance from the space (Rics, 2007:4).
- Not all forms of open space are valued equally by households
- Developable open space, such as farmland and forested land, can provide amenity effects, albeit at lower levels than permanently protected open space
- The economic status of a neighbourhood is a factor in the analysis of the fiscal impacts of open space protection.
- There are likely to be opportunities to extract higher profits if the inclusion of open space creates an environment that is attractive to purchasers (Rics, 2007:7).



- Ensure sustainable exploration of the park: Bring more qualitative green spaces back into the park. The design of the apartments needs to compliment the environment. By developing near the water frontage will further enhance value added planning.

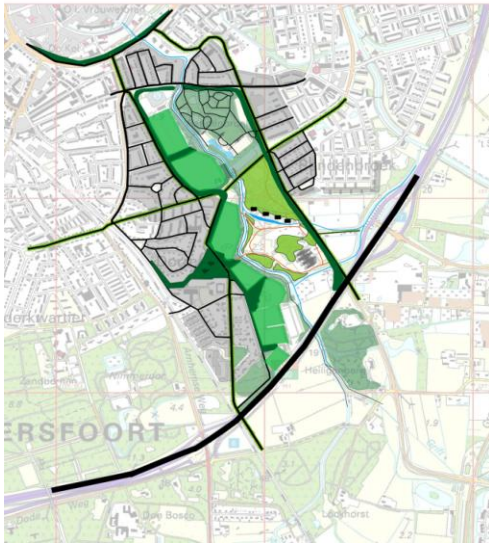


Figure 7: Development proposals Park Randerbroek (Nugteren et al, 2009:7)

The findings of the second group included (Houben et al., 2009:2):

- Developing new buildings within the park: Luxury apartments with public spaces on the roof will uplift the value of the building itself, while address the social function.
- Optimize the function of the park: Ensure social facilities (play areas, gardens, sanctuaries, theatres, viewpoints) and multi-functionality.

The Value Added Planning process that was followed is illustrated in the following figure:



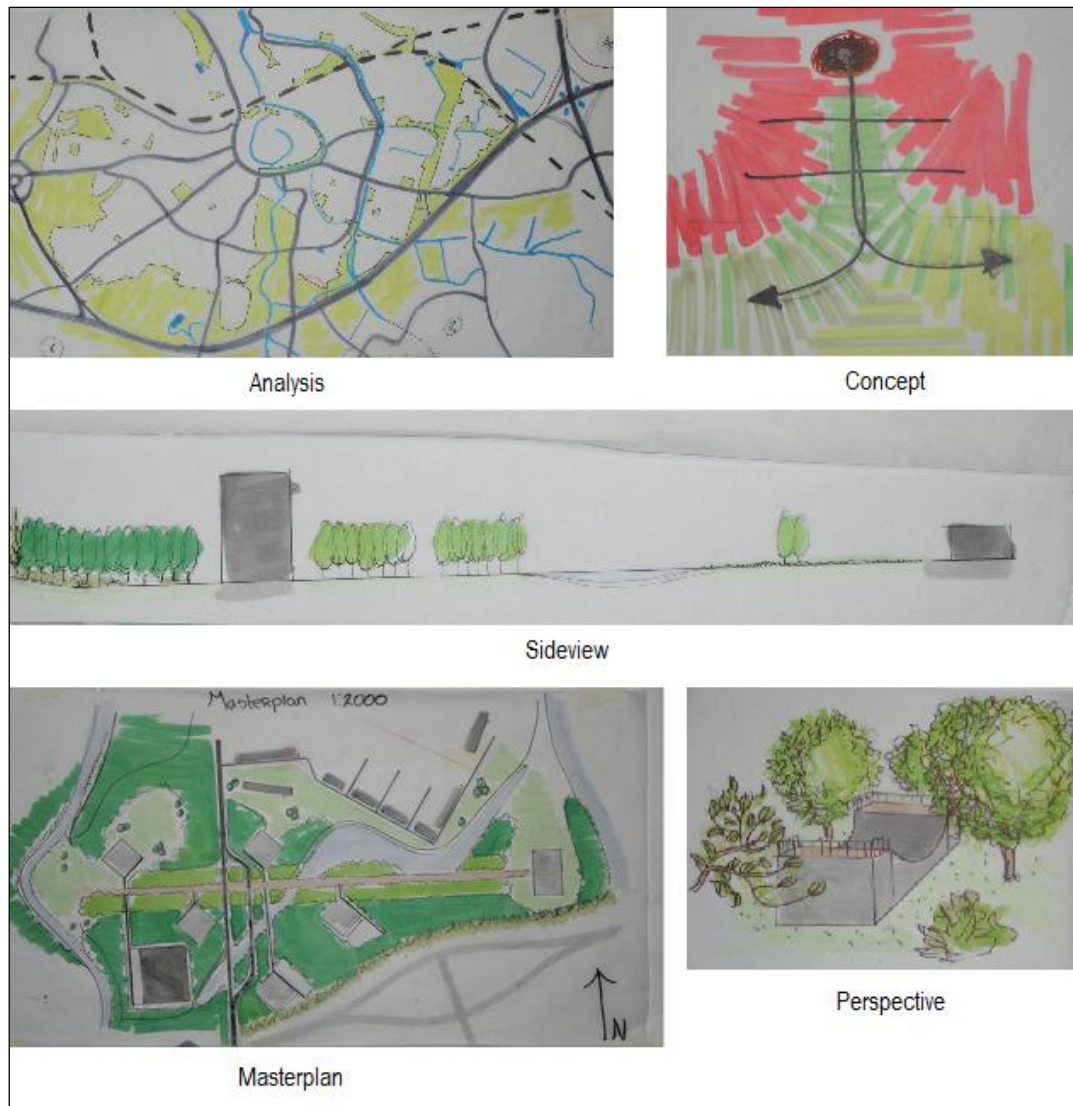


Figure 8: Value Added Planning process assignment 1 (Houben et al., 2009:11)

The second assignment (given to one group) was to create a plan to fund the development of the swimming pool within the residential area.

The group concluded the following in terms of (Creemer et al., 2009:13):

- Analysis: Accessibility from the west side is insufficient, the park is divided in two areas, and the houses on the west side of the park have no view onto the park.
- Concept: Sightlines are important and need to be re-established, the park needs to be redeveloped into a core unit, accessibility needs to be improved, and create residential areas near the water.
- Outcomes: Create added value for residents. The plan pays for itself as it ensures additional revenue from the buildings located in the qualitative green spaces.

The Value Added Planning process that was followed is illustrated in the following figure:

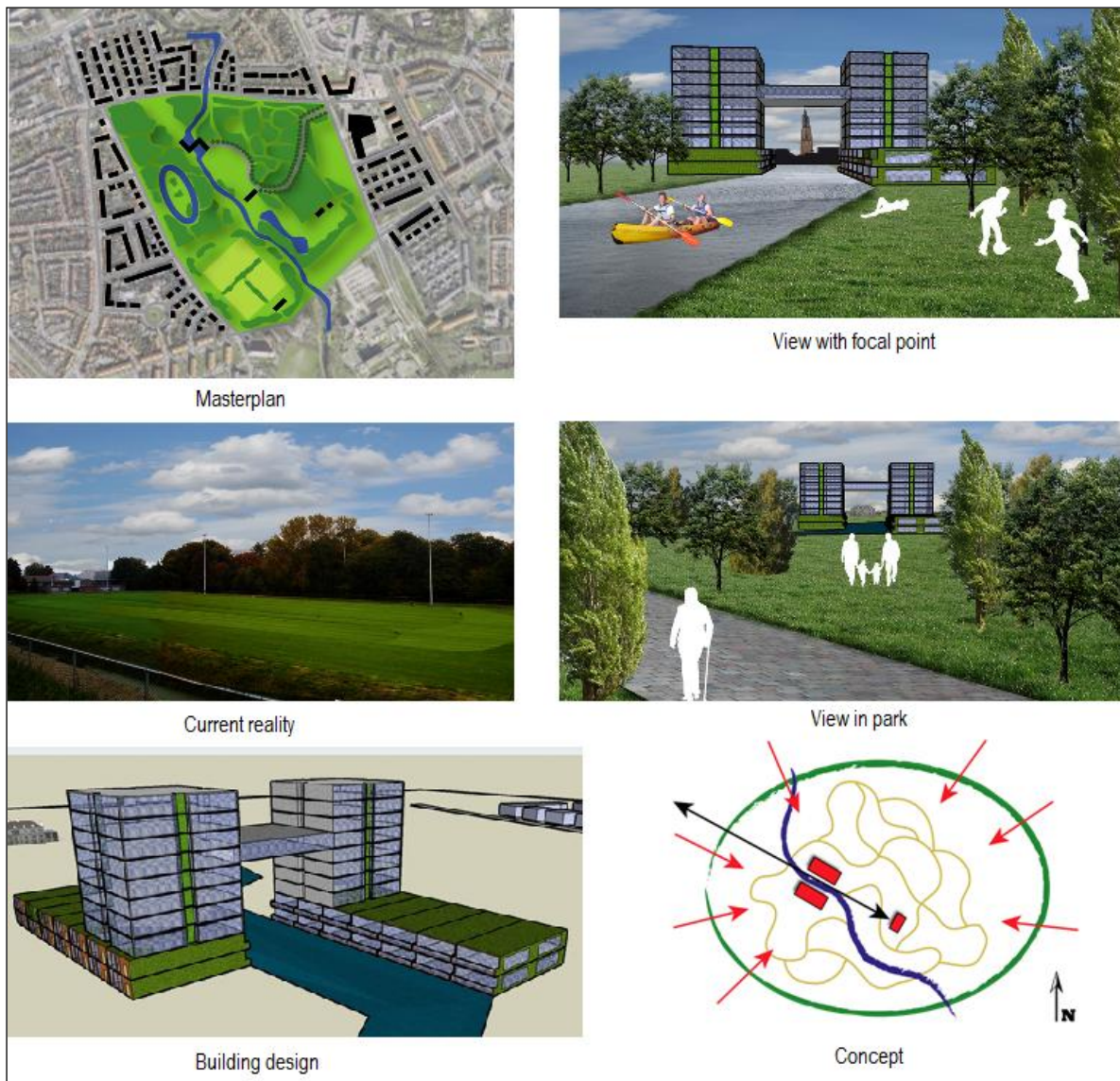


Figure 9: Value Added Planning process assignment 2 (Creemer et al. 2009:13)

The third assignment (given to one group) was to evaluate the current residential area (220 houses), and evaluate proposals for the future development (containing another 300 houses) that will ensure Value Added Planning. The proposals were subject to the current bicycle routes and walkways, the income structures, the designs (high or low building), and the relation between green and residential areas (block and neighbourhood scale).

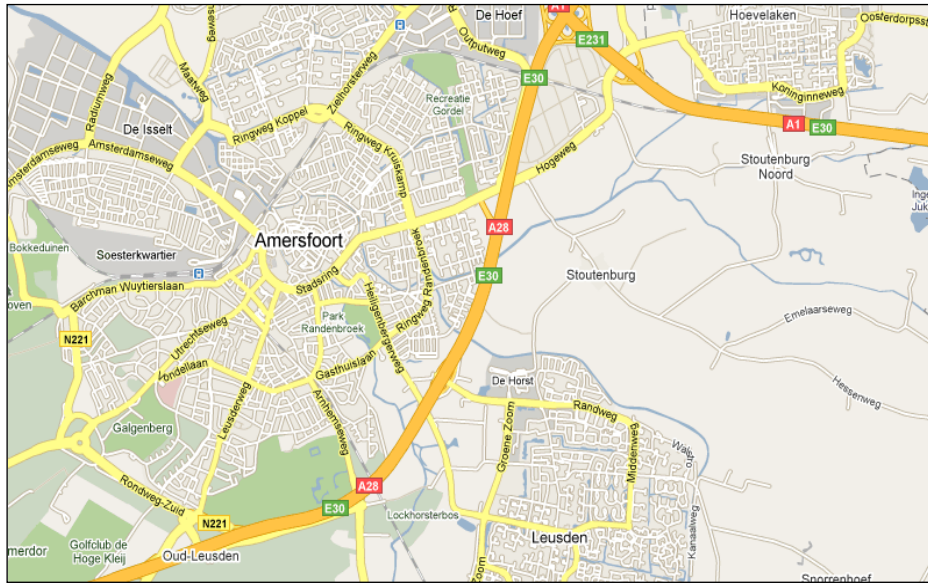


Figure 10: Location of the development site (Google maps, 2009)

The group concluded the following in terms of Value Added Planning (Grashoff *et al.*, 2009:4):

- Different type of houses need to be developed, including:
  - Houses – two under one roof, each having own garden, accommodating higher income groups.
  - Apartment flats – focus development on green spaces, accommodating lower income groups.
  - Apartment complex – focus on the water and green spaces, accommodating medium to high income groups.
  - High-rise residential building – functioning as landmark, enhancing the view and accommodating lower income groups.
- The development needs to accommodate the surrounding environment and sightlines needs to be established. Green should be integrated between the developments.
- The development needs to form a focal point and landmark. Walkways should contribute to the functionality of the developments.

The Value Added Planning process that was followed is illustrated in the following figure:

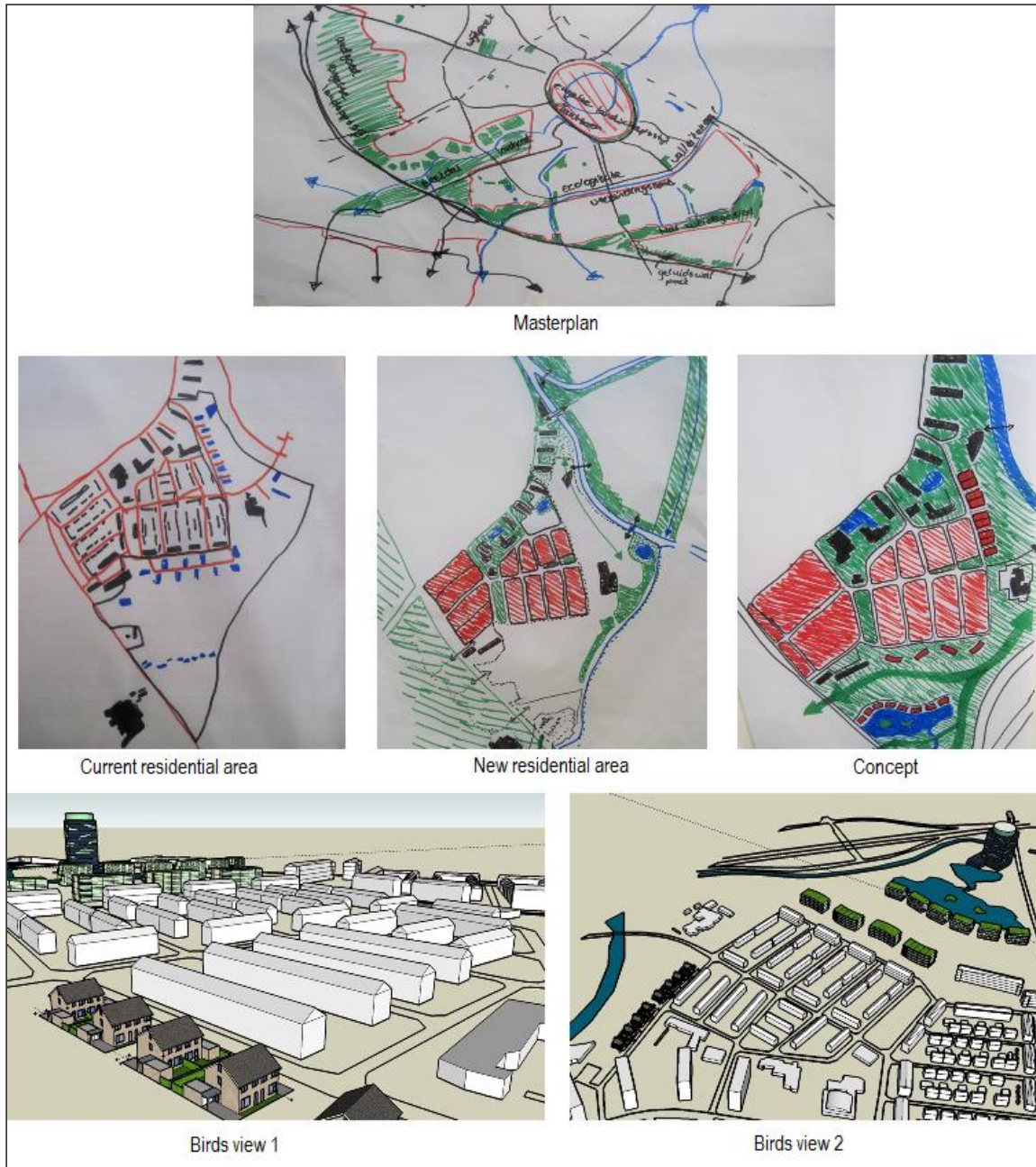


Figure 11: Value Added Planning process assignment 3 (Grashoff et al. 2009:15)

### 3.3 Value increase of green space: returns through taxes

In the assignment 'Stewardship' (De Rentmeester, part of the minor/major Real estate management and Property transfer at Van Hall Larenstein), it was investigated what an entire green design for Park Randenbroek would deliver financially. In the report 'Rentmeester; Park Randenbroek and Heiligenbergerbeekdal, a green design' C. Langenberg (2009), as part of above named assignment, shows that an entire green design for the park might be less profitable than hoped for, when basing the calculations on profit derived from various taxes that increase due to the green design.

The report and investigations are mainly based upon the research of Bervaes ( 2004, 'The impact of green and water on the transaction prices of houses'), factsheets from VHG (branch support for green entrepreneurs) and the MSc thesis of Wagteveld (2007) on the value of water and green on housing.

Wagteveld (2007) states that: 'from many studies it proves that parcs and public gardens and open water have a impact on the value increase, especially within a radius of 500 meter from the source. The results show that the value increasing impact for watre is bigger than for green (a difference of about 2%). At a distance within 50 meters from the source the price impact for open water are often between 6 and 8%. For parcs and public gardens this is 4 to 10%. Up to 500 meters distance water has a positive price effect of 4 to 6%, for green this is 3 to 4 %.'

Langenberg (2009) states that from the factsheets of the VHG it proves that the value increases with 14% when there is a view on the green (8%) and a small walking distance to the green (%).

Derived from above named sources, Langenberg states that the value increase in percentages is:

Distance in meters	0-100	100-250	250-400
Bervaes	4-7%	4-7%	4-7%
Wagteveld	4 - 10 %	3 - 4 %	3 - 4 %
VHG	14%	8%	6%
Average	8,80%	5,60%	5,00%

*Tabel 3: Value increase of green space/water relative to distance (Langenberg , 2009, based upon Bervaes 2004, VHG 2009, Wagteveld 2007)*

In the report of Langenberg an average percentage is taken to calculate the value increase, based upon the three above named investigations:

This mounted to the following zones: ;

Zone 1 0-100m at a distance from the parc : + 8,8%

Zone 2 100-250m at a distance from the parc : + 5,6%

Zone 3 250-400m at a distance from the parc: + 5 %

Below it is calculated what returns the municipality would receive on the added value through the WOZ (Total municipal taxes) on houses, due to a green design of the hospital area (Elizabeth terrein) in the parc.

The following values were used in the calculations:

OZB(real estate tax)-tarif : 0,0906%

Sewage tarif : 0,0226%

**Zone 1** 0 – 100

Total WOZ-value : € 51.296.000,-

Added value (=8,0%) : € 4.103.680,-

OZB (=0,0906%) : € 3.717,93

Sewage (=0.0226%) : € 927,43

**Zone 2** 100 – 250

Total WOZ-value : € 148.536.800,-

Added value (=5,6%) : € 8.318.060,80,-

OZB (=0,0906%) : € 7.536,16

Sewage (=0.0226%) : € 1.879,88

**Zone 3** 250 – 400

Total WOZ-value : € 147.377.100,-

Added value (=5,0%) : € 7.368.855,-

OZB (=0,0906%) : € 6.676,18

Sewage (=0.0226%) : € 1.665,36

In total the returns are thus:

Zone	OZB	Riool	
0-100	3.717,93	927,43	
100-250	7.536,16	1.879,88	
250-400	6.676,18	1.665,36	
<b>Totaal</b>	<b>17.930,28</b>	<b>4.472,67</b>	<b>22.402,95</b>

*Tabel 4: value increase per zone through taxes (Langenberg 2009)*

This means that the municipality will receive € 22.402,95 a year through the WOZ taxes due to value increase of the property. When € 11.000.000,- on the investments costs of the municipality (for purchasing the Elizabeth area) should be returned, then Langenberg (2009) makes the following calculation:

$$€ 11.000.000,- / € 22.402,95 = 491 \text{ year.}$$

In these calculations inflation has not been taken into account, as this is difficult to forecast. The numbers that were used for the calculations were taken from the municipal website of Amersfoort. The WOZ was based on several websites on which houses were offered for sale. It was assumed that the WOZ value was equal to the sale-value of houses. Where there was not information available, houses were compared to determine the WOZ value.

Langenberg concludes that, taking into account that the municipality has indicated that she needs a financial return on the investments within 20 to 25 years, this means that the return after 491 year will definitely not cover their investments within the wished timeframe. Hence, the municipality is advised to consider other options to get a return on the investment of € 11.000.000,-.

### **3.4 Conclusions**

The three designs made by the student groups for Park Randenbroek and surroundings show what the municipality could possibly develop within this green area. However, to get a clear understanding of the actual added value of these developments within the park proved difficult.

The houses and apartments that could be built might provide the municipality with enough income to cover the costs that were already made for the purchase of the location. However, in times of economical crisis, the sale of these apartments might not be as easy as hoped for, and the actual added value of the green on the house-price might thus not be satisfactory.

Finally, the last case-study of this chapter (Rentmeester, Lanengenberg 2009) proved that the WOZ (Wettelijke Onroerende Zaken belasting - property tax to municipalities) increase of houses adjacent to the park, when leaving the park green and not developing it, will not outweigh the investments made by the municipality in near future.

# 4

## Modelling values of green

In the previous chapter it became clear that creating added value through new developments within Park Randenbroek is not very easy. Big investments are needed, and returns are uncertain. Which other possibilities are there for planning in such a manner that an added value of public green space can be obtained?

A student consultancy group reflected upon Value Added Planning as a method, and came to the conclusion that no definition so far exists in literature regarding the concept of Value Added Planning (VAP). Although benefits of urban green are extensively addressed, scientific literature does not deal with a holistic strategy regarding VAP. Thus, it is argued to formulate a more holistic strategy, in which economic, environmental and social values are integrated. Moreover, a VAP method should not be too time-consuming to adopt by policymakers, though still incorporating all relevant factors of the value of green (Consultancy 644, 2010).

In order to come up with a more holistic approach, the students developed a model in which a broad range of factors are incorporated: Strategic Green Investment. Strategic Green Investment (SGI) make use of a comprehensive checklist comprising of different green-space values providing municipalities with a monitoring tool to evaluate or justify municipal green-space investment, and furthermore provide different strategies to get a financial return on investment (Consultancy 644, 2010). In this chapter, this model will be introduced and reflected upon.

### 4.1 Four dimensions of Value Added Planning

The monitoring tool is based on related strategies of Value Added Planning, as captured in literature and illustrated in the following figure.

		VALUE	
		Extensive	Non-Extensive
ADDED PLANNING	Hard	VAP	Value Capturing
	Soft	Monitoring Tool*	Pressure-State-Response

Figure 12: Relation between VAP and other strategies (Consultancy 644, 2010:10)

\*It is actually non-extensive but it is suggested that additional variables can be added.

The figure illustrates four dimensions derived from the concept of Value Added Planning (VAP). Horizontally, the value dimension distinguishes between extensive (implying a strategy that incorporates all relevant values) and non-extensive (strategy that covers only some of the values and fields relevant to urban green-spaces).



The vertical axis distinguishes between soft and hard data, revealed in terms of monetary outcome (hard) or some other social benefits (soft). Already at the first glance the figure depicts that VAP, placed in the upper left corner, as an ideal type has not been found in literature and thus enhances the need to develop this concept in greater detail (Consultancy 644, 2010:10).

Within the framework provided in the above figure, the model of Pressure-State-Response (integrating the categories of non-extensive and soft), considers green-space and urban green planning from a political and broader perspective by stressing different functions of green-space, classified as indicators, and measured in economic terms. PSR serves as highly valuable in terms of an economic discussion.

The economic dynamics revolve around the state (of green-space) and PSR tries to explain the interaction between (public) pressure on the state (of green-space) and the (political) response to it (Rodenburg et al., 2001).

#### 4.2 Strategic Green Investment

Broadly speaking *Strategic Green Investment* (SGI) is a method municipalities can use to strategically justify to invest in urban green-spaces. In more detail, SGI consists of two domains, (1) the monitoring domain where an inventory of the existing green-space by listing a variety of values of green-spaces, and (2) the monetary domain where the focus is on the financial returns on investment in urban green-space, using innovative strategies to either reduce running costs or generating income (Consultancy 644, 2010:30).

SGI provides the political arena with a comprehensive basis to firstly understand the importance of green-spaces better and, secondly, to debate in depth about it using a common ground to plan for these spaces. SGI captures many innovative ways of ensuring a financial return on investment, either through costs reduction or income generating. The green-space investment is strategically orientated as it presumes to linked different forms of financial returns a priority to the initial green investment (Consultancy 644, 2010:31)

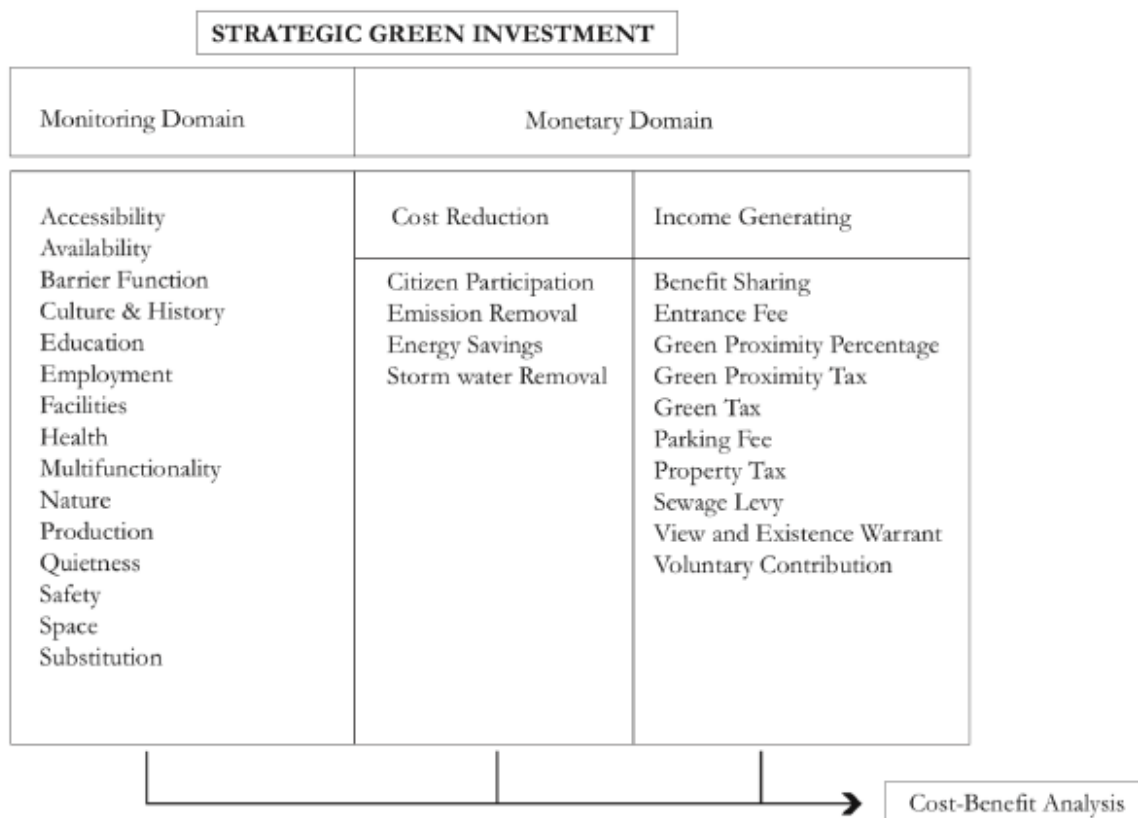


Figure 13: Strategic Green Investment (Consultance 644, 2010:31)

Although SGI is the outcome of insights gained from an extensive literature research, best practice analysis, different expert consultations and a debate, the results are descriptive in nature, rather than prescriptive. In this respect, the SGI is dynamic, implying it can be adjusted to specific area preferences, and because it is still not exhaustive, it is flexible to accommodate new innovative add-on's to generate more income or reduce running costs.

### 1: Monitoring Domain

The aim is to make an inventory of the existing green-space by listing the values of green-space. This list is meant to incorporate all green-space values and benefits stemming from different levels (micro, meso and macro level). The purpose of this domain is to provide municipalities with a comprehensive and extensive framework of values of green-spaces, serving as a checklist to evaluate the current green-space status. Moreover, apart from merely being a checklist, this inventory should also serve as an inspiration list for municipalities identifying divers of green-values and benefits of green-spaces stemming from different domains.

The checklist provided can be seen as a multi-criteria analysis along different kinds of green-values. After the municipality made an inventory they will weight each value respectively, thus determining the importance of certain values over other green-values. This assessment is subjective as each municipality will assess the values on basis of its own preferences, agenda setting and motives. In the end, municipalities will have a list of values scored from highly important to least important or redundant. Finally, the most important values and benefits will be taken into consideration in the cost-benefit analysis. Potential methods used to gather green-values are also incorporated in this domain and include data collection methods and data processing methods.

### 2: Monetary Domain

In contrast with the monitoring domain that is occupied with the quantification of different green-space values, the monetary domain comprises different strategies municipalities can use to either reduce their running costs (in respect to spatial planning, maintenance, energy consumption or CO2 emission costs), or generate income (by different taxes and fees or benefit sharing). Here, the emphasis was placed on *innovative return on investment strategies* (IROIS) to capture the initial green-space investment that was made by the municipality.

Scientific literature on green-space investment has up until now not been able to develop a comprehensive method that captures all values of green-space and transfers it into monetary terms. Since many important values of green-spaces cannot be captured by the price mechanism, they were captured as positive or negative externalities, having by default a rather unimportant status compared to values of the monetary dimension. In order to overcome this structural problem, IROIS served as a solution to return the initial green-space investment bit by bit by using different means from different sources. IROIS can be applied within the monetary domain, more specifically within both, cost reduction and income generating strategies, as described accordingly:

- **Spatial Planning Costs:** The main idea is here to reduce costs of spatial planning by bringing different stakeholders together to discuss certain values of green-space (economic, social, ecological and cultural). This participatory planning process results in qualitative planning, as observed in the Workbench Method, a tool to ensure participation in planning processes (ACT Group, 2009).
- **Maintenance Costs:** The maintenance costs refer to the municipal costs within a green-space after the initial investment has been completed, as investment often bears ongoing costs of maintenance. Parks have to be cleaned from leaves, grass has to be mowed, rubbish has to be collected, (smaller)

lakes have to be taken care of, sewages have to be cleaned or excess water runoff has to be removed. The municipality (as investor) is responsible for this public space and the maintenance thereof, regardless that many stakeholders, such as businesses and citizens, benefit from it. The IROIS initiative introduced *Citizen Participation* to address this problem. The idea is to outsource the maintenance of different small green parts to citizens who will be responsible for that piece of green-space that has been assigned to them.

- **Energy Consumption Costs:** Reduce running costs can be realized by investing in *Energy Savings*. Here, the strategic planning of for example trees along housing areas can create shade that will prevent the houses from heating up and thus saves on energy costs that would have been used for air conditioner. In this regard the municipality of Rotterdam and Arnhem made attempts to strategically subsidize/invest in green on rooftops. The municipality of Rotterdam subsidizes 30€ per m<sup>2</sup> realized green on rooftops, justified by the fact that it makes the city greener and serves as rainwater runoff buffer.
- **CO<sub>2</sub> Emissions Costs:** Governments and municipalities have to find solutions to reduce the CO<sub>2</sub> emissions in order to comply with EU-regulations. The tool “CITYgreen” investigated the direct link between trees and the potential pollution removal, and attached cost/saving thereof. Corporate Facility Partners conducted studies to illustrate the exact CO<sub>2</sub> footprint of businesses. These data was used to reveal how much cost reduction the planting of trees could cause. Municipalities can therefore estimate the reduction in costs applicable to the CO<sub>2</sub> emission rights that have been assigned to them. This IROIS is called *Emission Removal*.
- **Taxes, Levies and Fees:** An important and effective method to ensure direct return on municipal investment is tax. There are different IROIS that can be used for green-space taxes. The most common and well-known taxation instrument for the Netherlands is the *Property Tax (OZB)*, which is levied on homes and is a fixed percentage of the property value. In 2010, the property tax levied on properties in the Netherlands was 0.0919% of the property value and is charged on an annually basis. Hedonic pricing, as a method, can also be used to determine additional value of properties gained by a public green investment (Goossens, 2009). Therefore, the additional property value created by the urban green-space investment could be returned to the municipality, by means of property tax. This IROIS is called *Green Proximity Tax*. Another IROIS, where visitors pay for green is a tax called *Green Tax*, which will be levied on each product or service sold in green-space areas. The idea is to let the visitors indirectly pay for the use of green facilities provided by the public. *Sewerage Levy* is another IROIS municipalities can use by investing direct in water capturing and storing facilities (Goossens, 2009). A *Parking Fee* could be introduced on parking lots in high proximity to green areas. An additional income could be generated by getting a certain percentage from parking tickets that are imposed for ‘wrong parking’ on parking lots meant for green visitors.
- **Benefit Sharing:** The initiative is to give certain businesses (especially hospitality or leisure and touristic companies) permission to settle in a particular green-area, with the believing that it will attract more visitors, and have additional profits due to location. A certain percentage of the profits are then owed to the municipality.
- **View and Existence Warrant:** Residents will pay additional amounts to ensure proximity to and view on green-spaces. This is reflected in the high demand for residential areas in close proximity to green-areas and in the housing/rental prices that are higher compared to similar houses not being in proximity to green-spaces. This IROIS can be called *View and Existence Warrant* and requires the residents to pay 2,5% of the purchasing price of the house, which will be put into a fund. The fund will increase by an annual rent.

### Cost-Benefit Analysis

The final step of SGI is to bring all the data processed and information gathered, either qualitative or quantitative in nature together and set it into a cost-benefit analysis. Within the analysis important costs, such as the investment costs or the ongoing maintenance costs of a certain urban green-space, will be evaluated and compared to the benefits, in order to determine if the municipality should invest into a particular green-space. Whereas, the result of the monetary domain is already translated into a monetary value and can thus be directly integrated in the cost-benefit analysis, the outcome stemming from the monitoring domain cannot so easily be incorporated (Consultancy 644, 2010:38).

The model SGI as proposed comprises three major elements; the monitoring domain, the monetary domain resulting in a cost-benefit analysis. Ideally, the cost-benefit analysis will be used as an integration of both domains, thus bringing together more qualitative and quantitative aspects of green.

*The SGI should never purely be perceived and treated as a financial investment tool that will monetarily indicate whether or not to invest. Rather, the investment decision should be based on both qualitative values and monetary values. The more IROIS will be invented the higher the monetary benefits inherent to the green-space investment.*

### **4.3 Conclusions**

This model certainly offers a holistic approach to Value Added Planning. A broad range of values has been incorporated. By taking into account both the monitoring domain and the monetary domain both direct monetary benefits and costs and indirect qualitative values can be taken into account. However, this model was constructed within a limited time frame, and it has not been worked out to such an extent that it is truly operational and municipalities could apply it. Hence, further research and work on this model would be needed to make it operational.

Another note is, as said, that it is difficult to incorporate the monitoring data into a cost-benefit analysis, and hence it remains difficult to attach tangible values to these indirect, qualitative features of green space.

# 5

## Value Capturing

Creating a model for Value Added Planning, and calculating the benefits and costs of investments in public green space is a complex task, as was shown in the previous chapter. For many municipalities it thus remains difficult to predict what their investments in green space will bring them in the future. Moreover, it proves that whereas municipalities in the Netherlands are investing in public green space, it is often private parties who financially profit from these investments.

In this chapter it will be discussed which methods there are to determine the value of green space, and what possibilities municipalities have to capture the returns on the investments they make in public green space. This is mostly based on a thesis report by A. Goossens (2009) on value capturing of green investments by municipalities in urban spatial development.

Value capturing aims at gaining back the returns on investments done by the government, which give an increase in value of real estate of private parties, so that these returns can again be reinvested in the public green space.

### 5.1 Determining the value of green spaces

From an economic perspective, the valuation of urban open space is difficult to calculate because it is a classic public good, where there is no market price. Its lack of value in monetary terms prevents urban open space from being properly evaluated in cost-benefit analyses. Nonetheless, questions concerning the economic value of open spaces have been addressed by economists through the use of two broad methodological approaches: stated and revealed preference, and through the use of hedonic pricing models (Rics, 2007:2)

- **Stated preference** is determined through surveys to find out what the individual preferences and values for environmental goods are. Contingent valuation is a good example; individuals indicate the maximum price they are willing to pay for an environmental good or benefit.
- **Revealed preference** makes use of observed market choices from individuals. This way their underlying preferences are revealed. This technique can also be used to estimate the values these individuals place on goods and services. Hedonic Pricing Models are one example of this technique.
- **Hedonic Pricing Models.** In this technique specific characteristics of a good are analysed and it is then indicated which characteristic contributes what percentage of the value increase. When applied to residential property in relation to urban open space, the property is seen as a heterogeneous good with a bundle of characteristics contributing to its sale price (bathrooms, garage, bedrooms, but also environmental attributes, such as amount of green space). Through regression (evaluating the relationship between one dependent variable and one or more other variables) of the transacted house price (the dependent variable) against this bundle of characteristics the value of the environmental attribute capitalized in the price of the house is captured. In this manner the private benefits of open space can be estimated (Rics, 2007:2).
- Another method is MKBA (Maatschappelijke Kosten Baten Analyse) - Societal Cost Benefit Analysis, in this method all the current and future costs and benefits of a development are outweighed by calculating them in a monetary manner. The MKBA hence quantifies the changes in welfare and quantifies these

changes, so that they can be added up and subtracted. In order to be able to quantify the impact of infrastructure on nature, water and soil in the MKBA, a progressive scheme has been set up in which the physical effects of infrastructure on the natural environment can be translated to the impact on welfare. The five steps are: 1) determining the physical impact of infrastructure on the natural environment, 2) determining for which conditional environmental function the physical effect is relevant, 3) determining the welfare effects in terms of goods and services connected to the natural environment, 4) quantification of the welfare effects and 5) expressing the welfare effects in monetary terms, in case possible (Ruijgrok et al, 2004). This method does not offer a financial analysis but depends mostly on index numbers.

With reference to several methods for valuation of green space, Goossens (2009) states that in many of these methods, the value increase of real estate appears to be an important financial value of green. Therefore he argues that, in relation to value capturing of investments made in public green space, it is worthwhile to specifically reflect on the value increase of property and real estate.

## **5.2 Defining Value Capturing**

What exactly is value capturing? Several definitions of value capturing are given in the report (A. Goossens, 2009). Offermans and van der Velde describe it as an umbrella concept for instruments which make it possible to capture the increased value of property and land, which came into being through public action, directly or indirectly and to reinvest this into the activities which caused the increase in value in the first place (Offermans & van de Velde, 2004, in A. Goossens, 2009).

Another definition is given by Roosemalen (2009), who states that value capturing with regard to real estate is about obtaining the extra financial means of the parties which are profiting but not contributing to the investments. Wolff (2007) is referred to as he explains the distinction between two mechanisms with regard to capturing or claiming back the returns on the investments. Claiming back costs (kostenverhaal) is often done when one finds that the private party may directly benefit from the investments done. In that case the private party should compensate only the costs made by the government. However, when it is assumed that the common interest should be compensated because of losing well-being (for instance open space or green space) or public investments, then it is spoken of value capturing. The private party should then not only compensate the costs but also part of the (expected) profit (Wolff, 2007, in Goossens, 2009).

As stated by Goossens (2009) a couple of important side marks should be made with respect to value capturing. Firstly, value capturing can only play a role when there is a factual value added to the property, in other words a financial value adding should take place (Holt & Janssen, 2008). Since value increase will be between 5 and 15 percent on average, value capturing can only be done when the financial gap within a project is not too big or when the financial risks can be overcome easily. Hence, value capturing will be mostly an additional financial source. Value capturing can impact on enabling a project or development to take place or if the project will attain a higher quality. Finally, value capturing can only take place when the pressure on the market is high enough, meaning a shortage of houses, shops, offices and companies within the redevelopment area (Bade & Schroeff, 2007, in Goossens 2009).

## **5.3 Instruments for value capturing**

Goossens (2009) distinguishes two ways of value capturing, direct and indirect value capturing. Direct capturing is used for the direct user of the investments, for instance a user-fee is charged, such as a parking fee. Other examples are road taxes or tourist taxes (Offermans & van der Velde 2004, in Goossens 2009).

However, with regard to public green space applying direct value capturing does not seem very interesting, since it might mean that less people will still make use of the public green space when this is charged.

Indirect value capturing is used when actors have an indirect benefit of a public investment, for instance with regard to green space. The instruments that can be used for indirect value capturing can be divided into categories of compulsory and voluntary instruments. With regard to involuntary measures, one can think of sewage taxes, property taxes, development rights, administrative guidance, development charges and impact fees. With regard to voluntary instruments one can think of Business Improvement Districts, benefit sharing, municipal land disposal or leasing, concession leases, developer contributions, connection fees, anterior agreements for exploitation and super developer.

However, how applicable are the above named instruments when it comes to value capturing in the Dutch context? Goossens refers to Offermans and van de Velde (2004), who analysed the instruments on their applicability. From the analysis it proves that the following instruments appear to be applicable instruments for value capturing:

1. Benefit sharing
2. Concession leases
3. Exploitation permit
4. Municipal land disposal, leases (Municipalities sell land to market parties. Costs for investments have been included in the price of the land.)
5. Incremental taxes (such as OZB)
6. Super developer

#### **5.4 Time dimension**

From further analysis on how these instruments can be applied, it becomes clear that there are two moments in which value adding takes place. The first moment is the realisation phase. When the realisation and sale of the house takes place a house surrounded by green will have a higher price than a house which is not surrounded by green space. The second phase is the phase of maintenance. This is when the green is fully grown and the estate value has increased. In this process of value increase there is a bigger time-span between the green investment and the moment that this investment can be 'harvested'. This means that the investment in the second phase is more attractive to those actors who have a longer time span in which they can operate (Goossens, 2009).

Since value increase is hard to determine in advance, value capturing ex ante is a complex matter. The risk is outweighed against the benefits and the rent over the investments. To increase the possibilities for value capturing it is important that green facilities are included in the spatial planning process in an early stage. Moreover, it is relevant to think in terms of investments and values rather than costs (Goossens, 2009).

#### **5.5 Strategy for value capturing**

A strategy for value capturing was developed (Goossens, 2009) in which five steps can be identified:

Step 1: analysis of terms: 1. Does actual value increase take place? Is there enough market pressure on the property market and a relative increase of the house price in general? 2. Is the shortage on investments relatively small?

Step 2: green and value adding in an early stage of the process

Green should be incorporated in an early stage in the design and development process as investments. This way value capturing can be included in the negotiation process in an early stage.

### Step 3: choice of the type of development model

The strategy for value capturing is dependent on the strategy for spatial development in general. In case the municipality opts for municipal land disposal, the municipality can already include the investments on green development in the exploitation of the land. Especially the first phase of value adding can be included in the land value. Possibly a second value adding on the long run can be partially incorporated in the land price.

In case the municipality opts for a Joint Venture, then benefit sharing, developer contributions or anterior agreements can make it possible to capture the value of investments in green possibly through public private partnerships). In case of self-realisation by private parties, incorporation of the investments in the exploitation plan is an option. However, in that case it is especially the value adding that will take place on the short run that can be incorporated.

### Step 4: choice for a private party with long-term involvement

Value increase on the long term is difficult to determine. A super developer, such as a housing corporation or an investor, has a longer time perspective, and hence value increase on the long run is interesting. By giving out of hands the construction and maintenance of green space to a super developers, they can best control and influence the value adding on the long run.

### Step 5: obligatory value capturing through taxes

Municipalities can also opt for the second phase of value capturing, via taxes such as the OZB (Onroerende Zaken Belasting, taxes on property) or sewage tax.

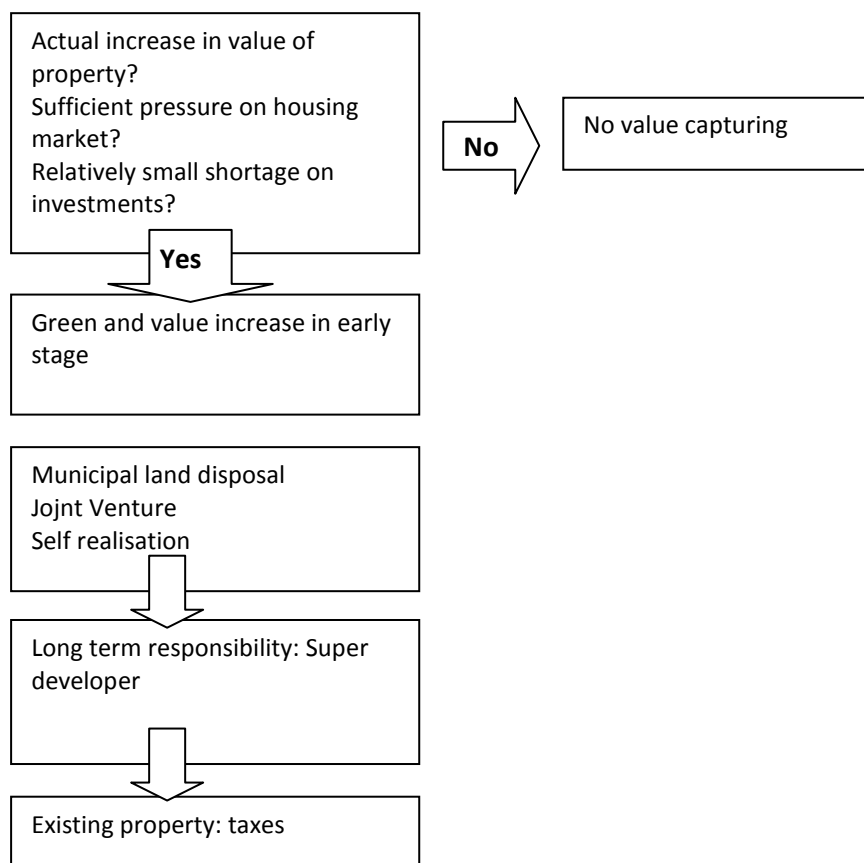


Figure 14: Strategy for Value capturing (adopted from A. Goossens, 2009)



## 5.6 Conclusions

From the thesis of Goossens it becomes clear that value capturing is mostly interesting in an early stage of the development and spatial planning process. When property has already been developed and green has been fully developed too, then it takes a long time span for the value to increase further. Besides, the exact value increase remains difficult to estimate.

When it comes to value capturing in the second phase super developers are mostly interesting for municipalities to cooperate with.

The strategy for value capturing also demonstrates that there are a couple of prerequisites to be met for value capturing from property to be able to take place. Firstly there should be an actual increase in the property price due to the green investment. Secondly it was demonstrated that there should be sufficient pressure on the housing market. Thirdly, the money gained through value capturing should only be a small portion of the total investment gap, since value capturing will only cover a small percentage and the degree of returns is unpredictable. In case these terms cannot be met, value capturing will not be an interesting option for municipalities.

At the moment, however, the Netherlands is experiencing an economic crisis, which also affects the housing market. Pressure on the housing market is thus low. Besides, due to the economic crisis, also the impact of green on the actual increase of the house price is lower than in a flourishing economy. These factors contribute to the fact that value capturing at this moment of time is not a feasible option. At the same token, however, it remains important, also in times of economic regression, to value public green space and guard its quality in cities.

In the next chapter a report on the future vision for the city of Amersfoort will be discussed. Which future developments should the city of Amersfoort take into account?

## 6

# Future spatial planning

When trying to work on value capturing of public green space it becomes clear that the economic situation and market tendency are important factors that will determine if value adding of green on property actually takes place. In case the economy is not flourishing and the housing market is not stable, value adding of green space on property is minimal or non-existent, and value capturing is hence not feasible. In this respect it is important to understand the Amersfoort economy and to get an impression of possible future economic developments.

Commissie van Ek is a commission of eight Dutch experts, who investigated trends in the economy of Amersfoort and developed an economical vision for Amersfoort 2030. From this report (Commissie van Ek, 2009) it becomes clear that there are several factors that impact on the economy of Amersfoort. In this chapter the report of Commissie van Ek is presented and the trends which they have defined are discussed. A few of these trends will be highlighted and concluded upon.

### 6.1 Economic developments

#### Historical economic development

For a long period of time the economy of Amersfoort was flourishing. In the eighties Amersfoort was given the status of 'Growth city'. This meant that about 15.000 new houses were to be built. The amount of jobs has ever since grown twice as fast as its amount of inhabitants. In 1985 there were 88.000 inhabitants, whereas in 2008 there were 140.000 inhabitants. This is an increase of 60%. There were 31.000 jobs in 1985, against 68.000 in 2009; an increase of 120%. This means that Amersfoort with time has developed from a typical living city into a living and working city (Commissie van Ek, 2009). Especially the fact that nature is nearby and that there is a good external accessibility of jobs is what attracts the inhabitants of Amersfoort.

There are very few big industrial sites in Amersfoort. Hence, the Amersfoort economy can be qualified as a clean service economy. Since 1998 the amount of jobs in Amersfoort increased with 28%, which is relatively high compared to the average of 12 % in the Netherlands as a whole. Especially the financial service sector and ICT have grown, and Amersfoort has many 'knowledge workers'. This high representation of knowledge intensive service sector makes the city economically attractive. It has been a pull factor for many enterprises in the 90s (Commissie van Ek, 2009). The central geographic position, space for enterprise development, relative accessibility and attractive, multidimensional living and working climate also attracted many higher educated people to the city. Moreover, the service economy offers a wide range of employment: from jobs for the highly educated to lower educated people.

#### Middle and small companies: fundament of the local economy

Most specifically Amersfoort appears to be a city of middle and small companies and half of all enterprises are one-man businesses and more than two third has less than ten workplaces. Moreover, only 1 % of the Amersfoort economy consists of enterprises with more than hundred workplaces. These middle and small companies are the fundament of the local Amersfoort economy. Most of these enterprises are strongly attached to the locality and a specific character of these small enterprises is their flexibility towards new circumstances. This means that this sector has a highly innovative character.

One of the trends which is already taking place is that there is a more and more intensive use of the space and more workplaces are being offered within neighbourhoods. Working within neighbourhoods is thus increasing.

#### Decrease of employment

Amersfoort developed rapidly since 1980, employment grew twice as rapidly as the amount of inhabitants, and Amersfoort developed from a 'living-city' to a 'living and working city'.

However, since 2001 the economy is stagnating. Although the amount of inhabitants is still growing the increase in the amount of jobs is lagging behind (Commissie van Ek, 2009). Besides, since 2001 the growth of jobs is also stagnating and lagging behind with the development of the residence function of the city. At the moment this is not problematic, but when this trend continues, it might be problematic in future. This has to do amongst others with the fact that more people will have to work longer and more due to the ageing of the population. This expected trend of more participation on the labour market is contrary to the decreasing amount of jobs in Amersfoort. Furthermore, the Amersfoort economy is currently depending on the economic development within the region.

## **6.2 Trends in the economy**

The Commissie van Ek (2009) did not only analyse the current economic situation of Amersfoort but also identifies several future economic trends that will affect Amersfoort. In the following paragraphs the trends identified by Commissie van Ek will be further elaborated.

#### Intensified building and accessibility of cities

One major trend is that whilst cities will be developing further, at the same time accessibility of these cities is crucial for the economy. In the economical vision for several cities in the Netherlands (visie Randstad 2040) the economic position of these cities (in the same region as Amersfoort) is regarded as very important, and it is estimated that 500.000 houses should be built within this urban region. Most of the building should be done within these urban regions and within the city boundaries. This means that development will specially take place within the cities and that the density and intensified building within city boundaries will increase.

#### Working more and longer

In 2008 strategies were formulated by the Commission for Labour participation in the Netherlands that should lead to the increase in labour participation and prolongation of working hours. This commission predicts a fundamental change in the Dutch labour market, due to several reasons. Firstly, the Netherlands will experience the availability of work, but fewer people due to the ageing of the population. Secondly, due to the trend of globalisation, the demand for highly educated and flexible labour force is increasing.

This national trend also will impact on the economy of Amersfoort, meaning that the labour participation will have to be increased in future (Commissie van Ek, 2009)

#### Working follows living

Whilst in the past people often sought a home near to their work, nowadays it seems that the opposite is the case: 'work follows residence' (Atlas voor Gemeenten, in Commissie van Ek, 2009). This means that, in order to be an attractive city for a higher educated workforce, it is important to offer an attractive residential climate for these people.

One of the major factors to allow for this is the degree of accessibility of the city. Besides the accessibility, also the liveability of the city and the cultural and culinary supply are of importance.

### Accessibility

The Netherlands is coping with a lot of traffic and traffic jams on its highways due to people travelling to and from their jobs at set times. This is expected to increase in future if a change in attitude will not take place. Hence, people should be stimulated to work from home (by making it financially attractive), on flexible hours, and nearer to their work. To enable this, creative solutions should be sought.

Also digital accessibility is becoming more and more important. Amersfoort therefore would like to facilitate and support a digital connection of its enterprises, organisations and inhabitants by developing a vast digital network. Thus a so-called 'digital-highway' is offered.

### Work-landscapes

Land is becoming scarcer in the Netherlands. Hence, the Netherlands should use its space in a sustainable and efficient manner. A study was done on the development areas in the Netherlands (commissie Noordanus). Two problems were identified. Firstly, the Netherlands knows many outdated development areas (brownfields). Secondly, too many new and cheap development areas have been constructed (greenfields). Business areas are often not developed in a demand-driven manner and newly constructed development areas often have a low quality.

In this respect restructuring of these business areas is stimulated through the government. On the other hand the notion of 'work-landscapes' was introduced by VROM council (council of the ministry for Housing, spatial development and Environment). These work landscapes are business areas in a new style, where the transition between work and living is fluent. By stressing that work can take place in a broader context of a landscape or environment, instead of picturing it in separate smaller islands in the form of business areas. Rather, working and living will become more integrated and spatial quality becomes a more central concept. Work-landscapes hence fit well in a city where people planet and profit are balanced in a sustainable manner (Commissie van Ek, 2009).

## **6.3 Recommendations for economic growth**

How can these trends be incorporated in the future policy of the city of Amersfoort? Which elements should be stressed over others in order to work towards a flourishing economy? The Commissie van Ek gives several recommendations in their report of the Amersfoort vision for 2030. These recommendations are very briefly summarised below:

### 1. Organisational recommendations

- Regional cooperation: make sure that rural and urban will strengthen each other.
- Sufficient capacity in the municipal organisation to exercise the economic agenda, cooperation with partners and facilitation to companies

### 2. Strengthen what is already strong

- Strengthening knowledge-based economy and service sector
- Investment in specific facilities for one-man companies and newly starting entrepreneurs
- Investigate the possibilities for strengthening innovative logistics

### 3. Diversification of the economy

- focus on government services, education and the care sector
- strengthen the recreational sector and city marketing
- Renovation of business areas and focus on rapid manufacturing: producing for the specific wishes of the consumer, personalisation and co-creation of products.

#### 4. Strengthening spatial-economic conditions

- Accessibility - create digital highway
- availability of space for business development
- 'Inspansion' instead of expansion
- restructuring the business areas
- creating 'work-landscapes'
- develop a plan to use space for business development in efficient manner
- revitalise the office market
- restructure existing business areas
- maintain the level of employment - mix residential and labour functions
- support the mixing of several functions within new neighbourhoods (Vathorst W).
- support neighbourhood economies and bring the concepts of 'work-landscapes', residence-labour combinations and 'integrated-campus' into practice. (Commissie van Ek, 2009)

From these recommendations a couple of factors will be highlighted, and put into perspective with regard to consequences for future spatial planning in the city of Amersfoort.

#### 6.4 Conclusions

Reflecting upon the report of Commissie van Ek (2009) three major factors can be identified which impact on future spatial planning in the city of Amersfoort.

##### Limited space for development within city boundaries

Firstly, there is little physical space for expansion of business areas and residential areas within the municipal boundaries of Amersfoort. Thus urban space should be used intensively, whilst keeping up the spatial quality. In order to take these factors into account, several strategies could be taken. The city will have to consider 'inspansion' instead of expansion; building should be done efficiently regarding the space that is used. Rather intensive use of space rather than extensive use of space. Secondly, accessibility of the city is a prerequisite for it to be attractive for its inhabitants. Most people living in Amersfoort are working elsewhere in the region. Accessibility of the city is however under pressure. Hence, smart solutions to keep the city accessible should be thought of. To solve the issue of accessibility it could be thought of stimulating different styles of work: working from home, intensifying digitalization and creating a 'digital highway'. Lastly, there is a general trend in the Netherlands of ageing of the population. This means that relatively more people will have to work more hours and longer period of their lifetime. To tackle the issue of employment, more jobs should be created on the short-term.

What solutions can be thought of to meet these preconditions, in order to stimulate economic growth? From the trends discussed in the report it proves that several trends could offer solutions.

##### Combining residence and labour functions

In order to allow for development in the city while space is scarce, creating 'work-landscapes' (as suggested by VROM, the Dutch ministry for Housing, spatial development and Environment) could be considered, where working and living are combined. This is in line with the trend of people to look for work near to where they live, instead of looking for housing near to their work.

This means that qualitative valuable spaces should be created to ensure an attractive residence location for entrepreneurs. When residence and working are combined in the same location, this could tackle several problems: the limited amount of space to expand, the fact that the city should remain accessible (working from home will decrease the amount of travelling and thus the amount of vehicles on the road), and it could give more possibilities for small entrepreneurs to run their own businesses from home. It would thus create more entrepreneur spirit in the city, and counterbalance the trend of becoming a 'dormant' city.

#### New incentives to the economy- Rapid production, innovative and clean industry, and personalised products

In order to encourage entrepreneurship, new economic incentives should be considered (Commissie van Ek, 2009). One of these could be investing in rapid manufacturing and innovative logistics. Rapid manufacturing is a new form of clean, small-scale, high-tech manufacturing industry. In this small scale industry, products can be produced quicker and taking into account the specific wishes of the customer. Moreover, the consumer is also given the opportunity to co-create the product. Personalisation of products seems to become a trend in near future.

These trends are relevant to take into account when developing a vision on spatial planning, and more specifically on Value Added Planning in Amersfoort.

# 7

## Conclusions

In this report four perspectives for understanding green urban space were reflected upon: designing, modelling, capturing and planning. What can we conclude from these four perspectives? In this report it became clear that catching the value of green in a concrete model or design is difficult. The value of green is highly dependent on the specific local environmental circumstances, but also on broader developments such as the market tendency and overall economic trends.

### 7.1 Conclusions on the four methods

#### Designing

Designing in such manner that green will add an economical value to property is possible as has been proved in many studies. A specific design of green space can impact on house prices and the total property value. Designing for added value is thus an interesting option. However, the value increase can often not be guaranteed or forecasted in advance, because it is dependent on the overall market tendency, as also became clear in the report of Goossens (2009). Furthermore, from several studies in Amersfoort it proved that the increase in taxes on property due to the added value of green space was often not sufficient to cover investment costs.

#### Modelling

Modelling the value of urban green gives municipalities the opportunity to assess what green values are there. Consequently they can strategically invest in public green space. When bringing the qualities of green together into a comprehensive model, such as the model for Strategic Green Investment, insight is given in a wide spectrum of benefits that could be derived from public green. These could consequently be measured against the costs. The model however, although comprehensive, is not completed into detail yet. Therefore it is not easily applicable for municipalities at this stage. Besides, modelling green qualities could lead to a static vision on the benefits of public green space. It proves difficult to include the non-tangible and indirect benefits of public green space on the long run in such models. In case the value of green seems very low according to the model, this does not necessarily mean that people would not value or appreciate this green space. Whilst the direct economic value might appear very low, not investing in public green space as a consequence thereof will most likely not increase the quality of the living environment. The outcomes of such models might thus easily be misinterpreted, and impact on green spatial planning in a negative sense.

#### Value Capturing

Could value capturing help to increase the value of public green space? As was discussed in the report of Goossens (2009), the value increase of real estate appears to be an important financial value of green. Therefore he argues that, in relation to value capturing of investments made in public green space, it is worthwhile to specifically reflect on the value increase of property and real estate. However, although value capturing seems an interesting strategy for municipalities to capture the added value of their investment in public green space, it proves that this method cannot always be applied successfully. There are a couple of preconditions that should be met to make value capturing feasible and worthwhile:

- there should be an actual increase in the property price due to the green investment.
- that there should be sufficient pressure on the housing market.

- the money gained through value capturing should only be a small portion of the total investment gap, since value capturing will only cover a small percentage and the degree of returns is unpredictable.

However, at the moment the pressure on the housing market and the impact of green on the actual increase of the house price in the Netherlands is low. Hence, value capturing does not seem to benefit public green spatial planning at this moment of time. At the same token, not investing in public green space is not an interesting option, considering the indirect impact of green on a wide range of aspects, from social to health and environmental values.

Future planning

What will the economy of Amersfoort look like in the coming years? How can municipalities plan in such a manner that above named values come to their right? From the economic perspective 2030 written by Commissie van Ek (2009) several conclusions can be drawn. First of all, what becomes clear is that working from home, and creating so called work-landscapes is likely to become a future trend. This means that people will not only use their neighbourhoods for residential purposes, but their direct environment will also serve as their office space, their meeting grounds, and their lunch place. This means that people spend much more time than they did in the past in their 'local environment'. Besides, it becomes clear that cities will have to plan developments more efficiently, since more building will have to take place within city boundaries. This will imply that more inhabitants will be confronted with developments in their local environment in future.

**7.2 Implications for Value added planning**

These developments illustrate the context in which spatial planning will probably take place in future. It becomes clear that the living environment will also become the working environment more and more often, and that more people will be confronted with developments within their living and working environment.

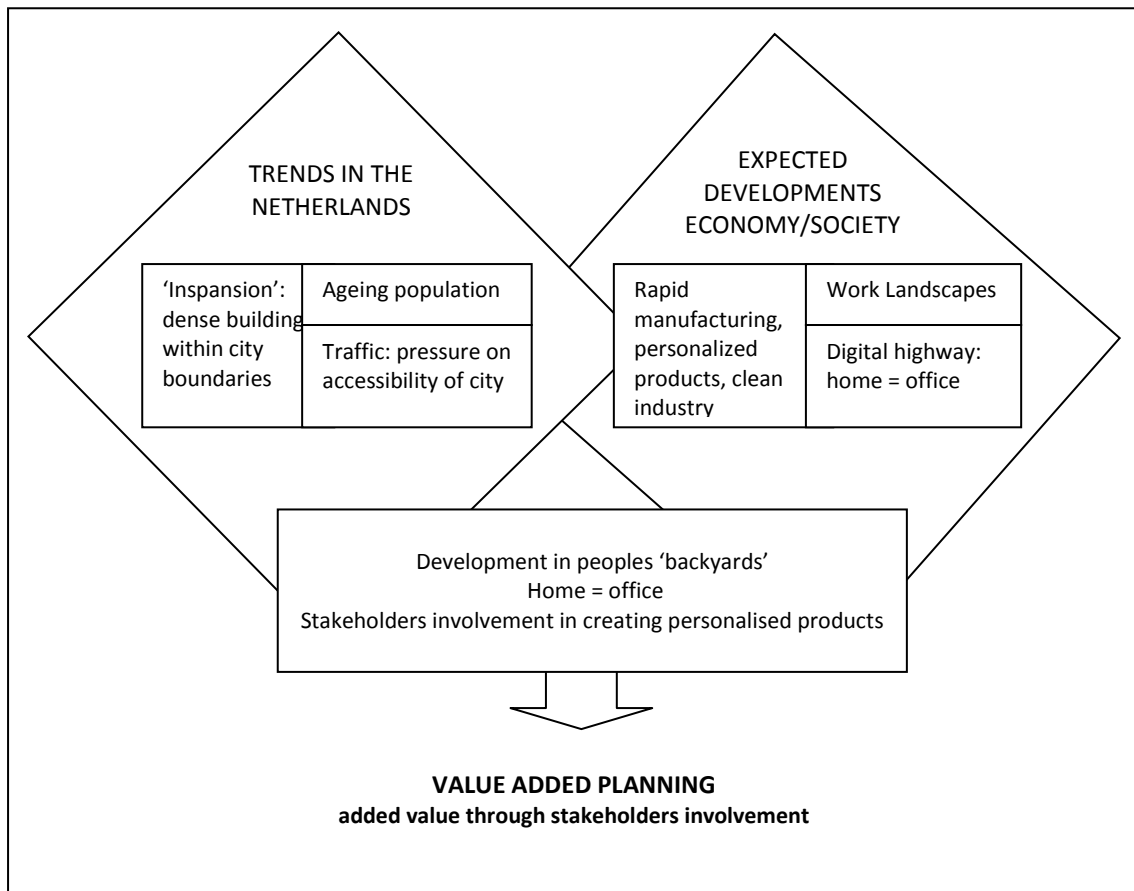


Figure 15: Value Added Planning: stakeholder involvement for added value of public green space



In this context it can be argued that it will become more and more relevant to consider who the people are that will eventually value their local environment.

The figure on the previous page demonstrates that, taking into account the trends and expected developments in the economy and society of Amersfoort (as elaborated by Commissie van Ek, 2009), active stakeholder involvement seems an inevitable aspect in future spatial planning. Through developments of 'inspiration', worklandscapes and rapid production, spatial planning is moving more and more into the direct sphere of local stakeholders. Their involvement in recognising, co-creating and adding value to green public space is likely to become more and more important in future spatial planning. In the end, spatial quality only exists by means of peoples recognition thereof.

# 8

## Discussion

How can spatial planning take place in such a manner that public green space will have an added value? One important question to reflect upon is: added value to whom? And whose values are considered in this respect?

### 8.1 Lessons from stakeholder participation in spatial planning

From previous studies performed within the VALUE-programme Interreg IVB (Diemont et al. 2010) it became clear that involving local stakeholders in spatial planning can have a positive impact on spatial planning process:

- when people are involved from the start in spatial planning processes it is more likely that they have a good understanding of why specific developments should take place
- when local stakeholders are involved from the start spatial planning processes can become more time-efficient, since it is less likely that people will slow down the planning process because they don't agree with the developments.
- involving local stakeholders could also lead to a more energetic planning process in which more financial resources for developments might be come across through the stakeholders personal networks.
- Involving local stakeholders means involving the people who will value and appreciate their environment. From an ethic perspective it is hence logical to involve them.

This study on the Workbench Spatial Quality, showed that active stakeholder participation from the start of spatial planning processes, can contribute to an increase of the perceived value of space, in other words; spatial quality.

### 8.2 Moving from NIMBY to YIMBY

Involving local stakeholders in the spatial planning process hence seems relevant and also beneficial to spatial planning processes. Since spatial planning is likely to impact more and more on 'peoples backyards' in future it is important that these local stakeholders are in favour of planned developments. A threat to spatial planning in this context would be if inhabitants will adopt the NIMBY-syndrome: Not In My Backyard. Rather, it would be interesting to promote YIMBY: Yes, in my backyard!

### 8.3 Value Added Planning: improving the spatial planning process

Reflecting on the various perspectives in this report it is argued that, in order to support value added planning in future it is relevant to consider the *process* of planning rather than *direct benefits as outcomes* of planning processes. The spatial planning process can be designed in such a manner that local stakeholders are involved from the beginning of spatial planning processes. In this manner the appreciation of local stakeholders for spatial designs and plans is likely to increase and the valuation of the local environment can be expected to be higher. Involving local stakeholders could thus support value added planning processes and increase the valuation of public green space by the public.

Even though direct economic returns of public green space cannot be captured or assessed directly through stakeholder involvement, it can have an important impact on sustainable and efficient spatial planning and quality of place (as also elaborated in the report 'Workbench for Spatial quality' Diemont, et al, 2010). This could also be the key to adequate and durable valuation and incorporation of green in spatial planning.

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E. Diemont, J. Cilliers, D.J. Stobbelaar, W. Timmermans  
University of Applied Sciences Van Hall Larenstein

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