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# Questioning the Place of Agriculture in Strategic Spatial Planning Documents: Three Cities in Western Europe

Nisha Mary Poulose

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International Cooperation  
in Urban Development

# **Questioning the Place of Agriculture in Strategic Spatial Planning Documents**

*Three Cities in Western Europe*

**Master's Thesis submitted by:**

Nisha Mary Poulose

**TITLE OF MASTER'S THESIS**

Questioning the Place of Agriculture in Strategic Spatial Planning Documents:  
Three Cities in Western Europe

**THESIS SUPERVISORS**

Director of Internship (IRSTEA)- Dr. Nathalie Bertrand  
Supervisor at University- Dr. Nicolas Buclet

**STUDENT**

Nisha Mary Poulouse

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**RESEACH DIRECTION AND INTERNSHIP**

**IRSTEA**- Institut National de Recherche en Sciences et Technologies pour  
l'Environnement et l'Agriculture, **Grenoble, France**



## **Confirmation of Authorship**

I certify that this is my own work and that the materials have not been published before, or presented at any other module, or program. The materials contained in this thesis are my own work, not a “duplicate” from others’. Where the knowledge, ideas and words of others have been drawn upon, whether published or unpublished, due acknowledgements have been given. I understand that the normal consequence of cheating in any element of an examination or assessment, if proven, is that the thesis may be assessed as failed.

Date: 9<sup>th</sup> September 2015

Place: Grenoble

Signature of the Author:

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**Nisha Mary Poulouse**

## **Abstract**

In the context of Western Europe, we see two prominent shifts in the arena of planning. The first one is that the city planning authorities have embraced strategic spatial planning as an overarching instrument to construct visions for the future and to pave the way to reach there. Secondly, there is an increasing awareness of the multi-functionality of agriculture which reveals that agriculture holds benefit for urban dwellers. This research is built from the convergence of these two debates and investigates the place of agriculture in strategic spatial planning documents of Western Europe. Exploring the documents of three cities to identify the reasons why agriculture has been included and the extent to which it has been integrated, this research evaluates these findings against evidence from a thorough literature review on the subject. Conclusions are drawn for each individual case and then widened to the larger context of Western Europe.0

## **Résumé (Abstract in French)**

En Europe occidentale, deux changements majeurs sont intervenus dans le domaine de la planification spatiale. Le premier est celui de la planification spatiale stratégique adoptée par les collectivités locales urbaines comme un instrument majeur pour construire des visions futures et ouvrir la voie pour y parvenir. Le second est la prise de conscience croissante de la multifonctionnalité de l'agriculture et de ses avantages pour les citoyens. Cette recherche s'est construite au croisement de ces deux débats et a examiné la place de l'agriculture dans les documents de planification spatiale stratégique en Europe occidentale. A partir de l'exploitation des documents de planification de trois villes, la recherche a permis – sur la base d'un examen approfondi de la littérature sur le sujet - d'identifier les raisons pour lesquelles l'agriculture a été prise en compte et dans quelle mesure celle-ci a été intégrée dans le projet urbain.. Des conclusions sont tirées pour chaque cas individuel, puis élargies dans le contexte plus vaste de l'Europe occidentale.

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*“There is a tide in the affairs of men.  
Which, taken at the flood, leads on to fortune;  
Omitted, all the voyage of their life  
Is bound in shallows and in miseries.  
On such a full sea are we now afloat,  
And we must take the current when it serves,  
Or lose our ventures.”*

William Shakespeare in *Julius Caesar*

Shakespeare’s call to seize the moment at a time of change and uncertainty is fraught with inspiration and accompanied by undertones of urgency interlaced with doom, yet the message is clear that the moment of opportunity lies at the intersection of change. To those of us who believe that change is possible, altering the course of history starts at an opportune moment, at the crossroads of the unknown.

## 1. Introduction

The earth today hosts 7 billion people, a number that is on the rise, and over half of them live in urban environments. Urbanism, which is increasingly accused of everything unsustainable, began as human settlements centred on food production and an agricultural lifestyle. However, with industrialisation, food production or agriculture increasingly became a symbol of backwardness and thus cities became, by common definition, centres of non-agricultural activity. With the United Nations Populations Fund pronouncing that for the first time in human history there are more urban than rural residents in the world (UNFPA 2007), there has been a flurry of activity in the research and practitioner arenas to cope with this profound realisation. The United Nations Human Settlements programme put forth that the current rate of population growth will lead to an increase in urban slum areas, with higher levels of unemployment, food insecurity and malnutrition (UN-HABITAT 2006). With warnings of climate change, biodiversity loss and resource depletion endangering us, and with nations endeavouring to face this challenge (United Nations Environment Programme 2014), we perceive an urgent call to alter the course of the world and to reverse the massive negative impact on the earth and its inhabitants.

Both academics and international organisations (UN, FAO, RUAF, World Bank to name the more prominent) have deemed that cities leaving agriculture and food out of its purview are the root cause of much of today's urban woes. In 1996 the FAO coined the term UPA (Urban and peri-urban agriculture) and defined the term (FAO 1996; COAG/FAO 1999) thus concretising both the concept and the terminology. It is defined thus: *"While there is not yet a universally agreed-upon definition, Urban and Peri-urban Agriculture is perceived as agriculture practices within and around cities which compete for resources (land, water, energy, labour) that could also serve other purposes to satisfy the requirements of the urban population. Important sectors of UPA include horticulture, livestock, fodder and milk production, aquaculture, and forestry"* (FAO 1996).

In 1999, the FAO Committee on Agriculture (COAG) highlighted the importance of urban and peri-urban agriculture (UPA) in feeding cities, creating employment and generating income for the urban poor and shed light on the fact that UPA must be integrated into agricultural production systems (COAG/FAO 1999). The FAO along with other leading agencies of development claim that urban resilience, poverty, social inequality and exclusions can be battled by improving the viability of agriculture in the region and the adverse effects of human settlement like environmental damage, and pollution can be significantly decreased by proper management of urban and rural expansion and growth (TCSF/FAO 2011).

Judging by the sheer amount of academic studies, conferences, good practice reports, guidelines and organisations on the subject of agriculture that has been churned out in the last few decades, it is evident that a general consensus has been reached on two broad concepts. Firstly the importance of integrating food and agriculture back into the functioning of the city and secondly on bringing the city and its hinterland geographically closer and better linked both physically and psychologically. It has therefore been determined that it is important for governments to take food and agriculture into consideration while planning for sustainability of the region in its most holistic sense (Pothukuchi & Kaufman 1999).

This effort to integrate agriculture into the urban planning system is the general concern that I have aimed to address in my thesis. I have chosen to focus my study on contexts within Western Europe that take some efforts to include agriculture into their plan for the future.

### **1.1. Problem Statement**

The European Environmental Agency's latest briefing on agriculture (European Environmental Agency EEA 2015) mentions that European farming systems face challenges of long term food security, reconciling impacts on the environment and increasing the viability of rural societies. The rising environmental concerns were added to the EU's development agenda, when it recognised the opportunities of sustainable farming that mediates environmental impacts, food security and the viability of rural societies (European Commission 2013). It has been suggested that the EU must acquire holistic and territorially oriented perspectives when it comes to agriculture and that integrated urban-rural development must be a pre-condition in order to receive any EU support or funds (Nilsson et al. 2014)

There are two emerging trends in Western Europe today, which I have substantiated in the consequent sections of my research. The first is that the field of planning is in a state of reinvention and there is a shift in the spatial planning system towards "Strategic Spatial Planning" (Albrechts 2006) The second is the surging interest in more sustainable food production and the multi-faceted functions and benefits of agriculture, both in civil society as well as on government agendas (Bouraoui 2005; Zasada 2011). The two seem to be converging as some cities in Western Europe have created a strategic spatial plan and has included agriculture in it. The purpose of my research lies at this intersection.

In conventional or traditional practices currently in existence in most parts of the globe, agricultural activity features on the planning agenda by the reservation of agricultural land on the land use plan. Traditional planning, which is mostly land use planning uses functional separation, and creates comprehensive master plans that are based on technical analyses of all necessary data (Oosterlynck et al. 2011). In this case, land is reserved solely for agricultural purposes but without instruments in the planning arena to encourage and sustain agricultural activity. As a result the development plan does not take into account the various problems faced by the agricultural community that are direct results of urbanisation, for example land pressure or fragmented landscapes that hinder essential ecological connections (Carsjens 2015). In recent debates the potential of agriculture within the urban realm has been highlighted as an activity with immense economic and social potential. Recognising the potential benefits of urban agriculture, many European citizens and communities across a spectrum of cities in the continent are increasingly getting involved in small scale and community level agricultural practices within city limits with aims of producing in part, the food for their own consumption. City administrations in many places encourage this activity and deem it important as a community activity for citizen participation (Morgan 2013). What is not addressed, however, is the agricultural activity that occurs within the region surrounding these cities, which constitutes large portions of rural farmland and an active farming community. As a result the services this agricultural landscape and community provides to the urban dweller is ignored and underutilised (Zasada 2011).

My research has looked at emerging planning practices and new planning instruments (namely strategic spatial planning documents) to identify and locate the position and perceptions attached to agricultural activity in the larger city region.

I have broken away from the conventional scope of urban agriculture, that it is agricultural practices within the city and in its immediate surroundings (FAO 1996) and widened its extent to include agriculture from the larger region around. I have studied the reasons for integrating agriculture into spatial planning documents of Western European cities and have identified the ways in which it has been done. By pinpointing the values and claims attached to agriculture in these documents, I aim to understand how agriculture is incorporated into the spatial planning strategies.

## 1.2. Research Interest

My research investigates the place that agriculture and food production holds in Western European planning arenas. To that effect I have explored the main question:

**How do the strategic spatial planning documents of Western Europe place agriculture in its visions for development?**

More specifically, using the academic literature on the subjects of strategic spatial planning, and agriculture and through case studies from three Western European cities, I have answered the main question through a two part analysis. I have done so through the following assumptions:

- **City-regions in Western Europe have integrated agriculture into their plans for development and this is demonstrated in the spatial visions.**

Using existing literature on the subject, I have derived some basic indicators that enabled me to determine if the city's planning document can indeed be classified as a strategic spatial plan and then locate the place of agriculture in my case study. I have analysed the strategic spatial planning vision that is constructed by the respective city authorities and obtained a deeper understanding of how agriculture is envisioned to attain the goals of the city. While I am aware that each city functions within the institutional and cultural context of the country, the limitations of my research prevented me from scrutinising each case study within the specific context. I merely extracted actions and goals related to agriculture that are mentioned in the documents and identified the intentions of including agriculture into the development vision. By assessing the purposes that each city region attributes to including agriculture in its strategic spatial plan, I answered my research question as to what is the place of agriculture.

- **The case study results and their points of convergence with existing theoretical claims offer some threads of commonalities that can be drawn upon to make some general conclusions.**

Having compared the results of analysis of these city regions from various planning systems with strong visions for their own development, I drew some commonalities.

I have explored this question at an empirical level in order to substantiate my conceptual arguments with evidence from practice. By weighing these commonalities against the theoretical analysis, I have been able to draw some general conclusions that answer the main research question.

### **Main theoretical research objectives**

- To construe the intersection point of two theoretical debates. That of putting agriculture on the regional development agenda and that of shifting towards strategic spatial planning to attain sustainable development related goals.

I have then gathered empirical evidence to validate my theoretical findings

### **Main empirical objectives**

- To ascertain the place of agriculture in the contemporary planning arenas as manifested in the strategic spatial planning vision and the importance assigned to it in the official planning documents and agendas in different scenarios that exist within the Western European context
- To determine if there are sufficient commonalities from the practical cases that intersects with theoretical claims in order to draw some general conclusions.

My empirical objectives illustrate my theoretical findings. My research is intended to be one that takes steps towards revealing some concrete benefits of using agriculture in strategic spatial planning, to attain development related goals. Moreover, I will ascertain how the theory has transitioned into the planning documents.

### **1.3. Discussion of Methodology**

This research stemmed from a personal interest in understanding how exactly agriculture is being used as a vehicle for regional development in the Global North countries and this thesis is a step towards answering this question. My objective was to identify the place of agriculture in Western European strategic spatial planning documents. More specifically I aim to analyse the primary strategic spatial planning documents of city regions spanned across Western Europe to gain a general understanding as to why agriculture was placed in these documents and the rationale that accompanied the inclusion of it. By doing so, I intend to identify why city regions deem it important to address agriculture related issues in their strategic spatial planning documents. Thereby, I will answer my research question that is the place of agriculture in strategic spatial planning documents of Western Europe.

The first step entailed a thorough analysis of the existing literature on strategic spatial planning in Western Europe and the discourse on agriculture and its various roles in furthering the goals of

development in city regions. Apart from gaining a detailed understanding of the academic perspectives on these two streams, I used this review to extrapolate a basic framework that enabled me to analyse the data for my case studies. I extracted the salient findings from my literature review, broke it down into elements, which gave me the basis for selecting and assessing my case studies. These I have presented in tabular format. To explicate, I have undertaken an exploration of the literature on the concept of strategic spatial planning and threaded what I have termed as, the identifiers of strategic spatial planning. I used these to select the documents for my empirical analysis. My intention was to ensure that the document, though named differently in different contexts and languages could indeed be categorised as a strategic spatial plan, and then move on to the more significant part of my research, which is to answer my main question on the place of agriculture in strategic spatial planning. I also identified some actions, goals and benefits that theory attributed to agriculture for development and I used these as a framework for my analysis. Both of these are explained in detail at a later stage.

The next step was to identify the city regions that I would use for my case studies. The first of my main criteria was that the case must be in a region which hosts agriculture as an important activity. Secondly, it should have a thorough strategic spatial planning document which is currently in effect. I have chosen Hamburg in Germany, Bristol in the United Kingdom and Almere in the Netherlands as my case studies and I have presented my process of selection on the following page.

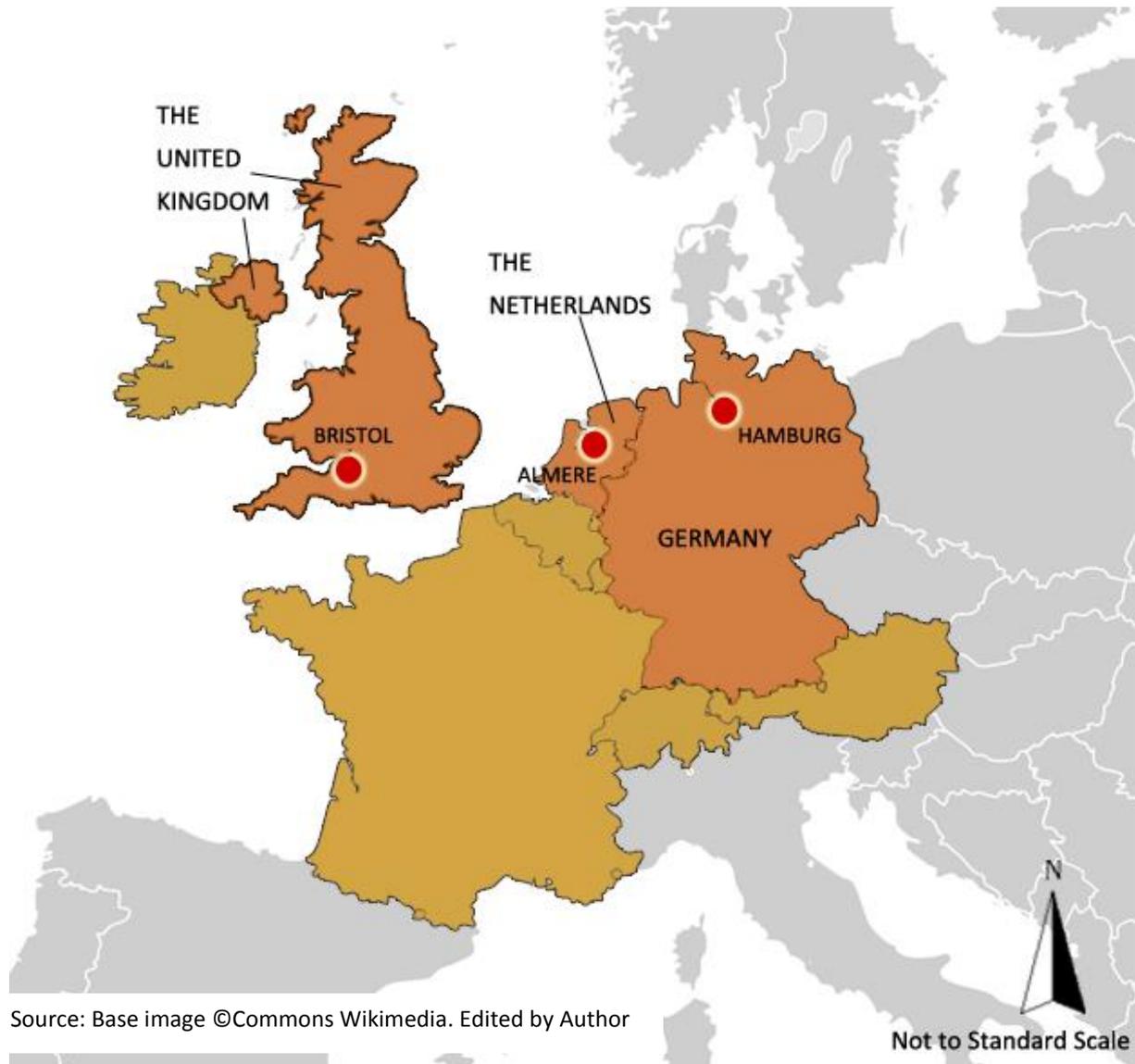


Figure 1- Countries of Western Europe and case study locations

The fact that this research is focused on strategic spatial planning and the Western European contexts narrows my choice of case study to the twelve nations categorised as Western Europe<sup>1</sup>. A characteristic and internally evolved planning system and a strong orientation towards agriculture are other factors that influenced my choice. My starting point for the case study selection involved preliminary research on cities within the United Kingdom, France, the Netherlands, Germany and Denmark (although not precisely Western Europe). Having explored various city regions from each country that places some emphasis on agricultural activity, I concluded that within the scope of my research project and my limitations, Denmark and France were not ideal options. In the case of Denmark, I was interested in studying the case of Copenhagen, but encountered difficulty in

<sup>1</sup>Western Europe is composed of Andorra, Austria, Belgium, France, Germany, Ireland, Liechtenstein Luxembourg, Monaco, the Netherlands, Switzerland and the United Kingdom (European Union, 2015).

identifying the relevant documents and in establishing contact with experts from the region. In France, the city of Rennes demonstrated promise as a case, but as I was not able to find academic sources, summaries or any reports on the subject in English, I came to the conclusion that without sufficient material, I would not be able to do justice to the case. Consequently, I decided to locate my study regions within Germany, the United Kingdom and the Netherlands, as I found it best suited to my theme and my preference. A paramount decisive factor was the language limitation that I am burdened with and as such, choosing a context where the planning documents and related research is presented at least in part in English was a fundamental one. I agree with one who might argue that any of the other countries within Western European could claim the same, however, the purpose of these case studies are only to discover how agriculture is represented in practical strategic spatial planning as compared to the theory.

Within each country, I chose a region that has a spatial vision in the implementation stage and a region that is rich in agricultural potential and hence needs an agricultural dimension in its structural vision. While there may be many cities in the context of each country that fits these criteria, I chose to examine Hamburg in Germany, Bristol in the United Kingdom and Almere in the Netherlands, simply because it fit all my criteria. Hence it is as good a case as any and I have justified my selection at the beginning of each case study. I reiterate that my purpose is only to examine the place agriculture holds in a strategic spatial planning document. I perceived a huge opportunity to pinpoint the answers to my questions, owing to the cases being from relatively different contexts. I do not intend to generalise these results for the whole country or for Western Europe as such.

The documents used for the analysis were available on the official government website of the city. Amongst the hosts of documents available, I chose the one that I identified as Strategic Spatial planning based on two criteria. Firstly, a study of the spatial planning structure of each country and city indicated the lead strategic document of the city under consideration. This planning system has been presented in the case study section of this thesis. Secondly, my literature study of strategic spatial planning enabled me to identify the document that could be classified as a strategic spatial planning document.

Once identified, I analysed the document of each city. As the documents of Germany and the Netherlands were in languages that are foreign to me I relied heavily on Google Translate as a tool that enabled me to understand the written matter in these documents. I extracted the actions related to agriculture that were slated to be actualised and the goals attached to them. In essence I identified the reasons for which the document mentioned agriculture.

I have then analysed the goals and actions in the city document against the actions and benefits that that I established through my literature review. For each city, based on the importance given in the documents, I have established their dominant interest in promoting agriculture in development. Finally, I have done some comparative analysis and drawn some conclusions which answer my main research question.

#### **1.4. Limitations**

While I have drawn some commonalities and coined together some general conclusions, my empirical evidence is largely from three case studies. The results throw some light on the ways in which agriculture has been included in strategic spatial planning strategies and the potential it holds for regional development, but it must be kept in mind that the specific context of the region of application matters and hence the universality of my results remain limited.

The scope of this research being limited by time, my case study largely attended to the analysis of strategic spatial planning documents and their summaries. This means that I only looked at the spatial planning vision documents of the city and therefore other policies and programmes that may be running in parallel have not been considered in my research. Hence my results only reveal how the city officials placed agriculture in the planning vision documents and not in the ancillary and parallel documents.

Moreover, the fact that strategic spatial planning is a concept that is only emerging in practice presents the difficulty in analysing results of strategic spatial planning. My research therefore looked at how agriculture is addressed in the documents and I merely raised questions for future research in regards to the impacts of these visions. Interviews with city officials would have been valuable insights into the intentions and dominant reasons for including agriculture in the spatial planning documents, however both time and language limitations prevented me from engaging in this method.

A final dominant restriction that prevented deeper analysis is my own language limitation. As each of the three cases lie in a different linguistic context and the only language amongst them that I am proficient in is English, I largely relied upon translation tools to interpret the documents. This task was time consuming and hence limited my research to only the main documents chosen for each case. I am fully aware that there are other documents and parallel councils or bodies that specifically

address agriculture for each city, but these fall out of the purview of my research and I focus my study only on how the strategic spatial planning document represent agriculture.

Therefore, I reiterate that my research intends to analyse the literature on the subject and then takes a broad look at three cases to gain a perspective on how the theoretically advocated aspects of agriculture is integrated into the practical documents that govern development in cities of Western Europe.

## **2. Literature Review**

The literature review is intended to throw some light on the main themes of my research. The academic debate exposes two shifts in the arena of planning and development in the context of cities in Western Europe. The first is the evolution of the planning of city regions to a concept of strategic spatial planning. The second is the new roles and perceptions attached to agriculture with respect to regional development. I will now introduce these concepts that are currently in motion and were a dominant force in the shaping of my own research, and discuss the various aspects of it. This section of my thesis is the theoretical foundation upon which I have built my investigation and my empirical research lies at the convergence of these two debates. More explicitly, I have examined the literature on the shift in the Western European planning systems which seek to address contemporary urban challenges in a path to sustainable development, and the increased emphasis put on agriculture as a solution to urban challenges, to identify where the two may converge.

### **2.1. The Shift towards Strategic Spatial Planning in Western Europe**

The first half of the previous century witnessed the deep-rooted establishment of a system of land zoning and land use planning in European countries (Hall & Tewdwr-Jones 2010) This type of planning put land at the core and concerned itself with the regulated use of land as control mechanism for development. Space is treated as neatly divided and parcelled land that can be administered and regulated and land use planning relates to this space in entirety within a particular territory that is represented on a map and then is treated with a set of rights and obligations that govern it (Faludi 2012). Land use planning or traditional planning as it is commonly referred to as, attempted to resolve socio-economic aspects of development with physical solutions (Albrechts 2004). A shift from traditional planning was seen necessary as cities were unable to cope with emerging arenas of resource protection regional integration, infrastructural developments, and economic regeneration with land use planning alone (Albrechts et al. 2003; Vasilevska & Vasic 2009).

In the context of Western Europe, a shift towards an alternative system of planning can be observed towards the end of the last century with the development of the European Spatial Development Perspective (ESDP) (Faludi & Waterhout 2002). The ESDP was completed in 1999 with its intention titled as the *“Balanced and sustainable development of the territory of the European Union”* and stated that its adoption was a confirmation that the commission and the member states had reached an agreement upon *“The common objectives and concepts for the future development of the territory of the European Union”* (European Commission 1999). It is, in effect, a perspective of what

development in the European Union must strive for in light of the fact that European borders were becoming more fluid and hence development of regions must complement each other, while having the ability to maintain its economic competitiveness in the European and world market (European Commission 1999). The ESPD puts forth its underlying objectives as sustainable development, in accordance with the United Nations Brundtland Commission report (on sustainable development see- U.N. World Commission on Environment and Development 1987) and highlighted the fact that sustainable development involves environmentally sound, economic development but also includes a balanced spatial development (European Commission 1999). The terminology, suggests that balanced settlement was the key to integrating the ecological and cultural roles of land with the social and economic claims on it (Faludi & Waterhout 2002, 146). Thus the ESPD set the precedent for implementing new ways of spatial planning and more importantly the goal of planning was strongly reoriented towards balanced and sustainable territorial development.

This has been gaining momentum ever since as both the European Union development policies and the planning agendas of Western European nations have been increasingly shifting towards strategic spatial planning and its implementation (Healey 1997; Hirt 2002; Salet et al. 2003; Healey 2004; Sartori 2005; Vasilevska & Vasic 2009). An early paper sums strategic spatial planning up as a “set of concepts procedures and tools that must be tailored to whatever situation is at hand if desirable outcomes are to be achieved” (Bryson & Roering n.d.).

Thus my research is intended to explore this notion further and to examine practices on ground. In the next chapter, I have delved further into the definitions and concepts of strategic spatial planning and have extracted threads from the theoretical discourse and framed some salient points that have served as basic indicators of a strategic spatial plan.

### **Sustainable Development**

As we see from the ESPD that territorial development or sustainable development is the goal of strategic spatial planning or planning itself I briefly discuss what the term alludes to in the context of this research.

The Brundtland Commission defined the term sustainable development as “*development that meets the needs of the present without compromising the ability of future generations to meet their own needs*”(U.N. World Commission on Environment and Development 1987) and this has become a very influential definition (Anand & Sen 2000). In terms of planning for sustainable development I have adopted the three pillars of sustainable development, as defined by the Brundtland Commission

(U.N. World Commission on Environment and Development 1987) which was then reinforced in the ESDP (European Commission 1999)- Society, Economy and environment, and have built my framework for analysing the findings of my research. As Scott Campbell writes, the planner must reconcile these three conflicting interests in order to attain sustainable development (Campbell 1996). The conflicting interests being economic development, social development, and environmental protection.

The premise here is that, if the goal of planning in the European context is to attain sustainable development (as set forth in the ESDP) and strategic spatial planning is the shift that is increasingly observed, then the goal of strategic spatial planning is also for sustainable development. Within the limits of my research, I have only questioned the place of agriculture in strategic spatial documents to attain the goals of development.

### **Strategic Spatial Planning**

The descriptions of strategic spatial planning have been built upon the shortcomings of traditional forms of planning (Albrechts 2004), mainly that it was unable to deal with changing economic conditions, competing global markets, and changing social contexts (Salet et al. 2003) and resulted in uneven development, urban sprawl (EEA 2006) and fragmented landscapes (EEA 2011). It was born out of the need for a more economically, socially and environmentally integrated form of planning (Healey 1997), the three poles of sustainable development (Campbell 1996).

Albrechts summarises some of the reasons for rethinking planning approaches in Western Europe as: *“The growing complexity, an increasing concern about rapid and apparently random development (Breheny, 1991), the problems of fragmentation, the dramatic increase in interest (at all scales, from local to global) in environmental issues (Breheny, 1991), the growing strength of the environmental movement, a reemphasis on the need for long-term thinking (Friedmann, 2004; Newman and Thornley, 1996) and the aim to return to a more realistic and effective method all served to expand the agenda”* (Albrechts 2004, 743).

Andreas Faludi, argues that under the guise of the more recent territorial cohesion policy, European spatial planning is coming of age (Faludi 2010). Faludi highlights that in the process of pursuing cohesion, coherence and cooperation in the EU, and navigating through traditions and practices of the member states, the concept of planning as a strategic cooperation effort was born (Faludi 2010).

If this spatial planning model of Europe is indeed realizing maturity then it is safe to assume that it is achieving intended results. Since sustainable development is the overarching umbrella over the objectives of the ESDP (Faludi & Waterhout 2002), which in turn is the umbrella over contemporary Western European planning programmes, the results of strategic spatial planning of a region must thence be attaining some of the goals of sustainable development. Moreover, reverting to the problems that necessitated a rethink of spatial planning processes, this new form of planning must also therefore be able to cope with the current attitude towards environmental preservation, social and territorial cohesion and a competitive economy. In fact, Albrechts states that, as planning becomes more strategic it creates an environment for enhancing development (Albrechts 2006, 1153). At this juncture, I accentuate that this is the presumption upon which I build my research. My objective has been to look at the role of agriculture in planning in achieving these results.

### **The Definitions of Strategic Spatial Planning**

Strategic spatial planning engages multiple stakeholders in horizontal and lateral dialogue (Albrechts 2006), creating a mutually beneficial encounter between top-down and bottom-up processes with a specific vision for development (Albrechts 2004). Healey writes that strategic spatial planning refers to “Self-conscious collective efforts to re-imagine a city, urban region or wider territory and to translate the result into priorities for area investment, conservation measures, strategic infrastructure investments and principles of land use regulations”(Healey 2004, 46). Sartorio describes it as a field of constant change and evolution as it involves diverse institutional contexts and a variety of approaches (Sartori 2005). More recently, Bafarasat states that strategic spatial planning mediates between the claims laid on space by the market, the community and the state, based on stakeholder involvement, policy integration and implementation (Ziafati Bafarasat 2015, 132).

Defining a normative viewpoint, Albrechts calls strategic spatial planning as a “*transformative and integrative public-sector-led socio-spatial process, through which a vision, coherent action and means for implementation are produced that shape and frame what a place is and what it might become*” (Albrechts 2006, 1152), and this definition was later reinforced and adapted by other authors (Oosterlynck et al. 2011). I find this definition most apt for my research and consider it a key definition.

Hence we see that strategic spatial planning is a process that has ideals that must be achieved along the way in order to achieve a pre-decided objective or goal. This process facilitates the blurring of boundaries and the attainment of a large vision. Strategic planning in itself is an evolving theory and

remains ambiguous in its definition and scope. In order to understand the opportunities of strategic spatial planning one must first understand the limitations of traditional forms of planning. As briefly mentioned above, it is partly from these limitations that this new approach was born. Therefore I have embarked upon a discussion of these differentiations to establish a description of what strategic planning is.

### **Differentiating and Identifying Strategic Spatial Planning**

The traditional form of planning, which is widely in use in most parts of the world including in Western Europe, is land use planning which places land at the centre (Albrechts 2004). In the EU, this form of planning largely remained a rigid regulatory framework in the control of the local government. While consultation with higher levels and coordination with other agencies were included along with a broad sense of public consultation, it remained a very formal and restricted system (Healey 2004; Albrechts 2004). The main criticism to this method was that it remained inflexible to changing social and environmental circumstances and it excluded all other policy fields except that of spatial planning and hence met with opposition when it came to implementation (Salet et al. 2003; Faludi 2003; Albrechts 2004; Albrechts 2006) *“In this way the land-use plan ensures that undesirable developments do not occur but it is not able to ensure that desirable developments actually take place where and when they are needed”* (Albrechts 2004). In the EU, coproduction of land use plans with multiple stakeholders and the involvement of weaker socio-economic groups are limited and hence it is an apparatus surrounded by negotiation, compromise and deadlock (Albrechts 2004). In light of Western society facing new challenges and opportunities, there is a dire need to assume a proactive style of governance, which requires the transformation of the current bureaucratic approaches that are affiliated with traditional planning, and adopt a new form of planning which does not imprison societies in their past, but enable them to be responsible for their futures (Oosterlynck et al. 2011). This is essentially strategic spatial planning in the sense that its conception and formulation is largely born out of the constraints of traditional forms of planning, mainly singular land use planning.

Seeing that the descriptions of strategic spatial planning are quite ambiguous (Healey 2004; Sartori 2005; Ziafati Bafarasat 2015b), I draw upon some threads from the literature that can serve as identifiers of the concept.

From his normative view point, Albrechts (2006) identifies the five essential characteristics of strategic spatial planning as selective, relational annex inclusive, integrative, visioning and action oriented.

He (Albrechts 2006) says that limitations in budgetary and institutional capacities of governments make it impossible to tackling all the concerns and hence prioritising issues and challenges, and addressing them with well-structured responses is important. Therefore, emphasising on selectivity is the most effective way to enable spatial planning to play a role in spatial processes that result in spaces of increased quality (ibid.). Healey (Healey 2004) too states that concept of strategic implies the use of selectivity in terms of focusing on factors that make a difference to the area under consideration. Therefore selectivity is an important characteristic and is fundamental to strategic spatial planning (Wilson 1994).

Strategic spatial planning emphasizes on the relations between spaces and the processes that lead to its formation (Graham & Healey 1999). Albrechts (2006) writes that all spaces are socially constructed and set in a specific context and therefore it is necessary to involve actors from various socio-economic classes and to seek a wide range of interests in the process of constructing a place. It is this inclusivity and the focus on the relations that define a space that sets this form of planning apart from the traditional technocratic forms.

Strategic spatial planning must be integrative and involve not just objects and functions but also the processes (Albrechts 2006). In the context within which institutions are aligning itself to supranational policies while ingraining policies for local capacities and initiatives, hierarchical boundaries between institutional domains and interaction areas are obscured (Gualini 2001). Therefore spatial planning must work to integrate between the tiers of government and regions and also engage in inter-departmental coordination (Albrechts 2006).

Strategic spatial planning requires the conception of possible and desirable futures and facilitate processes that enable getting there, unlike traditional forms of planning that are mostly based on a fixed master plan that affords limited flexibility (Albrechts 2006). Healey (2004) argues that the visioning component is important to the persuasive capacity of strategic spatial planning. This vision must relate to a specific context, time, place and scale and relate to targeted issues as well as a concerned set of actors, such that the vision is rooted in the realities that exist and in the aspirations of the citizens (Albrechts 2006). Other authors agree with the same but state that the planning must be combined with a long term vision and this vision does not depict a fixed end state, but a flexible framework for sustainable development (Oosterlynck et al. 2011).

Albrechts (2006) accuses traditional planning of producing plans as a reactionary measure to existing problems and says that strategic spatial planning must be action oriented. He says that it must include realistic and result oriented actions that are embedded in contextual issues with the target of attaining the set vision in a stepwise manner. Turning the core values of the development vision into practical, operational steps (action-oriented) requires spatial innovation, if sustainable development is to be a necessary component of the strategic spatial plan (Oosterlynck et al. 2011).

These five components are abstracted in the definition that I adopted as the basis of this concept and I have further summarised it in the table below. The table has extracted components of traditional and strategic spatial planning from what is elaborated above and has explained the concepts in a quick-glance format. Moreover the table has acted as a checklist for the selection of strategic spatial plan documents for my case studies.

Differences Between Traditional Planning and Strategic Spatial Planning		
	TRADITIONAL	STRATEGIC
<b>SELECTIVITY</b>	Endeavours comprehensiveness. Attempts to solve all problems. Hence is impractical	Priorities are set and aims to address the most important challenges at hand.
<b>RELATIONAL ANNEX-INCLUSIVITY</b>	A managerial point of view and deals with space and place with a focus on object and form. Technocratic and statutory mode of planning. Government is the mobiliser.	More inclusive and pluralistic. A relational concept of space and place, focusing on relations and processes. Collaborative and actor based approach.
<b>INTEGRATION</b>	Focuses on integrating objects and functions. No horizontal and vertical integration.	Horizontal and vertical integration with stress on coordination between various levels of government (vertical) and between departments (horizontal).
<b>VISION</b>	Works on the principle of a detailed vision of an end point. Concept of a fixed master plan.	Thinking about possible desirable futures and how to get there.
<b>ACTION</b>	Concerned with the production of plans as a reaction to problems.	Concerned with being an active force in enabling change. Related action to implementation.

Table 1- Differences between strategic spatial planning and traditional planning.

I have used the points identified here to aid the selection of my case studies. This set the premise for my research, and I intend to identify what room it has left for agriculture. This will be the dominant direction of my paper.

This brings me to the second major theme that is under discussion in my research, the recent emphasis on the benefits of agriculture towards sustainable development. I have briefly explained the basis for the renewed interest in agriculture and illuminated the fact that agriculture has indeed seen some spotlight in recent times in relation to the development discourse. Further to that I have explored the literature to establish what benefits agriculture in the region holds for the urban community.

## **2.2. The Advent of Agriculture into the Development Debate**

Food production or agriculture, an activity that was purposely distanced from cities and characterised as rural, has been gaining urban ground in the last decades. Europe of the 1950's, ravaged by war, suffered food insecurity and it was in this backdrop that agriculture regained significance in the policy agenda of European Union nations (European Commission Agriculture and Rural Development, 2015). The emphasis was on maximised output at reduced cost per unit, as an answer to food shortage, and thus concept of small or medium scale agriculture in and around cities gave way to industrialized production of massive quantities of food (Deelstra et al. 2001). The concept of urban agriculture never left the scenario in developing nations of the Global South (Viljoen 2012), although the term itself was concretised only in 1999. Recognising the importance of agriculture in cities and its role in combating problems related to (but not limited to) climate change, food crisis, environmental degradation, increasingly unhealthy lifestyles; and the need internationally to turn to more agricultural practices both in urban areas as well as peri-urban areas, the Food and Agriculture Organisation institutionalised this concept. In a broad definition they stated that *"Urban and Peri-Urban Agriculture are agriculture practices within and around cities which compete for resources (land, water, energy and labour) that could also serve other purposes to satisfy the requirements of the urban population. Important sectors of urban and peri-Urban Agriculture include horticulture, livestock, fodder and milk production, aquaculture, and forestry"*(COAG/FAO 1999). Urban agriculture has conspicuously remained a Global South phenomenon until recently (Viljoen 2012; Tornaghi 2014), but we see a resurgence of the food question in urban contexts of the developed Global North nations (Morgan 2014; Tornaghi 2014). While in the South, the roles of urban agriculture are centred on combating urban poverty and hunger, generating livelihoods and increasing resilience to rising costs of living (Ellis & Sumberg 1998), in the North it is a response to the

new acceptance of the multi-functional character of agriculture and its role in decreasing public health costs, reducing pressure on natural resources and impeding climate change(Morgan 2014).The recent urban protests as a reaction to the surging food prices in 2007-8 triggered a political realisation that issues of food are not secluded to poor countries anymore(Morgan & Sonino 2010).

Food security, defined by the World Bank as *“access by all people at all times to enough food for an active and healthy life”*(The World bank 1986)has become an increasing worry. However, food security goes beyond just access but also encompasses biological and cultural utilisation as well as the psychological aspects relating to anxiety of access(Lerner & Eakin 2011). Much academic research has been published and many organisations (World Bank, RUA, FAO to name a few) have developed reports and guides on the significance of agriculture for combating the food crisis, and to make city-regions more resilient and sustainable and to protect the environment.

Through two key articles, Pothukuchi and Kaufman throw light on the inadequacies of the urban systems in addressing the key question food and highlights the significance of food in urban scenarios (Pothukuchi & Kaufman 1999) and stressing the need to include food into urban planning arenas (Pothukuchi & Kaufman 2000).Other authors too underline the importance of linking urban domains, and especially spatial planning, with food and agriculture (Sonino 2009; Wiskerke 2009).The conspicuous absence of food from urban planning arenas are now being addressed by governments of at least some industrialised nations and the themes of food and agriculture have found its way into the planning domain (Morgan 2014). In fact (Morgan 2013) writes that both academics and professionals in the planning community have stepped up and are striving to include a sustainable food system that addresses social objectives of public health, ecology and social justice. In recent years articles positioned in the Global North highlights the multi-functionality of agriculture in respect to the fact that agriculture in and around the city plays a role that goes beyond that of mere food provision and nutrition, and can be an actor in social, environmental and economic improvements (Zasada 2011; Tornaghi 2014; Morgan 2014). The next chapter of my thesis elaborates more on this aspect.

My research, positioned in the highly industrialised Western European context, investigates the various reasons for which agriculture and food production has been introduced into their strategic spatial planning documents. I built my research upon the premise that agriculture has entered into the planning documents of cities is now gaining a firm footing. Through my literature review in the next section I have established the functions of agriculture in the sustainable development of city

regions in theoretical domains. I have also looked at case studies of three cities in Western Europe and have identified what functions have been attributed to agriculture in practice.

### **Agriculture in the European Union**

In Europe, the first steps towards integrating agriculture into territorial management occurred in the late 1950's and was concretised with the introduction of the Common Agriculture Policy (CAP) in 1962, following the creation of the European Economic Community (EEC) in 1957 (Skogstad & Verdun 2009). As mentioned before, post-war Western Europe was suffering a food shortage and CAP was intended to promote agriculture with the objective to provide affordable food to all citizens and fair standards of living to farmers (European Commission Agriculture and Rural Development, 2015). CAP remained a pioneer policy in European integration and territorial cooperation and was unique in its status as a regionally integrated agricultural policy (Skogstad & Verdun 2009). In the decades that followed, CAP underwent many reforms that changed it from a protectionist policy to a market sensitive policy; from a farmer income focused policy to one that targeted regional development; and from being centralised at the EU level to devolution that gave the member states flexibility over its financial structure (Burrell 2009). Furthermore, CAP has reformed to give producers support to protect ecological services, and more recently in the newest period from 2014-20, it has included objectives to attain better economic competitiveness and sustainability (European Commission 2013). The second pillar of the CAP puts significant attention on making farming practices sustainable and meeting challenges of climate change and protecting biodiversity (ibid.). The CAP has adapted to focus on rural development and making farming viable and sustainable (European Environment Agency EEA 2015). In fact it is stated that the main aim of the CAP is *"to create a cohesive and sustainable framework that will safeguard the future of rural areas, basing this in particular on its ability to provide a range of public services that go beyond the mere production of foodstuffs, and on the ability of the rural economy to create new sources of income and employment whilst conserving the culture, environment and heritage of rural areas"* (European Parliament, 2015). This indicates the perspective of the European Union on agriculture and rural development, and demonstrates its widened scope and the focus of environmental and social parameters. It highlights the fact that agriculture goes beyond mere food provision and is recognised for the services it provides to the public.

The view of agriculture as a purely rural activity has changed as urban citizens understand the need to eat locally sourced and ethically (socially and environmentally) produced food. Many cities in Europe have experienced a wave of urban agriculture as citizens and communities cultivate their own food in urban spaces and spread awareness of the benefits of a local food system.

In the European context agriculture at the rural level has been touted as an activity that can promote regional development by increasing the social and economic capacity of the farming community (European Environmental Agency EEA 2015). Moreover it improves the quality of life in the entire city-region by improving the quality of the natural environment (ibid.). It increases economic gains by offering employment and livelihood options and reducing food prices and cushions the effects of inflation as the region is less dependent on external prices and combats health issues that result from unhealthy eating (RUAF 2014). Additionally at an urban and peri-urban level agriculture promotes inclusive growth in cities by extending opportunities to marginalised citizens and providing an arena for interaction (ibid.).

Through the course of the following passages, I have demonstrated the functions that agriculture has been labelled with and the benefits it offers to the urban community.

### **Agriculture in the City-Region**

My research interest lies in mainstream farming activities in the whole city-region which includes urban as well as rural and goes beyond small scale urban and community gardening practices. Therefore, I argue that in the context of urban or city-region planning, we must take into account, agriculture in urban as well as rural areas and understand its functions in the region in order to maximise its potentials. This contributes to the overall need to establish why it is important to include agriculture in planning documents, the most recent form of which is strategic spatial planning. By understanding the significance and benefits of including agriculture, not just the practices within the city core, but also the main stream practices in rural areas, we can strengthen the debate on including the agriculture question (in a comprehensive manner) in planning agendas. As pointed out before, the question of food and agriculture has been included in planning documents of many Western European cities. However, it is in the interest of this research to extract agriculture related actions and goals from strategic planning documents currently in effect and compare them with the benefits and goals attributed to agriculture and how it contributes to sustainable regional development as seen in the discourse

Cities (specifically those of the developed world), which once began as agrarian settlements have distanced themselves both physically and psychologically from food production, as mechanisation and transport innovation enabled it (See Mumford 1961). Indeed the definition of urban and rural took on stark meanings during the era of the industrial revolution that deemed agriculture as a rural activity and mechanisation and built up spaces characterising non-agricultural activity as the face of urbanisation (Pothukuchi & Kaufman 1999; Hamilton et al. 2014). Hamilton et al. (2014) define urban

agriculture (UA) simply as agriculture within an urban or peri-urban setting. Mougeot (2000, 10) provides a more comprehensive definition of UA as follows: *“UA is an industry located within (intra-urban) or on the fringe (peri-urban) of a town, an urban centre, a city or metropolis, which grows or raises, processes and distributes a diversity of food and non-food products, reusing mainly human and material resources, products and services found in and around that urban area, and in turn supplying human and material resources, products and services largely to that urban area.”*

The existing body of literature on urban agriculture is more attuned to the workings of the developing world-See:(Mougeot 2000; Bryld 2003; De Bon et al. 2010; Eriksen-Hamel & Danso 2010; Redwood 2012) and the functions and benefits are different in the different contexts(Mok et al. 2014). Few authors do understand the need to explore the significance of UA in the north and have identified some benefits of UA in the context of cities within these highly industrialised contexts (Mok et al. 2014; Tornaghi 2014). UA in these cities are often valued for its economic and ideological benefits and weighed against the contestation for land and resources between commercial, residential and agricultural needs and this complex process of optimisation necessitates that the benefits of UA should not be over emphasized (Mok et al. 2014). As most of the literature on UA focuses on the sustenance related benefits of cities in the developing context there seems to be a tendency to overestimate the food production capacity of UA in the North. That is not to say that there is no food insecurity in cities of developed countries. The term “food desert,” which implies the lack of access to healthy food due to physical, financial or knowledge insufficiencies in the population (Shaw 2006), is quite relevant in many countries of Europe and North America today, thereby revealing the need to make healthy affordable food accessible to marginalised sections of the population. Benefits of agriculture in urban and peri-urban areas have been cited as increased access to healthy food and a livelihood generator, but one must be careful not to exaggerate its impact and merits or dramatise its actualities (Ellis & Sumberg 1998). Juxtaposed against the economic benefits of free trade and globalisation UA as both a land use and activity does not have sufficient evidence to support its claimed benefits and seeking a balance of urban and conventional agriculture in the backdrop of the national contexts might bring optimal results (Mok et al. 2014).

Lerner & Eakin (2011) explore the potential of peri-urban agriculture (PUA) and suggests that these areas that lie on the outskirts of cities hold an incredible opportunity. They encourage policy to take into consideration that this is a new typology of settlement where seemingly rural landscapes both suffer and benefit from the nearby urban regions and the lifestyle of the people who inhabit this space is one of transition (Lerner & Eakin 2011, 318). In Western European contexts, the concepts of urban and rural too are losing its starkness as they interchange functions and its legibility as a spatial

unit is blurring, leading to interspersed identities and lifestyles (Torreggiani et al. 2012a). Areas on the periphery of urban centres face immense pressure as increased land prices give farmers incentives to sell land (Zasada 2011), leading to a tremendous loss of fertile agricultural land, landscape fragmentation and urban sprawl (EEA 2006). The rural region is increasingly being interjected with retiree homes, highways, business centres and recreational spaces that fragment the landscape, disconnect ecological corridors and interrupt the vistas and therefore the rural landscapes are faced with the challenge of assimilating urban lifestyles (Antrop 2004; Zasada et al. 2010; Torreggiani et al. 2012b). Hence I question whether the responsibility of conserving the landscape (a significant constituent of which is agriculture) lies on the shoulders of the urban authority. If the functions of agriculture indeed attend to urban purposes, then does that not provide sufficient incentive for urban authorities to include agriculture in their planning documents?

The concept of multi-functional agriculture in peri-urban areas have become a buzzword in policy and research and recognising the multi-functionality of agriculture and responding positively to both the pressures and opportunities of urbanism, has essentially proven to be a survival strategy for farmers and for agriculture itself (Zasada 2011). That is to say, that if agriculture in both peri-urban and rural areas provides certain services that urban dwellers value and more importantly, if these rural-scapes directly and indirectly make urban life better, then these could be the elements that reinforce the argument that necessitates integration of agriculture into the scope of strategic spatial plans. Zasada (2011) says that the values of production traditionally attached to agriculture are now changing to accommodate other consumption oriented values and the proximity to urban centres provides an opportunity to restructure the concept of farming to include recreational values, increased quality of life and the availability of healthier food and these in fact gain relevance in the context of the international competition city regions are currently facing.

Zasada (2011, 641) quotes Allaert et al. (2006, 5) that "if agriculture wants to have a reason for existence in an urbanised society, agriculture can no longer be considered as an economic activity *sensu stricto*." Hence finding the various purposes agriculture can serve, enables us to discover the values contemporary society attaches to agriculture. Exploring how the farming community responds to the new roles of agriculture would further our understanding of how agriculture must be represented in spatial planning documents of a city-region. In the following sections I have identified some of the more prominent functions of agriculture. First I have identified how city residents perceive agriculture outside of the urban zones, and then I have depicted the economic, social and environmental functions of agriculture.

### **Benefits of Agriculture in Peri-Urban Areas as Perceived by City Dwellers**

As city cores densify, there is a decline of open spaces and green areas within the cities and residents often look to landscapes in the peri-urban regions as a source of fresh air and recreation (Zasada 2011). These green open spaces are increasingly valued for the opportunities it provides for leisure to the city dweller (Antrop 2004). Residents also perceive the landscape in peri-urban areas as breathing spaces of the city and value its existence in the proximity of the city. Therefore provisioning for infrastructure like biking paths and bed and breakfast joints along with outdoor recreational activities that enable accessing these spaces are welcomed by urban dwellers.

In the Western context more and more consumers prefer regionally produced food for the value attached to it as high quality (Gilg & Battershill 1998). The interest of urban consumers to buy agricultural products directly from regional producers is resulting in stronger urban-rural links (Buciega et al. 2009) and these short-supply chains and the direct interaction between consumer and producer have a noteworthy impact on rural development (Renting et al. 2003). Zasada (2011) therefore points out that the necessary proximity of agricultural production to cities is experiencing a renaissance with the growing interest in locally grown food and the value attached to it.

Urban society increasingly perceives agricultural land as an integral part of the landscape surrounding the city and understands its role in the aesthetic quality of the image of the countryside (Bouraoui 2005). The extensiveness of agricultural land is intrinsically involved in the management of the visual, social and environmental functions of the landscape itself and is therefore responsible for serving the needs of the urban population (Davoudi & Stead 2002). Zasada (2011) assimilates the various elements of this argument and concludes that in the eyes of the urban dweller, the outlook on agriculture has changed from that of a functional-productive one to a hedonic-aesthetic one (pp 641), and that while farmland is highly appreciated, it is more for the visual worth and less for the ecological ones (ibid). She also highlights that while this perception has undergone some transformation, it continues to be seen as part of the cultural landscape of urban areas, however, it's importance as a land use is now widely acknowledged (ibid.).

### **Benefits of Farming for Urban Dwellers**

With more and more urban dwellers of Western Europe adopting leisure farming or part time farming as a hobby or retirement activity and with farmers diversifying into agri-tourism related activities like bed and breakfasts and equestrian ventures, agriculture has been actively contributing to the leisure needs of the city nearby as well to rural revitalisation (Zasada 2011). These farm activities enable the continued operation of farmland and generate economic growth in rural regions (Che 2007). They continue to be relevant in food provision, and adapts to new demands that

are brought to light through the direct social contact of producer and consumer (Holloway et al. 2007). The increased access to markets that arises with urban proximity can benefit the economic viability of farming (Jarosz 2008) through urban rural linkages being aptly considered in the planning process. Furthermore, such short supply chains gaining prominence, and the concept of local food gaining popularity, reduces the dependence of the city on world markets (Wilson 2007). The benefits of local food include reducing the economic vulnerability and food insecurity of the city (Mubvami & Mushamba 2006) as well as reducing the energy spent on transportation and storage, which in turn reduces food waste due to spoilage (Hammond et al. 2015). These diversified orientations of farming activity which provides leisure related opportunity can contribute to the economic development of rural regions adjacent to the city centres (Zasada 2011) and agriculture can then be observed to have activated the economic contribution of rural to the city-region.

It has been found that farming can be invigorated to provide an arena for rehabilitation therapy, education for persons with disability and social integration for disadvantaged children and the elderly (van Elsen 2010). This brings up a new dimension of agriculture that can be referred to as “social farming” or “care farming” where social integration and special health care can be provided for through farm activity (Zasada 2011).

Agricultural practice in Western Europe has adapted itself in these past decades with farmers adopting proactive roles in environmental conservation in light of government driven incentives like the AES (Agri-Environmental Schemes) put forth by national governments within the European Union, which encourages farmers to adopt ecologically friendly practices and participate in landscape management (Daniel & Perraud 2009). This has resulted in many farmers assuming responsible roles in promoting biodiversity, soil and water protection, organic practices and the visual quality of the landscape (Cooper et al. 2009). The food provision role of farming continues to remain important, as local food consumes less energy in transportation and is more environmentally sustainable. Farming therefore has become a practice that contributes towards environmental sustainability and proactively produces healthier food.

### **Summing Up: The Actions and Benefits of Agriculture**

In summary of the discussion above, there are two aspects here that need to be highlighted. The first is the benefits of agriculture in the eyes of the urban community, which I have termed “Urban perception” in my research. The second is the broader range of actual benefits that agriculture offers to the region that both directly and indirectly benefits the urban community. These benefits are embraced by the academic community as part of the “Multi-functionality of agriculture” debate. I

point of the benefits as perceived by the urban community (Urban perceptions) are also actual benefits. I differentiated them to point out that while there are a whole range of benefits, the urban community responds to only a few of them.

The changing needs of urban dwellers towards a better quality of life, demand fresher air, cleaner water, and organically grown and sustainably produced food. This, combined with the desire for green open spaces within easy reach and access from the city, has given farming a new dimension in its argument for significance. Cities understand that agricultural areas are an integral part of the landscapes of the countryside and preservation of agriculture is vital for its continuity. The need to conserve farming is strongly reinforced against this backdrop. Thus, the proximity of farm landscapes perceptively increases the quality of life in urban regions and the related amenities that it offers, bestow cities with a comparative advantage in the global competition.

While farming does indeed serve the above-mentioned needs of the city dweller or the urban community, in reality farming practices, also contribute ecologically and socially towards the sustainable development of the region in direct and indirect ways, thereby making it imperative to consider agriculture in the development of the city. In other words, the perceptions of city dwellers towards agriculture and the multi-functionality of agriculture both support the argument that it is beneficial for the city itself to ensure that the rural areas in its surrounding region are also experiencing development. The European Spatial Development Perspective (ESDP) has also recognised this while underlining the importance of including the countryside in the spatial development strategies of urban areas (European Commission 1999).

In order to use this information as an analytical tool within my own research, I have broken down the functions of agriculture as actions and benefits. For example, we see from the literature review that city dwellers (urban community) value landscapes that integrally involves agriculture, for its recreational and leisure related potential. In order to enable the urban community to access this landscape for leisure purposes, there must be infrastructure to access these areas and facilities or amenities that support tourist activities. Therefore in my breakdown of this data, I consider the introduction of infrastructure for recreation and agro-tourism as an “Action” and the “Benefit” as urban dwellers have a space for leisure and fresh air.

The table below dissects the points discussed in this section of my literature review and extracts the “Actions” and its “Benefits.” It enables a more general understanding of the actions that relate to certain functions as discussed in the theory. The table will then be used as an analytical tool in my

case studies to relate the actions suggested by the Strategic spatial planning documents to the benefits of agriculture, thereby ascertaining what benefits of agriculture are considered by the planning document of each city. I have also extrapolated whether the actions directly benefit the urban community or the farming community. And I have marked “Urban perception” those benefits of agricultural land and activity, that have been identified in the literature from amongst all of the benefits from the multi-functionality of agriculture that are recognised and perceived as benefits by Urban Dwellers. Hence those ones that are marked are the urban perceptions on agriculture

The table 2 on the next page allows us a clear glance as to the actual benefits that agriculture related actions hold for urban residents and the benefits as perceived by the same residents. The literature review tells us that the benefits of agriculture in the region for the city plays a significant role in increasing the quality of life in the city thereby giving cities an edge in the global competition.

Actions	Benefits	Who Benefits	Benefit Recognised by Urban Community
ECONOMIC BENEFITS	Introduce infrastructure for agro-tourism and recreation	Urban Community	Urban perception
	Urban rural links and arenas for the direct selling of regional products in the city and tie-ups with stores to buy from local farmers	Farming Community Farming Community Farming Community	
	Linking farms with educational facilities	Urban Community Urban Community	
	Linking farmers with therapy centres and raising awareness about its benefits	Urban Community	
SOCIAL BENEFITS	Connecting urban markets with local food	Urban Community	Urban perception
	Maintaining the vistas and ensuring infrastructure does not spoil the landscape	Urban Community	Urban perception
	Policies and programmes that give farmers incentive for participation in environmental programmes	Urban Community Farming Community	
	Raising awareness about organic and ecological practices	Urban Community	Urban perception
ENVIRONMENTAL BENEFITS	Introducing policies that ensure environmentally friendly practices	Urban Community	
	Ensuring that infrastructure projects do not affect farming and ecological corridors	Environment	
	Raising awareness about eating local foods and creating links and arenas to sell local food to city dwellers	Environment	
	Enabling organic waste recycling to local farmlands	Environment	
	Ensuring the continuance of agriculture in rural regions	Urban Community	

Table 2- Actions related to agriculture and their benefits.

### **2.3. Intermediate Conclusion**

It has been pointed out that the planning agenda must consider the economic, social and environmental services of agriculture in the region (Vejre et al. 2007) and involve dialogue between the various stakeholders so that the benefits of agriculture in the region can be optimised (Vejre et al. 2007; Overbeek 2009). The initial segment of this literature review ascertains that sustainable development is the overarching umbrella over the objectives of the ESDP (Faludi & Waterhout 2002) which in turn is the umbrella over contemporary Western European planning programmes and the three components of sustainable development are the balance between economic, social, and environmental development (U.N. World Commission on Environment and Development 1987). In this light, I point out that the preceding passages demonstrate the clear economic, social and environmental benefits of agriculture in this context and its contributions to sustainable development.

Strategic spatial planning is the new era of planning in Western European cities and claims to be able to identify challenges and find targeted solutions that help it to attain its vision. The emerging agriculture debate has unearthed various functions and purposes of agriculture for the urban space and how agricultural activity and landscapes in the larger region make urban life better. While there is some literature insisting on the inclusion of food and urban agriculture into urban planning, there is a conspicuous lack of research on how these two emerging debates can converge. Studies stress on the need of cities to address the agriculture and food question and cities have responded by doing so, but in this transition stage, theory has not suggested how and why agriculture must be included. I reiterate on my argument that as agriculture in both peri-urban and rural areas provide certain services that urban dwellers value and more importantly, and as these rural-scapes directly and indirectly make urban life better, these elements must be integrated into the scope of strategic spatial plans. The theoretical evidence demonstrates that there is sufficient need and benefit in including agriculture in the planning documents as development of agriculture contributes to sustainable urban development.

It is quite evident that the discourse points to strategic spatial planning being the response to achieving regional development in the current global context and especially in Europe. The ESDP in Europe has been a motivational factor for many cities in the European Union and especially Western Europe to turn to strategic spatial planning and many pioneering city-regions have already prepared strategic spatial plans or visions for the future. However, these plans are in the nascent stages of

implementation and as such there are not too many completed projects we can draw upon to assess success or failure.

I have investigated three city regions of Western Europe that have enacted strategic spatial plans to extract what actions in relation to agriculture they have suggested and what goals they are directed towards. My interest has been to analyse whether the ground reality can be compared to the theoretical claims on the benefits of agriculture for city regions. I have then traced some perspectives as to how agriculture is contributing to the larger goals of the city and its vision.

### 3. Case Studies

In the following section, I have presented the 3 case studies I have chosen for this thesis, which are Hamburg in Germany, Bristol in the United Kingdom and Almere in the Netherlands. The scales of the city differ and I have justified why each city was chosen while presenting the data. For each case, I have first introduced the city and the country along with some basic facts, and then illustrate the spatial planning structure of the country. I have briefly discussed the strategic spatial planning document(s) under analysis before going on to present the data that I have collected from the documents in reference to agriculture. This data I have explained in writing and then broken it down into actions and goals and presented it in a tabular format. The analyses on these cases are expounded in the next chapter.

#### 3.1. Germany: The City State of Hamburg



Figure 2- Hamburg, Germany

For the German case, I take up the city of Hamburg, a waterfront metropolis, and a major port city of the country. The city is connected to the North Sea through the Elbe River and is the second most important commercial port in Europe and the seventh in the world. It is well connected to the rest of the country through rail and road networks and the 755 Sq. Km city is home to 1.7 Million people and boasts of 14% of it's city area being made up of green and open spaces (Hamburg City, 2010). As the second largest and one of the most dynamic cities of Germany, Hamburg faces immense pressure for growth mainly due to population growth resulting from internal and external migration. Thus the spatial vision for urban development named "*Räumliche Leitbild Entwurf*" (Spatial Planning vision) has been designed with the intention of meeting new challenges and directing the growth of the city

in a sustainable manner for the period 2007-2030 (Behörde für Stadtentwicklung und Umwelt Hamburg 2007).

The fertile plains and marshes of the Elbe River, in the midst of which lies the city of Hamburg, has made the region predominantly agrarian with 54% of the land being used for agricultural purposes (Behörde für Stadtentwicklung und Umwelt Hamburg 2013, 16). As early as 2011, the European Commission recognised the commitment and outlook of the city authorities, naming it the green capital of Europe for the year. As a port city and an industrially advanced city, Hamburg is facing immense growth challenges and as a city state<sup>2</sup>, it has the power to exercise a good amount of autonomy on its own development (Hamburg City, 2010). Germany, was a key player in the formulation of the ESDP and takes a comprehensive-integrative approach to planning (Faludi 2004).

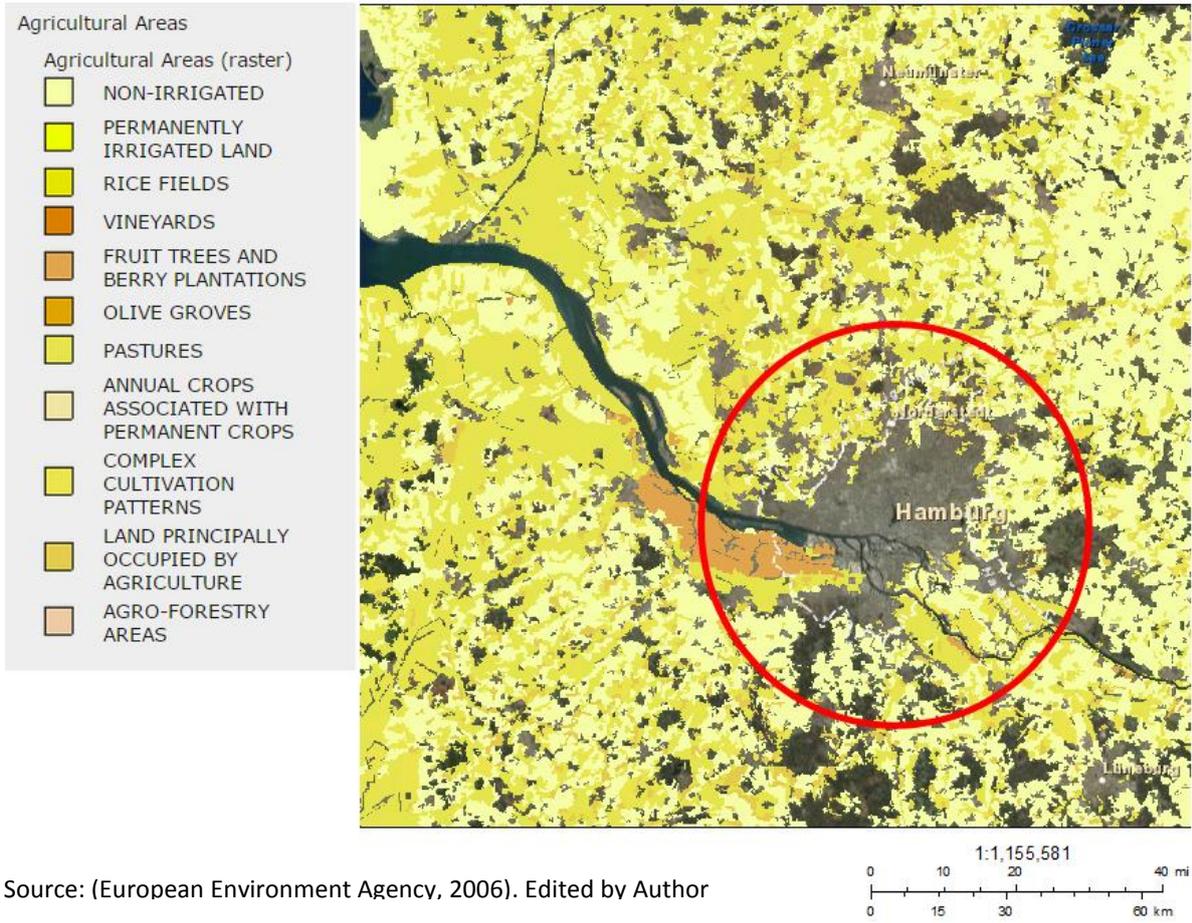


Figure 3- Corine Land Cover- Agricultural land use in Europe- Hamburg region  
The figure above serves to demonstrate the extent of agricultural land use in contrast to urbanisation.

<sup>2</sup>Germany is made up of 16 states (Länder). Hamburg, along with Berlin and Bremen, is a city state which means that the city region itself is the state while the other 13 states have a region and a capital city where the state parliament sits (Hamburg City, 2010)

### **3.1.1. Spatial Organisation in Germany**

The Republic of Germany has 16 federal states (*“Länder”*) each of which has a significant amount of power and authority within their own jurisdiction. Out of the 16, 13 are area states (*“Flächenländer”*) and 3 are city states (*“Stadtstaaten”*). In the general administrative structure of the states there is a regional level and municipal level, but in the case of the city states, the regional level functions are merged with that of the city municipal level. In the German system there is significant devolution of powers to the local level and there is ample provision for bottom-up initiatives (Pahl-Weber & Henckel 2008).

Germany is a European Union nation situated in the North-West of the continent and opens out to the North Sea and the Baltic Sea along its Northern border while is landlocked on all other sides. 52.1 % of the 357,341 Km<sup>2</sup> of land in the country is used for agriculture related purposes (Germany Federal Statistics, 2015). It has a population of 81.1 Million which is projected to decline (Germany Federal Statistics, 2015) and is a highly industrialised and influential country of the EU. Berlin the capital city is most populous with Hamburg coming in second according to the federal statistics website (Germany Federal Statistics, 2015).

### **3.1.2. Structure of Planning in Germany**

Spatial planning in Germany is a decentralized multi-tier system set within the complex federal structure of the state, and is considered eminent for its integrated and comprehensive approach (Blotevogel et al. 2014). Each level of government has their own planning guidelines and authorities and the Federal Planning Act (*“Bundesraumordnungsgesetz”*) is the legal framework within which planning is organised in the country (Faludi 2004). While the legal and organisational structure, and the substantively defined and differentiated principles of planning gives each tier a clear role, and forms the basis of the system, it is interlinked by the *“Gegenstromprinzip”* (a principle of countervailing influence or the mutual feedback principle) (Pahl-Weber & Henckel 2008). Conditions of participation, coordination and notification between the various tiers within the framework of certain binding regulations ensure that the planning system is a balance of top-down and bottom up initiatives (Blotevogel et al. 2014).

At the federal level there is no concrete plan, but rather a set of guiding principles for spatial development (*“Leitbilder und Handlungsstrategien für die Raumentwicklung in Deutschland”*) which lays out guiding principles for the roles and capacities of the states as well as some binding principles. (Blotevogel et al. 2014). Each state then has a spatial structure plan or a spatial development plan (*“Landesraumordnungsprogramme”* and *“Landesentwicklungsplan”*) which is complemented by the

regional spatial plan (“*regionalpläne*”) for each region as per the spatial organisation (Pahl-Weber & Henckel 2008). The municipalities and local authorities exercise a vast autonomy (Blotevogel et al. 2014) and holds the responsibility of creating the land use plans (Pahl-Weber & Henckel 2008). Land use planning is a compulsory municipal task and takes the form of the preparatory land use plan (“*Flächennutzungsplan*”) which envisages the land use for the entire municipality and the binding land use plan (“*Bebauungspläne*”) which sets out building and development designations for certain sections of the municipality (Pahl-Weber & Henckel 2008). In the case of the three city-states the regional level is abolished and the state level and municipal levels are jointly functioning. Hence there is only the spatial structure plan or spatial planning vision along with the land use plans (Pahl-Weber & Henckel 2008). The spatial planning structure of Germany that is explained here is diagrammatically represented below.

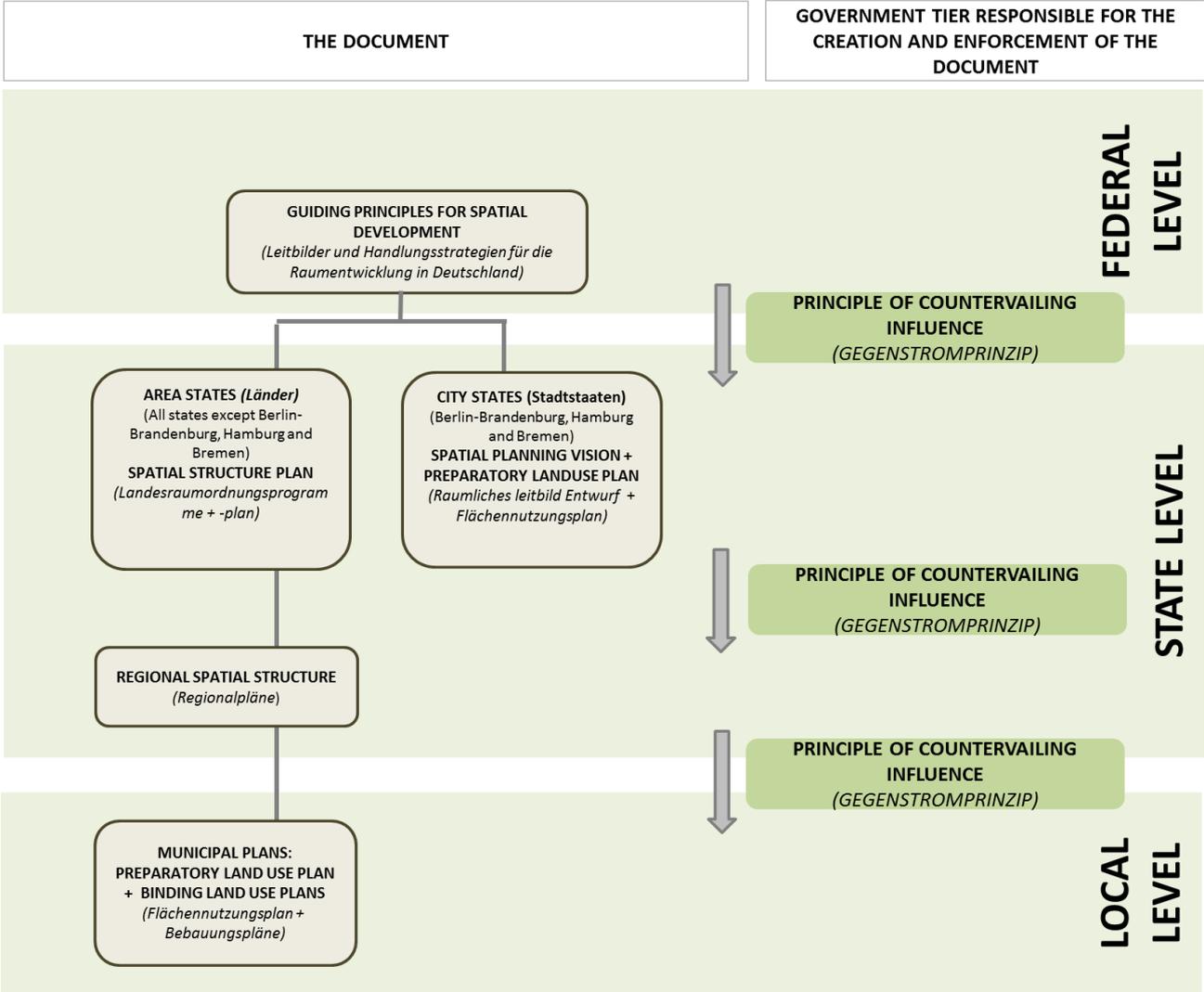


Figure 4- Structure of planning in Germany

Source: Diagram by Author

### **3.1.3. Materials for Study- Strategic Planning Documents**

Hamburg, is a city state and hence I have investigated the various planning instruments that have been enacted and have identified the *“Räumliche Leitbild Entwurf,”* 2007 (Spatial Planning Vision) as the strategic spatial plan that governs the development trajectory of the city. This comprehensive document formulates the vision of the city for the year 2030, identifies main challenges and goals and also formulates actions to attain it. I have therefore conducted my analysis on the data collected from this document.

#### ***“Räumliche Leitbild Entwurf,”* 2007 (Spatial Planning Vision)**

This 200 page document constructs the vision of Hamburg city in 2020 and contains the main objectives, themes for development, a regional master plan and illustrations. “Metropolis Hamburg- The growing city” is the adopted catchphrase that encapsulates the aim of the city to stand out internationally as a vibrant city with a dynamic economy and a high quality of life. The document not only contains specific objectives and how to get there but also prioritises areas that need attention and places an immense emphasis on the greenness of the city.

### **3.1.4. Presentation of Collected Data**

Upon the critical review of the main strategic spatial planning document of the city-state of Hamburg, I have identified information that is related to agriculture and pertinent to my case. The matter presented in this section is from the Spatial Planning Vision, 2007 (*“Räumliche Leitbild Entwurf”*) unless otherwise specified.

The city of Hamburg projects itself as a green, inclusive growing city by the water and intends to undertake the long term task of developing at the necessary rapid pace while ensuring that the quality of life is upheld and further improved. The main goals of the 2030 strategic vision are titled as “More city in the city” (finding space to grow within the existing boundaries of the city through densification), “The inclusive city,” “Green and environmentally friendly city,” “Urban development in the business metropolis” (development strategies for the industrial and commercial areas to meet new challenges and opportunities) and “Hamburg opens up to new perspectives” (adapting spatial strategy to future opportunities and global trends (Behörde für Stadtentwicklung und Umwelt Hamburg 2014).

The city of Hamburg prides itself in being a European city that is at close quarters with a rich and ancient cultural landscape and intends to coexist with it even as the city grows. No other European city has in close proximity to the densely populated inner city, so vast and ancient a cultural

landscape such as Hamburg (Hamburg City, 2010). For over 800 years the Elbe marshes are made arable by a dense network of irrigation and drainage ditches and also serve to provide drinking water. The cultural landscape is designed and maintained by a versatile agricultural network which is alive and active in the countryside and the villages. The city terms the agriculture in the whole region as urban agriculture. Agriculture is placed high on the agenda as it supplies the population with regional, healthy and sustainably produced fresh products, which is marketed through farmer's markets and farm shops and also because it promotes the identity of Hamburg's population with its cultural landscapes.

Today the marshlands and the old rural regions to the south and adjoining the moorland belt is a mosaic of intensively farmed land for fruit, flower and vegetable growing and greenhouse cultivation and is extensively used. Agricultural land is cultivated near Hamburg, enabling producers and consumers to form a close relationship. A range of initiatives to secure sustainable food supplies for city dwellers also allow people to experience nature; they contribute to local incomes and will continue to improve the quality of life in the region. Proactive steps are to be taken, according to the document, to advance the successful environmental partnership with Hamburg's trade and industry bosses. The priority of the vision document in this arena is to maintain and allow for the flourishing of these existing relationships between people, agriculture, and nature. The document also specifies that a proportion of household waste that is recycled will be increased to two thirds.

The attractiveness of the metropolitan region of Hamburg is not determined solely by its metropolitan character: Agriculture and forestry contribute to the preservation of a folding cultural landscape and promote the supply of quality products for tourism and recreation. The main elements known nationally are the historic cultural landscapes "*Altes Land*" (old land) with its vast fruit-growing regions and the Elbe marshlands as vegetable and flower growing region of the city. With its consumer produced food, the agricultural enterprises are important providers in the regional market for fresh products of high quality. The increasing proximity to the main town also determines the growing settlement activity and the brisk competition to the agriculture and forestry land.

One of the core goals of the document is to densify the city, which is to say that it wants to create room for expansion within the existing urban core itself. The chief intention is to ensure that the aforementioned landscapes, which are highly valued, are not disturbed. Another core goal of a green and environmentally friendly city also explicitly deals with conserving, enhancing and promoting the existing green spaces and agricultural land and encouraging a more environmentally friendly and rurally linked lifestyle for the urban dwellers. That is to say that ensuring sufficient food production in

ecologically safe ways and linking local producers and consumers is a priority for the city while ensuring that farmers have sufficient economic opportunities.

The document also highlights that the general conditions of agriculture in the European context are subject to constant change and that it is still unclear what consequences this has for the major agricultural areas in Hamburg. However, the vision document strives to create closer links between agriculture and leisure, sports and natural recreational activities. It also emphasizes their importance as potential areas for new development options. These observations are summarised in the table on the next page and have been broken down into actions and goals.

Document	Page#	Action From Document	Goal From Document
"Räumliche Leitbild Entwurf- Hamburg, " 2007 (Spatial Planning Vision Hamburg)	p26	Address the issue of existing agriculture as a landuse.	To resolve landuse contestations and ensure balance.
		Find an appropriate balance for existing agricultural landuse when catering to the commercial and residential demand	To ensure the continuance of agriculture for its ecological contributions  To ensure the continuance of agriculture for its recreational values
	p60	Conserve agriculture in East Wilhemsburg	To recognise its value in the green network for its ecological and recreational value and ensure its continued presence.
	p64	Preserve the agricultural and horticultural activity in the Elbe marshlands	To reinforce the fact that the agriculture in along the Elbe is part of the identity of the city of hamburg
	p133	Address the surface potential of land used for agriculture, natural and landsape before converting it to building sites	To ensure that the contribution of open land of large surface areas to the urban life quality and economy is compensated if land is converted
	p149	Take stock of the conflicts of commercial development with existing agricultural land	To protect the natural, landscape agricultural land from commercial conversions
	p155	Take into consideration the impact on agricultural land in the deepening of the Elbe project	To ensure the conservation of agricultural land
	p164	Maximise the potential of agriculture in the landscape as public spaces, while developing the city of Hamburg as a commercial city as well as a people's city	To highlight the role of agriculture in the city of Hamburg and continue to benefit from it. Perceived roles are: Food provision-i.e of high quality fruit and vegetables Ecological value Touristic value An important component of the cultural landscape Keeps the rural areas alive and enables an active business life. Recreational opportunity for the people of Hamburg and for tourists
		Maintain the identity of Hamburg as the European city with a large and ancient cultural landscape in close proximity to a dense urban population	
		Conserve the cultural landscape by conserving the Elbe marshland	
		Promote the cultural landscapes	
		Link the rural agricultural areas with farmers markets, farm shops and food stores	Supplies the residents with regional, fresh, healthy and sustainable food
	p165	Make the agriculture and forests land interspersed cultural land easily accessible with transport infrastructure	To enable the public to easily access the cultural landscapes for tourism and recreation purposes
		Encourage the farmers take care of the cultural landscape while making farming economically viable through direct marketing of produce and the integration of tourism while making use of traditional structures.	To rejuvenate rural areas with economic vibrancy and opportunity as the quality of the rural areas strengthens the quality of urban areas
	190	Regulate the competition for agricultural land for commercial and urban purposes	To maintain the identity and attractiveness of the Hamburg region which is linked to the historic cultural landscape, the balance and diversity of which is maintained by agriculture which serves purposes of regional food, tourism, recreation,

Table 3- Summary of data: Hamburg

### 3.2. The United Kingdom: City Region of Bristol



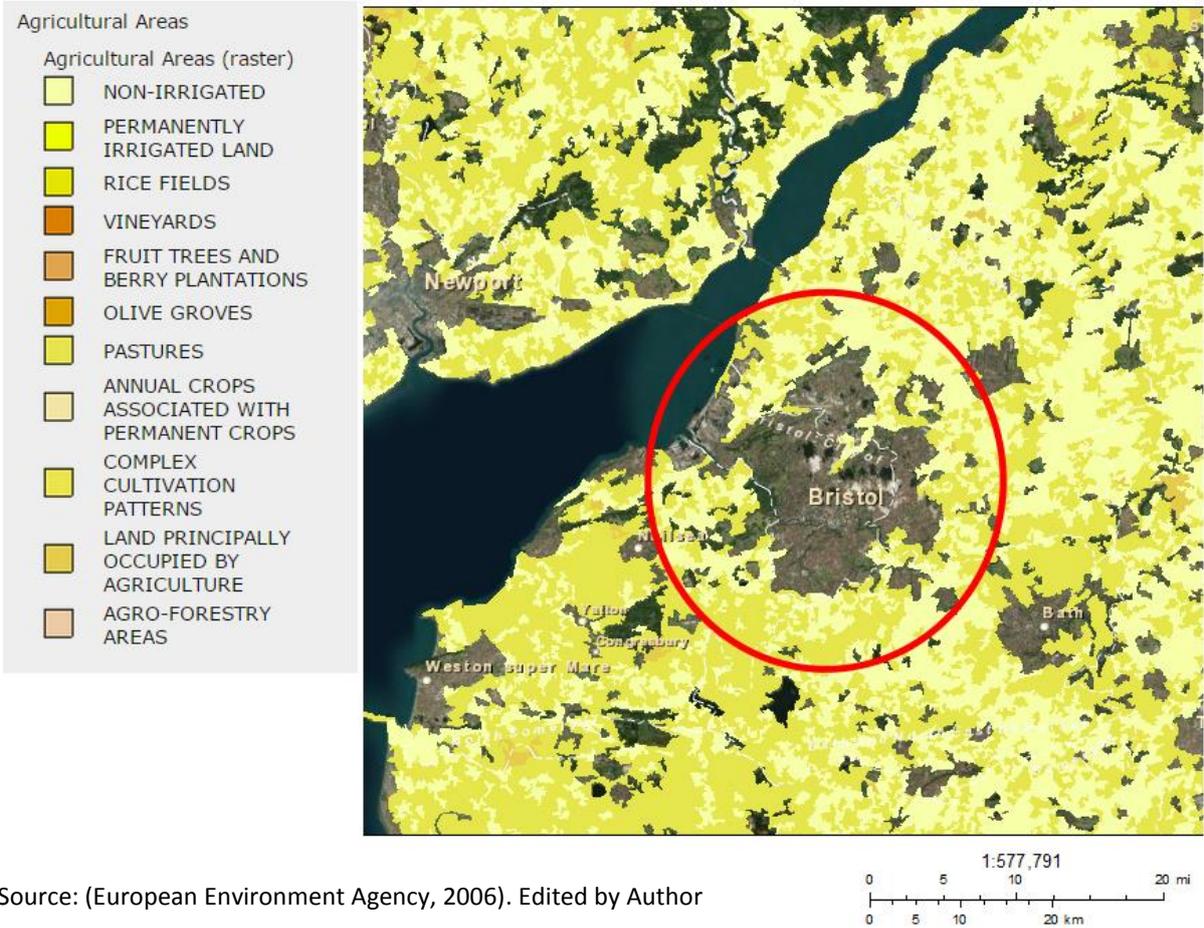
Source: (Bristol City Council, 2015)

Figure 5- Bristol, United Kingdom

As the case study from the United Kingdom (UK), I take up the city of Bristol, a port city in the South of England<sup>3</sup>. As per the Census 2011, the city hosts a population of 617,000 in the greater urban region (Bristol City Council, 2015). It is a growing city increasingly faced with many challenges like income disparities, congestion, environmental pollution, and lack of affordable housing (Bristol City Council 2013) and needs to be urgently addressed. The local plan of Bristol is also its strategic spatial document for the period from 2011-2026, which reflects the objectives of the National Policy Framework of England (Bristol City Council 2011). Sustainable development is the main goal of the

<sup>3</sup>The United Kingdom is composed of England, Wales, Scotland and Northern Ireland (Government of UK, 2015).

national document and under the English planning system, the program of this document must be taken into consideration in the local plans and hence holds a significant amount of authority in the planning structure (Department of Communities and Local Government 2012).



Source: (European Environment Agency, 2006). Edited by Author

Figure 6- Corine Land Cover- Agricultural land use in Europe- Bristol region  
 The figure above serves to demonstrate the extent of agricultural land use in contrast to urbanisation.

The city of Bristol has been chosen for this case study for its reputation for being a sustainable city, and is chosen as Europe’s green capital for 2015 for the commitment demonstrated towards the environment and is UK’s greenest city (European Commission, 2015) and the first city in the UK to establish a food council (Bristol Food Policy Council, 2015), reflecting its mission to battle climate change and food insecurity with sustainable, regional food production and management (Carey 2011). England, has a long established and characteristic planning system, where both national and local authorities exercise power (Bristol City Council, 2015) and is categorised as a decentralised “plan-led system” (Royal Town Planning Institute 2012). As per the analysis according to the identifiers set forth in my literature review, the “*Bristol Development Framework*” is the strategic spatial planning document currently in effect.

### **3.2.1. Spatial Organisation in the United Kingdom**

The United Kingdom, consisting of England, Wales, Scotland and Northern Ireland is off the North-Western coast of mainland Europe. It is categorised as a constitutional monarchy and holds its seat of government in London (Government of UK, 2015). The Census 2011 revealed the population of the UK as 64.6 Million with 81.5 % of its population being classified as urban (Office for National Statistics, 2015).

England, Wales, Scotland and Northern Ireland each has their own administrative system and since Bristol falls within the jurisdiction of England, I will only be discussion spatial organisation in England. England has two levels of government, the national and the local and the regional level has recently been abolished (Roodbol-Mekkes & van den Brink 2015). The central government holds a significant amount of power and so does the local governing body, which in certain areas have two tiers as in county councils and the district level whereas in other regions like London has only one tier performing all the functions (Government of UK, 2015). Bristol falls within the jurisdictions of the Bristol City Council which has power over the greater Bristol region (Bristol City Council, 2015).

### **3.2.2. Structure of Planning in England, The United Kingdom**

England has no regional level of government and the same holds true for planning structure. The National authority decides on national policies and development agendas which are then elaborated at the council and district/neighbourhood level, both of which have significant planning autonomy (Roodbol-Mekkes & van den Brink 2015). The legal framework is the "*Planning and Compulsory Purchase Act*," which lists out the powers and policies that govern planning in England. At the national level there is the "*National Planning Policy Framework*" which sets out the overall objectives and guidelines for development in England and is supported by the "*National Planning Practice Guidance*." At the local level, the authorities create "*Local Development Frameworks*" along with land use plans and then at the neighbourhood level they develop further action and development plans. Each of the plans/ frameworks must reflect the plan at the upper tier. The diagrammatic representation of the planning system in the UK is depicted below.

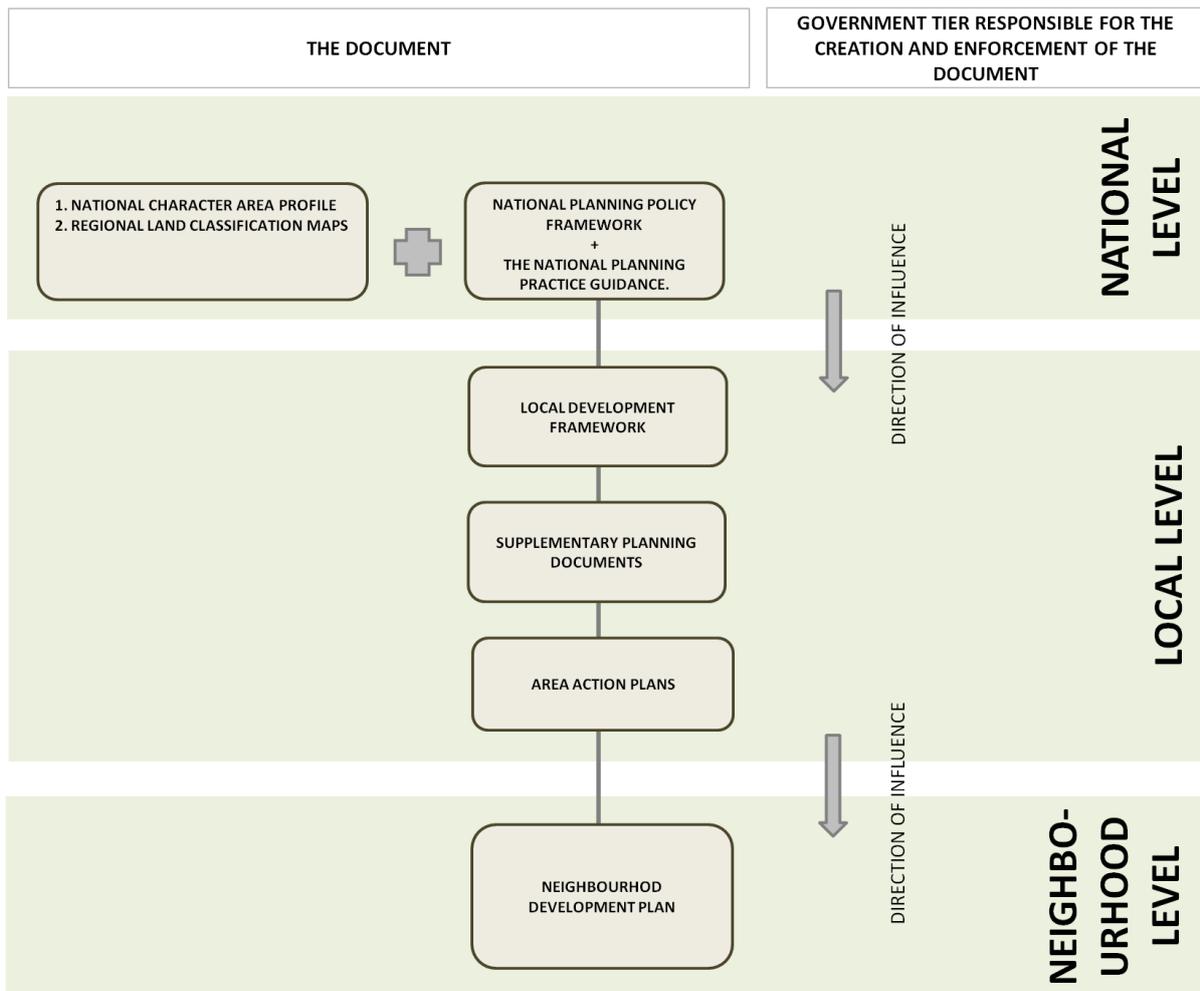


Figure 7- Structure of planning in England, United Kingdom

Source: Diagram by Author

### 3.2.3. Materials for the Study- Strategic Planning Documents

The planning system of England is hierarchically binding on tiers below and that means that means that the guiding principles of the national strategy has to be incorporate in the lower level plans. In the current practice, England has abolished the regional tier in 2010 (Government of UK, 2015). This leads to a situation where cities deal with only their own jurisdictions and rural areas are under the jurisdiction of the rural municipalities. Moreover, a set of supplementary documents like the “*Natural England*” and the “*National Character Area Profile*” deals land use and management from a national level. As this thesis is only aiming to study strategic planning documents, I will only be analysing the “*Local Development Framework*” of Bristol. It is necessary to keep in mind, that especially in the case of England, this leads to the areas outside the city limits or the urban limits or the municipal limits are out of the jurisdiction of the city authorities.

### **The “Bristol Development Framework: Core Strategy,” 2011**

The core strategy of Bristol builds on overcoming its challenges of regenerating the city core, creating affordable housing, sustainable transport and a healthier living environment. The document encapsulates the vision of the city to be one of the top 20 sustainable cities of Europe and places special emphasis on being a low-carbon economy. The strategy is built upon the spatial sketch that has been created, the core issues and challenges identified and the objectives of development. The document also contains a delivery strategy both area wise and sector wise dealing with policy, strategy, targets and indicators. Finally there is a short section on monitoring the progress. The city, reflecting the national policy, stresses immensely on sustainable development and intends to deal with its core challenges and issues in a long term manner.

#### **3.2.4. Presentation of Collected Data**

Upon reviewing the aforementioned document I have extracted some elements related to the theme of my research and have summed it up here.

The Bristol Strategy demonstrates commitment to sustainable development and environmentally responsible behaviour and relates all of its development principles to it. It breaks down issues and challenges to economic, social and environmental spheres and then aligns its development objectives to overcoming each of them, and places it in the context of sustainability.

While there are elaborate references to environmentally responsible actions and green infrastructures, there are only a few mentions of agriculture and food. The city clearly gives importance to green spaces and ecological infrastructure and agriculture is integrated into this theme. They explicitly mention integrating grazing land, food production areas and agriculture into both existing green networks and in those planned for the future developments. These I have categorised as actions.

The goals related to them are to make room for food production in the city and combine with leisure uses. These green networks which integrate agriculture are intended to create space for active recreations, community life, educational purposes and to increase the air and food quality in the city. Moreover a lot of emphasis is given to its role in allowing room for wildlife and ecology in the city and for residents to interact with nature.

This particular document does not state any other particulars that can be related to agriculture or food production, however, in light of the very centralised planning structure of England I find it worth mentioning that in the *“National Character Area Profile”* document, which has a detailed land character map of the whole country and highlights the various uses and benefits of each, food provision is considered an ecological service and there is ample attention paid to how it must be preserved (Natural England 2014). I briefly mention my observation that most of the references are related to preserving the ecological functions of the landscape and in ensuring its survival. *“The National Policy Framework”* considers that a prosperous rural economy is vital for sustainable development of the country (Department of Communities and Local Government 2012, 28), and it is mentioned that agricultural land must be spared for urban land use and where necessary land of lower potential and quality (for agricultural uses) must be used (p 112). The observations for these two documents will not be considered in my analysis, however, in the context of the English planning system I find the mention of this information imperative.

In the table below I have summed up the information presented in the Bristol *“Local Development Framework: Core Strategy”* document.

Document	Page#	Action From Document	Goal From Document
Bristol Development Framework, Core Strategy	p22	Build green infrastructure into new developments and provide room within it for agriculture	To make room for food production within the city . (Generally green infrastructure perceived as a source of recreation and to ensure high quality of life within the city)
			To create spaces for active recreational activities
			To create spaces for community life
			To allow room for wildlife and ecology within the city
	p73	Allot areas within green infrastructure for grazing land, city farms and community gardens	To ensure a healthier population with access to fresh food
			To use it for educational purposes
	p74	Allot areas within green infrastructure for grazing land, city farms and community gardens	To enable ecological corridors to run without disruption through the city
			To enable residents to experience nature
			To encourage a more social community

Table 4- Summary of data: Bristol

### 3.3. The Netherlands: City-Region of Almere



Source: © Creative Commons Attribution 2.0

Figure 8- Almere, The Netherlands

Within the Netherlands, I take up the case study of Almere, a relatively new polder<sup>4</sup> town that began as a settlement in 1974. Almere is part of the Amsterdam Metropolitan region and the Randstad<sup>5</sup>. In response to a central government directive to expand from a city of 190,000 inhabitants to one of 350,000 and create a 100,000 new jobs, Almere city has developed a strategic vision for the period from 2010-2030 which is described in their strategic spatial planning document: “*Concept Structuurvisie Almere 2.0*” (Concept Structural Vision Almere 2.0) (Almere 2009). The principle objectives of the Almere structural vision fits in with the vision of the Netherlands to become a “competitive, accessible, liveable and safe” country (Ministry of Infrastructure and the Environment 2011).

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<sup>4</sup>Polder land is land reclaimed from the sea or protected from the sea and is below sea level (van Schoebroek 2010)

<sup>5</sup>The Randstad is a con-urbanisation consisting of four of the biggest cities in the Netherlands (Amsterdam, Rotterdam, Utrecht and The Hague) and some medium sized cities (such as Haarlem, Leiden, Dordrecht, Amersfoort, Hilversum and Almere), with a protected green area in its core (Ref Fig 1) and this green zone is considered crucial for the region (Faludi et al. 1996; Roodbol-Mekkes et al. 2012).

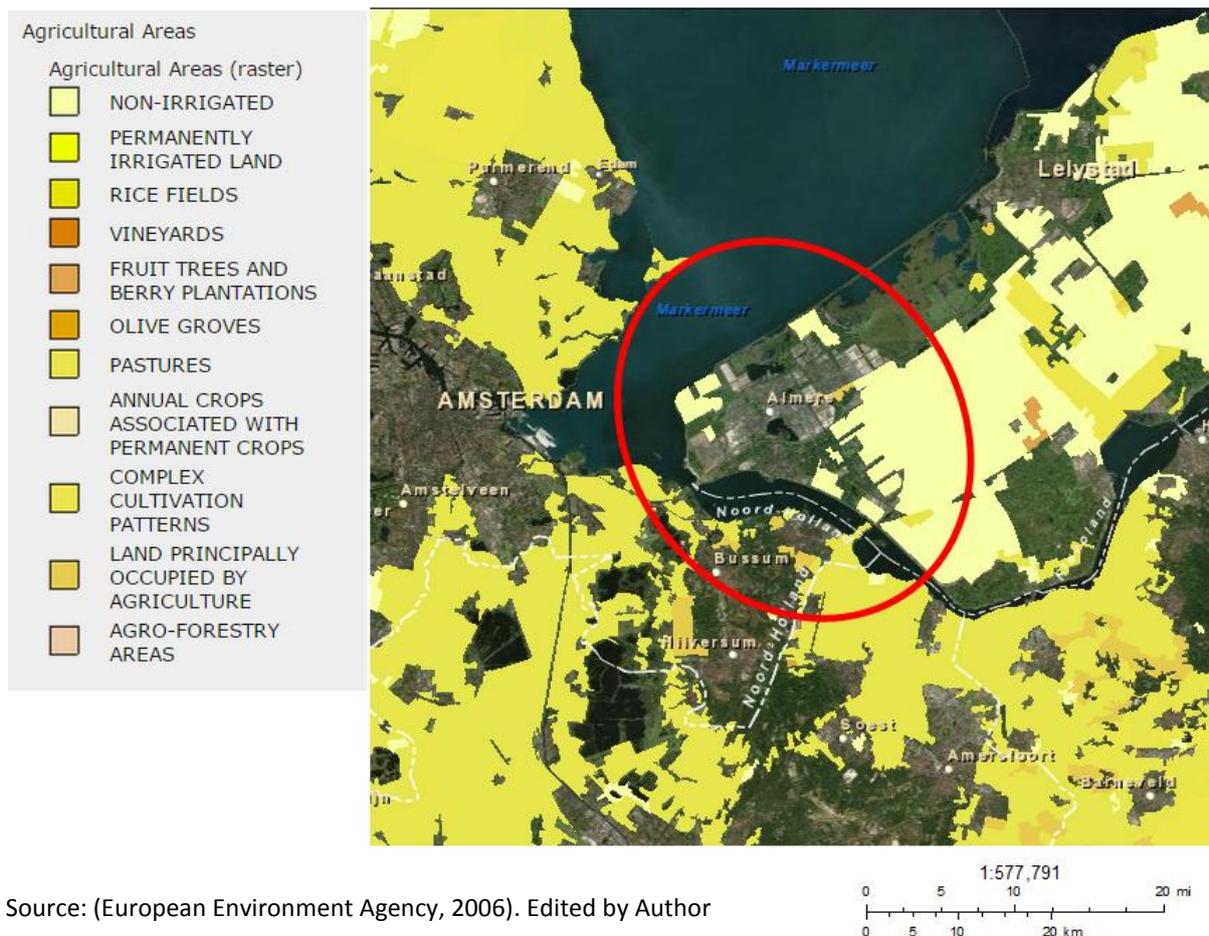


Figure 9- Corine Land Cover- Agricultural land use in Europe- Almere Region

The figure above serves to demonstrate the extent of agricultural land use in contrast to urbanisation.

The city of Almere is partly in the predominantly agrarian province of Flevoland, thus satisfying my criteria of a region which hosts agriculture. It is also part of the Amsterdam Metropolitan area, which is one of the most densely populated and growing urban regions of Western Europe and the largest in the Netherlands (OECD 2014). The spatial vision set forth by the city- "*Concept Structuurvisie Almere 2.0.*" can indeed be classified as a strategic spatial planning document as per my own analysis, based on the indicators that I have developed. The Dutch played a prominent role in the formulation of the ESDP (Faludi & Waterhout 2002) and it has been argued that one of the reasons for this active participation was to promote Dutch planning systems and concepts in the European, if not International debates (Nadin & Stead 2008, 43). It has been described as an elaborate example of a comprehensive and integrative planning system which is concerned with the coordination of spatial developments rather than economic developments (Commission for European Communities 1997)

### **3.3.1. Spatial Organisation in the Netherlands**

The Netherlands is a decentralised unitary state with three levels of government, basically the national, provincial and municipal levels, all of whom are autonomous in theory and all of whom have planning powers (Van Der Valk 2002). The Netherlands has a rich and robust history in spatial planning and have had their first formal planning document in 1960 (Healey 2004) although its roots go back to the early 1990s (Lorzing 2004). The Dutch are quite renowned for their planning traditions (Faludi & van Der Valk 2013; Van Der Valk 2002; Roodbol-Mekkes et al. 2012) and it is largely based upon their achievements in creating and managing manmade landscapes, the orderly preservation of farmlands and the parcelling of natural, agricultural and urban landscapes (Roodbol-Mekkes et al. 2012).

The Netherlands, located in the Northwest of the European continent is one of the most densely populated countries of the world, with 90% of its population living in 14% of the land mass (Statistics Netherlands, 2015). Much of its land is reclaimed from the sea and hence is below sea level and is maintained by a careful system of drains and dykes (Faludi & van Der Valk 2013). A population of slightly more than 16.9 million people live in a landmass of 41,000 km<sup>2</sup> (The World Bank, 2015) and more than a third of the Dutch population and a third of the country's GDP is based in an area also known as the Randstad, which is located in the most vulnerable parts of the country: the parts that are located below sea level (Van Der Valk 2002). Almere is part of the Randstad agglomeration.

### **3.3.2. Structure of Planning in the Netherlands**

Planning is considered one of the central institutions in the Netherlands (Shetter 1988). The Spatial Planning Act (WPO- "*Wet op de ruimtelijke ordening*") is foundation of the legal system on Dutch spatial planning and according to it, the national and provincial governments are to prepare spatial visions ("*Structuurvisie*") that sets forth guidelines that are of national and regional interest respectively (Government of Netherlands, 2015). The Municipality holds the power to shape the spatial planning policy and implementation and has to adhere to the guidelines set forth by the higher tiers. It is then in the powers of the municipal government to make spatial visions ("*structuurvisie*") and land allocation plans ("*bestemmingsplannen*") (Government of Netherlands, 2015). The spatial vision document at the national level is currently the National Policy Strategy on Infrastructure and Spatial Planning (SVIR- "*Structuurvisie Infrastructuur en Ruimte*") The structure and levels of planning and the main planning instruments are presented through the diagram below.

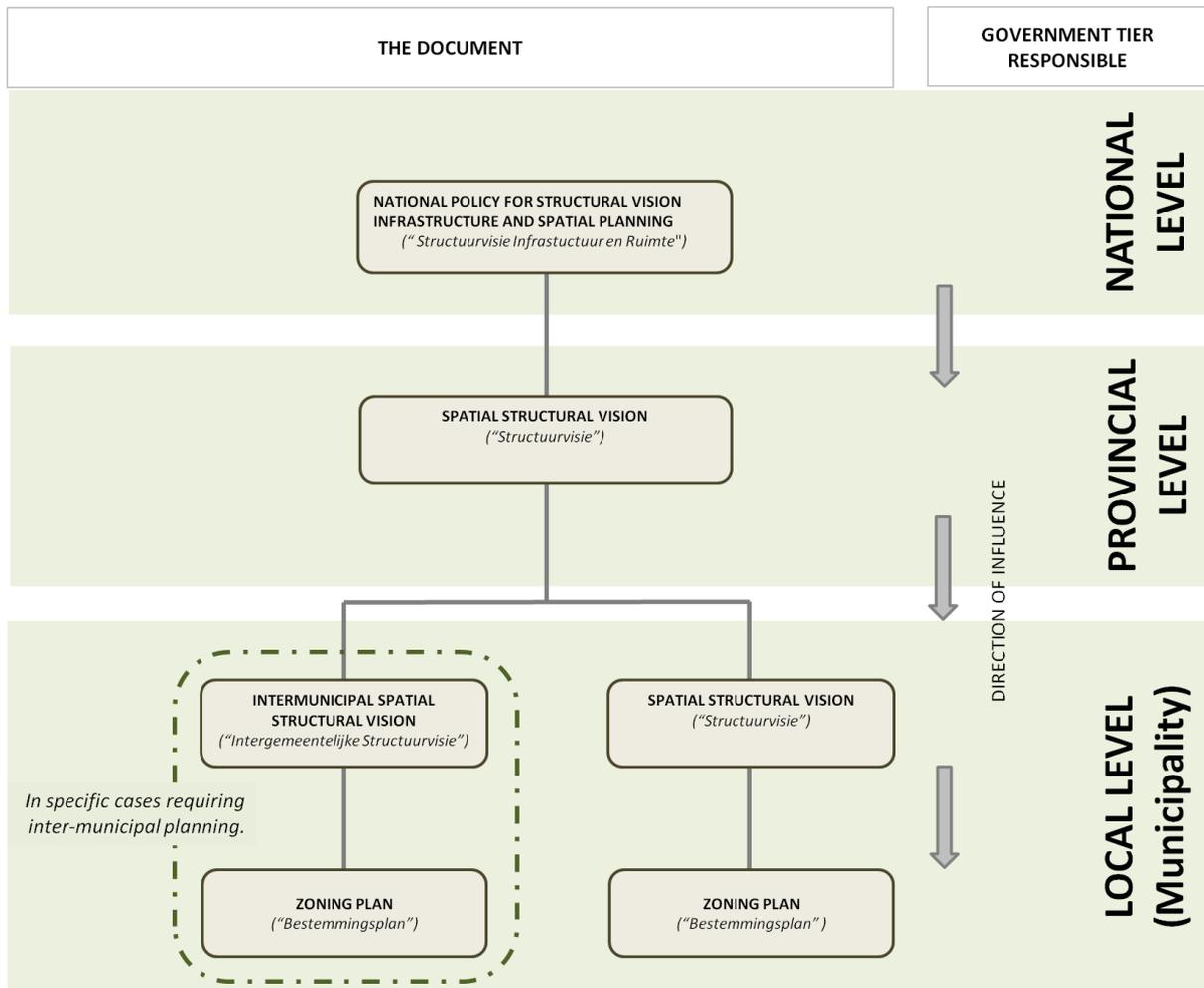


Figure 10- Structure of planning in the Netherlands

Source: Diagram by Author

### 3.3.3. Material for the Study- Strategic Planning Documents

The main planning instruments currently in use are clearly represented in the diagram above. The responsibility of developing the city of Almere lies with the local municipality. Almere lies within the Province of Flevoland but is under the jurisdiction of The Amsterdam Metropolitan Area and hence two Municipalities have come together for this development. The municipalities of Almere and Oosterwold (Statistics Netherland, 2015).I have conducted my analysis on the data collected from the following two documents.

#### The “*Concept Structuurvisie Almere 2.0,*” 2009 (The Concept Structural Vision (CSV), Almere 2.0)

It elaborates how the seven Almere principles will be translated into the scaling up (*Schaalsprong*) of the city. The city of Almere recognises the need to include agriculture in its development and delineates the importance of maintaining its links with rural areas. The document explicitly mentions the city’s desire to de-compartmentalise the urban and rural and explore a more participatory and

liberal form of planning thereby creating an alternative urban lifestyle that integrates main stream agriculture into it. The city along with Wageningen University has developed a vision document for an area demarcated for this experimental development and that is the second document that I used for my research *“Intergemeentelijke Structuurvisie Oosterwold Ontwerp,”* 2013 (Inter-municipal Structural framework Almere Oosterwold). The agricultural aspirations of the city are mostly materialised through this second document.

***“Intergemeentelijke Structuurvisie Oosterwold Ontwerp,” 2013*** (Inter-municipal Structural Framework Almere Oosterwold).

This document specifically focuses on the Almere-Oosterwold area. Oosterwold is a locale of 4,300 hectares in the East of Almere and the West of Zeewold and is in the province of Flavoland. However, it continues to be a part of the Amsterdam Metropolitan area development vision and hence it is a product of inter-municipal cooperation. The document visualised the participatory development of 15,000 new homes that completely integrates itself with nature and agriculture. The document deviates from the regular practices of land use planning and regular image of urbanisation and instead defines a few guiding principles within which land uses are allocated.

The two documents relate to each other and the vision of the “Concept Structuurvisie Almere 2.0”(hereafter Almere structural vision) to integrate agriculture into the development planning is referred to the “Intergemeentelijke Structuurvisie Oosterwold Ontwerp,”(hereafter Oosterwold structural vision) which in turn strives to balance its own objectives with those of the larger structural vision. Hence I deem both documents essential to my data collection, but the majority of the information used for this study was from the second document in actuality.

#### **3.3.4. Presentation of Collected Data**

Subsequent to the review of the two above-mentioned documents, I have summarised the information concerning agriculture that is pertinent to my research.

The Almere structural vision, the first document in review lays out the principles of development that Almere aspires towards and they are: Cultivating diversity; Aligning the growth to the context; Integrating the city with nature: Designing a healthy system; Anticipating change; Continuing on a path of innovation; And empowering the people to make their own city (Almere 2009).

The document has only a very general mention of agriculture. Based on the conviction that ecological sustainability goes hand in hand with urban development, the city authorities intend to align the

scaling up of the city by the inclusion of nature, landscape and water into its intention for the transformation of the environment to green living and working environments, diverse green infrastructure, the dike ecology and urban agriculture.

The document agrees that, if urban agriculture can provide 10% of local food demand, it is saving a minimum of 5 million car kilometres, 145 million mega joules of energy (which corresponds to the energy consumption of about 4,250 households), and reducing CO<sub>2</sub> emissions by 11,000 tons (equivalent to the CO<sub>2</sub> sequestration of 500 ha of forest, annually).

The document also explicitly states that in its endeavour to balance the conflict between city and agriculture, it is striving to develop a new type of urbanity, where large agricultural and natural spaces are part of the city itself. In collaboration with civic society, entrepreneurs and in conjunction with the Wageningen University, a premiere research institute in the Netherlands, they have developed a second strategic vision document which deals with urban agriculture. The document relates this venture to using agriculture to create a cleaner, greener and more sustainable city which produces a portion of its own food and brings the consumer and producer closer together in a direct relationship.

That brings me to the second document under review. The Oosterwold structural vision highlights both ways integrating agriculture into the city region and of conserving existing practices in the larger region. It highlights opportunities associated with agriculture which could be the drivers of integrating agriculture into the region.

It associates agriculture with economic benefits like increased employment for local residents and that agriculture could enrich that landscape that would in turn attract tourist and therefore create economic opportunity and social benefits like giving residents access to healthier and more sustainable food, recreation and the transformation of local lifestyles to more healthy ones deeply linked with nature and food. It underlines that local food production could save energy and reduce pollution and that agriculture can be transformed to play a role in preserving the local landscape and ecology. The maximum emphasis is however, on the experimental value of the venture, which if successful could stand to be a global example thereby inspiring more and more cities to become more sustainable.

I have extracted all actions and goals explicitly related to agriculture mentioned in both documents and presented it in the table below.

Document	Page#	Action From Document	Goal From Document
"Concept Structuurvisie Almere 2.0," 2009 (The Concept Structural Vision, Almere 2.0)	p88	Transform the now large scale agriculture on the east side of the city into urban agriculture.	To make food production more sustainable To make the city greener
	p90	Continue food production and agricultural activity in areas where it is in practice through new ways of integration	To make the polderland into a space for business and production.
		Combine agricultural activity with energy production, water treatment and waste disposal.	To make the city more self sustained.
		Combine agricultural activity with entrepreneurship in areas related to tourism, recreation and healthcare	To provide the urban population alternative spaces for recreation and healthcare
		Link the local farmers with local supermarkets and neighbourhood food outlets	Locally produced food easily available for the residents of Almere To reinforce the connection between people (i.e.) and food production activity.
	p105; p114	Expand the city and relieve the urban pressure by developing alongside the existing green (ecology + agriculture) and blue (water) lines thereby allowing for co-existence	To create a region of high value that combines landscape, agriculture, life and work. Increased diversity in landscape and activity.
	p165	Use the polder land for agriculture in a denser and more accessible form	To create new landscapes and to combine agricultural activities with residential, educational and economic activities
	p248	Use part of the Almere Oosterwold for large scale agriculture and part for denser residential scale agriculture and green landscapes	To use the city's East side as a transition between city and agricultural areas
p250	Generate energy, and purify water for local use within the agricultural areas and maintain the sight lines within the region by allowing for open space	To become a self reliant urban region that produces its own utilities and has natural and recreational space within the living and working environment	
p306	The expansion of the city must allow for green living and working environments; Diverse green infrastructure; Waterways; And urban agriculture.	To ensure environmental sustainability and ensure that the city does not exceed the carrying capacity of the land. To seize opportunities fo large scale systems innovation for attaining sustainable development	
"Intergemeentelijke Structuurvisie Oosterwold Ontwerp," 2013 (Interunicipal Structural framework Almere- Oosterwold)	p7	Land development in Almere Oosterwold must attain atleast 51% agriculture, 20.5% green space and 2% for water.	To ensure space for the continued practice of agriculture within the urban fabric
	p10	Use the principles of organic urbanism for development. Growth of the city to include a multitude of bottom up initiatives.	To urbanise in an organic manner and ensure the survival of the ecological and agricultural landscapes that are contributing to the good quality of the environment
	p18	The farms and urban gardens must be involved in educational activities for school children.	Residents of Almere and the region are aware of where their food comes from and how it is produced
	p18	The areas must have provisions for accommodation like bed and breakfasts.	To generate employment and economic opportunity
	p20	Ensure that nearly 50% of the land in Almere continues to be used for agricultural purpose.	Atleast 10% of the future regional food needs are met through regional agriculture
	p20	Innovate to develop a new type of urban area that integrates food production and ecological spaces with residential and economic activities	To make Almere Oosterwold a testing ground for sustainable development and to set a global trend of regionally produced food

Table 5- Summary of data: Almere

## **4. Analysis**

### **4.1. Germany**

The German city of Hamburg expressively values the historically rich cultural landscapes that it is in close proximity to and has designed its development vision to include this landscape around the city. The city understands the intricate linkages between landscape, nature, agriculture and ecology and this thought is weaved into the strategic spatial planning vision. Agriculture has been quoted as an integral part of this landscape and the city fully intends to conserve it and has repeatedly mentioned the importance of doing so.

The intention to contain urban expansion and pressures on land within the existing city limits is seen throughout the document and emphasises the need to assess the value of agricultural land that is in the region and assess the impacts of commercial or urban development on it. The city states the need to balance the pressure faced by agricultural land and integrates actions for economic sustainability of farming like agro-tourism and highlights the recreational benefits the landscape provides to the region.

The document projects a clear understanding of the complex linkages between landscape and ecology and considers the impact on both, in each of its proposed urban and infrastructure projects. The role of the Elbe marshlands which is integral to both ecology and agriculture is thoroughly taken into consideration by the document, which points out the role it has played historically in biodiversity conservation, water purification and agriculture.

Local, fresh and healthy, food production is also mentioned as a benefit of agriculture and the city points out the needs to link consumer and producer to maximise the economic benefit of direct marketing to the farmer.

The document demonstrates a holistic understanding of the functions and benefits of agriculture for the region and for the urban society and attaches significance to preserving the agricultural land and activity in the region. The city's development strategy of densifying its core is in itself a main offshoot of the decision to preserve the cultural landscapes around it.

The following table summarises the Analysis and benefits of agriculture attached to the agriculture related actions and goals considered in the "Raumtliches Leitbild Entwurf" 2007 (Spatial planning vision) of Hamburg city-state.

Document	Page#	Action From Document	Goal From Document	ANALYSIS: Functions/Benefits of Agriculture that the document addresses	
"Räumliche Leitbild Entwurf- Hamburg," 2007 (Spatial Planning Vision Hamburg)	p26	Address the issue of existing agriculture as a landuse. Find an appropriate balance for existing agricultural landuse when catering to the commercial and residential demand	To resolve landuse contestations and ensure balance. To ensure the continuance of agriculture for its ecological contributions To ensure the continuance of agriculture for its recreational values	Acts as breathing spaces to reduce the impact of urban pollution and lack of green spaces Landscape management. Soil conservation. Water protection. Biodiversity preservation. Reconnects people with food and nature	
	p60	Conserve agriculture in East Wilhemsburg	To recognise its value in the green network for its ecological and recreational value and ensure its continued presence.	Landscape management. Soil conservation. Water protection. Biodiversity preservation.	
	p64	Preserve the agricultural and horticultural activity in the Elbe marshlands	To reinforce the fact that the agriculture in along the Elbe is part of the identity of the city of hamburg	Protecting the ecological functions of the land	
	p133	Address the surface potential of land used for agriculture, natural and landsape before converting it to building sites	To ensure that the contribution of open land of large surface areas to the urban life quality and economy is compensated if land is converted	Aesthetic quality of the landscape (cultural landscapes) Increased income to farmers enables economic revitalisation in rural areas	
	p149	Take stock of the conflicts of commercial development with existing agricultural land	To protect the natural, landscape agricultural land from commercial conversions	Multifunctionality of agriculture	
	p155	Take into consideration the impact on agricultural land in the deepening of the Elbe project	To ensure the conservation of agricultural land	Multifunctionality of agriculture	
					ENVIRONMENTAL
					ENVIRONMENTAL
					ENVIRONMENTAL
					ECONOMIC



Two main observations on the conclusions drawn from the Hamburg case are discussed below.

Firstly it is evident that the city values its cultural landscapes and is proud of its historic values. Agriculture is understood to be intricately linked to the cultural landscape and the Elbe marshland ecology. The presence of the cultural landscape is understood to ensure a high quality of life in the city, which is one of the core intentions of the development vision itself. Quality of life, according to the document is linked to clean air and water as well as the opportunities of recreation within the natural environment. This is a main reason for preserving the cultural landscape. The second is that the cultural landscape is considered an integral part of the identity of the city itself and hence it is both promoted and conserved. Thus the interest in protecting agricultural activity in the city region is born out of the desire to preserve the identity, ecological functions and recreational opportunities of the landscape itself.

A second major reason is the economic value that the city attaches to a thriving agricultural landscape. The stress placed on enabling farming to be made economically viable and thereby ensuring the continued survival of agricultural practices clearly indicates the interest of the city vision. The document explicitly mentions that a striving rural economy is beneficial for the city.

In conclusion to this case, my analysis reveals that the city of Hamburg attributes its identity and quality of life to the cultural landscape of the region and understands that agriculture is an integral part of it and therefore promotes agriculture in the region to ensure the survival of the functions and qualities of the landscape. The city also realises the economic values of agricultural activity and promotes opportunities for farmers to maximise economic viability such that they are able to resist urban pressures and continue farming. Thus, the city of Hamburg values its ample and rich agriculture and takes effort to ensure its survival and flourish.

#### **4.2. The United Kingdom**

The city of Bristol, though now renowned in Europe for the food council it set up and its commitment to sustainable food, has only few actions and goals related to agriculture or food production in its strategic spatial plan.

The main goal of the city being sustainable development and becoming a low carbon economy, it does put some stress on the promotion of its green networks and the development of new ones. The city attributes ecological, aesthetic and recreational functions to the presence of a green network in

the city. Agriculture, as per my analysis is merely mentioned as a component of this green infrastructure.

The actions of including agriculture in the green infrastructure in the form of grazing land, farms and food production sites are related to goals of providing citizens with healthy food, building a cleaner environment, reinforcing a relationship between residents and nature and also as an arena for social integration, education and most of all recreation.

Extrapolating it with my theoretical extractions, I have found evidence that the document attributes the following benefits for its citizens by integrating agriculture in Bristol city. Economic benefits of providing a space for leisure to its urban dwellers thereby improving the city's position in the global market were considered. Social Benefits include improving access to healthier food to it's residents, more recreational space, reconnecting people with the environment and providing an arena for social integration and education. The Environmental benefits are limited to organic food production methods, using agriculture to protect the ecological functions of the land and to some extent, biodiversity preservation.

The following table summarises the data collected and my analysis on it.

Document	Page#	Action From Document	Goal From Document	ANALYSIS: Functions/Benefits of Agriculture that the document addresses	
Bristol Development Framework, Core Strategy	p22	Build green infrastructure into new developments and provide room within it for agriculture	To make room for food production within the city . (Generally green infrastructure perceived as a source of recreation and to ensure high quality of life within the city) To create spaces for active recreational activities To create spaces for community life	Healthier food of high quality with less use of chemicals. Providing urban dwellers with a space for leisure and fresh air Providing urban dwellers with a space for leisure and fresh air	
	p73	Allot areas within green infrastructure for grazing land, city farms and community gardens	To allow room for wildlife and ecology within the city To ensure a healthier population with access to fresh food To use it for educational purposes	Protecting the ecological functions of the land Citizens get better quality food and are able to live healthier Reconnects people with food and nature and provides an arena for education	
	p74	Allot areas within green infrastructure for grazing land, city farms and community gardens	To enable ecological corridors to run without disruption through the city To enable residents to experience nature To encourage a more social community	Biodiversity preservation Providing urban dwellers with a space for leisure and fresh air Providing urban dwellers with a space for leisure and fresh air	
					SOCIAL ENVIRONMENTAL
					ECONOMIC SOCIAL SOCIAL
					ENVIRONMENTAL
					SOCIAL
					SOCIAL ENVIRONMENTAL
					SOCIAL
					SOCIAL

Table 7- Analysis: Bristol

What is evident is that in the strategic spatial plan of Bristol, food and agriculture has not gained a prominent position, but merely a mention amongst its larger agenda. While the Food Council and other departments and policies within the UK may be taking action for encouraging and promoting agriculture, it does not feature in this analysis as it is out of the scope of this research.

The *“National Planning Policy Framework”* does point out the importance of rural development and the *“National Character Area Profile”* does discuss the merits of agriculture for ecological and biodiversity preservation. I had briefly discussed this in the previous chapter while presenting the cases. While I did not consider this in my analysis as these documents are not strategic spatial planning documents, it is noteworthy to observe that rural development and agricultural management are considered important in England. This information points out that in the context of my research interest, that the strategic spatial planning document of Bristol city, the *“Local Development Framework”* does not consider these areas.

In conclusion to this case, I point out that in the city of Bristol, much importance is given to sustainable and environmentally friendly living and green infrastructures, however, not specifically to agriculture or food production. There are plans to include agricultural spaces in the green networks of the city, but the main benefit that the city hopes to cash in on is the improved environmental and life quality in the city and having sufficient space for green and active recreation, which again relates to the same.

### **4.3. The Netherlands**

The city of Almere which is part of the province of Amsterdam places a significant amount of importance on agriculture in urban development. Agriculture is considered vital in the shaping of the city and a section of the city region has been given to an urban experiment in integrating agriculture into regional development. Much research has gone into it and the city hopes to see results of an organic nature. Both urban and regional agriculture has been considered and the concept of urban agriculture has been widened to include agricultural land within the city-region that can potentially contribute to life in the urban area.

The interest in agriculture has been categorically built on intentions of creating sustainable development but most of the impacts are directed towards preserving the environment and introducing a new way of life. The city hopes that it can test a more sustainable way of life that includes agricultural land and activity in it's residents' daily life.

Agriculture is to be integrated into the natural environment with a target of enabling agricultural activity to contribute towards the ecology in ways such as locations for generating green energy, for water conservation and purification and for creating a food waste nexus. Local food production is seen as a way to reduce the energy consumed and CO2 produced by the city.

There is a plan to educate children on the food system and the concept that agricultural produce can be routed to the city in the region thereby reducing the environmental impact of transport and reducing the costs involved. Thus residents have more access to healthy affordable food. Economically the city sees the potential of tourism in preserving the landscape and intends to increase employment rates by generating jobs in the agricultural sector.

The following table demonstrates how each action and goal extracted from the strategic spatial planning documents of Almere relates to the functions and benefits of agriculture for urban and regional development.

Document	Page#	Action From Document	Goal From Document	ANALYSIS: Functions/Benefits of Agriculture that the document addresses
"Concept Structuurvisie Almere 2.0," 2009 (The Concept Structural Vision, Almere 2.0)	p88	Transform the now large scale agriculture on the east side of the city into urban agriculture.	To make food production more sustainable To make the city greener	Providing Urban dwellers with a space for leisure and fresh air ECONOMIC SOCIAL
	p90	Continue food production and agricultural activity in areas where it is in practice through new ways of integration Combine agricultural activity with energy production, water treatment and waste disposal. Combine agricultural activity with entrepreneurship in areas related to tourism, recreation and healthcare	To make the polderland into a space for business and production. To make the city more self sustained. To provide the urban population alternative spaces for recreation and healthcare	Farmers are able to benefit from additional income that enables the sustenance of farming ECONOMIC ENVIRONMENTAL Less energy waste and pollution ENVIRONMENTAL Farming activity amongst children raises awareness of how food is produced and about nature social integration of children from marginalised communities SOCIAL
	p105; p114	Link the local farmers with local supermarkets and neighbourhood food outlets Expand the city and relieve the urban pressure by developing alongside the existing green (ecology + agriculture) and blue (water) lines thereby allowing for co-existence	Locally produced food easily available for the residents of Almere To reinforce the connection between people (i.e.) and food production activity. To create a region of high value that combines landscape, agriculture, life and work. Increased diversity in landscape and activity.	Local food means less food miles and energy consumed. SOCIAL Reconnects people with food and nature Providing urban dwellers with a space for leisure and fresh air ECONOMIC SOCIAL ENVIRONMENTAL Acts as breathing spaces to reduce the impact of urban pollution and lack of green spaces Farmers are able to benefit from additional income that enables the sustenance of farming Increased income to farmers enables economic revitalisation in rural areas Aesthetic quality of the landscape (cultural landscapes) maintained
	p165	Use the polder land for agriculture in a denser and more accessible form	To create new landscapes and to combine agricultural activities with residential, educational and economic activities	Reconnects people with food and nature and provides an arena for social integration of children from marginalised communities ECONOMIC SOCIAL Farmers are able to benefit from additional income that enables the sustenance of farming
	p248	Use part of the Almere Oosterwaard for large scale agriculture and part for denser residential scale agriculture and green landscapes	To use the city's East side as a transition between city and agricultural areas	
	p250	Generate energy, and purify water for local use within the agricultural areas and maintain the sight lines within the region by allowing for open space	To become a self reliant urban region that produces its own utilities and has natural and recreational space within the living and working environment	Providing urban dwellers with a space for leisure and fresh air ECONOMIC SOCIAL ENVIRONMENTAL Local food means less food miles and energy consumed. Reduces the dependence of city regions on world markets thereby enabling the control of quality and price of food. Softening inflation shocks on food access
	p306	The expansion of the city must allow for green living and working environments; Diverse green infrastructure; Waterways; And urban agriculture.	To ensure environmental sustainability and ensure that the city does not exceed the carrying capacity of the land. To seize opportunities for large scale systems innovation for attaining sustainable development	Reduces the dependence of city regions on world markets thereby enabling the control of quality and price of food. Softening inflation shocks on food access ECONOMIC

Table 8- Analysis: Almere

Document	Page#	Action From Document	Goal From Document	ANALYSIS: Functions/Benefits of Agriculture that the document addresses
"Interregionale Structuurvisie Oosterveld Ontwerp," 2013 (Intermunicipal Structural Framework Almere-Oosterveld)	p7	Land development in Almere Oosterveld must attain atleast 51% agriculture, 20.5% green space and 2% for water.	To ensure space for the continued practice of agriculture within the urban fabric	Local food means less food miles and energy consumed. ENVIRONMENTAL
	p10	Use the principles of organic urbanism for development. Growth of the city to include a multitude of bottom up initiatives.	To urbanise in an organic manner and ensure the survival of the ecological and agricultural landscapes that are contributing to the good quality of the environment	TO SET AN EXAMPLE FOR THE WORLD
	p18	The farms and urban gardens must be involved in educational activities for school children.	Residents of Almere and the region are aware of where their food comes from and how it is produced	SOCIAL
	p18	The areas must have provisions for accommodation like bed and breakfasts.	To generate employment and economic opportunity	Reconnects people with food and nature Farming becomes more economically viable. Increased income to farmers enables economic revitalisation in rural areas. ECONOMIC
	p20	Ensure that nearly 50% of the land in Almere continues to be used for agricultural purpose.	Atleast 10% of the future regional food needs are met through regional agriculture	ECONOMIC
	p20	Innovate to develop a new type of urban area that integrates food production and ecological spaces with residential and economic activities	To make Almere Oosterveld a testing ground for sustainable development and to set a global trend of regionally produced food	Reduces the dependence of city regions on world markets thereby enabling the control of quality and price of food. Softening inflation shocks on food access. TO SET AN EXAMPLE FOR THE WORLD

What is evident is that the city of Almere considers its agricultural interventions as a new form of urbanism and urban agriculture that will be an experiment for sustainable living and it has dedicated an entire area of the city to this form of agriculture and urbanism (Almere 2009). The city of Almere intends to ensure that the existing farmlands in this new section of the city can continue under urban conditions and therefore hope to set an example for the globe in its sustainability ambitions.

From this comparative analysis between what is advocated by the academics on the subject and what has been put into practice, a few elements about the case of Almere can be determined.

The city of Almere focuses on co-existence of urbanism and agriculture within the same space rather than stark urban and rural areas that foster a symbiotic relationship. My literature review revealed that the rural activities can serve to increase the quality of urban lives, but here the two are merging to one.

Self-sustenance of the city is a high priority as revealed from the analysis. Repeatedly the document uses the term sustainable in the sense that food, energy, waste management and recreational needs of the city are met within the city itself. Agriculture is used for all of these functions with a targeted view of self-reliance.

The third element that can be identified is that the document places some emphasis on the residents connecting with nature and food production. Not only is it mentioned more than once in the planning document, it is also evident from the fact that the development strategy for Oosterwold is that the residents mandatorily engage in agriculture. The proximity of agricultural land to the urban areas also gives opportunity for quick links between consumer and producer, as well as for education. These points are mentioned in the document and related directly to citizens being conscious of how food is produced and reconnecting with nature and agriculture.

In conclusion to this case, my analysis reveals that the city of Almere is conducting a global experiment to set an example of sustainable living and agriculture is a prime actor in achieving that intention. The city recognises the role of agriculture in self-reliance and maximises on the multi-functional nature of agriculture to provide the various urban needs without compromising on the natural qualities of the area. Agriculture is also the tools that the city is using to enable citizens to connect with nature and food and therefore encourages more people to engage in agriculture and facilitates self-production of food.

#### **4.4. Comparative Analysis**

The individual analysis and conclusions that I have drawn up from each case sheds some light on the values that each city attaches to agriculture.

The city of Hamburg considers agriculture an integral part of its cultural landscape and immensely values the preservation of the landscape and very explicitly, agricultural activity and land use within the region. It recognises that agriculture has a vast ecological and aesthetic role in the landscape and this is clear in the strategic spatial planning document of the city. This landscape which is synonymous with agriculture from their viewpoint is valued for its impact on the quality of the environment and of life in the city-region. Secondly Hamburg recognises that the prosperity of the rural economy is intricately linked to the well-being of the region and takes actions to make agricultural activity and land use economically and socially viable. The document states various actions and goals to maximise opportunity for the rural farming community and the urban community to benefit from each other.

The city of Bristol sees agriculture as a component that makes up the green infrastructure that it deeply values for its environmental and recreational benefits. Agriculture is considered as a potential part of this green network, and hence shares some of the recreational values attached to the green infrastructure.

The city of Almere has taken on a larger endeavour to set a global precedent for the potential that agriculture holds for the development of sustainable and self-reliant city. The city envisions an experiment in which agriculture is deeply integrated into urban life and strives to reduce the starkness between urban and mainstream agricultural activity. Therefore Almere has set aside a portion of its land for an alternate city that lives differently and has deeply inculcated agriculture into that vision. Agriculture is therefore recognised for its value in ensuring self-sufficiency and sustainability.

## 5. Conclusion

To sum up this research, I go back to my main research question which was: **How do strategic spatial planning documents of Western Europe place agriculture in its visions for development?** This question that I explored through a two part literature review enabled me to first characterise and identify a strategic spatial planning document and then to exemplify how the question of **place** of agriculture can be analysed. The literature on agriculture in development, revealed the roles that agriculture can play in regional development. I have categorised that as benefits, meaning how agriculture in the region benefits urban and regional development. It was revealed that these benefits have two dimensions. A whole range of benefits in economic, social and environmental spheres that have been documented in scientific literature and those amongst them that has commonly been recognised by the urban community.

These benefits were the foundation stones of my case study analysis. By analysing the actions and goals that were stated in each document against the benefits that can be attached to them, as found in the literature, I was able to extrapolate the main reasons for which agriculture was included in each city document.

### **Drawing Common Threads on the Place of Agriculture**

My research is not so much on the role of agriculture in each specific city but rather what the place of agriculture is in Western European planning documents. We see that in the case of Hamburg, agriculture is attributed to functions of overall well-being in the city, in Bristol it is more as a possible building block of the green network that is valued for recreation and in the case of Almere, it is recognised for its role in sustainable development and self-reliance of the city.

Having done a secondary analysis on the three cases I have drawn some common threads which I elaborate here. Based on the benefits that agriculture has for the urban community and for the region, I have compared all the benefits each case has attributed to agriculture and observed that there are many benefits that all three cases recognise. However, based on the weightage given to each case, measured from the number of times it has been mentioned and the extent of elaboration attached to each mention in the document I have extracted the following as the common threads.

Economically, the presence of agriculture is seen by all three cases as an opportunity for a space for leisure and recreation. All three cases recognise that easy access to outdoor recreation increases the quality of life in the city thereby increasing its value on the global market to attract investors.

Socially, reconnecting residents with nature, easing the access to healthy food and recreation options that contributes to well-being are what is attributed to agriculture in all three contexts. Environmentally, agriculture is recognised for its role in biodiversity preservation and the potential role in ecological preservation is the position given to agriculture.

Relating these findings back to the literature review on the benefits of agriculture I conclude that the position of agriculture in strategic spatial planning documents is on a general basis related to the benefits that urban dwellers attach to agriculture, namely that it improves quality of life and thereby makes cities more attractive to the global market, that the presence of landscape in the region holds immense recreational value. However not all perceived benefits are explicitly explored in these strategic spatial planning documents. While the literature review revealed that urban dwellers value regionally produced food, this is not emphasised as much in practice. Moreover, the documents do not understand the value of agriculture in preserving the ecology and biodiversity of the region.

Therefore the place of agriculture in strategic spatial planning documents is most attributed to benefits that all lead to a better quality of life that give them an advantage in the global struggle to attract investors to their cities. This is not surprising in the context of Western Europe, where cities and national governments are embracing neo-liberalised economies in both ideology and practice (Olesen 2012; Waterhout et al. 2012), which is also evident in the fact that being a competitive economy in the world market is a primary objective in the three strategic spatial planning documents that I analysed. A tabular comparison of these can be found as Annexure 1.

### **Deepening the Research**

While the timeframe and the scope of this research did not permit me to do so, a next step to deepen this analysis would be to conduct interviews with local authorities and stakeholders to analyse their viewpoints on the place of agriculture in each strategic spatial planning document. This would give a more profound insight into what agriculture holds for furthering the goals of regional development. It would also enable an understanding of how these findings are positioned in the context of the countries and give insight into the on-going developments in this regard. In each of these cases, there may be parallel actions that are influencing the inclusion of agriculture in strategic spatial planning, the impacts of which could have been brought up through interviews and field research.

Before wrapping up my research I have opened up some questions for future research. It would be interesting to investigate to what extent the city vision documents have addressed the question of increased local capacity. Based on Amartya Sen's capacity theory (Sen 1981; Anand & Sen 2000), this

line of investigation can be enriched to develop a theoretical framework and include parameters for assessing whether the spatial planning strategy of the city aims to increase local capacity, directly or indirectly? This second question serves to create avenues for further enquiry and to substantiate that if strategic spatial planning targets regional development, then it must contribute to effectively increasing local capacity.

Another unexplored dimension of my research is the question of equality of food access. I had briefly mentioned food desert (Shaw 2006) in the context of developed nations which talks of inequalities leading to a certain portion of the population not being able to access sufficient quantities of healthy food. The ability of planning to spread the network of regionally produced healthy food to all parts of society and using urban-rural links to strengthen the same opens up some exciting avenues of research. A second related element is the equality of access to the recreational opportunities and environmental qualities for all citizens.

### **Concluding Statements**

This research is only a small step and the intention is to only open debate about using agriculture as a vehicle for regional development in new planning arenas that are unfolding in Western European city regions. Strategic spatial planning is only an emerging concept that is too new to analyse the effectiveness of. However, the fact that many cities have already implemented it opens up doors to completely new avenues for research.

What it revealed was that both strategic spatial planning and agriculture have received immense acknowledgement for its power to drive development, but in practice only the tip of the iceberg has been tested. To be optimistic, this points to the vast potential that remains unexplored in practical application and the hope that it leaves us with for mainstreaming change, as the world surges towards unsustainable urbanisation.

I began this thesis with a quote from Shakespeare that urged taking a step that could change the world and I remind the reader of this same quote. That there is opportunity to change the course of the world, and sometimes it just takes one stride in the right direction.

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## 7. Annexure

ECONOMIC		
HAMBURG	BRISTOL	ALMERE
Increased income to farmers enables economic revitalisation in rural areas	Providing urban dwellers with a space for leisure and fresh air	Providing Urban dwellers with a space for leisure and fresh air
Multifunctionality of agriculture		Farmers are able to benefit from additional income that enables the sustainance of farming
Reduces the dependence of city regions on world markets thereby enabling the control of quality and price of food. Softening inflation shocks on food access.		Providing urban dwellers with a space for leisure and fresh air Acts as breathing spaces to reduce the impact of urban pollution and lack of green spaces Farmers are able to benefit from additional income that enables the sustainance of farming Increased income to farmers enables economic revitalisation in rural areas Aesthetic quality of the landscape (cultural landscapes) maintained
Farming becomes more economically viable		Reconnects people with food and nature and provides an arena for social integration of children from marginalised communities Farmers are able to benefit from additional income that enables the sustainance of farming
Increased income to farmers enables economic revitalisation in rural areas		Providing urban dwellers with a space for leisure and fresh air Local food means less food miles and energy consumed. Reduces the dependence of city regions on world markets thereby enabling the control of quality and price of food. Softening inflation shocks on food access
Farmers are able to benefit from additional income that enables the sustainance of farming		Reduces the dependence of city regions on world markets thereby enabling the control of quality and price of food. Softening inflation shocks on food access
Reduces the dependence of city regions on world markets thereby enabling the control of quality and price of food. Softening inflation shocks on food access.		Farming becomes more economically viable. Increased income to farmers enables economic revitalisation in rural areas.
Providing urban dwellers with a space for leisure and fresh air		Reduces the dependence of city regions on world markets thereby enabling the control of quality and price of food. Softening inflation shocks on food access.
Farmers are able to benefit from additional income that enables the sustainance of farming		
Increased income to farmers enables economic revitalisation in rural areas		
Multifunctionality of agriculture		

Table 9- Comparison: Economic Benefits

SOCIAL		
HAMBURG	BRISTOL	ALMERE
Reconnects people with food and nature	Healthier food of high quality with less use of chemicals.	Providing Urban dwellers with a space for leisure and fresh air
Aesthetic quality of the landscape (cultural landscapes) maintained	Providing urban dwellers with a space for leisure and fresh air	Farming activity amongst children raises awareness of how food is produced and about nature social integration of children from marginalised communities
Multifunctionality of agriculture	Citizens get better quality food and are able to live healthier	Reconnects people with food and nature
Providing urban dwellers with a space for leisure and fresh air	Reconnects people with food and nature and provides an arena for education	Providing urban dwellers with a space for leisure and fresh air Acts as breathing spaces to reduce the impact of urban pollution and lack of green spaces Farmers are able to benefit from additional income that enables the sustenance of farming Increased income to farmers enables economic revitalisation in rural areas Aesthetic quality of the landscape (cultural landscapes) maintained
Aesthetic quality of the landscape (cultural landscapes) maintained	Providing urban dwellers with a space for leisure and fresh air	Reconnects people with food and nature and provides an arena for social integration of children from marginalised communities Farmers are able to benefit from additional income that enables the sustenance of farming
Healthier food of high quality with less use of chemicals.	Providing urban dwellers with a space for leisure and fresh air	Providing urban dwellers with a space for leisure and fresh air Local food means less food miles and energy consumed. Reduces the dependence of city regions on world markets thereby enabling the control of quality and price of food. Softening inflation shocks on food access
Healthier food of high quality with less use of chemicals.		Reconnects people with food and nature
Providing urban dwellers with a space for leisure and fresh air		
Multifunctionality of agriculture		

Table 10- Comparison: Social Benefits

ENVIRONMENTAL		
HAMBURG	BRISTOL	ALMERE
Acts as breathing spaces to reduce the impact of urban pollution and lack of green spaces	Healthier food of high quality with less use of chemicals.	Less energy waste and pollution
Landscape management. Soil conservation. Water protection. Biodiversity preservation.	Protecting the ecological functions of the land	Local food means less food miles and energy consumed.
Landscape management. Soil conservation. Water protection. Biodiversity preservation.	Biodiversity preservation	Providing urban dwellers with a space for leisure and fresh air Acts as breathing spaces to reduce the impact of urban pollution and lack of green spaces Farmers are able to benefit from additional income that enables the sustenance of farming Increased income to farmers enables economic revitalisation in rural areas Aesthetic quality of the landscape (cultural landscapes) maintained
Protecting the ecological functions of the land		Providing urban dwellers with a space for leisure and fresh air Local food means less food miles and energy consumed. Reduces the dependence of city regions on world markets thereby enabling the control of quality and price of food. Softening inflation shocks on food access
Multifunctionality of agriculture		Local food means less food miles and energy consumed.
Healthier food of high quality with less use of chemicals.		
Local food means less food miles and energy consumed.		
Landscape management. Soil conservation. Water protection. Biodiversity preservation.		
Healthier food of high quality with less use of chemicals.		
Local food means less food miles and energy consumed.		
Multifunctionality of agriculture		

Table 11- Comparison: Environmental Benefits