
Food Policy in the Netherlands

Balancing between Integration and Fragmentation



MSc Thesis for the Law and Governance Group

Author: Liesbeth de Hoop

Supervisors: dr. Gerard Breeman and dr. ir. Otto Hospes



WAGENINGEN UR
For quality of life

Food Policy in the Netherlands

Balancing between Integration and Fragmentation

LIESBETH DE HOOP

900519-362-080

*Thesis submitted to the Law and Governance Group – in close collaboration with the
Public Administration and Policy Group – in partial fulfilment of the requirements
of the Master of Science degree in International Development Studies*

Wageningen University – Department of Social Sciences
MSc International Development Studies

Communication, Technology and Policy
Law and Governance
LAW-80433

Supervision:

dr. G.E. Breeman

dr. ir. O. Hospes

Wageningen, January 2015

ABSTRACT

Despite food-related policies, the global food system struggles with ecological sustainability, public health and robustness. The situation is no different in the Netherlands which, though it can be considered a food nation because of its large agro-food sector, has serious issues with diet-related ill-health such as obesities, cardio-vascular diseases, and diabetes. Governments are seriously concerned with these issues, because diet-related ill-health results in high social costs. Food and nutrition are however complex issues that cut across many different policy domains. At the same time, the food-related policies are developed at different governance levels.

This thesis analyses how the integration between the different food-related policy domains can be enhanced to establish a sustainable and health-inducing food system. The research question is: to what extent does the Netherlands have an integrated food policy and which factors could enhance this integration? This research is executed by means of a literature review, policy analysis, and semi-structured interviews with relevant actors in the food policy domain. In addition to reflecting on theories of cross-domain and cross-level interactions, boundaries, boundary work, and relationships in public administration, this research investigates the different food-related policies in force in the Netherlands.

Although the Netherlands has a monocentric organized governance system with ministerial responsibility and hierarchic and stovepiped structured Ministries, it increasingly has to deal with multidisciplinary policy issues like food and nutrition which demands interaction and cooperation between the involved actors. This thesis juxtaposes the monocentric approach to an interactive approach. The interactive approach is characterized by cross-domain and cross-level interactions, boundary work and relationships. Physical, social and mental boundary spanning can result in knowledge integration among the involved actors of the food system. The integration of knowledge could strengthen the separate food-related policies and prohibit contradictions, resulting in a more integrated food policy. To achieve integration of knowledge and policies, it is necessary to construct physical boundary objects that can build social connections. These social connection can enact strategies to enhance flows of information. Therein it is important to create co-authority and feelings of joined responsibility in order to develop a joined strategy and an integrated food policy that establishes a sustainable and health-inducing food system.

Keywords: Food Policy • Food System • Cross-domain and Cross-level Interaction • Boundary • Boundary Work • Boundary Spanning • Relationships • Agriculture • Nutrition • Health • Food Safety •

PREFACE AND ACKNOWLEDGEMENTS

About some months ago, I started the process to finish my Master studies by writing this thesis. Writing this thesis has been hard labour. And I am convinced that the difficulty was not so much in the content or writing part. Rather the process and the mental boundaries I had to cross have been the toughest part of my thesis. During my six years of studies, the Master thesis seems to be an invincible mountain, but I am proud and glad to present this thesis.

Finding a thesis topic has been difficult and I would like to thank Otto Hospes for being decisive and sending me home to think carefully what I would like to do after graduation. It took some time, but I am glad to be able to deliver the thesis that fully complies to my interests. It was not the nightmare I was afraid of on beforehand, I wrote it with enthusiasm and fascination while unravelling the issue of food policy, and I hope that everyone who reads it can see and feel it.

First, I want to thank Wageningen University for the freedom they gave me to realize my potentials and chose the curriculum I was interested in. Thereby, I was able to combine all my interests in food, nutrition, food safety, public policy, politics, and laws and regulations in this thesis. In addition, I want to thank my study advisor Marleen van Maanen-Nooij, she has been of great support during my six years of studies and I owe her a lot. Of course, I want to thank my thesis supervisors Otto Hospes, and in particular Gerard Breeman. Gerard, it has been a pleasure to discuss my thesis and politics, thank you for everything.

With regard to my thesis research, I want to thank all the people who contributed one way or another to it, in particular all the interviewees who were willing to meet and share much valuable information.

Furthermore, I would like to thank some people in particular who have been very supporting during my studies and my thesis process. First, I want to thank my parents for being so supporting and interesting, although it took some time before I finished my studies. In addition, I want to thank my brother, sister and my wonderful grandmother. Then, I want to thank my housemates of Aedes Vestae for their support and patience with me. Furthermore, I would like to thank my jaarclub RisQuante for their support, patience, and wake-up calls. My personal development and decisions regarding my future is largely due my active membership of the political youth organization 'Jonge Democraten'. In particular, I want to thank Katie Janssen, Arend Meijer, Ingrid van Rijt, and the whole #Jan-group for their non-decreasing trust and for being so supportive and assistent during the writing of my Master thesis. To close, to all the people I did not mention, you know I am pleased that you are there.

The phase of studying is coming to an end, a new life is ahead of me and I will face it while not forgetting all the lessons learned in Wageningen and outside.

I thank you all.

Liesbeth de Hoop

EXECUTIVE SUMMARY

There have been major developments in the global food production and consumption. Nevertheless, these developments have also a reverse side through which the global food system nowadays struggles with issues related to the three central issues of ecological sustainability, public health and robustness. Public policy that deals with the food system can be called food policy. Food policy covers several policy domains, which are often divided among different Ministries. In addition, food policy is increasingly developed at several policy levels. In case of food policy, agricultural and food safety policies are predominantly developed by the European Union, while public health policy is within the competence of Member States. To establish a sustainable and health-inducing food system that deals effectively with food and nutrition challenges, it would be sensible to integrate food-related policies and deal with production and consumption in cohesion. To integrate policies and develop a joined food strategy, interaction between involved policy domains is required; therefore, some type of boundary work has to take place.

Food policy is not comprehensively researched. Because of the multidisciplinary nature of food policy, it can be considered as a modern governance issue that demands interaction and cooperation between actors. However, many governments are monocentric organized systems, with ministerial responsibility and hierarchic and stovepiped structured Ministries. The aim of this thesis is plural at all. First, this thesis juxtaposes the monocentric approach to an interactive approach. The interactive approach is characterized by cross-domain and cross-level interactions and boundary work, in which knowledge integration between the involved actors is the impellent. In addition, this thesis will reflect on the concepts and theories that will be used. The central research question is *'To what extent does the Netherlands has an integrated food policy and which factors could enhance this integration?'*. For this research, I have done a literature review, a policy analysis and semi-structured interviews with involved actors. The interviews predominantly took place at the organization.

In this thesis, the most important concept is food policy. Although literature does not exactly define food policy, it can be defined as 'policy that – deliberate and unintended – affects food and shapes its outcomes of who eats what, when, how, and with what consequences'. Lang *et al.* (2009) proposed to approach food policy as intersection point of competing policy domains. Such an approach would render the complexity and multidisciplinary character of food policy. In the analysis of a possible implementation of an integral food policy in the Netherlands, the policy analysis of Hemerijck (2003) is used. This policy analysis makes use of four quality standards, accompanied by four core questions to create order in policy. However, the policy analysis of Hemerijck is foremost applicable to a monocentric organized system. The complexity and multidisciplinary nature of contemporary policy issues demands more interaction and cooperation between the involved actors. This interaction can take place in many ways and the interaction between different policy domains and policy levels are defined as cross-domain and cross-level interactions, respectively.

Every organization has constructed a boundary to distinguish oneself from its environment. Boundaries can be seen as troublesome and superfluous, certainly within organizations, however boundaries also provide the benefits of reducing complexity and enabling structure and specialization (Van Broekhoven, 2014). Especially in public administration with a ministerial responsibility structure, boundaries can be beneficial. By means of boundary spanning the boundaries between organizations can be maintained while facilitating integration of knowledge and policies. There can be distinguished three types of boundaries, and therewith three types of boundary spanning, namely physical, social and mental boundaries. Through interaction and

cooperation, involved actors will start relationships. 6 (2004) distinguished the categories of coordination, integration, and increasing closeness and mutual involvement. In the framework of this thesis the definition of integration is most important. 6 defined integration as “the development of common organizational structures and merged professional practices and interventions” (6, 2004: 106).

Chapter 4 examines the actual situation of food policy in the Netherlands based on a policy analysis, interviews, and regulations and policies review. The policy analysis of Hemerijck (2003) shows that it is difficult to implement a multidisciplinary and multi-level policy like food policy in a monocentric organized system. The largest issue arise with the quality standards of political-administrative feasibility and constitutional lawfully. The actual organization of food policy in the Netherlands also made clear that the Netherlands struggles with dealing in cohesion with food and nutrition challenges. In addition, it showed that food policy does not exist in the Netherlands; there are food-related policies, but these are not integrated and do not take each other into account. The Ministries of Economic Affairs and of Welfare, Housing and Sports do interact but do not in advance deal in cohesion with production and consumption. As long as they are not in need of each other or involving part of the others policy area, Ministries do not coordinate or integrate their actions. There can be indicated several reasons, whereby most are related to physical and mental boundaries and therefore prevent integration of knowledge and policies.

Chapter 5 examines physical, social and mental boundary spanning that are demanded to enable knowledge integration among the food-related policy domains, and in particular the involved Ministries. Knowledge integration is important to develop an integrated food policy, but the joined working is also important to coordinate activities of Ministries. Therefore, physical boundaries can be spanned by boundary objects that can build social connections. These social connections can enact mental boundary spanning by enacting strategies to enhance flows of information. In addition, chapter 5 examines the position of the government. Due to globalization and changes in society, the role of the government is changing. The food system is a global market system and to make achievements, other actors need to be involved. A framework can be layed down jointly by the government: a joined food strategy. The framework indicates the limits of what we – as society – deem to be acceptable, and what will be outside and therefore unacceptable. Within this framework, involved actors can establish a sustainable and health-inducing food system. The establishment of such a system and obtaining a healthy population will be a lengthy process and the public administration has to build relationships as joint venture or satellite, in which long-term planning, joint working and jointly owned are central.

Chapter 6 elaborates on the conclusions of this thesis and reflects on the research. In addition, it elaborates on enhancing an integrated food policy in the Netherlands. Based the definition of Perri 6 (2004) it has to be concluded that an integrated food policy does not exist in the Netherlands. Boundary spanning and knowledge integration are key factors in enhancing an integrated food policy in the Netherlands. The theory of boundary spanning and an integrated type of relationship means for food policy that integration of food related policies is feasible while at the same time maintaining the boundaries between the food-related policy domains.

Despite prevention is a sensitive subject, much can be gained through it, both socially and economically. By only making the processed food supply healthier, the consumer will not immediately increase its intake of fruits and vegetables. Nutrition education and a neutral and transparent information system – like a traffic light system for nutrient values and sustainability requirements – would assist a consumer when they are in front of the shelves in the supermarket. But in the end, it is up to politics.

In de mondiale voedselproductie en consumptie zijn grote ontwikkelingen geweest. Echter, deze ontwikkelingen hebben ook een keerzijde waardoor het mondiale voedselsysteem kampt met grote problemen van de ecologische houdbaarheid, volksgezondheid en robuustheid. Overheidsbeleid met betrekking tot het voedselsysteem kan voedselbeleid worden genoemd. Bij voedselbeleid zijn veel verschillende beleidsdomeinen betrokken, die vaak verdeeld zijn over verschillende ministeries. Daarbij vindt de beleidsvorming in toenemende mate op verschillende beleidsniveau plaats. Landbouw- en voedselveiligheidsbeleid worden voornamelijk op Europees niveau ontwikkeld, terwijl gezondheidsbeleid bij nationale overheden ligt. Om een duurzaam en gezondheidsbevorderend voedselsysteem tot stand te brengen en effectief om te gaan met voedsel en voedingsuitdagingen, zou het verstandig zijn om voedselgerelateerd beleid op elkaar af te stemmen en productie en consumptie met elkaar in samenhang te brengen. Om beleid te integreren en een gezamenlijke voedselstrategie te maken is interactie tussen de betrokken beleidsdomeinen nodig, hiervoor zal een vorm van ‘boundary work’ moeten plaatsvinden.

Er is weinig onderzoek gedaan naar voedselbeleid. Vanwege het multidisciplinaire karakter van voedselbeleid, is het een modern beleidsprobleem dat vraagt om interactie en samenwerking tussen actoren. Echter, veel overheden zijn monocentrisch georganiseerd, met ministeriële verantwoordelijkheid en hiërarchische en verkokerde ministeries. Het doel van dit onderzoek is meervoudig. Ten eerste zal dit onderzoek een monocentrische benadering tegen een interactieve benadering zetten. De interactieve benadering wordt gekarakteriseerd door cross-domein en cross-level interacties en ‘boundary work’, waarbij kennisintegratie tussen de betrokken actoren de drijvende kracht is. Daarnaast zal deze thesis ook reflecteren op de concepten en theorieën die zullen worden gebruikt. De hoofdvraag in dit onderzoek is *‘in welke mate heeft Nederland een geïntegreerd voedselbeleid en welke factoren zouden deze integratie kunnen bevorderen?’*. Het onderzoek bestaat uit een literatuurstudie, beleidsanalyse en semigestructureerd interviews met betrokken actoren. De interviews hebben voornamelijk op locatie plaatsgevonden.

In deze thesis is het belangrijkste concept voedselbeleid. Hoewel de literatuur voedselbeleid niet echt heeft gedefinieerd, kan het gedefinieerd worden als ‘beleid dat – met bedoeld of onbedoeld – effect heeft op voedsel en de uitkomsten van wie eet wat, wanneer, hoe en met welke gevolgen vormt’. Lang *et al.* (2009) stelt voor om voedselbeleid te benaderen als een intersectionspunt van beleidsdomeinen. Een dergelijke benadering doet recht aan de complexiteit en multidisciplinaire karakter van voedselbeleid. In de analyse van een mogelijke implementatie van integraal Nederlands voedselbeleid, is de beleidsanalyse van Hemerijck (2003) gebruikt. Deze beleidsanalyse maakt gebruik van vier beleidscriteria, begeleidt door vier kernvragen voor orde in beleid. Deze beleidsanalyse is met name toepasbaar op een monocentrisch systeem. De complexiteit en multidisciplinaire natuur van huidige beleidsproblemen, zorgt dat er meer interactie en samenwerking nodig is tussen actoren. Interacties tussen verschillende beleidsdomeinen en beleidsniveaus worden respectievelijk cross-domain en cross-level interacties genoemd.

Iedere organisatie heeft een grens om zich te onderscheiden van de omgeving. Grenzen kunnen worden gezien als lastig en overbodig, zeker binnen organisaties, echter grenzen zorgen ook voor minder complexiteit en bieden structuur en specialisatie (Van Broekhoven, 2014). Zeker in openbaar bestuur met een ministeriële verantwoordelijkheidsstructuur kunnen grenzen nuttig zijn. Door middel van ‘boundary spanning’ blijven grenzen bestaan en tegelijkertijd integratie van kennis en beleid faciliteren. Er kunnen drie soorten grenzen, en daarmee boundary spanning, worden onderscheiden: fysieke, sociale en mentale

grenzen. Door interactie en samenwerking gaan betrokken actoren een relatie aan. 6 (2004) onderscheidde de categorieën coördinatie, integratie en toenadering en onderlinge betrokkenheid. In het kader van deze thesis is integratie van belang. 6 definieerde integratie als 'de ontwikkeling van gezamenlijke organisatiestructuren en samengevoegde professionele praktijken en interventies' (6, 2004: 106).

Hoofdstuk 4 onderzoekt de huidige situatie van voedselbeleid in Nederland, gebaseerd op een beleidsanalyse, interviews en een overzicht van voedselgerelateerd beleid. De beleidsanalyse van Hemerijck (2003) laat zien dat het lastig is om multidisciplinair en multi-level beleid te implementeren in een monocentrisch georganiseerd systeem. De grootste problemen ontstaan met de beleidscriteria van politiek-bestuurlijke slagvaardigheid en constitutionele rechtmatigheid. De huidige situatie van voedselbeleid in Nederland laat ook zien dat Nederland worstelt met de samenhang van productie en consumptie. Daarnaast laat dit hoofdstuk zien dat voedselbeleid niet bestaat in Nederland; er is voedselgerelateerd beleid, maar deze zijn niet geïntegreerd en houden geen rekening met elkaar. De ministeries van EZ en van VWS hebben contact, maar beschouwen productie en consumptie niet op voorhand in samenhang. Zolang ze elkaar niet nodig hebben of betrokken zijn bij andermans beleidsgebied, coördineren en integreren ministeries hun acties niet. Hiervoor zijn verschillende redenen, waarbij veel gerelateerd zijn aan fysieke en mentale grenzen en daarmee integratie van kennis en beleid voorkomen.

Hoofdstuk 5 onderzoekt fysieke, sociale en mentale boundary spanning die nodig zijn om kennisintegratie tussen de voedselgerelateerde beleidsdomeinen, en vooral de betrokken ministeries, mogelijk te maken. Kennisintegratie is nodig om een geïntegreerd voedselbeleid te ontwikkelen, maar gezamenlijk werken is ook belangrijk om activiteiten van ministeries te coördineren. Om dit te bereiken kunnen fysieke grenzen worden overbrugd door 'boundary objects' die sociale connecties kunnen maken tussen de betrokken beleidsdomeinen. Deze sociale connecties kunnen mentale boundary spanning creëren door strategieën uit te voeren die stromen van informatie verbeteren. Daarnaast onderzoekt hoofdstuk 5 de positie van de overheid. Door globalisatie en veranderingen in de maatschappij verandert de rol van de overheid. Het voedselsysteem is een mondiaal marktsysteem en om resultaat te krijgen, moeten andere actoren worden betrokken. Een raamwerk, of gezamenlijke voedselstrategie, kan worden gemaakt door de overheid. Het raamwerk laat de grenzen zien wat de maatschappij beschouwt als acceptabel en wat niet. Hierbinnen kunnen betrokken actoren een duurzaam en gezondheidsbevorderend voedselsysteem ontwikkelen. De ontwikkeling van een dergelijk systeem en het verkrijgen van een gezonde bevolking zal een langdurig proces zijn en de overheid zal relaties als 'joint venture' of 'satellite' moeten aangaan, waarin lange termijn planning, gezamenlijk werken en gezamenlijk eigenaarschap centraal staan.

Hoofdstuk 6 werkt de conclusies van deze thesis uit en reflecteert op het onderzoek. Daarnaast gaat het in op het verbeteren van een geïntegreerd voedselbeleid in Nederland. Gebaseerd op de definitie van Perri 6 (2004), moet worden geconcludeerd dat een geïntegreerd voedselbeleid in Nederland niet bestaat. Boundary spanning en kennisintegratie zijn sleutelfactoren in het verbeteren van geïntegreerd voedselbeleid in Nederland. De theorie van boundary spanning en een geïntegreerde manier van relatie betekent voor voedselbeleid dat integratie van voedselgerelateerd beleid mogelijk is, terwijl tegelijkertijd grenzen tussen voedselgerelateerde domeinen worden behouden.

Ondanks dat preventie een gevoelig onderwerp is, kan er zowel sociaal als economisch veel mee worden gewonnen. Door bewerkte voedselproducten gezonder te maken zal de consument niet direct zijn inname van groente en fruit verhogen. Voedingseducatie en een neutraal en transparant informatiesysteem – zoals een stoplichtsysteem voor voedingswaarden en duurzaamheidskenmerken – kunnen de consument helpen wanneer zij voor het schap in de supermarkt staan. Maar uiteindelijk is het aan de politiek.

TABLE OF CONTENTS

<i>Abstract</i>	<i>v</i>
<i>Preface and Acknowledgements</i>	<i>vii</i>
<i>Executive Summary.....</i>	<i>viii</i>
<i>Samenvatting.....</i>	<i>x</i>
<i>Figures – Tables – Text Boxes</i>	<i>xiv</i>
<i>Abbreviations.....</i>	<i>xv</i>
Chapter 1 - Introduction to the Research.....	1
Background.....	1
Nutrition in the Netherlands	2
Evolution of Food Policy	4
Problem Statement and Justification	6
Research Objective and Research Questions	7
Information on the Kingdom of the Netherlands.....	8
Outline Thesis	8
Chapter 2 - Theoretical Framework.....	9
Introduction.....	9
Defining Food Policy	9
Policy Analysis.....	10
Interaction	12
Boundaries.....	13
Boundary Work.....	15
Relationships in Public Administration.....	16
Conceptual Framework	18
Chapter 3 - Methodology	19
Research Design	19
Research Limitations	19
Research Methods.....	20
Literature review	20
Interviews	20
Chapter 4 - Setting the Scene: Food Policy in the Netherlands	23
Introduction.....	23
Food Policy Analysis.....	25
Food policy analysis.....	25
Actual situation of food policy in the Netherlands	28
Regulations and policies in the food policy domain.....	30
Conclusion	36

Chapter 5 - Unfolding an Enhanced Food Policy	37
Integration of Food Policy	37
Physical boundary spanning	38
Social boundary spanning.....	39
Mental boundary spanning	40
Position of the Government	41
Conclusion	42
Chapter 6 - Conclusion	45
Integrated Food Policy in the Netherlands.....	45
Factors to enhance an integrated food policy.....	46
Reflection on the Research.....	46
Enhancing an Integrated Food Policy in the Netherlands	48
Prevention of unhealthy lifestyles.....	49
Recommendations for Further Research	51
References.....	55
Academic Literature	55
Legislation, Regulations and Policies.....	58
Statistics.....	59
Annex I - Questionnaire.....	62
Annex II - List of interviews	64
Annex III - Organization charts.....	66

FIGURES – TABLES – TEXT BOXES

Figure 1 - A Food System	1
Figure 2 - Food Policy as intersection point of competing policy domains.....	10
Figure 3 - Schematic illustration of multi-domain, multi-level, cross-domain and cross-level interactions...	13
Figure 4 - Conceptual Framework	18
Figure 5 - Demarcation policies regarding health and nutrition	33
Figure 6 - Towards an Integrated Food Policy	38
Table 1 - Recommended Daily Intake of Nutrients	3
Table 2 - Evolution of Food Policy	4
Table 3 - Quality Standards of Policy.....	11
Table 4 - A framework for interpreting boundaries and corresponding research questions	14
Table 5 - Operationalization Boundary Spanning.....	16
Table 6 - A Taxonomy of Types of Relationship	17
Table 7 - EU involvement in policy areas.....	25
Text Box 1 - Exclusive and shared competences of European Union.....	27
Text Box 2 - Agricultural Policy	31
Text Box 3 - Health and Nutrition Policy	32
Text Box 4 - Food Safety Policy.....	34

ABBREVIATIONS

BZ	Ministerie van Buitenlandse Zaken (Ministry of Foreign Affairs)
CAP	Common Agricultural Policy
EU	European Union
EZ	Ministerie van Economische Zaken (Ministry of Economic Affairs)
GGZ	Geestelijke Gezondheidszorg (Mental Health Services)
I&M	Ministerie van Infrastructuur en Milieu (Ministry of Infrastructure and Environment)
LTO	Land- en Tuinbouw Organisatie (Dutch Federation of Agriculture and Horticulture)
PBL	Planbureau voor de Leefomgeving (Netherlands Environmental Assessment Agency)
RIVM	Rijksinstituut voor Volksgezondheid en Milieu (National Institute for Public Health and the Environment)
TEU	Treaty on European Union
TFEU	Treaty on the Functioning of the European Union
VWA	Nederlandse Voedsel- en Warenautoriteit (Netherlands Food and Consumer Product Safety Authority)
VROM	Ministerie van Volkshuisvesting, Ruimtelijke Ordening en Milieu (Ministry of Housing, Spatial Planning and the Environment)
VWS	Ministerie van Volksgezondheid, Welzijn en Sport (Ministry of Health, Welfare and Sports)
WRR	Wetenschappelijke Raad voor het Regeringsbeleid (Scientific Council for Government Policy)
WHO	World Health Organization

"The destiny of nations depends on the manner in which they feed themselves."

Jean-Anthelme Brillat-Savarin - 'The Physiology of Taste' (1825)

*"If we could give every individual the right amount of nourishment and exercise,
not too little and not too much, we would have found the safest way to health."*

Hippocrates (c. 460 – c. 377 B.C.)

This chapter provides an introduction and background to the thesis. This chapter will start with an introduction to the research topic. Subsequently followed by examination of nutrition in the Netherlands and the evolution of food policy. Thereafter, the research problem and justification of this research will be described, followed by the research objective and research questions. The chapter will finalize with information on the Kingdom of the Netherlands and an outline of this thesis.

BACKGROUND

The Dutch Scientific Council for Government Policy [WRR] published the report 'towards a food policy' in October 2014. In this report, it distinguishes four major developments in the global food production and consumption: the primary food production is profoundly industrialized by means of economies of scale, specialization, intensification, mechanization and rationalization; the food supply is profoundly globalized; the non-agricultural sector is of increased importance for the food supply; and the consumption patterns changed radically in the past decennia (WRR, 2014: 23). Furthermore, it summarizes the issues of the current global food system into three main problems: ecological sustainability, public health and robustness (WRR, 2014: 39). Ecological sustainability is about the seize of the global food supply on soil, natural resources and the contribution to the emission of greenhouse gasses and the decline of biodiversity. Public health regards to the issues because of unhealthy food and the risks of multi-resistant bacteria and the spread of zoonotic diseases. Robustness refers to the ability of the food system to cope with shocks and manage changes in manifold scenarios (WRR, 2014: 9-10). The Netherlands can be called a food nation since it has a large agro-food sector that is globally known of its high-productive agriculture. Agriculture is important for the Dutch economy, since the sector not only produces for the Dutch food market but also is an important junction in the international food system as importer, exporter, processor and distributor of food, which contributes greatly to the Dutch Gross Domestic Product (WRR, 2014: 57).

The food system is a large, complex system (see Figure 1). Public policy that deals with food to achieve food and nutrition security can be called '*food policy*'. In this sense, food policy is not only about how much food is produced, but also about what is produced and consumed, and how equitable (Lang *et al.*, 2009). And while previous food policy focussed on nutrition problems regarding undernutrition and micronutrient issues, current food policy has also to deal with chronic dietary diseases and nutrient issues regarding fat and sugar (Maxwell & Slater, 2003).

Since the whole food system is subject to food policy, food policy is of crosscutting nature and several policy domains as agriculture, nutrition, environment and trade are involved. These policy areas are strongly shaped by regulatory drivers and administrative bodies at both national and EU-level. Due to the involvement of these policy domains and policy levels, it entails horizontal interactions between policy domains and vertical interactions between policy levels in the processes of policy development and policy implementation (Nilsson *et al.*, 2009). The several involved policy domains and policy levels often results in fragmented food-related policies, divided among several policy-making

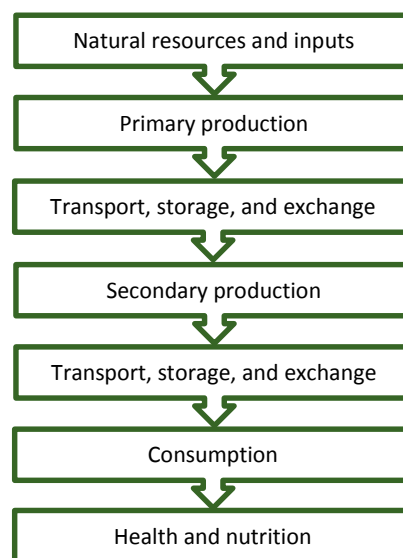


Figure 1 - A Food System
(Reprinted from Pinstrup-Andersen, 2011)

bodies. The Netherlands is not an exception in this sense. Food-related policies of the food policy domain are foremost made by the Ministry of Economic Affairs [EZ] and the Ministry of Health, Welfare and Sports [VWS]. In addition, the Ministry of Infrastructure and Environment [I&M] and the Ministry of Foreign Affairs [BZ] are highly involved. The Ministry of EZ is involved in agriculture & horticulture, food safety (the production side), nature & biodiversity, climate change, animal welfare, water and energy. The Ministry of VWS is involved in nutrition related subjects and the consumption side of food safety. The Ministry of I&M is involved in the food-related subjects of transport, soil, waste, climate change, water, energy, and the environment. The Ministry of BZ is involved in the food-related subjects within the areas of trade and trade agreements (like TTIP), international development and cooperation, European Union, and other Foreign Affairs (Rijksoverheid, sd). In addition, although to minor extent, the Ministry of Social Affairs and Employment, the Ministry of Security and Justice and the Ministry of Education, Culture and Science are involved in the food policy domain.

Moreover, the Dutch Scientific Council for Government Policy notes the importance of an integrated food policy that “reckons with the divergent values around food, the coherence between production and consumption, and with the changing power relations” (WRR, 2014: 11). Furthermore, they think it is time for an explicit food policy, instead of an implicit food policy that coincide with agricultural and food safety policy for a long time (WRR, 2014: 13).

Because of its crosscutting nature and large range of disciplines that offer insights in food policy, food policy can be seen as an inter-disciplinary policy domain instead of a demarcated public policy domain (Lang *et al.*, 2009). Currently, every food-related public policy domain has its own policy, with its own focus and its own policy-makers. As a consequence, food policy is the sum of the fragmented food-related policies without a defined shared goal or vision of having a food and nutrition secure nation (*ibid.*). This, while food policy should be more than the sum of the involved disciplines. Therefore, food policy-makers need a broad multi-disciplinary focus (*ibid.*). A merger of food-related policy domains to have one food policy domain is not directly preferable, since this will lead to fragmentation in other policy domains. For example, by merging the food-related policy domains, the policy domain trade will be fragmented since not all trade policy is related to food. Nevertheless, by align food-related policies, develop a shared goal and vision, and attune the different food-related policies, a synergy may emerge whereby the food-related policies strengthen each other to achieve a common goal (Lang *et al.*, 2009). In this way food and nutrition security could be achieved.

To establish a sustainable and health-inducing food system and deal effectively with food and nutrition challenges, knowledge integration across policy domains and policy levels is required (Lang *et al.*, 2009). Since organizations set boundaries to distinguish themselves from their environment, boundary work is required to interact with other organizations. By crossing physical, social and/or mental boundaries, organizations are able to cooperate and integrate with each other and might be able to develop a shared goal and vision (Yan & Louis, 1999; Van Broekhoven *et al.*, 2014).

NUTRITION IN THE NETHERLANDS

Because food is fundamental to human survival, it is of huge importance in a society. The security of an affluent food and nutrition status is of interest of a state. The Committee on World Food Security [CFS] of the United Nation states that food and nutrition security exists

“when all people at all times have physical, social and economic access to food, which is safe and consumed in sufficient quantity and quality to meet their dietary needs and food preferences, and is supported by an environment of adequate sanitation, health services and care, allowing for a healthy and active life” (CFS, 2012: 8).

The term ‘food and nutrition security’ combines the four dimensions of food security – food availability, food access, food utilization, and food stability – and the three determinants of nutrition security – food, care, and health. Nutrition security “only exists when food security is combined with a sanitary environment, adequate health services, and proper care and feeding practices to ensure a healthy life for all household members”. The main difference between the food utilization pillar of food security and nutrition security is that nutrition security is only achieved when individuals actually *consume* the food rather than having *access* to the food as in the food security definition (CFS, 2012: 6).

The worldwide present triple burden of malnutrition is the coexistence of undernutrition, micronutrient deficiencies and overnutrition (Pinstrup-Andersen, 2011) and the result of what Popkin (2003) describes as the nutrition transition. The nutrition transition is, according to Popkin, the conversion to a ‘Western diet’, which is “high in saturated fats, sugar and refined foods and low in fibre and on lifestyles characterised by lower levels of activity. These changes are reflected in nutritional outcomes, such as changes in average stature, body composition and morbidity” (Popkin, 2003: 581). Popkin argues that the nutrition transition is related to two other processes: the demographic transition and the epidemiological transition. The dietary shift, in particular in respect to the consumption of edible oil, caloric sweeteners, and animal source foods, combined with changes in physical activity, have significant health consequences of obesity, diabetes, and heart diseases (Popkin, 2003).

Although the Netherlands can be considered as a food nation and the agro-food sector is an important actor in the global food system, the Dutch population cannot be considered nutrition secure. This can be concluded from the 2011 Food Consumption Survey [FCS] data of the National Institute for Public Health and the Environment [RIVM]. This FCS shows an inadequate intake of vitamin A, vitamin B1, folates, vitamin C, vitamin E, and the minerals and trace elements calcium, iron, magnesium, zinc, and potassium in all age groups of the Dutch population. Also, the habitual intake of vitamin D in adults older than 50 years and children was inadequate (RIVM, 2011). At the same time, the FCS shows that only 5% of the Dutch population consumes the World Health Organization [WHO] recommended daily intake

Table 1 - Recommended Daily Intake of Nutrients
(Reprinted from WHO, 1990)

Dietary factor	Goal (% of total energy, unless otherwise stated)
Total fat	15-30%
Saturated fatty acids	<10%
Polyunsaturated fatty acids	6-10%
n-6 Polyunsaturated fatty acids	5-8%
n-3 Polyunsaturated fatty acids	1-2%
Trans fatty acids	<1%
Monounsaturated fatty acids	By difference ^a
Total carbohydrate	55-75%
Free sugars	<10%
Protein	10-15%
Cholesterol	<300 mg per day
Sodium chloride (sodium)	<5 g per day (<2 g per day)
Fruits and vegetables (including pulses, nuts and seeds)	≤400 g per day
Total dietary fibre	>25 g per day from foods

^a This is calculated as: total fat - (saturated fatty acids + polyunsaturated fatty acids + trans fatty acids)

of vegetables and 10% the recommended intake of fruits. The WHO recommends since 1990 to have a daily intake of at least 400 grams fruits and vegetables, including pulses, nuts, and seeds (see Table 1). Additional to this, Statistics Netherlands shows that almost half of the Dutch adult population is overweight (47.9%), whereby 11.2% of the Dutch adult population is considered to be obese (CBS, 2013a). Due to the bad diets

and food habits, overnutrition is one the biggest threat for our health, and chronic dietary diseases one of the highest burden on public health and social costs (In 't Panhuis-Plasmans *et al.*, 2012).

Overweight and obesity are associated with a higher risk for non-communicable diseases as diabetes mellitus, cardiovascular diseases, certain types of cancer, and osteoarthritis (WHO, 2000; Sturm, 2002). These health consequences are not only of individual interest, diseases attributable to diet also place a burden on society. It is estimated that worldwide obesity accounts between 0.7% and 2.8% of the annual healthcare expenditures of a country (Withrow & Alter, 2011). Other research concerned Europe found that between 1.9% and 4.7% of annual healthcare costs and 2.8% of annual hospital costs can be attributed to overweight and obesity in Europe (Lehnert *et al.*, 2013). Based on literature review, Von Lengerke and Krauth (2011) found that the direct and indirect costs related to obesity accounts for 0.47%-0.61% of the GDP of a country. For the Netherlands, it is estimated that direct healthcare costs related to overweight and obesity accounts for 1.6 billion euro, which is 2.2% of annual healthcare costs and 0.34% of GDP. Furthermore, an additional amount of approximately 4 billion euro (5.4 % of annual healthcare costs) is spend on healthcare costs related to an unhealthy lifestyle, which includes physical inactivity, eating less fruits and vegetables, and hypertension and high cholesterol which could not be related to overweight and obesity (In 't Panhuis-Plasmans *et al.*, 2012). The Council for Public Health and Health care estimated in 2002 the indirect costs unhealthy lifestyles in the Netherlands on at least 2 billion euro (RVZ, 2002). Since the levels of overweight and obesity are increased and the direct costs increased from 0.5 to 1.6 billion euro, it can be expected that the indirect costs increased as well.

EVOLUTION OF FOOD POLICY

As in many policy domains, food policy is also of changing nature. Maxwell and Slater (2003) made a distinction between 'old' food policy (1970s) to 'new' food policy (2000s), proposing that food policy changed in numerous ways (see Table 2).

Table 2 - Evolution of Food Policy (Revised from Maxwell & Slater, 2003)

	Food policy 'old'	Food policy 'new'
Employment in the food sector	Mostly in food production and primary marketing	Mostly in food manufacturing and retail
Actors in food marketing	Grain traders	Food companies
Supply chains	Short – small number of food miles	Long – large number of food miles
Typical food	Basic staples, unbranded	Processed food, branded products More animal products in the diet
Packaging	Low	High
Food safety issues	Pesticide poisoning of field workers Toxins associated with poor storage	Pesticide residues in food Adulteration Bio-safety issues in processed foods (salmonella, listeriosis)
Nutrition problems	Undernutrition	Chronic dietary diseases (obesity, heart disease, diabetes)
Nutrient issues	Micronutrients	Fat Sugar
Main sources of household food shocks	Poor rainfall and other production shocks	International price and other trade problems
Main sources of household food shocks	Poor rainfall and other production shocks	Income shocks causing food poverty
Focus of food policy	Agricultural technology, parasternal reform, supplementary feeding, food for work	Competition and rent-seeking in the value chain, industrial structure in the retail sector, futures markets, waste management, advertising, health education, food safety

The evolution of food policy can roughly be divided in four phases since World War II; 1940s and 1950s, 1970s, 1980s-2000s and the unfolding phase of the 21st century (Lang *et al.*, 2009). During 1940s-1950s, a *productionism* food policy framework was developed. This framework had an emphasis on agricultural policy and agricultural reform to increase agricultural output, reduce waste, and feed people appropriately. Farmers were heavily subsidized and were paid for quantity as an incentive to raise output. This strategy worked quite well, the availability of affordable foods increased until shocks of famines in developing areas, and the oil crisis in the 1970s ended this optimistic phase of food policy (Lang *et al.*, 2009).

During the 1970s, the two perspectives of market liberalization and development emerged, together with the recognition of the need to connect agriculture with public health nutrition (Tarrant, 1980; Lang *et al.*, 2009). Eventually, market liberalization prevailed over the social democrats' wish for state policy and planning, although the state was still being seen as the key policy actor. Also, power shifted from farmers and food manufacturers to food retailers and traders (Cox & Chicksand, 2007; Lang, 2009; Lang *et al.*, 2009).

Despite critics argued that intensive agriculture would be unsustainable and leave small-holders worse off, state-led productionism continued to be the dominant food policy frame work in 1980s-2000s (George, 1976; Shiva, 1991; Lang *et al.*, 2009). At the same time, evidence was mounting on four crosscutting crises concerning nutrition, community development, environment, and food safety. Especially food safety would be determinative for food policy during the 1980s-2000s. During this period, concerns emerged around the safety of the use of pesticides and food additives. In addition, food-poisoning cases as E. Coli and salmonella incidents were rising in Europe (Dinham, 1993; WHO, 1990; The London Food Commission, 1998; Pennington, 2003). However, an outbreak of bovine spongiform encephalopathy [BSE], or so-called mad cow disease, and the subsequent human cases of variant Creutzfeldt Jakobs Disease [vCJD], resulted in high political sensitiveness and food safety as high priority in food policy (Pennington, 2003; Oosterveer, 2005; Lang *et al.*, 2009). This phase can be characterized as increasing awareness and increasing evidence about the impact of the efficient, but intensive, food system on social, environmental and health costs. The past decennia also left a legacy of several established institutions and developed policies on local, national, regional, and global level (Lang *et al.*, 2009).

The past decennia from 2000s-onwards shaped the current food policy, and a fourth phase is unfolding. Over the past years, evidence mounted that the current food system is unsustainable in several ways: the volatile world food prices are a response to fundamental pressures on the supply and demand side of food production (Ambler-Edwards *et al.*, 2009; Lang *et al.*, 2009). Back in the 1970s, the food fundamentals could mainly be defined in terms of energy, distribution, and food availability. The fundamentals of today's food policy are demographic change and urbanization, nutrition transition and public health nutrition, energy, land, soil, water, biodiversity, waste, food availability and stocks, rural labour, and climate change (Ambler-Edwards *et al.*, 2009; Lang, 2009). Ambler-Edwards *et al.* (2009: 11) argue that since the fundamental pressures are associated with supply and demand-side factors, the combined effects of these fundamental pressures have the potential to preponderate the capacity in food markets and if left unaddressed by policy makers and state authorities it can disrupt the balance between supply and demand.

The food fundamentals are interconnected with each other and contemporary food policy should aim improvements in all these fundamentals to ensure food supply. According to Lang *et al.* (2009), scale, breadth and integration of response will be key for the 21st century food policy and they proposed six goals for a sustainable food policy that addresses the food fundamentals (*ibid*: 46-52):

- > The first goal of *achieving sufficiency of production on ecological terms* focuses on sustainable development by changing the current wasteful food system, wherein one-third of the edible portions – which is 1.3 billion tons – of food produced for human consumption is lost or wasted per year (FAO, 2011), into one that is able to feed everyone in a sustainable way.
- > The second goal of *preventing diet-related ill-health (within a sustainable food supply)* focuses on (technical) solutions to meet the human physiological in an ecological way.
- > The third goal of *harnessing all sciences to address the nature of production* focuses on involving all sciences to meet the need for cross-disciplinary and coordinated evidence gathering to develop food policy.
- > The fourth goal on *lowering food's impact on the environment* focuses on strategies to live within environmental limits and lower the carbon and greenhouse gas emissions of people's diet. The challenge is to generate change across measures of water, energy/climate change, land use, health, ethics and social justice.
- > The fifth goal of *achieving international development and social justice* is about addressing inequalities within countries and helping consumers to consume within a new ethical food culture in which ethics and morality blend with social justice.
- > The sixth goal of *food democracy* refers to a process of striving for improvements in food for everyone and everything, including the rights and responsibilities this brings and holding food systems accountable from the 'bottom-up'. Food and nutrition might be a human right, but it is not settled yet and often has to be struggled for.

PROBLEM STATEMENT AND JUSTIFICATION

An important part of our health is determined by what we eat, the nutritional quality of our food, and its diversity. Despite being a food nation and having several food-related policies, the Netherlands has serious issues with diet-related ill-health, such as obesities, cardio-vascular diseases, and diabetes, what results in high direct healthcare and indirect social costs for society. Next to this, the ecological sustainability and robustness of the food system are concerning. However, food and nutrition challenges are complex issues cross-cutting several policy domains and disciplines. Moreover, food-related policies are developed at different governance levels, in different policy domains, and by a variety of Ministries, NGOs, health institutions et cetera.

The assumption is that knowledge integration could enhance the separate food-related policies and prohibit contradictory food-related policies, resulting in a more efficient, effective and integrated food policy and therewith a sustainable and health-inducing food system. In this thesis, I analyse food policy in the Netherlands and which factors could enhance knowledge integration of food policy. For this analysis, I will make use of the theories of food policy, boundaries, boundary work, and cross-domain and cross-level interactions. Furthermore, by reflecting on these theories, I will contribute to the political debate and academic knowledge on integrated food policy while taking an interactive approach.

The current food system is untenable in the long run and is going to burst out. There are issues in every part of the food system, which are not directly related to each other, but can be solved at best by a chain approach and achieve coherence between the links within the system. However, due to interests, power of certain domains and lack of advocacy of other domains, a food policy that deals effectively with food and nutrition challenges and provides a sustainable and health-inducing food system is not yet established. A

case study on an enhanced food policy in the Netherlands is interesting since the Netherlands can be considered as a food nation and in this position can take up a leading position and become a guiding country. Because of its position in the global food system and its knowledge it can be an example for other countries and meddle with an international food strategy. If the Netherlands is able to achieve an enhanced food policy, as being a Member State of the European Union, it should be possible in other countries and thereby possibly create a domino effect in order that a sustainable and health-inducing food system from-farm-to-fork can be reality on a global level.

RESEARCH OBJECTIVE AND RESEARCH QUESTIONS

Food policy is not comprehensively researched. Therefore, it is important to investigate and define food policy in the first place by literature review. Because of its multidisciplinary character, it can be seen as a modern governance issue. However, governments have an often monocentric organized government system with stovepiped structures and ministerial responsibility while they have increasingly to deal with modern – multidisciplinary – issues. The objective of this research is to enhance food policy while dealing with a relative monocentric organized government system and taking an interactive approach. The interactive approach is polycentric oriented and is characterized by cross-domain and cross-level interactions and boundary work, whereby knowledge integration between involved actors is an impellent. Then, this research is twofold. On the one hand, the research aims to use the emerging theories on interaction and boundaries to analyse food policy in the Netherlands and how the knowledge integration between the involved policy domains and actors can be enhanced. On the other hand, this research aims to reflect upon the used theories. Food policy did not receive much attention yet among scholars and in the discussion I will reflect on the theories of boundaries, boundary work, and cross-domain and cross-level interactions in the food policy domain. I will elaborate on these theories in Chapter 2 on the theoretical framework. The research will be carried out by means of literature review, policy analysis and interviews with relevant actors. The methodology will be elaborated in Chapter 3.

Based on the introduction, problem statement and the research objectives, the following central question is formulated:

To what extent does the Netherlands has an integrated food policy and which factors could enhance this integration?

The sub questions that will support the central questions are:

- How can food policy be defined based on literature?
- In what way do the different food-related policy domains interact with each other?
- Which boundaries can be identified between food-related policy domains?

The Netherlands is a small country in north-west Europe and has a population of approximately 16.8 million inhabitants (CIA: The World Factbook). The Netherlands is a constitutional monarchy and a parliamentary democracy. The government of the Netherlands consists of the King and the council of ministers. The Netherlands does not have a traditional separation of powers. The executive power is with the council of ministers, headed by the Prime Minister – who is the head of government. The legislative power is shared by both the government and the States General. The States General is the bicameral, consisting of the Senate (Eerste Kamer) and the House of Representatives (Tweede Kamer). The cabinet (ministers and state secretaries) bears responsibility to the States General of the Netherlands. At this moment, the coalition cabinet Rutte-II is formed by thirteen ministers and six state secretaries (Rijksoverheid, s.d.).

The States Generals represent the Dutch population. The Senate is the upper house of the States General and its 75 members are indirectly elected. The members are elected by the members of the twelve States-Provincials, who are elected every four year. The Senate has the right to accept or reject legislation (Rijksoverheid, sd; Eerste Kamer, sd). The House of Representatives is the lower house and its 150 members are directly elected via party-list proportional representation. The House of Representatives controls the government and assess legislation. In contrary to the Senate, the House of Representatives has the right of initiative and the right of amendment. The House of Representatives is the main chamber of parliament where proposed legislations takes place at first. If legislation is adopted by majority, it will be send to the Senate (Rijksoverheid, sd; Tweede Kamer, sd).

OUTLINE THESIS

This thesis continues with an elaboration of the theoretical framework in Chapter 2. The theoretical concepts of food policy, policy analysis, cross-domain and cross-level interactions, boundaries, boundary work, and relationships in public administration will be discussed. This chapter finalizes with the conceptual framework, which serves as a basis for the research. Chapter 3 elaborates on the methodology by a description of the methods and analyses of the research. In Chapter 4 the actual situation of food policy in the Netherlands is examined by means of a policy analysis, interviews with involved actors, and a review of regulations and policies in force on agriculture, health & nutrition, and food safety. Chapter 5 examines physical, social and mental boundary spanning in food policy. In addition, this chapter examines the position of the government. Chapter 6 elaborates on the conclusions of this research by answering the central question and it will reflect on the research. This thesis finalizes with an elaboration on enhancing food policy in the Netherlands and recommendations for further research.

INTRODUCTION

This thesis will juxtaposes a more monocentric approach to a more polycentric and interactive approach. Governments are often monocentric organized, which is characterized by hierarchy, ministerial responsibility and stovepiped structures. Moreover, societal interactions are foremost 'vertical' oriented, formalised and focused on steering and control society (Kooiman, 2003). However, in the current complex and dynamic world society, governments increasingly have to deal with multidisciplinary issues and what other scholars call 'wicked problems' (Rittel & Webber, 1973; Termeer *et al.*, 2013). Wicked problems can be defined as being "ill-defined, ambiguous, and contested, and feature multi-layered interdependencies and complex social dynamics" (Termeer *et al.*, 2013: 1) and scholars have pleaded for innovative polycentric, adaptive and interactive governance approaches (Koppejan and Klijn, 2004; Hoppe, 2010; Torfing *et al.*, 2012; Termeer *et al.*, 2013). In this framework, scholars increasingly do research to the role of boundaries and boundary work.

Food and nutrition are fundamental for existence and have complex social dynamics. Developing public policy to have a healthy population is difficult, also due to the perceived freedom of choice. The multidisciplinary features of food policy and multiple actors from different policy levels that are involved result in a contested area with multi-layered interdependencies and issues of responsibilities. At the same time, many countries still have a monocentric organized governance system while dealing with modern governance issues. This might cause problems, which seem to be unsolvable.

Although there are serious food and nutrition issues at global and local level, food policy did not receive much attention yet in academic research. This research will focus on cross-domain and cross-level interactions and boundary work between policy domains within food policy, in which knowledge integration is the impellent. This approach will be juxtaposed to a monocentric organized government by means of the policy analysis of Hemerijck, with which an implementation of food policy will be undertaken. At first, this chapter will define the concept of food policy and the policy analysis of Hemerijck. This chapter describes the theoretical framework of this research by define at first the concept of food policy and describe the policy analysis of Hemerijck. Afterwards, the concepts of cross-domain and cross-level interactions, boundaries, boundary work, and relationships in public administration will be described. I will use these concepts to research the food policy situation in the Netherlands and how its food policy can be enhanced. This chapter will finalize with the conceptual framework.

DEFINING FOOD POLICY

Food is essential for human survival. However, a poor diet can result in chronic non-communicable diseases as diabetes mellitus, cardiovascular diseases or cancer what results in a high burden on social costs (WHO, 2009; Sturm, 2002; In 't Panhuis-Plasmans *et al.*, 2012). Therefore, food is of public concern and under policy control. Simultaneously, food and nutrition is of cross-cutting nature where many disciplines offer insights or stake claims on food policy, including agricultural sciences, biology and biochemistry, (home) economics, environmental science, epidemiology, nutrition, and public health (Lang *et al.* 2009). Consequently, it could be argued that food policy is fragmented over several policy domains rather than be

one policy domain. By recognizing this, it is difficult to come with a demarcated definition of food policy. Nevertheless, food policy has a public policy framework: policy that deals with food. Following Harold Lasswell (1936) and Lang *et al.* (2009) food policy can be defined as:

Policy that – deliberate and unintended – affects food and shapes its outcomes of who eats what, when, how, and with what consequences

Since food policy covers an immense terrain of policy domains, one cannot understand the drivers and dynamics from the perspective of one particular policy domain. Simultaneously, actions in one policy domain can have unintended consequences in another domain. Therefore, it is important to take a broad perspective and be aware of other policy domains to deal with the challenges of food and nutrition. To have a food policy that affects food and shapes its outcomes, the whole food system ‘from-farm-to-fork’ is of interest. To address the current challenges and establish a food system that is sensible, just, healthy, safe, sustainable, productive, and equal, while dealing at the same time with the competing demands from each discipline, knowledge integration across disciplines, policy domains and policy levels is required (Lang *et al.*, 2009). To do this, Lang *et al.* (2009) propose to approach food policy as an intersection point of competing policy domains, varying in strength, influence and constituency. Approaching food policy as an intersection point renders the multidisciplinary character and complexity. In addition, it enables to explore food policy as an accumulation of a number of subjects and shape food policy by different disciplinary inputs and insights (Lang *et al.*, 2009). Figure 2 below shows food policy as an intersection point of different food policy related domains.



Figure 2 - Food Policy as intersection point of competing policy domains (Reprinted from Lang *et al.*, 2009)

POLICY ANALYSIS

In the analysis of the possible implementation of an integrated Dutch food policy, it is useful to do a policy analysis. The policy analysis of Hemerijck (2003) makes use of the four core questions about policy: by relating analytically the logics of actions of March and Olsen (1989) and the two criteria of democratic legitimacy of Scharpf (1999), Hemerijck derived theoretically four quality standards of policy in the modern democratic constitutional state and their accompanied four core questions to create order in policy (see Table 3 on page 11).

First, policy should be *instrumental efficient*, meaning that the chosen policy instrument should clearly contribute to the achievement of political objectives. The core question belonging to this quality standard is ‘*does it work?*’, and is dominated by the problem-oriented policy analysis. The does it work-question actually contains two criteria: policy has to be effective and efficient as possible. Policy is effective when the implementation of the chosen policy actions leads to the realisation of the intended objectives. Policy is efficient when the realisation of the policy objective occurs at low cost in relation to the social benefits (Hemerijck, 2003).

Second, policy should be *political-administrative feasible*. This quality standard refers to the core question ‘*does it fit?*’. This core question refers to two criteria: policy has to be politically achievable and administrative enforceable. These criteria relates to the extent actors are willing to work on the design and implementation of policy. Fundamental in this sense is the extent to which policy solutions can be embedded in the political infrastructure of the policy system, the administrative organization of Ministries, and the relationships between state actors and important target groups (Bakker & Van Waarden, 1999; Hemerijck, 2003).

Third, policy decisions should be *constitutional lawful*. The core question belonging to this quality standard is ‘*is it allowed?*’ and covers the political and constitutional order, civil rights, democratic procedures and administrative powers of the input side of the political process. This is expressed in a democratic constitutional state where the power of the state is limited by the principle of legality, the separation of powers, and the principle of democracy. Hereby, there will be no power without control on the power and governors have to take responsibilities for the use of their actions and competencies (Hemerijck, 2003).

Fourth, policy should be *socially acceptable*. This quality standard refers to the core question ‘*is it appropriate?*’ and covers the (inter)subjective appreciation of policy by citizens. In particular, it covers the extent to which political decision making and the performance of government policies in the perception of the citizens properly connects to their desires, expectations, emotions, and norms and values. The social acceptability contains two criteria: the procedural and substantive acceptability, or in other words ‘confidence and credibility in politics’. Democratic decision-making will increase the confidence in politics, while credibility is related to the performance of the government (Hemerijck, 2003).

Table 3 - Quality Standards of Policy (Reprinted from Hemerijck, 2003)

		Criteria of democratic legitimacy	
		Output legitimacy	Input legitimacy
Logics of actions	Logic of appropriateness	Political-administrative feasibility ‘Does it fit?’	Socially acceptability ‘Is it appropriate?’
	Logic of consequentiality	Instrumental efficiency ‘Does it work?’	Constitutional lawfully ‘Is it allowed?’

In the implementation of new policy, it is important to consider each of the policy questions. A shortcoming in one of the policy questions can lead to discussion. Good, responsive, policy can therefore be determined as having fulfilled the policy standards of efficiency, feasibility, acceptability, and lawfully. Nevertheless, in practice it will often be a trade-off between the standards, since it is difficult to develop a policy that entirely fulfil all standards (Hemerijck, 2003).

Despite the importance of these policy standards, the policy analysis of Hemerijck is foremost applicable on monocentric governance systems. Other governance systems, like polycentric and interactive governance, might be too complex to deal with the policy standards of political-administrative feasibility and constitutional lawfulness since those governance systems often consist of multiple policy levels or domains with horizontal, vertical and diagonal interactions and who have their own governing system (Torfing *et al.*, 2012). Moreover, these governance systems ask for blurred or permeable boundaries to allow boundary work like boundary spanning and enable interactions and relationships in public administration.

INTERACTION

The complexity and multidisciplinary nature of contemporary policy issues like food and nutrition security increases the need of interaction and cooperation between involved actors. Besides, the opportunities for steering, guiding, controlling, or managing society and the economy from one centre are diminishing (Koppejan & Klijn, 2004; Folke *et al.*, 2005). Food is dependent on (vulnerable) ecosystems where circumstances can change rapidly towards a situation of low food supply. For instance, weather and soil conditions can make or break yields. Moreover, knowledge on food and nutrition is continuously developed and insights change constantly. Scholars have pleaded for innovative polycentric, adaptive and interactive governance approaches to deal with policy challenges like wicked problems (Koppejan and Klijn, 2004; Hoppe, 2010; Torfing *et al.*, 2012; Termeer *et al.*, 2013). As being dependant on ecosystems, an adaptive and interactive governance approach to manage food policy would be recommended, whereby food policy is seen as an intersection point of competing policy domains. As said in earlier sections, knowledge integration can be considered as an impellent, since the multidisciplinary and multi-level features of food policy requires interaction and cooperation between the different food-related policy domains and policy levels.

In the context of this research, policy domains can be defined as the place where (public) policy is 'made' or 'constructed' (Hill, 1997; Bovens *et al.*, 2012) and policy levels as the administrative units of analysis that are located at different positions in the policy domain. Inspired by Cash *et al.* (2006), I will use the concepts *cross-domain* and *cross-level interactions* to indicate interactions across domains or levels. Cash *et al.* introduced cross-scale and cross-level interactions to deal with dynamics in human-environment systems. However, scales are not applicable in this research, since scales are "the spatial, temporal, quantitative, or analytical dimensions used to measure and study any phenomenon" (Gibson, 2000: 218). Policy domains do not fit in this definition and can therefore not be considered as a scale, although the interaction theory can be applied when dealing with challenges of food and nutrition in policy domains like agriculture, health & nutrition and food safety. Therefore, I will use cross-domain interactions instead of cross-scale interactions.

As Figure 3 shows, interaction can take place in many ways. Interaction for consultation, negotiation, or decision-making may take place within or across policy domains, or within or across policy levels (Cash *et al.*, 2006). The pillar illustrates a policy domain, while the spots on the pillar illustrate policy levels. Multilevel or multi-domain is used to indicate the presence of more than a single level or domain (Figure 3.1, image 3), without the implication of interactions across the levels or domains. Cross-level interactions refer to interactions among levels within a policy domain (Figure 3.1, image 2 and 5), while cross-domain interactions refer to interactions across different policy domains (Figure 2, image 4 and 5) (Cash *et al.*, 2006). This schematic illustration can be used to analyse interactions between policy domains and policy levels.

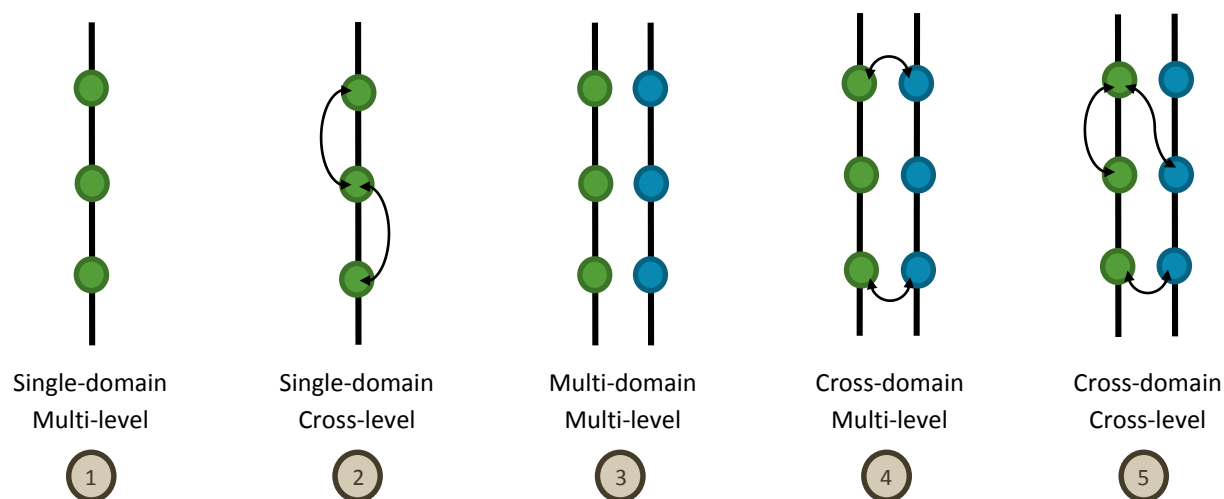


Figure 3 - Schematic illustration of multi-domain, multi-level, cross-domain and cross-level interactions (revised from Cash et al, 2006)

Cross-domain and cross-level interactions can occur in adaptive and interactive governance systems and they are important to achieve knowledge integration between the competing food policy domains. However, these interactions do not occur naturally. Boundaries around policy domains and administrative bodies can prevent interaction and cooperation. Therefore, boundaries have to be constructed to ensure cross-domain and cross-level interactions can take place.

BOUNDARIES

In traditional hierarchic or monocentric governance systems, government is structured vertically whereby public policy making is organized along traditional policy boundaries. Ministries are linked to certain policy domain of social interest. These administrative ‘stovepipes’ are constructed to structure the public sector and deal with social issues (Bouckaert *et al.*, 2000). Nevertheless, multidisciplinary policy issues, like food, are divided over several ‘stovepiped’ government bodies resulting in several to the subject related policies from the ‘stovepiped’ government bodies.

As a matter of fact, each organisation or policy making body, whether in a monocentric governance system or any other governance system, demarcates its working area by a boundary. *Boundaries* set around organizations or policy making bodies can be seen as a demarcation; distinguishing one area from another. In order to establish an organization, a boundary is drawn around the organization to make a distinction between members and non-members (Tompson, 1962). The separation is conditional for the existence of the organization as the distinction between the organization and its environment would disappear without boundaries (Yan & Louis, 1999). Effectively, boundaries are constructed and produced through the perceived or experienced identity in relation to others. Thereby, boundaries have the features of being able to “separate, unite or alienate” (Sturdy *et al.*, 2009: 631) since by clearly demarcating the involved area, boundaries can create groups by generating feelings of similarity and group membership (Sturdy *et al.*, 2009).

Boundaries determine who or what is inside or outside the working area, both vertically and horizontally, and thereby able to influence governance processes (Aldrich & Herker, 1977; Yan & Louis, 1999; Lamont &

Molnár, 2002; Hernes, 2004; Sturdy *et al.*, 2009; Van Broekhoven *et al.*, 2014). Following Yan & Louis (1999: 29), boundaries can be defined as:

“a domain of interactions of a system with its environment in order to maintain the system and to provide for its long-term survival”.

The design of a boundary is not universal, the composition and permeability of boundaries can differ, depending on the organization. Furthermore, Hernes (2004: 10) points out three notions about boundaries:

- Boundaries are composite, i.e. organizations operate within multiple sets of co-existing boundaries. These sets of composite boundaries vary from organization to organization, in strength as well as in substance;
- Boundaries are central, not peripheral to organizations. Change processes in organizations are about creating, moving or consolidating boundaries. Hence boundary properties reflect the substance of the organization;
- Boundaries are constantly subject to construction and reconstruction. Boundaries are not static givens, but are under constant change. This does not prevent some boundaries from being relatively stable, while others change more rapidly.

Studying boundaries can be difficult, since boundaries are often invisible or blurred (Hernes, 2004). Nevertheless, boundaries can be identified through mechanisms that determine what take place inside the boundaries. Hernes (2004) proposes a two-dimensional framework (see Table 4). The first dimension reflects on the actual process that the boundary circumscribes and distinguishes three types of processes that a boundary represents: social, mental and physical boundaries (Hernes, 2004: 13). The second dimension describes the influence of the boundary on the organization and distinguishes three different effects: ordering devices, distinctions, and thresholds (Hernes, 2004: 15). These dimensions are interrelated and influence each other. For example, mental boundaries are also social and physical since core ideas and concepts influence social bonding and physical closeness. The two-dimensional framework of Hernes can be used to distinguish and analyse boundaries between policy domains or administrative bodies. By distinguishing and acknowledging boundaries, difficulties for enhancing knowledge integration can be determined.

Table 4 - A framework for interpreting boundaries and corresponding research questions (Reprinted from Hernes, 2004)

	<i>Mental boundaries</i> Related to core ideas and concepts that are central and particular to the group or organization	<i>Social boundaries</i> Related to identity and social bonding tying the group or organization together	<i>Physical boundaries</i> Related to formal rules and physical structures regulating human action and interaction in the group or organization
<i>Ordering</i> The extent to which boundaries regulate internal interaction	To what extent are the main ideas and concepts decisive for what members do?	To what extent do members feel that they are socially bonded together by, for example, loyalty?	To what extent do formal rules or physical structure regulate the work of members?
<i>Distinction</i> The extent to which boundaries constitute a clear demarcation between the external and internal spheres	To what extent are the core ideas and concepts distinctly different from those of other groups	To what extent are we socially distinct from other groups?	To what extent does our formal structure set us apart from other groups or organizations?
<i>Threshold</i> The extent to which boundaries regulate flow or movement between the external and internal spheres	To what extent can outsiders assimilate core ideas and concepts?	To what extent is it possible for outsiders to be considered full members of the group?	To what extent do formal structures hinder the recruitment of outsiders?

Knowledge integration across policy domains and policy levels to increase effectiveness and efficiency of food-related policies is the impellent behind the intersection approach on food policy. To realise the coordination of activities and integration of the multiple objectives from the multiple involved actors, cooperation or alignment across the policy boundaries is needed. However, this is complicated by the desire of constructing or maintaining boundaries. And even though boundaries might complicate knowledge integration and therefore seem to have only negative features, boundaries do have important functions as they “enable complexity reduction, structure, and specialisation” (Van Broekhoven *et al.*, 2014: 4).

Nevertheless, to achieve knowledge integration, actors may need to change or cross boundaries. In this process, negotiation and evolvement of boundaries can be expected. Activities related to (re)construction, evolvement, or maintenance of boundaries is called *boundary work*, as it refers to

‘the activities in which a system is engaged to deal with its environment, ranging from preserving resources in the face of competing demands to preventing environmental disruptions and collecting resources and support’ (Yan & Louis, 1999: 29)

Boundary work can be seen as continuous actions that shape a demarcation and at the same time deal with its environment. Hence, boundaries are constructed in response to its environment and boundary work evolves through interaction between actors. Van Broekhoven *et al.* (2014: 5) distinguish four types of boundary work:

- 1) Boundary challenge: problematizing existing ideas or divisions. Challenging boundaries requires an intention of changing the boundary to, for example, include new actors, ideas, or resources. To achieve integration, challenging boundaries is often entailed.
- 2) Boundary stabilization or maintenance: strategies to defend or draw demarcations. This may occur to demarcate who or which problems and solutions are included, to protect or buffer something from conflicting interest, or to enable successful action within.
- 3) Boundary spanning: activities to facilitate coordinating practices or exchange information across boundaries. Spanning facilitates flow across a boundary without challenging its relevance or place but rather reconfirm it as active. The boundary is not directly changed.
- 4) Boundaries are enacted, upheld, and made part of social reality through boundary stories. Boundary stories are shared stories about the boundaries that people tell to distinguish themselves from others, or an area from what it is not (Tilly, 2002).

Since boundaries are not likely to be changed or removed in public administration, and knowledge integration is the aim for boundary work between competing policy domains, boundary spanning is the most relevant for this thesis. To observe the enactment of the boundaries, it is useful to combine the dimensions of boundaries with boundary spanning (see Table 5). By this operationalization, boundaries can be identified, but also the way of boundary spanning. The analysis can be used to enhance knowledge integration and food policy. Boundary spanning of, for example, physical boundaries can be enacted to establish physical connections, such as structures to prescribe outer limits for the execution of tasks, or who has access to certain information.

Table 5 - Operationalization Boundary Spanning (Adapted from Van Broekhoven *et al.*, 2014)

		<i>Enactment</i>
		Boundary spanning
<i>Dimension</i>	Physical	Physical connections perceived by involved actors as not directly challenging a demarcation, boundary objects
	Social	Building or enhancing connections with actors across a demarcation
	Mental	Strategies enhancing flow of information or ideas across a demarcation

To conclude, the three types of physical, social and mental boundaries can be distinguished to circumscribe the actual processes in an organization. Physical boundaries relate to the formal structure of an organization and therewith the authority over a certain area. In the area of public administration, it determines the hierarchy, ministerial responsibility, and stovepiped structure of Ministries and departments by also demarcating the policy areas of each Ministry. Physical boundary spanning concerns the enactment of physical connections by making the demarcation permeable and creating boundary objects, which are organizational objects that intersect more than one organization and are commonly authorized. These boundary objects are key in developing and maintaining coherence in policies across intersecting policy domains like food policy (Star and Griesemer, 1989).

Social boundaries relate to identity and social bonding between actors what decides who is inside or outside an organization and thereby tying an organization together. Social boundary spanning refers to the enactment of building or enhancing social connections between actors of different organizations and therewith creating feelings of social connection or joined responsibility.

Mental boundaries relate to core ideas, concepts, approaches or perspectives of an organization and therewith decisive for actions of the organization. In public administration, mental boundaries are decisive for the approach of a Ministry to an issue therefore to the content of policy. Mental boundary spanning refers to the enactment of strategies that enhance flows of information across boundaries and therewith enact integration of knowledge and the development of common understandings and approaches towards the issue at stake.

RELATIONSHIPS IN PUBLIC ADMINISTRATION

Boundary work can have different purposes. Depending on the desired interorganizational relationship, boundary work has different characteristics. The desired interorganizational relationship is situation dependant; in certain situations a merger of organizations will be more conducive than only dialogue, or the other way around. 6 (2004) distinguishes three categories of relationships in public administration. Foremost 6 distinguishes the relationships of coordination and integration, and to a lesser extent the increasing closeness and mutual involvement. Next to this, he distinguishes between a joined-up government and a holistic government. A joined-up government refers to “consistency between the organizational arrangements of programs, policies, or agencies, which may enable them to collaborate” (6, 2004: 108). Holistic government is then defined as “the altogether more demanding business of starting with clear and mutually reinforcing sets of objectives framed in terms of outcomes and then working back from there to identify a set of instruments which have the same relationship to one another to achieve those outcomes” (6, 2004: 108).

The taxonomy of types of relationships can be found in Table 6 (reprinted from 6, 2004). It is important to note that integration is not equal to a union or merger of organisations or policy domains. Rather, it is “the development of common organizational structures and merged professional practices and interventions” (6, 2004: 106). In addition, coordination and integration cannot solve perceived problems of specialization. Instead, coordination or integration can solve issues with fragmentation, conflict management or relationships between departments (Lawrence & Lorsch, 1967). Although specialization has benefits, it also increases the difficulty of coordination (Bouckaert *et al.*, 2000). ‘Stovepiped’ government, as a result of fragmentation, can be a danger. When a policy issue is divided over different government bodies, it will become unclear who will be responsible for what in case of a crisis. Nevertheless, it is of great importance to decide the place of boundaries, create boundary crossing at the most suitable place for its purpose, and determine to what extent coordination or integration is desired. In this sense, there will always be a trade-off between specialization on the one hand and coordination and integration on the other and. And it is for politicians and government to decide whether the chosen relationship is acceptable (Bouckaert *et al.*, 2000).

Table 6 - A Taxonomy of Types of Relationship (Reprinted from 6, 2004)

Category of Relationship	Type of Relationship between Entities	Definitions
Coordination	Taking into account	Strategy development considers the impact of/on others
	Dialogue	Exchange of information
	Joint planning	Temporary joint planning or joint working
Integration	Joint working	Temporary collaboration
	Joint venture	Long-term joint planning and joint working on major project core to the mission of at least one participating entity
	Satellite	Separate entity, jointly owned, created to serve as integrative mechanism
Increasing closeness and mutual involvement (but not necessarily greater efficacy or collective action)	Strategic alliance	Long-term joint planning and working on issues core to the mission of at least one participating entity
	Union	Formal administrative unification, maintaining some distinct identities
	Merger	Fusion to create a new structure with a single new identity

The types of relationships can be applied on boundaries in the food policy domain. Coordination in physical boundaries indicate that actions of other food-related policy domains are taken into account in strategy development or some type of temporary joint working with other domains is allowed. However, increasing closeness and mutual involvement of physical boundaries will indicate merging to a greater or lesser extent, whereby most likely physical boundaries will be challenged or demolished and food-related policy domains will merge into a new demarcated policy area. Integration in mental boundaries will be focussed on long term strategies to enhance flows of information to facilitate joint working on a major project but where the mental spaces of the food-related policy domains are separated to remain space for counterplay between different food-related policy domains and the values around food.

The theoretical framework, which is described in the previous section, is put into a model and operationalized. This research is based on the concepts of food policy, cross-domain and cross-level interaction, boundary work and boundaries. The conceptual framework is shown in Figure 4 and elaborated below.

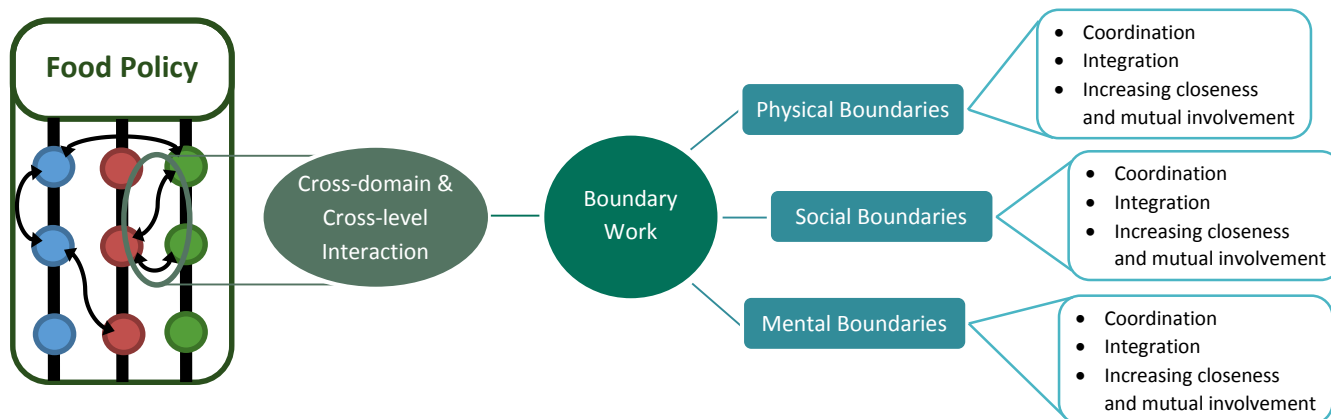


Figure 4 - Conceptual Framework

Based on Lasswell (1936) and Lang *et al.* (2009), the concept of food policy is defined as policy that – deliberate and unintended – affects food and shapes its outcomes of who eats what, when, how, and with what consequences. Food policy consists of several policy domains (the black vertical pillars) and is issued at several policy levels (the coloured spheres on the pillars). Food policy is a demarcated area but not a single policy domain of merged subdomains. A merge of the food-related policy domains would result in fragmentation of other policy domains, since for instance the whole trade or science policy domain is food-related. In addition, fragmentation or the presence of boundaries also reduces complexity and features structure and specialisation.

Nevertheless, to address the current food and nutrition related challenges and to provide a sensible, just, healthy, safe, sustainable, productive, and equal food system, Lang *et al.* (2009) propose to approach food policy as an intersection point of policy domains. This approach requires knowledge integration and cooperation (Lang *et al.*, 2009). To achieve this, cross-domain and cross-level interaction is demanded to span boundaries between policy domains and levels. Boundaries are “a domain of interactions of a system with its environment in order to maintain the system and to provide for its long-term survival” (Yan and Louis, 1999: 29). One distinguishes physical, social and mental boundaries (Hernes, 2004). Through boundary work boundaries can be challenged, stabilized, spanned, or enacted. To achieve cross-domain and cross-level interaction boundary spanning will be needed. The relationship between organizations can differ between coordination, integration, and increasing closeness and mutual involvement types of relationships.

The concepts will be used to theorize my findings and I will reflect upon these concepts. The aim is to get insight into food policy in the Netherlands and the extension of knowledge integration and cooperation between policy domains and policy levels. The concepts of boundaries, boundary work and relationships will support me to investigate the dynamics of food policy in the Netherlands. The methodology of this investigation and research will be elaborated in the next chapter.

In this chapter the research design will be described. First, the general research design and its limitations will be discussed. Afterwards, the used research methods will be presented and the processing of the data elaborated.

RESEARCH DESIGN

This thesis examines integrated food policy in the Netherlands in order to contribute to the complex social issue of nutrition insecurity. Since food policy is of multidisciplinary nature, knowledge integration of competing policy domains by means of boundary work could contribute to achieve multiple goals. This research focuses, amongst others, on what food policy is, whether it can be implemented in the Netherlands and how knowledge integration can be enhanced. Therefore, a policy analysis is conducted whereby the actual situation in the Netherlands is examined. Little research has been done on food policy and the possible role of boundary work in this issue. Furthermore, there are barely studies on achieving integrated food policy in practice. This is interesting, since often nation states have a monocentric governance system with a stovepiped structure due to division structures as ministerial responsibility. This might conflict when they have to deal with multidisciplinary and multi-level governance issues. Nevertheless, food policy has been examined by Tim Lang and a few others, however these studies foremost have a theoretical approach and are not focused on how the implementation would work out in practice. Therefore, this study has an exploratory purpose whereby the Netherlands is used as a case to research whether an integrated food policy can be implemented or how it can be enhanced.

The research strategy used in this research is a combination of a survey and desk research. These strategies are used to do a policy analysis in which attention is focussed on how food policy can be enhanced in the Netherlands. In order to this, the research methods used in this research are literature review of secondary sources and interviews. The research strategy chosen is to do desk research at first and subsequently the interviews. In this way, the information acquired in the literature review could be used in the interviews. Through triangulation information could be confirmed.

RESEARCH LIMITATIONS

Food policy covers an immense arena, and it is not possible to cover all the policy domains at all policy levels. The researcher must use his or her judgement to select a doable amount of data and research size that will enable the researcher to understand the issue at stake, thereby keeping in mind the amount of time and space. This research takes place in a large policy domain and is conducted with the greatest considerations. Nevertheless, some limitations are inevitable. Some major limitations play a role in the research. I am fully aware of all these possible limitations and I am responsible for any shortcomings resulting from them. It is important to emphasize that this study is a case study. The policy situation cannot directly be generalized to other countries or other situations, although in all countries in the European Union the issue of competence on policy areas plays an important role in enhancing food policy.

Research arena restriction

The food policy covers a larger area, however it is impossible to include them all and interview all actors. Due to space and time constraints, I will focus on three clearly demarcated food policy domains that have a clear link with nutrition. I will focus on agriculture, health and nutrition, and food safety. These fields have their own focus, policies, and policy makers.

RESEARCH METHODS

LITERATURE REVIEW

In order to do built a theoretical framework and examine food policy in the Netherlands, a critical review of existing literature is done and scientific articles and books from different scholars is used. The literature has been retrieved via scholarly databases (Google Scholar, Web of Science, Scopus) and the library of Wageningen UR. Search terms include for example 'food policy', 'cross-level and cross-domain interaction', 'boundary' and 'boundary work' to describe the several concepts used. I also made use of the snowball-method by reading articles and books others referred to. The literature is predominantly from academic journals and books, but also reports from (government) institutions like United Nations, European Union or the Netherlands have been consultant for information. Furthermore, I used the statistical databanks of Statistics Netherlands and EUROSTAT for up-to-date numbers and Figures.

INTERVIEWS

During my research, interviews were held with various actors. Since both public as non-public actors are involved in policy-making, I held interviews with both actors. Most of the time, these interviews were done individually. An interview is a research method where a conversation is used to gather information by the researcher and understand the context by questioning one or more people (Van Thiel, 2014). The interviews are used as an addition to the information acquired by the literature review. The interviews are also used to research the situation in practice, and determine the possible present boundaries and boundary work.

For my research I used semi-structured interviews. From the conceptual framework, several categories could be formed. The interviews were conducted by making use of a list of a list of questions and topics of interest as a guideline, based on the framework of categories. The interviews were conducted with enough room for additions and information from the participant that could also be of interest. Also, the sequence and the content of the questions could be adjusted, based on the responses of the participants in order to not disturb the conversion. The general questionnaire can be found in Annex I – Questionnaire on page 62.

The participants were selected based on their organization and their position within their organization. The semi-structured interviews were conducted with:

- Ministry of Economic Affairs [EZ];
- Ministry of Health, Welfare and Sports [VWS];
- National Institute for Public Health and the Environment [RIVM]
- Province Brabant
- Province Overijssel
- Dutch Federation of Agriculture and Horticulture [LTO]
- Scientific Council for Government Policy [WRR]
- Netherlands Environmental Assessment Agency [PBL]

Organization	Participant	Date Interview
Ministry of VWS	Letteke Boot	14-10-2014
	Inge Stoelhorst	
Ministry of EZ	Joost de Jong	21-10-2014
PBL	Melchert Reudink	15-10-2014
	Henk Westhoek	
RIVM	Jantine Schuit	23-10-2014
Province Brabant	Ton Cornelissen	28-10-2014
Province Overijssel	J. Neimeijer	11-11-2014
WRR	Josta de Hoog	27-11-2014
LTO Nederland	Albert Jan Maat	27-10-2014
FoodLog	Dick Veerman	24-10-2014

Further information can be found in Annex II – List of interviews on page 64.

All participants received a letter about the interview and - if appreciated – the questionnaire. Before the interview started, the participants have been asked permission to mention their name in the list of interviewees and permission to tape the interview. All participants gave permission to list their name and tape the interview. The duration of the interviews was about one hour. Except for the interview with the Province Overijssel, all interviews took place in real life, mostly at the organization. The interview with the Province Overijssel have been a phone interview. The interview with Ton Cornelissen of Province Brabant took place at Wageningen University. FoodLog was not willing to do the whole interview, due to time constraints or for other reasons, however they did reply to a selection of the questions related to cooperation of and with the Ministries of EZ and VWS. The conversation with Dick Veerman of FoodLog has been by phone.

Analyses

All interviews have been taped. To facilitate the analyses and use of the interviews, the interviews are transcribed. I used Atlas.ti to highlight fragments or sentences that could be used to describe the actual situation in the Netherlands. Since I used in general the same questionnaire with all participants, I was able to compare answers, apply triangulation and combine the information for the examination. During the analysis, I also watched for what has not been said and what that implicates. By responding, people frame their answers and thereby decide what they say and what they do not say. For example, one interviewee told that a policy document or letter from several Ministries will be built upon what each Ministry delivers and that each Ministry wants to see itself clearly represented in the compiled policy document or letter. At the same time, it shows that the compiled policy document or letter is not developed jointly or in cohesion. The policy document or letter is written or puzzled as one policy document or letter, but it cannot be seen as an overarching, joint expression. Subsequently, I combined all the information from the interviews with the data from the desk research to examine the actual situation in the Netherlands and how this situation can be enhanced.

The following chapter discusses the possibilities and the actual situation of food policy in the Netherlands. The information is based on a policy analysis, regulations and policy documents, and interviews with actors within the public domain. Themes in the interview were food policy, interaction, boundaries, boundary work and relationships in public administration. The general questionnaire can be found in Annex I – Questionnaire on page 62. The chapter will close down with a conclusion on the actual situation of food policy in the Netherlands.

INTRODUCTION

Food policy is a difficult concept to grasp, although for the purpose of this thesis, food policy is defined theoretically in previous sections as policy that deliberate and unintended affects food and shapes its outcomes of who eats what, when, how, and with what consequences. The interviewees admit that it is about food and that it concerns the whole food chain from-farm-to-fork and its values as sustainability, healthy, economic, security. An integrated food policy is, according to the interviewees, about the adjustment among the involved actors. However, this chain-thinking does not come back in practice in the form of chain-acting. The agricultural and horticultural organization LTO emphasizes that food policy should be a strategy of securing the accessibility of enough and healthy food over a generation in the Netherlands, since food is essential for human survival and therefore the most important human right. Also, since the Netherlands is the second exporter of food products and we are able to produce efficient and relatively sustainable, the Netherlands should get involved with an international food strategy (Interview 27 October 2014).

The approach of Lang *et al.* (2009) of food policy as an intersection point renders the multidisciplinary character and shows the complexity. By making use of this definition and taking the intersection approach, the inference can be made that food policy in itself does not exist in practice. Since the food policy domain is not clearly demarcated and therewith covering an immense terrain of several (parts of) other food-related policy domains, it is impossible to speak of *a* food policy. According to the WRR is due to two things that there is not an integrated food policy. First, the current policy is focused on the different links within the food system, meaning that there is policy focused on production, policy focused on processing, and policy on consumption. These are separated elements within the policy. If we want to have food policy, the policy focused on production and consumption should be developed in conjunction with each other. The second criterion is the balance between the values around food of ecological sustainability, public health and robustness. Public policy that is important for the food policy in practice – like the Common Agricultural Policy and the free-trade policy – should not only focus on increased production and export, but should have a larger perspective and also take health issues into account (Interview 27 November 2014).

To illustrate: out of health and ecological sustainability, it is wise to shift from animal proteins to vegetable proteins. But in our agricultural policy we stimulate heavily (indirectly) the production of animal proteins.
(Interview 27 November 2014)

Since the start of the 21st century, some countries, including the Netherlands, are shifting towards a more sustainable – economically, socially, and environmentally – food system as they recognize the challenges

the food system faces in relation to economics and equity, health, safety, and environment. Thereby also recognizing the interconnected between food and several other policy domains. Nevertheless, in absence of an overarching food policy, we should speak about food-related policies. Food-related policies show that the policy applies to an area within the larger food policy domain, not necessary adapted to other food-related policy within the larger food policy domain.

In the Netherlands, the food policy domain is divided among several Ministries. The main involved Ministries are the Ministries of Economic Affairs [EZ], Health, Welfare and Sports [VWS], Infrastructure and Environment [I&M] and Foreign Affairs [BZ]. Other Ministries mentioned, as being sidelong involved, are the Ministries of Social Affairs and Employment [SZW], Security and Justice [V&J], Defence and Finances. Each of these Ministries has their own working area with its supplementary responsibility. In case of shared responsibility there is some form of collaboration. However, one prefers to work within its framework and know to whom they are accountable (Interview 14 October 2014).

You want to have an efficient division of labour and not doing the same work at four Ministries. It is a choice how you connect everything together. But you have to be able to draw a line through it so everyone knows their roles and who is responsible. In the end, someone has to be ultimately responsible. (Interview 14 October 2014)

The three central policy domains of this thesis – agriculture, food safety and health & nutrition – are issued at different policy levels and have a more or less integrated policy note which will be elaborated below. The latest food-related policy notes are developed in 2008-2009, during Cabinet-Balkenende IV where former Minister of LNV Gerda Verburg put much effort on healthy food and diets. Nowadays, the second cabinet after Balkenende-IV is in charge (Rutte-II) and new joint policy notes are lacking (Interviews 14, 15 and 21 October 2014). During cabinet-Balkenende IV there was also developed a government-wide approach to sustainable development (Kabinetsbrede Aanpak Duurzame Ontwikkeling [KADO]) for the period 2008-2011, to balance the quality of life, economy, the social relations and the ecological foundation of the society. The approach consisted of three tracks, which come clearly back in the policy notes: substantive focus on six selected themes; the government among the leaders in sustainable business; and an active role in the public dialogue on sustainable development. The six themes were water/climate adaptation; sustainable energy, biofuel and development; CO₂-capture and storage; biodiversity, food and meat; and sustainable building and renovating. Remarkably, a vision on nutrition and health is lacking. The fifth theme 'biodiversity, food and meat' is focused on production and does not mention consumption. However, after 2011 KADO did not get a successor, nor there is developed any integrated vision or policy on food, nutrition or sustainable development related issue (Interviews 15 and 21 October 2014). The top sector policy of the Dutch government, launched in 2012, prevents possibilities for broad spectrum analysis since resources are used as co-financing of proposals of market actors and mainly focused on economic benefits and less on environmental or health benefits.

Despite the cooperation in developing policy notes, it is difficult to speak of an integrated form of relationship as joint venture or satellite, as formulated by 6 (2004). The Ministries work together when they have to work together or need each other. The lack on joint planning and working can be clearly illustrated by the absence of an Interdepartmental Consultation on food or nutrition (Interviews 15, 23 and 27 October and 27 November 2014). At the same time, it characterizes the public policy on food and nutrition. The focus is on the food product itself, not on the prevention of bad diets among consumers (Interview 23 October 2014). The consumption part of food policy considers the safety of the products in terms of

toxicants and contaminants and not nutritional values as sugars or fats which also can have a large impact on public health. The consumption and people's diet is considered as personal freedom and part of freedom of choice. However, the government and therewith the whole society pay for the negative returns of bad diets – the healthcare and social costs – out of the solidarity principle. Food products can be made as healthy as possible, but as long as consumers have diets which are high in saturated fats, sugar and salt and low in fruits and vegetables and on lifestyles characterised by low levels of physical activity, it is unlikely to have a healthy and nutrition secure population.

In addition, it is difficult to speak of a food policy in the Netherlands since large parts of policies concerning food are not developed by the Dutch government. Policies on for example agriculture, food safety, environment, and trade are largely developed by the European Union (see Table 7, reprinted from Lelieveldt & Princen, 2011: 181) and the Dutch government cannot develop policies that are contradictory to EU policies nor they are able to overrule EU policies. In addition, the European Union is a consensual political system (Lelieveldt & Princen, 2011). Consequently, to have a majority within EU-28, decisions are often consensus-based, which reduces the ability to make radical choices. Yet, these are the difficulties when developing a food policy: food-related policies are developed at several policy levels by several policy domains and necessary radical choices are difficult due to the consensus-based decision making.

Table 7 - EU involvement in policy areas (Reprinted Lelieveldt & Princen, 2011: 181)

(Almost) exclusively EU	Strong EU involvement	Weak EU involvement	(Almost) exclusively Member States
Examples: <ul style="list-style-type: none"> • External trade • Competition policy • Agriculture • Euro 	Examples: <ul style="list-style-type: none"> • Environment • Regional policy • Occupational health and safety • Internal market • Tobacco control • Cross-border crime • Development aid • Transport • Research and development 	Examples: <ul style="list-style-type: none"> • Social policy • Foreign policy • Defence • Taxation • Health care • Spatial planning 	Examples: <ul style="list-style-type: none"> • Primary and secondary education • Housing • Crime 'on the streets' • Culture

FOOD POLICY ANALYSIS

This section will examine food policy in the Netherlands. First, I will try to analyse whether an integral food can be implemented in the Netherlands. I will do this by means of the policy analysis of Hemerijck (2003), as described in the theoretical framework. Afterwards, I will examine the actual situation of food policy in the Netherlands and describe shortcomings of the current organization of dealing with food and nutrition challenges. Then, the regulations and policies of agriculture, health & nutrition, and food safety will be presented to show the judicial organization of food policy and to what extent these food-related policy domains are aligned or taking each other into account.

FOOD POLICY ANALYSIS

Taking into account the present food-related policies and the food and nutrition related challenges, it seems that it is difficult to develop an adequate food system. In addition, the multidisciplinary and multilevel character of food ensures that food policy making is even a larger and more difficult task.

Nevertheless, when researching food policy and the possibilities for enhancing integrated food policy, it is important to discuss the possibilities for implementation of food policy in the Netherlands. The policy analysis of Hemerijck (2003) analyses public policy by the four quality standards of policy and their accompanied core question to create order in policy: political-administrative feasibility (does it fit?), socially acceptability (is it appropriate?), instrumental efficiency (does it work?) and constitutional lawfully (is it allowed?). I will try to analyse the possibilities of implementing an integral food policy in the Netherlands.

Political-administrative feasibility

The political-administrative feasibility quality standard is accompanied by the core question 'does it fit?' and refers to the two criteria of politically achievable and administrative enforceable. Fundamental in this quality standard is whether policy solutions can be embedded in the political infrastructure of the policy system, the administrative organization of Ministries, and the relation between state actors and other involved actors (Hemerijck, 2003: 10). Despite the interaction-oriented character of this quality standard, it is difficult to realize political-administrative feasibility when dealing with multidisciplinary issues, such as food and nutrition, in a monocentric organized system.

The Dutch government is still very much monocentric organized, considering the ministerial responsibility and the hierarchic and stovepiped structure of Ministries who demarcated their policy area. Therefore, the Dutch government is not adequately organized to deal with food and nutrition challenges. In this context, dealing with multidisciplinary issues will be difficult, unless the administrative organization will be reconstructed. However, the construction of a Ministry of food and nutrition, and thereby merging the food policy domain, will cause fragmentation in other policy domains. For example, the policy domain of trade is not entirely involved in food, so while merging the food policy domain, the policy domain of trade will be fragmented. At the same time, a stovepiped and hierarchic structure makes it hard to deal with issues that are divided among several departments since departments will defend their area and interests in the first place, before taking into account the other, adjacent, policy areas. In addition, the cooperation and involvement of other public and private actors play a role in realizing political-administrative feasibility. For this purpose, the position and role of the government in the food system is important.

Socially acceptability

The socially acceptability quality standard is accompanied by the core question 'is it appropriate?'. The laws and regulations which are declared by a government have to be accepted by society. Therefore, the socially acceptability refers to the extent in which the intended policy is connected to the normative and cultural orientations in the society (Hemerijck, 2003: 14). There have been discussions about acceptability of government policy around food-related issues, or the absence of policies, like the issues around food safety or sustainability. When citizens believe the importance of sustainability and food safety, a food policy will probably be social acceptable. Nevertheless, when the government does not involve other actors and does not take a facilitating role, there might arise discussions on patronizing by the government. Citizens do not like the idea of patronizing and limitations of their perceived freedom of choice. Therefore, the Dutch government should take these feelings into account and consider its position within the realization of food policy and creating a sustainable and health-inducing food system.

Instrumental efficiency

The instrumental efficiency quality standard is accompanied by the core question 'does it work?'. This quality standard has two criteria: policy should be efficient *and* effective, thereby is a problem-oriented analysis central in this question. A food policy can be highly efficient and effective to deal with food and

nutrition challenges, since fragmented food-related policies, whereby actors work solely within their own domains, have the risk that policies contradict. Contradictory policies will definitely not be efficient or effective. However, by merging the food policy domain, fragmentation, and the possibility of contradictory policies, in other domains lie in wait. The structure the government will influence the efficiency and effectivity of policies.

Constitutional lawfully

The constitutional lawfully quality standard is accompanied by the core question ‘is it allowed?’. This quality standard deals with the political and constitutional state structure, civil rights, democratic procedures and administrative competences (Hemerijck, 2003: 12). This quality standard will be the largest issue in developing food policy in the Netherlands. The quality standard of constitutional lawfully is interconnected with the quality standard of political-administrative feasibility, due to the principle of conferral and the principle of subsidiarity of the European Union [EU], laid down in Article 5 of the Treaty on the European Union [TEU]. The Treaties confer on the EU exclusive competence or competence shared with the Member States on several areas. Competences not conferred upon the European Union in the Treaties remain with the Member States. The exclusive competences of the European Union are mentioned in Article 3 of the Treaty on the Functioning of the European Union [TFEU] (see Text Box 1). The shared competences of the European Union with the Member States are mentioned in Article 4 TFEU (see Text Box 1). In addition, the Member States “shall coordinate their economic policies within the Union” (Article 5 TFEU) and “the Union shall have competence to carry out actions to support, coordinate or supplement the actions of the Member States” in the areas mentioned in Article 6 TFEU.

Text Box 1 - Exclusive and shared competences of European Union	
<p>Article 3 TFEU</p> <p>1. The Union shall have exclusive competence in the following areas:</p> <ul style="list-style-type: none"> a) customs union; b) the establishing of the competition rules necessary for the functioning of the internal market; c) monetary policy for the Member States whose currency is the euro; d) the conservation of marine biological resources under the common fisheries policy; e) common commercial policy. 	<p>Article 4 TFEU</p> <p>(...)</p> <p>2. Shared competence between the Union and the Member States applies in the following principal areas:</p> <ul style="list-style-type: none"> a) internal market; b) social policy, for the aspects defined in this Treaty; c) economic, social and territorial cohesion; d) agriculture and fisheries, excluding the conservation of marine biological resources; e) environment; f) consumer protection; g) transport; h) trans-European networks; i) energy; j) area of freedom, security and justice; k) common safety concerns in public health matters, for the aspects defined in this Treaty.

Many food-related policies fall in the areas where the EU have exclusive competence or shared competence with the Member States. This means that a Member State, like the Netherlands, is not able to determine the public policy solely by itself on this subject and is often dependent on, mostly consensus-based, policy developed at the EU-level. Other policies, like public health concerning nutrition, falls within the competence of a Member State. In other words, some policies are made on EU-level and others at national level. Since EU-laws have supremacy and therefore take effect over laws of Member States (Case 6/64 *Costa v. ENEL* [1964] ECR 585), the Netherlands is not able to make policies that contradict with EU-policies. The exclusive or shared competences of the EU and its supremacy lead to shortcomings in the policy standards of constitutional lawfully and political-administrative feasibility. The principle of conferral works also the other way around. The EU does not have the competence to develop all food-related

policies, as for some policy domains the exclusive competence is with the Member States. Therefore, development of food policy on EU-level will have the same shortcomings in the policy standards of constitutional lawfully and political-administrative feasibility.

Conclusion

Although the quality standards of policy, as proposed by Hemerijck (2003) are important, the shortcomings in the policy standards of Hemerijck show that multidisciplinary and multilevel policy issues, like food, cause difficulties. Probably these difficulties arise because these do not fit in a monocentric organized government system. To deal with multidisciplinary and multilevel issues a more interactive system is demanded. An interactive system could deal with the quality standards of political-administrative feasibility and constitutional lawfully. Instead of a merger of the food policy domain, interaction and knowledge integration could enable alignment and integration of food-related policies in order to achieve a sustainable and health-inducing food system. This would also result in the realization of instrumental efficiency, not only in the food policy domain but also of the other involved policy domains. To realize socially acceptability, the position and role of the government in the development of food policy will be important. The following section will examine the current situation in the Netherlands and examines the difficulties in this situation.

ACTUAL SITUATION OF FOOD POLICY IN THE NETHERLANDS

This paragraph will examine the current situation by means of the interviews with involved actors and therewith the shortcomings of how the Dutch government currently deals with food and nutrition.

One of the shortcomings of the current food-related policies in the Netherlands is that food products are seen as an economic good. Agriculture is different from a normal economic process. The added value of food, the fact that it is of vital importance, makes that one should take a different perspective (Interviews 15 and 27 October 2014). A farmer has, in principle, to deal with much insecurity. Long time in advance, the sowing seeds are put in the soil and one has to await how it will come up. In the meantime, the weather can be worse and diseases and plagues can arise. Farmers will put their efforts on maximum yields and it is difficult to align production, resulting in a large supply on the food market and therewith low prices. In addition, the driving forces behind the food production are different from other, normal, economic sectors. How we produce our food is an important pillar in the role of the food production in relation to our modern society as we have nowadays. When changing something in how we produce our food, this will have large consequences for how the rest of the society is organized (Interview 15 October 2014).

Despite the will and improvements over the past decennium, food policy is quite fragmented. By the take-over of the Ministry of LNV by the Ministry of Economic Affairs, there is no owner of the subject anymore, which makes it difficult to direct or coordinate (Interview 23 and 27 October 2014). The suggestion of the establishment of a Ministry of Food – or return of the Ministry of LNV – is received differently. The

It is a mistake to displace the Ministry of LNV. No one in the world understands that the second exporter of food products does not have a separate Ministry concerning foods. (Interview 27 October 2014)

Ministries share the comprehensible vision that such a decision is to politics (Interview 14 and 21 October 2014). Others acknowledge advantages and disadvantages. The largest advantage of an institutionalized direction is to improve coordination between the involved policy domains. The fact that after the disappearance of the Ministry of LNV there is

not established an Interdepartmental Consultation has been a lost opportunity. The absence of an Interdepartmental Consultation prevents regular alignments of policies and therewith a joint strategy. The absence of an owner and director results in practice that it is more about combatting incidents instead of disabling a strategy (Interviews 15, 23, and 27 October and 27 November 2014).

Since food crisis like BSE, avian influenza, Q fever, or 2011 EHEC outbreak the interaction between Ministries improved (Interview 27 November 2014). Also, the government of previous Minister Gerda Verburg of LNV (2007-2010 during Cabinet-Balkenende IV) improved interaction and coordination. Although it was also difficult because it was not always clear which minister was doing what and who was responsible, there have been much adjustment to ensure the policies would be as unambiguous as possible. In addition, especially in the area of food safety or food confidence, the Ministries work together closely. Due to the shared responsibility in food safety, some counterpart departments can work more closely together than each of the departments has contacts within their own ministry (Interview 14 October 2014).

When needed, officials build or enhance connections with actors inside or outside their Ministries. The relationship can be described as coordination, since it is foremost temporarily and not set up to develop a joint strategy. Interviewees mention physical and mental boundaries the largest obstacles to enhance an integrated food policy because of the lack of an interdepartmental consultation or any other type of organized dialogues and the lack of a coherent and shared view on food and nutrition (Interview 15 and 23 October and 27 November 2014).

Although the Ministries of VWS and EZ do interact, they approach issues foremost out of responsibilities. The views of Ministries towards food differ and each of the Ministries demands its view incorporated in for instance the response of the Cabinet on the WRR report (Interview 21 October 2014). These differences in views and protection of interests are also the result of scarcity of resources (Interview 15 October 2014). A government would always like to do more than is able to do and therefore always affected by scarcity of resources. Ministries will fight for these scarce resources and therewith for their own interests. The ministry of EZ is foremost focused on economic benefits and production and barely taking into account public health and nutrition, since that is the responsibility of the ministry of VWS. The ministry of VWS, on the other hand, does not interfere with production, the CAP or the free-trade policies, while there can be achieved public health benefits. These public health benefits can turn in large economic benefits in terms of lower public health costs and social costs. However, by approaching issues in an integrated way, the perception is to make a larger cake than one can make separated, but then there will be a fight for this cake on who gets what and how much. The fight will bring high transaction costs, low gains and in addition causing much hustle. The acting out of own responsibilities and own interests is especially tangible in organizations that receive sometimes similar orders from different Ministries in a short period of time (Interview 15 and 23 October 2014).

In addition, the rotation of civil servants is sometimes an issue. The rotation can certainly be part of social and mental boundary spanning, but the government has to take care that the institutional memory of a ministry will not erode. This is already happening and in some areas the institutional memory is limited present. Due to the reality that it is expected that civil servants have wide knowledge and are employable in every policy domain, the substantive knowledge of policy domains and issues is limited present. It can be discussed what then would be the added value of sharing knowledge, because the exchange of knowledge will be superficial (Interview 15 and 23 October 2014).

There should be achieved a balance between having servants that have substantive, in depth knowledge and know how that relates to surrounding policy domains and issues, and on the other hand servants who have the oversight and know how to connect that and seek for connections with others (Interview 15 October 2014)

Moreover, the government is highly process-oriented and less on the content (Interview 27 October 2014). This can cause issues when research institutes and national institutes are consulted for substantive knowledge, as that will bring them down to the area of policy-making. The emerging risk will then be that research and national institutes will evaluate policy that they (partly) developed, which will place them in a vulnerable position.

Conclusion

The interviews show that the Dutch government does not coherent deal with food and nutrition. The Ministries of EZ and VWS interact and cooperate when they need each other, but do not integrate their policies with each other in advance. Ministries only feel responsibility for their part of the 'cake', not for the whole 'cake'. This is mainly the result of the physical and mental boundaries; these are present due to the ministerial responsibility structure and scarcity of resources and are visible in the absence of a joint strategy and Interdepartmental Consultation, and in the conflicting views where to go and absence in coherence in production and consumption policy. The lack of a problem owner makes that no one is the ultimate responsible who keeps an eye on the whole food policy domain and is engaged with the establishment of a coherent food policy to establish a sustainable and health-inducing food system.

REGULATIONS AND POLICIES IN THE FOOD POLICY DOMAIN

This section will examine the regulations and policies on agriculture, health & nutrition and food safety. The background and development of the policies will be presented and it will show the separateness of the food-related policy domains and that the regulations and policies are developed out of own views and barely include or taking into account other policy domains in their policy formulation. The involved Ministries are the Ministry of EZ and the Ministry of VWS, the organograms of both Ministries can be found in Annex III – Organization charts on page 84 and 85.

Agriculture

As being the second exporter of agricultural products in the world, the agricultural production composes about 1.77% of the Dutch Gross Domestic Product [GDP] in 2013 (CBS, 2014). The added value of the total agro complex composes 52 billion euro, or 9.9% of the added value of the Dutch economy. The export of agricultural products in 2013 amounted 79.2 billion euro and the import amounted 53 billion euro, leading to a trade surplus of 26.3 billion euro (LEI, 2013). Consequently, agriculture is of huge importance for the Dutch economy and therewith of interest of public policy.

After World War II, both the agricultural production and the infrastructure were damaged in Europe. This resulted in large food shortages and high levels of underweight among the European population. In some west European countries, some basic food items remained rationed into the 1950s. Therefore, six west European countries signed the Treaty of Rome in 1957, with the main objectives to improve agricultural productivity, so that consumers have a stable supply of affordable food, and to ensure that EU farmers can make a reasonable living. The Common Agricultural Policy, as specified in the Treaty of Rome, came into

force in 1962. Since agricultural policy is defined and implemented under the Treaty on the Functioning of the European Union [TFEU] and shared competence between EU and Member States, Member States do not have the exclusive competence to develop their own agricultural policy (see Text Box 2). National agricultural policies are a translation of the Common Agricultural Policy [CAP] and several directions and regulations coming from the European Union.

Text Box 2 - Agricultural Policy	
<p>Article 38 TFEU</p> <p>1. The Union shall define and implement a common agriculture and fisheries policy.</p> <p>The internal market shall extend to agriculture, fisheries and trade in agricultural products. ‘Agricultural products’ means the products of the soil, of stockfarming and of fisheries and products of first-stage processing directly related to these products. References to the common agricultural policy or to agriculture, and the use of the term ‘agricultural’, shall be understood as also referring to fisheries, having regard to the specific characteristics of this sector.</p>	<p>Article 39 TFEU</p> <p>1. The objectives of the common agricultural policy shall be:</p> <ul style="list-style-type: none"> a) to increase agricultural productivity by promoting technical progress and by ensuring the rational development of agricultural production and the optimum utilisation of the factors of production, in particular labour; b) thus to ensure a fair standard of living for the agricultural community, in particular by increasing the individual earnings of persons engaged in agriculture; c) to stabilise markets; d) to assure the availability of supplies; e) to ensure that supplies reach consumers at reasonable prices.

The Common Agricultural Policy of the European Union is foremost about food security. The main objectives of the CAP are to improve agricultural productivity and ensure farmers make a reasonable living. In addition, it has socio-economic and environmental goals. Through research, innovation, and the use of modern techniques, the policy to produce agricultural products highly efficient and with large yields was effective. The wheat yields of the original six member states have increased from about 3 tonnes per hectare to almost 7 tonnes per hectare. In the Netherlands, the cereals yields increased with 120 per cent since 1962. Since 1960s, in the Netherlands the potatoes yields increased with about 40 per cent and fruits yields increased with about 250 per cent, and the vegetables yield increased with about 90 per cent since mid-1970s. (EUROSTAT, 2014).

However, the Common Agricultural Policy is mostly focused on efficient production of agricultural products with high yields, and has no public health or nutrition objectives. Nutrition is not even mentioned in the four regulations that form the CAP 2014-2020 (Regulation 1305/2013, Regulation 1306/2013, Regulation 1307/2013 and Regulation 1308/2013). Agricultural policies have an influence on agricultural output, and the agricultural output has an influence on people’s diet as people eat what they find at the food markets. So, one can raise the hypothesis that agricultural policies have influence on a certain diet.

Member States are allowed to determine their agricultural policy, within the limits of the CAP. The government of the Netherlands focuses on more sustainability and development of the agricultural sector and adjustments to social demands. The guarantee of a common playing field is an important foundation and secured by the EU-framework. The Dutch government wants to be ambitious in terms of innovation, sustainability and greening in a way that connects with the Dutch agricultural sector and let this sector contribute to the national and international issues and goals on food security, biodiversity, energy, water, climate and animal welfare. Within this ambition, the common European playing ground, practical feasibility, enforceability and practicality will be taken into account (Ministerie van Economische Zaken, 2013).

The 2009 policy note ‘Sustainable food’ of the former Ministry of Agriculture, Nature and Food Quality [LNV], currently under the Ministry of Economic Affairs [EZ], is the elaboration of their ambition and vision to make food production and consumption integral more sustainable in terms of aspects of use of space, use of resources, emissions, water and energy use. And in addition reduce waste and improve human and animal welfare. The policy note is developed in cooperation with the current Ministries of Infrastructure & Environment [I&M], Health, Welfare and Sports [VWS] and Foreign Trade and Development Cooperation (under Foreign Affairs) [BZ]. The ambition of LNV has three spearheads. First, stimulate sustainable innovations in the Dutch agro-food sector by means of a platform for sustainability of food, sustainability of production, innovation and new technologies, reduce food waste, set a good example as government, and transition to sustainable food systems. The second spearhead is to enable and seduce Dutch consumers to sustainable and healthy food consumption by increasing awareness among consumers, making the food supply recognizable for consumers, providing trustworthy information on safety and quality, and measure the sustainability of the food system. The third spearhead is international agenda setting and influencing to create space for the Dutch agro food chain.

Health & Nutrition

Diet-related ill-health is worldwide a serious public health problem at the moment. In the public health sector, nutrition is seen from a dietary perspective to ensure a healthy population in the end. In the Netherlands, obesity, cardiovascular diseases (CVD), cancer, type 2 diabetes, chronic obstructive pulmonary disease are responsible for about 65 per cent of all death every year (CBS, 2013b). By targeting the risk factors of unhealthy diet, physical inactivity, tobacco use, and alcohol consumption, about 80 per cent of coronary heart disease, stroke, and type 2 diabetes, and a third of cancers can be prevented (WHO, 2008).

Social policies, including health, fall foremost within the competence of Member States, although the European Union develops several action plans and guidelines to promote public health throughout the European Union (Article 168 TFEU). Health and nutrition is barely laid down in Dutch laws and regulations. Only article 22 of the Dutch Constitution mentions health promotion of the Dutch authorities. However, article 22 Constitution can be explained that the government has to take care of clean and healthy food and drink (Heij & Visser, 2007).

Text Box 3 - Health and Nutrition Policy

Article 22 Dutch Constitution

1. The authorities shall take steps to promote the health of the population.

Article 168 TFEU

1. A high level of human health protection shall be ensured in the definition and implementation of all Union policies and activities.
(...)
2. The Union shall encourage cooperation between the Member States in the areas referred to in this Article and, if necessary, lend support to their action. It shall in particular encourage cooperation between the Member States to improve the complementarity of their health services in cross-border areas.

Member States shall, in liaison with the Commission, coordinate among themselves their policies and programmes in the areas referred to in paragraph 1. The Commission may, in close contact with the Member States, take any useful initiative to promote such coordination, in particular initiatives aiming at the establishment of guidelines and indicators, the organisation of exchange of best practice, and the preparation of the necessary elements for periodic monitoring and evaluation. The European Parliament shall be kept fully informed.

Nevertheless, there are three general policy notes regarding nutrition. Figure 5 shows the demarcation between the note nutrition, the note overweight and the note of LNV. The note of LNV is discussed above. The note overweight highlights the energy balance, the combination of nutrition and physical activity and the obesogenic environment. The note nutrition aims on bringing a healthy diet among consumers within reach.

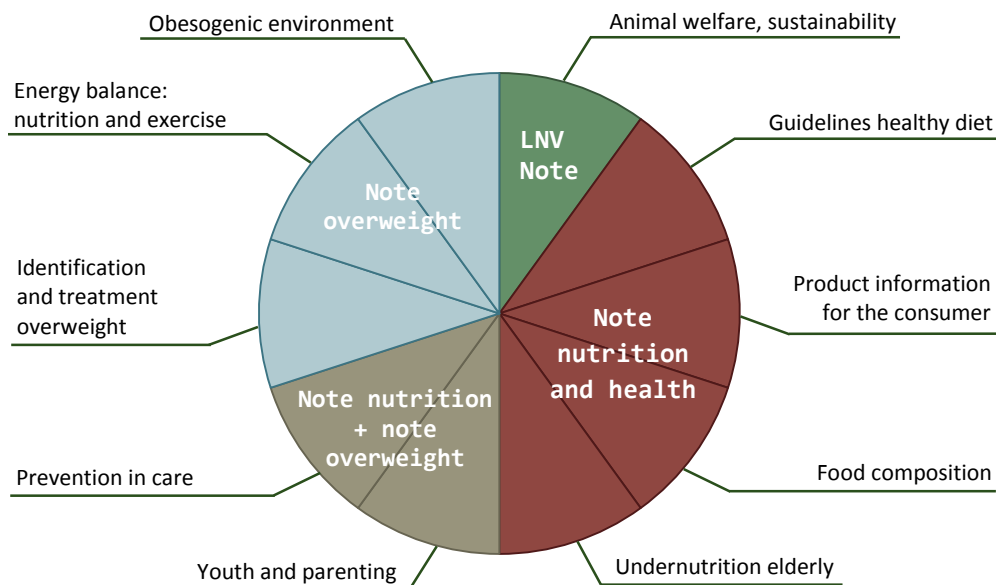


Figure 5 - Demarcation policies regarding health and nutrition (Adapted from Nota gezondheid en voeding, 2008)

The note nutrition and health 'healthy nutrition, from start to end' is developed in cooperation between the Ministries of VWS and LNV and aims to make a healthy lifestyle among consumers easier. The policy note is actually a prevention vision and suggests that the environment can stimulate healthy behaviour. Central in this vision is 'to make the healthy choice the easy choice'. To realise this, there are two objectives formulated (Nota voeding en gezondheid, 2008: 16):

- To create a situation in which the consumer can make a healthy choice. Independent education and information are hereby essential.
- Promotion of a healthy supply of food products by an improved availability of healthy nutrition and improved composition of food products. Manufacturing, retail, hospitality including catering, theme parks, sports canteen, schools and work play a role. Also, new food products can be developed which (better) fit into a healthy diet.

In addition, the prevention vision has four mainlines that form the priorities of the nutrition policy: nurture and innovation; coherent and integrated health policy; linking prevention and care; and administrative innovation: connect, cooperate and innovate. The policy note assumes the responsibility of the consumer, businesses and social organizations. Cooperation between all actors is important. The efforts of the government focus on initiating, facilitating and stimulating of activities to enable this cooperation. However, the government wants to give space to private parties to make their role to take up. Therefore, it wants to stimulate self-regulation by the food industry (Nota voeding en gezondheid, 2008).

Food Safety

Food Law includes large range of topics to ensure food safety in the end. The Codex Alimentarius developed 'harmonised international food standards, guidelines and codes of practice to protect the health of the consumers and ensure fair practices in the food trade' (Codex Alimentarius, 2014). The Codex Alimentarius formed the basis of European and national food law. European Food Law has developed in stages over a long period. In the first decades of the European (Economic) Community, food law was developed to ensure the free movement of foods throughout the internal market, as laid down in the Treaty of Rome. The BSE crisis, and in particular the handling of the crisis, unveil the need for a new, comprehensive, integrated approach to food safety. As a result, the focus of food law shifted to consumer health and food safety (Van der Meulen & Van der Velde, 2008; O'Rourke, 2005). The Green and White Paper on Food Safety were developed to "ensure a high level of human health and consumer protection" (European Commission, 2000: 8) as "health protection in relation with consumption of foodstuffs is to be an absolute priority at any time and not only something to be looked at in emergency situations" (European Commission, 1997: 10).

Food law is defined in the General Food Law (Regulation 178/2002) as 'the laws, regulations and administrative provisions governing food in general, and food safety in particular, whether at Community or national level; it covers any stage of production, processing and distribution of food, and also of feed produced for, or fed to, food-producing animals' (Article 3(1) of Regulation 178/2002). The General Food Law [GFL] lists four articles Treaty on the Functioning of the European Union [TFEU] as its basis: Article 43 for common agricultural measures, Article 114 for approximation of laws for the establishment and functioning of the internal market, Article 168(4b) for measures in the veterinary and phytosanitary fields which have as their direct objective the protection of public health, and Article 207 referring to the common commercial policy.

Text Box 4 - Food Safety Policy	
Article 43 TFEU 1. The Commission shall submit proposals for working out and implementing the common agricultural policy, including the replacement of the national organisations by one of the forms of common organisation provided for in Article 40(1), and for implementing the measures specified in this Title. These proposals shall take account of the interdependence of the agricultural matters mentioned in this Title.	Article 168 TFEU 4. By way of derogation from Article 2(5) and Article 6(a) and in accordance with Article 4(2)(k) the European Parliament and the Council, acting in accordance with the ordinary legislative procedure and after consulting the Economic and Social Committee and the Committee of the Regions, shall contribute to the achievement of the objectives referred to in this Article through adopting in order to meet common safety concerns: (...) b) measures in the veterinary and phytosanitary fields which have as their direct objective the protection of public health;

The general requirement of food safety is that 'food shall not be placed on the market if it is unsafe. Food shall be deemed to be unsafe if it is considered to be: (a) injurious to health; (b) unfit for human consumption' (Article 14(1) and (2) of Regulation 178/2002). Therefore, food law regulates the free movement of goods, food labelling, food hygiene, food quality, food supplements, food additives, GMOs, traceability, food safety limits, and risk communication. Furthermore, it describes the powers and responsibilities for public authorities and food business (Van der Meulen & Van der Velde, 2008; O'Rourke, 2005).

The food law arena approaches nutrition foremost as a food safety and labelling issue. With the increasing interest in nutrition of governments and consumers, food legislation covers also fortified food, food supplements, food information, and nutrition and health claims. However, these legislations are also foremost about the safety and labelling of the products. Regulation 1169/2011 concerns the consumer information on foodstuffs, replacing and combining the Directives 90/496/EEC on nutritional labelling and 2000/13/EC on labelling, presentation, and advertising of foodstuffs. The provision of food information shall 'pursue a high level of protection of consumers' health and interests by providing a basis for final consumers to make informed choices and to make safe use of food, with particular regard to health, economic, environmental, social and ethical considerations' (Article 3(1) Regulation 1169/2011). Food information, including a nutrition declaration, is mandatory. The nutrition declaration for a foodstuff 'concerns information on the presence of energy and certain nutrients in foods. The mandatory provision of nutrition information on packaging should assist nutrition actions as part of public health policies that could involve the provision of scientific recommendations for nutrition education for the public and support informed food choices' (Regulation 1169/2011).

As food law is developed to ensure a common market, national food law is derived from international and European legislation. Member states have to align with these legislations and take them into account when developing other policies. In the Netherlands, the Ministries of Economic Affairs and Health, Welfare & Sports have a shared responsibility to ensure food safety. The laws and regulations on food are laid down in the Dutch Commodities Act. Based on the Commodities Act and EU-regulations, standards and requirements on what food products have to comply on are set. The policy of the Dutch government is expressed in two policy notes: 'Safe food in a changing environment' from 2001 and 'Safe food: a shared responsibility' from 2005. The general objective of the public policy is 'continuing to provide a high level of consumer protection, both nationally and internationally' (Ministerie van Volksgezondheid, Welzijn en Sport, 2001: 5).

Additional to this, three objectives for the food safety policy are formulated (Ministerie van Volksgezondheid, Welzijn en Sport & Ministerie van Landbouw, Natuur en Voedselkwaliteit, 2005: 8):

- The food safety policy will focus on the maintenance of the current level of protection;
- There will be invested in feasible interventions in areas where real health gains can be achieved, in food infections (microbial and viral), in new health risks and in specific policy for risk groups including children;
- The government will focus on a sound and efficient execution of the implemented policy and the creation of conditions for business to contribute significantly.

Although the Ministries of EZ and VWS have a shared responsibility to ensure food safety, there is a clear division on which area falls under the responsibility of EZ and which area falls under the responsibility of VWS. The first part (production) is the responsibility of EZ, the second part (processing and consumption) is the responsibility of VWS. In other words, as long it is not a product – nota bene apples on the tree or cabbage on the field – it is the responsibility of EZ. Once it is in a box or the milk out of the cow, it is the responsibility of VWS. Since food must be safe throughout the chain, every stage has to be secured.

CONCLUSION

This chapter examined the possibilities and the actual situation based on a policy analysis, interviews, and regulations and policies review. The policy analysis of Hemerijck (2003) shows that it is difficult to implement a multidisciplinary and multi-level policy like food policy in a monocentric system. The largest issue arise with the quality standards of political-administrative feasibility and constitutional lawfully. The actual organization of food policy in the Netherlands also made clear that the Netherlands struggles with dealing in cohesion with food and nutrition challenges. In addition, it showed that food policy does not exist in the Netherlands; there are food-related policies, but these are not aligned and do not take each other into account. The Ministries of Economic Affairs and of Welfare, Housing and Sports do interact but do not in advance deal in cohesion with production and consumption. There can be indicated several reasons, whereby most are related to physical and mental boundaries. As long as they are not in need of each other or involving part of the others policy area, Ministries do not coordinate or integrate their actions, although there can be much gain through it.

The physical boundaries that can be identified are the stovepiped, hierarchic structure of the Dutch government that is largely monocentric structured, and the absence of common boundary objects as interdepartmental consultation. These physical boundaries regulate human action and interaction within the Ministries. The social boundaries are more difficult to identify, since there are social connections and interactions between the involved Ministries and other involved actors, although these are foremost used when actors need each other. Mental boundaries can be identified in the different views of the involved Ministries, lack of cohesion or taking into account of other food-related policy domains, and acting out of own interests and responsibilities. The mental boundaries are decisive for actions of individuals and organizations.

It has to be concluded that food policy does not exist in the Netherlands, despite one agrees upon its academic formulated definition. The multidisciplinary and multi-level character makes the execution difficult for a largely monocentric organized government. Especially the physical and mental boundaries prevent integration of knowledge and policies.

This chapter will unfold an enhanced food policy by examining physical, social and mental boundary spanning in food policy. As concluded in chapter 4, the current policy and organization has some shortcomings and to deal coherently with food and nutrition challenges, integration of knowledge and policies is demanded. Boundary spanning can be enacted while maintaining the boundaries and therefore serve as the balance between fragmentation and merger in public administration. This section will also describe the type of relationships in each of the boundaries.

In addition, the position of the government is examined. Although the government of the Netherlands is largely monocentric organized, it is not a monocentric power. Since it has not much possibilities to steer a market system or society, the government has to consider its possibilities are, its position would be and which role it plays in the food system in order to deal with food and nutrition challenges and establish a sustainable and health-inducing food system.

INTEGRATION OF FOOD POLICY

Perri 6 defined integration as ‘the actual execution or implementation of the products of coordination, through the development of common organizational structures and merged professional practices and interventions’ (6, 2004: 4). From the previous chapter it can be concluded that there is not an integrated food policy in the Netherlands

It will always be a balance between on one hand partly fragmentation and stovepiped direction to analyse and go in-depth, and an integrated approach on the other hand to keep the overview and establish a joint approach.

within this definition. Ministries approach foremost from their own responsibility instead from a joint responsibility, driven by interests and scarcity of resources. There is no food policy or food strategy; there is an agricultural policy, a public health policy, a food safety policy or an environmental policy. This results in when investigating agriculture or developing agricultural policy, a production approach is taken and consumption is not taken into account (Interview 27 November 2014). When developing a food policy, a more coherent policy that focuses on all chains of the food system, from production via processing to consumption is demanded. Within this food policy there should be more attention to the resilience of the food system and the case of nutrients. Both the extraction and the use of certain nutrients give cause for concern, in which also geopolitical issues play a role since certain nutrients are only available in a few places on earth. At the same time, the system should have enough variety of itself in order to have enough resilience to deal with shocks. A focus on ecological sustainability and robustness are important to shape a sustainable food system (Interview 15 October and 27 November 2014).

To achieve this sustainable and health-inducing food system an interactive food policy will be needed. The realization will be difficult, as it has to fit in a governance system where the responsibility structure is essential and several policy levels are involved. Knowledge integration will be the impellent to deal coherently with production and consumption among all the involved actors. Therefore, physical, social and mental boundary spanning are required. Despite the fact that every physical organization has its own limits, physical boundaries are the largest barriers for integration. Organizations can be socially and mentally like each other, a stovepiped structure is a critical boundary. However, this boundary is at the same time the

easiest to span or challenge; design another structure or establish an Interdepartmental Consultation is not the most difficult task to do, but making steps to span physical boundaries is a crucial condition to span social and mental boundaries. The most difficult tasks will be spanning the social and mental boundaries and in these will be the most and the hardest work to do (Interview 27 November 2014).

The physical, social and mental boundary spanning should result in joined working or cooperation and joined responsibility for the food policy domain and thereby the development of food policy or food strategy. A successful realization will take some time and consists of some subsequent steps. First, physical boundaries should be spanned to enable space for social connections and the enactment of social boundary spanning. Physical and social boundary spanning will be conditional for mental boundary spanning and enhancing flows of information and enact knowledge integration. Therefore, there need to be some type of relationship in the physical, social and mental boundaries to realize joined working. Joined working and knowledge integration can result in a joined food policy wherefore actors feel jointly responsible. This strategy to enfolding an integrated food policy in the Netherlands is visualized in Figure 6.

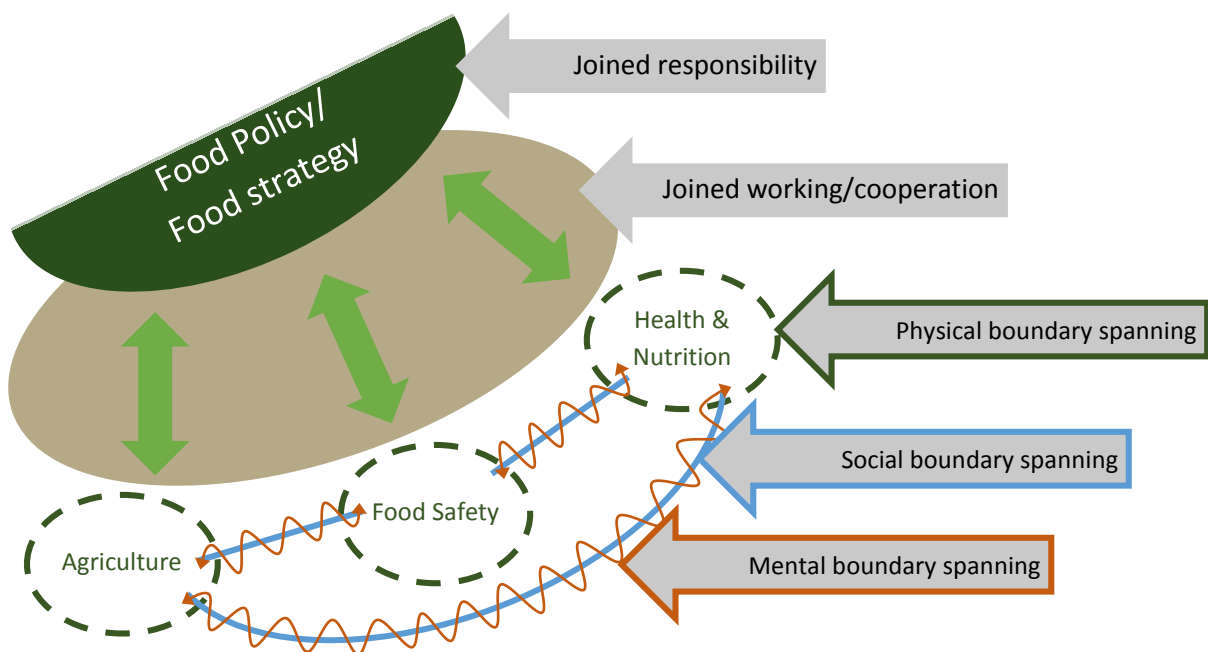


Figure 6 - Towards an Integrated Food Policy

The green permeable boundaries around the food-related policy domains imply physical boundary spanning. The blue lines between the food-related policy domains indicates the social connection between the involved actors, and therefore represents social boundary spanning. The curved orange double arrows indicate flow of information or ideas across the boundaries and thereby represent mental boundary spanning.

PHYSICAL BOUNDARY SPANNING

The physical boundaries are “related to formal rules and physical structures regulating human action and interaction in the group or organization” (Hernes, 2004: 13) and it is related to ownership or authority over an area (Van Broekhoven, 2014). Therefore, it prescribes the construction of the government by determining the division of the policy areas into Ministries. Physical boundary spanning is characterised by

enacting physical connections while not challenging the boundary. An example is the creation of boundary objects, which are physical structures across a demarcation (Van Broekhoven, 2014).

A merger of all involved policy domains to one food policy domain is not immediately desirable. Every structure has its advantages and disadvantages, yet the merger of the food policy domain of the food-related parts of the different policy domains creates fragmentation at once. Cooperation, co-authority and knowledge integration are more important than turn over the institutional structure and construct a Ministry of Food and Nutrition. The fragmented structure, and stovepipedness, has the advantages of enabling complexity reduction, structure, and specialisation (Van Broekhoven *et al.*, 2014: 4). Furthermore, there should be maintained a certain form of ultimate responsibility structure and direction at the government. When something goes wrong, a minister should be held accountable and be able to explain what has happened. Therefore, a minister should have oversight and that is only possible in a relatively hierarchical, rigid, stovepiped structure (Interview 15 October 2014).

However, to achieve knowledge integration and policy alignment, the physical boundaries should become more permeable to enable social connections between actors and mental boundary spanning. To develop a joined approach and strategy, an Interdepartmental Consultation Food and Nutrition, or another formalized joined working area, could for instance be established. This Interdepartmental Consultation can be a boundary object where co-authority and knowledge integration can take place (Interview 23 October and 27 November 2014).

The physical boundaries between Ministries are important, so to not interfere with the responsibility structure a relationship of coordination should be realized, where a permeable physical boundary enables the exchange of information. A relationship of integration might blur the responsibility structure. However, the boundary object should be a jointly owned area and serve as an integrative mechanism. Therefore, the boundary object will be more into integration type of relationship. The boundary object has to create a feeling of joined responsibility for the whole food policy domain and enable more cohesion between the links of the food system. This boundary object can be the basis for social and mental boundary spanning to work towards a joined approach and strategy.

SOCIAL BOUNDARY SPANNING

The social boundaries are “related to identity and social bonding tying the group or organization together” (Hernes, 2004: 13) and therefore determines the social relations and interactions between Ministries. Social boundary spanning is then characterized by the building or enhancing social connections between actors across boundaries (Van Broekhoven, 2014). At the same time, social boundary spanning can create a shared identity.

Social connections are important to enable exchange of information and knowledge. Social boundary spanning should be focussed on building or enhancing connections with other actors across the boundary, but also on creating a feeling of joined responsibility. By enhancing social connection, a feeling of shared identity can be strengthened and thereby create a feeling of joined responsibility. We are all in the same boat, and although it will be difficult due to interests and scarce resources, the Ministries should not only fight for themselves and think and act out of own responsibility, but think and act out of joint responsibility.

Rotation of civil servants could enhance social connections, however it is important to rotate deliberately and consciously; rotation should have a base of enhancing knowledge integration and not because of career making. Hereby rotation can have an important function in building social connections and achieving coherent policies.

Social boundary spanning should focus on creating social relationships between actors of satellite as being “separate entity, jointly owned, created to serve as integrative mechanism” (6, 2004: 108) or strategic alliance as being “long-term joint planning and working on issues core to the mission of at least one participating entity” (*ibid.*). Such a significant type of integration or increasing closeness and mutual involvement will be important to create a feeling of joined responsibility and enact mental boundary spanning.

MENTAL BOUNDARY SPANNING

The mental boundaries are “related to core ideas and concepts that are central and particular to the group or organization” (Hernes, 2004: 13) and therefore determining the different views and approaches towards food and nutrition. In addition, mental boundaries determine the flows of information across boundaries. Accordingly, mental boundary spanning is related to strategies that enhance the flows of information and thereby developing common knowledge (Van Broekhoven, 2014). This might result in integration of knowledge and policies among Ministries.

By the establishment of a boundary object and the building and enhancing of social connection, strategies to flow information can be enacted. To achieve an integrated food policy and deal with production and consumption in cohesion, a shared approach and joined strategy is demanded. Knowledge integration will be the impellent to develop common knowledge and establish a joined strategy. Thereby, other actors in the food system are important and knowledge and viewpoints has to be exchanged between the government and the other actors in the food system. Market players and nongovernmental organizations have often more knowledge about the field than the government has, so they are decent resources of knowledge of practice and the government needs this information. This means that within the boundary object, co-authority and knowledge integration has to take place. The boundary object has to be used for creating joined responsibility and joined strategy by actually do something together and span social and mental boundaries to enable the knowledge and policy integration.

Spanning mental boundaries will be foremost in developing a chain and system approach, meaning that the ministry of EZ will also take a viewpoint from consumption and nutrition when considering agriculture, and the ministry of VWS will take a viewpoint from production when considering nutrition and public health. In other words, that production, processing and consumption will be considered in cohesion with each other. The development of a joined strategy, and not everyone its own strategy and put it together in one document, will also be part of mental boundary spanning.

Rotation of civil servants can be a part of mental boundary spanning, since rotation can enhance knowledge integration between Ministries or departments. However, the government has to take care that the institutional memory of a ministry will not erode. This is already happening and in some areas the institutional memory is limited present. Due to the reality that it is expected that civil servants have wide knowledge and are employable in every policy domain, the substantive knowledge of policy domains and issues is limited present and it can be discussed what would then be the added value of sharing knowledge,

because which knowledge will be shared then? The exchange of knowledge will be superficial (Interview 15 and 23 October 2014).

There should be achieved a balance between having servants that have substantive, in depth knowledge and know how that relates to surrounding policy domains and issues, and on the other hand servants who have the oversight and know how to connect that and seek for connections with others (Interview 15 October 2014)

The type of relationship in the mental space between actors should be a satellite which is characterized by “separate entity, jointly owned, created to serve as integrative mechanism” (6, 2004: 108), although joint venture or strategic alliance would be good alternatives. The balance between integration and fragmentation will be important. Knowledge integration will be important to align and integrate policies and establish a sustainable and health-inducing food system, however by keeping the separate mental spaces, specialization into a food-related policy domain will be possible and there will remain space for counterplay between different (parts of) Ministries in order to do justice to all values around food (Interview 23 October and 27 November 2014).

POSITION OF THE GOVERNMENT

Besides boundary spanning between the policy domains, and therewith between Ministries or departments, the position of the government will be important to establish a sustainable and health-inducing food system. The government may take an integrated approach to an issue; ultimately it has to take along all the other actors that play

In the modern society, you make integrated policy when you incorporate all the actors in the system (Interview 15 October 2014)

a role in the system at stake since the government does not have much room for manoeuvre and has to search for contact with the actors in the field to organize a joined approach of the issue at stake. The realization of a sensible food policy will dependent on the position of the government and its ability to involve other actors in the food system. In the end, non-state actors have to execute the food policy.

It is important that the government decides upon its strategy and build a framework for food and nutrition. In addition, it has to decide the role and position of each ministry and what everyone can do considering the joint approach and strategy. Nevertheless, to develop an integrated food policy and deal with food and nutrition challenges, the government has to involve all the actors in the food system that have to execute the food policy. Therefore, the government and the other actors have to come up jointly with a problem definition and concluding what that would imply for everyone's role and act accordingly. The role of the government is to facilitate and define with the involved actors what the issue is about, what the core of the issue is, who is playing what role in this and who can do what out of this role (Interview 15 and 27 October 2014). However, it is important to get to the core of the issue. This means by definition prioritizing, since not all aspects of food policy are even important. And what you prioritize and decide is a political choice. Although, the issue has to be made comprehensible to be able to make this choice. Eventually, the joined search to the core of the issue will comprise of a what-, how- and who-question. The what-question examines the numbers and underlying facts. The subsequently how-question examines how the problem has to be solved and the who-question deals with who has which role and what one can do out of this role (Interview 15 October 2014).

The role of the government will possibly change over the coming years. In the contemporary society, the role of the government has been decreased and the role of society and business increased. However, the government has to be careful not to make a strict distinction between the public and the private domain. The interaction is essential (Interview 27 October 2014).

Issues can be arranged by requirements and regulations, but it has to be arranged on the level at which the market operates. (Interview 15 October 2014)

The government should increasingly be focussed on listening, directing, and facilitating (Interview 15 and 27 October 2014). In addition, the government can be helpful in setting out a strategy and develop a framework. If the government and other actors have an appropriate interaction, then a decent strategy can be developed and achieve something larger than the sum of its parts.

Since legislation is always more slow than what is going on in society, a government cannot translate everything what society thinks and wants into legislation. Markets react much faster. The government shall have to facilitate that market players respond and meet the needs of citizens and the society (Interview 15 and 27 October 2014).

A joined food strategy should not be limited to the Netherlands, but the Netherlands should also put effort in developing an international food strategy in order that there will be more attention for public health aspects and the consumption side of food in the development of the Common Agricultural Policy and free trade policies (Interview 15 and 27 October and 27 November 2014). An advantage of an international, or at least a European, food strategy will be that there can be created an international level playing field, causing that Dutch producers will not be priced out when strengthening sustainability or nutrition requirements. In the end, it is about who is able to meet the consumption requirements and then one interferes with the market mechanisms. Therefore, it can be concluded that the market has to enhance sustainability, because if the market can sell enhanced sustainability to the consumer, it can cover the expenses since the consumer is willing to pay more (Interview 15 October 2014). This can be achieved by

You have to take care that you do not make an exact division of this is public and therefore only politics and everything else is for society to find out. (Interview 27 October 2014)

education since it has to do with knowledge. When a consumer has no knowledge, it is not able to make a choice in front of the shelf in the supermarket (Interview 15 and 23 October and 27 November 2014). In addition, to release farmers from the continuous pressure, supermarkets can be pushed to enhance sustainability their assortment (Interview 27 November 2014).

CONCLUSION

This chapter examined physical, social and mental boundary spanning that are demanded to enable knowledge integration among the food-related policy domains, and in particular the involved Ministries. Knowledge integration is important to develop an integrated food policy, but the joined working is also important to coordinate activities of Ministries. As a result, investigations by government institutes can be coordinated and executed coherently and thereby more effective (Interview 15 and 23 October 2014).

In addition, the position of the government is examined. Due to globalization and changes in society, the role of the government is changing. Although it is monocentric organized, it is not a monocentric power.

The food system is a global market system and to make achievements, other actors need to be involved. When a government does not steer too much on the substance, the ministerial responsibility does not have to be a large obstruction since it is less responsible for the substance and execution. If the government will facilitate more between market players and actors in the food system, then those market players will be ultimately responsible for the results. The government does not have to pursue a substantive policy, but it should lay down a framework. This framework can be laid down jointly by the government: a joined food strategy. The framework indicates the limits of what we – as society – deem to be acceptable, and what will be outside and therefore unacceptable. Within this framework, the involved actors have to find jointly a solution and therein the government can facilitate by providing knowledge, bringing actors together or matching actors (Interview 15 October 2014).

Perri 6 (2004) defined three categories of relationships in public administration: coordination, integration, increasing closeness and mutual involvement. Due to the essential structure of a certain type of stovepipedness – because of the demanded ministerial responsibility – an ‘increasing closeness and mutual involvement’ is not desired and will probably not take place in the food policy domain. Although coordination between the involved Ministries and other actors in the system would be a useful first step, to deal with food and nutrition challenges effectively a sustainable policy for the long-term is demanded. Establishing a sustainable and health-inducing food system and obtaining a healthy population will be a lengthy process and the public administration has to build relationships as joint venture or satellite, in which long-term planning, joint working and jointly owned are central.

Based on the theories, concepts and the information I acquired during my research, this final chapter elaborates on the conclusions of my research and reflects on the research. In addition, it will elaborate on enhancing an integrated food policy in the Netherlands. The chapter finalizes with some recommendations for further research. To conclude this thesis, an answer should be given to the main research question: *‘To what extent does the Netherlands has an integrated food policy and which factors could enhance this integration?’* To answer this question, I have attempted to answer three sub questions, which were addressed in chapter 2, 4 and 5. In chapter 2 I have described how food policy can be defined based on literature; in chapter 4 and 5 I elaborated on the way the food-related policy domains interact with each other and which boundaries can be identified.

The Netherlands can be considered as a food nation by being the second exporter of agricultural products, and an international junction in the food system. Nevertheless, also the Netherlands has nutrition relating issues, partly due to a nutrition transition, causing high percentages of overweight and obesity among the Dutch population and as a result of an unhealthy lifestyle high health care and social costs. A sustainable and health-inducing food system might solve the three main problems of ecological sustainability, public health and robustness of the current global food system while ensuring food and nutrition security.

Food policy is a difficult concept, not so much the definition, but more the execution. Food policy is public policy that deals with food, from-farm-to-fork, and therefore the whole food system is subject to food policy. Nevertheless, the scientific literature does not provide an unambiguous definition; food policy is circumscribed but hardly defined. However, on the basis of Lasswell (1936) and Lang *et al.* (2009), food policy can be defined as *policy that – deliberate and unintended – affects food and shapes its outcomes of who eats what, when, how, and with what consequences*. However, by having a definition, it does not mean it does also exist. When involved actors are asked for a definition of food policy, everyone gives more or less this definition, but it does not mean that this is also the way it is present in the Netherlands.

INTEGRATED FOOD POLICY IN THE NETHERLANDS

An integrated food policy can be defined by means of 6 (2004). 6 defined integration as “the development of common organizational structures and merged professional practices and interventions” (6, 2004: 106). On the basis of this definition we have to conclude that the Netherlands does not have an integrated food policy since there are no common organizational structures or merged professional practices in food and nutrition. There is for example an agricultural policy, a public health policy, an environmental policy, a food safety policy, a soil policy, a transport, but there is no overarching, joined, food policy. There are food-related policies, but no food policy. The issue of food policy, and many modern social issues, is the implementation. Modern social issues are often multidisciplinary of nature, while governments are still often monocentric organized and policy making is often divided among several policy levels. The monocentric organized structure of hierarchy and ministerial responsibility result in stovepiped structures which hardly coordinate or integrate policies and actions with other policy domains or organizations. However, Ministries cannot be seen as ivory, closed, towers since there is some interaction between policy domains and Ministries and new forms of governance are applied. Yet, the interaction is generally not on a structural base. Ministries defend their own area and when they need each other to get something done

they know who they need to get it done. One can find each other when they need each other, but there is in general no concerted action and as a result they combat more incidents than organize prevention. Eventually, everyone takes responsibility for his own part of the issue, but does not keep an eye on the whole issue. This, while policy integration is important when dealing with issues that are divided among several Ministries in order to have the most effective and efficient public policies.

Nevertheless, fragmentation of policy domains is not immediately troublesome or superfluous, although the concept has a negative charge. Fragmentation is the result of constructed boundaries around organizations or department. Despite the tendency that boundaries within an organization should be removed and related policy domains should merge, boundaries do provide benefits. Boundaries enable “complexity reduction, structure, and specialisation” (Van Broekhoven *et al.*, 2014: 4). Furthermore, a relative stovepiped structure within public administration is important due to the ministerial responsibility. Ministries also indicate that such a structure is demanded since it provides clarity to the public servants. Because of advantages and disadvantages of fragmentation and integration, it will always be a balancing between fragmentation and integration and to have the best of both. This balance can be found in establishment of an integrated food policy in a fragmented food policy domain.

FACTORS TO ENHANCE AN INTEGRATED FOOD POLICY

The realization of an integrated food policy while maintaining a fragmented food policy domain with its boundaries will be complex. Several factors lay behind the integration of food-related policies. Integration demands cooperation and interaction between actors and in case of multidisciplinary and multilevel issues even cross-domain and cross-level interaction. To achieve policy integration of the several food-related policies, knowledge integration will be key in order to deal with all the issues around food and nutrition. However, organizations constructed boundaries to distinguish themselves from the environment. Also the interviewed actors admit that in order to enact interaction and cooperation among actors, these boundaries have to be crossed. Activities related to challenging, maintenance, spanning, or enacting the boundaries are called boundary work. In case of public administration, and by taking into account the benefits of boundaries and the essential ministerial responsibility, boundary spanning is the most likely to take place. Boundary spanning is an important factor in enhancing an integrated food policy while the food-related policy domains are divided among several Ministries and policy levels. Scholars distinguish three types of boundary spanning: physical, social and mental boundary spanning. First, physical boundaries have to be spanned by creating boundary objects that create possibilities to build social connections between actors. Subsequently, mental boundaries can be spanned by enacting strategies to enhance the flow of information between actors to integrate knowledge. Therefore, to develop an integrated food policy while maintaining boundaries between the food policy domains, knowledge integration has to be achieved by enacting physical, social and mental boundary spanning. Next to boundary spanning, knowledge integration will also be an important factor in enhancing an integrated food policy. The implications for food policy will be elaborated below in the section on enhancing an integrated food policy in the Netherlands.

REFLECTION ON THE RESEARCH

Cross-domain and cross-level interactions, boundary work, and relationships in public administration can be part of an interactive approach in governing social issues. These concepts flesh out interactive governance and how food policy can be approached as intersection point of competing food-related policy domains.

Although governments are often hierarchic and stovepiped structured with ministerial responsibility, applying an interactive approach to integrate policies by spanning boundaries between policy domains can result in more effective and efficient policies that deal coherently with all involved topics.

Especially the concepts of boundaries and boundary work are important in a multidisciplinary and multi-level issue as food policy. Many policy domains are involved in food policy and they all have constructed boundaries to distinguish themselves from the other policy domains. In order to integrate all the food-related policies, boundary work has to be enacted. By spanning boundaries, knowledge integration can be achieved whereby production and consumption will be dealt more coherently. The implications for food policy will be elaborated below in the section on enhancing an integrated food policy in the Netherlands.

For this research, I did a literature review, policy analysis and interviews to answer the research questions. Due to the limited amount of research to food policy, this research was mainly exploratory. The limited amount of information on food policy has been difficult, on the other hand it gave also room in examining the subject. The theories on interactions, boundaries and boundary work have been supportive to understand what was going on in practice.

The application of the policy analysis of Hemerijck (2003) has been difficult, but I found it valuable in understanding the struggle between monocentric governance and multidisciplinary issues. Furthermore, it is important to examine policies thoroughly before implementing them. The quality standards are important to take into consideration, although they should be adjusted to be able to apply them appropriately on multidisciplinary issues that are dealt on several policy levels.

The interviews with the involved actors have been very useful to understand the situation in reality. Everything what is said, or not said, have been helpful to make the puzzle and comprehend in what way food is organized in the Netherlands. I did not decide beforehand on the sequence and the interviews took place when the interviewees were available. Although, one can always place remarks on the sequence on whether interview the organizations in question before or after organizations around them. So in my research, one could remark whether to interview first the Ministries of EZ and VWS and thereafter the other organizations or the other way around. After all, in my research it turned out that I interviewed the Ministries at the start. Afterwards, I think this has been a good sequence since I could use the inside information from the Ministries during the interviews with the organizations and ask the other organizations what their opinion was.

One of the shortcomings of this research is the amount of interviews, not all organizations have been willing to do an interview. It would have been interesting to have included organizations like Voedingscentrum, NGOs in the field of nutrition, and more policy levels. Unfortunately, there are no NGOs in the field of nutrition, although this would be a good addition to direct the public debate on nutrition and health. Many organizations were not willing to participate since they are not involved in policy making and therefore – according to them – not able to provide information on food policy and how Ministries act and interact.

Moreover, it turned out that the cross-level interaction did not receive much attention in this research. Unfortunately, it was not possible to interview EU servants. There have been interviews with public servants of two provinces (Noord-Brabant and Overijssel). However, the problem that became apparent that Ministries and provinces do interact, but have not much to do with each other when developing

policies. These cross-level interactions seem not to be essential in enhancing food policy in the Netherlands. On the other hand, when the Netherlands will be involved in a European or international food strategy, the cross-level and cross-domain interactions with the European Union will be more important and essential for succeeding. At this moment, all policy levels have their own competence, because of the hierarchical organized structures. Because of this, this research became more focused on cross-domain interactions between the food-related policy domains agriculture, health & nutrition, and food safety. And examines what can be done on national level to enhance food policy.

As every research, there are restrictions and limitations to the research area to keep it manageable. However, this research could have been improved by including the ministry of Infrastructure and Environment [I&M], and some related NGOs like Natuur & Milieu (Nature & Environment). The Ministry of I&M also plays a large role in the food domain since it deals with environmental issues, infrastructure and trade, which are important when dealing with the food system and do an advocacy for sustainability and resilience of the food system.

ENHANCING AN INTEGRATED FOOD POLICY IN THE NETHERLANDS

In October 2014 the Dutch Scientific Council for Government Policy [WRR] published the report 'towards a food policy'. Although it did not come up with an extended list of policy recommendations or how this food policy should look like, it examined the global food system and the Dutch position in it. The WRR report states that ecological sustainability, public health and robustness are the main issues of the current global food system and notes that food-related issues are not dealt in cohesion (WRR, 2014). The analysis of the WRR is interesting and offers relevant points of departure, but it does not contain much new information. Eventually, the report concludes that it is time for an explicit food policy instead of an implicit food policy, but how this can be achieved is not elaborated.

Since food is essential for human survival, mistakes and shortcomings in the food system will cause large issues for human health in the short- or long-run. Therefore, it is essential to prevent mistakes and shortcomings and establish a sustainable and health-inducing food system. Boundary spanning and knowledge integration will be key in achieving this. The issue that food-related policies are not dealt in cohesion is mainly due to hierarchical and stovepiped organization of policy domains and Ministries in the government. In the government of the Netherlands, physical, social and mental boundaries can be identified between the food-related policy domains. This is at best noticeable in the lack of a joint working group and joint strategy. The theory of boundary spanning and an integrated type of relationship means for food policy that integration of food-related policies is feasible while at the same time maintaining the boundaries between the food-related policy domains. Because of this, it can establish a sustainable and health-inducing food system without a radical change in the institutional structure of merging the food-related policy domains and place them in a Ministry of Food and Nutrition. Since the an increasing closeness or mutual involvement type of relationship of food-related policy domains and the construction of a Ministry creates fragmentation at once in other policy domains, it is not desirable to do it. Besides the other advantages of specialization, structure and complexity reduction that plead for maintaining the boundaries in the food policy domain. Boundary spanning between the food-related policy domains can provide both the benefits of integration and fragmentation.

Physical boundaries can be identified in the interdepartmental structure and how the structure regulates the work of the public servants. These boundaries are strictly defined in the Netherlands; every Ministry determined their own policy area and therewith the responsibility structure. This structure also regulates the human action, since it determines to whom some is responsible and in what field one works. Physical boundary spanning between food-related policy domains will make the physical boundaries more permeable and will contain the construction of a boundary object. This can be physical and formalized area comparable with a working group and where all food-related policy domains are represented. The development of food policy will be the intersection point and common denominator in this working group. An example is the establishment of an Interdepartmental Consultation. However, it is important that this Interdepartmental Consultation will include co-authority and knowledge integration between the involved actors of the food system, and that there will be room for counterplay between different (parts of) Ministries and food-related policy domains.

Food policy covers a large area and many policy domains are involved, by the construction of a shared, jointly owned boundary object, social connections can be built between the actors from the different policy domains. This social boundary spanning is important to connect policy domains and makes the relationship more sustainable as actors are not only formally connected to each other, but also socially. Social boundary spanning can also create feelings of togetherness and joint responsibility for the whole food policy domain.

Social connections that cross boundaries can enact strategies to enhance flows of information across boundaries. For the immense food policy domain this mental boundary spanning means that information, concepts, and knowledge can be exchanged among the several food-related policy domains. This is important to understand the drivers in all the food-related policy domains, take each other into account, and prevent contradictory policies.

Knowledge integration will be the impellent behind policy integration. For food policy in particular this will mean that a food strategy can be developed, a framework towards the establishment of a sustainable and health-inducing food system. For the Netherlands this can imply a government-wide approach to sustainable food and nutrition. Hereby, production and consumption can be dealt in cohesion and strengthen each other. Agricultural policies, including the Common Agricultural Policy, will take health and nutrition into account, and nutrition policies will take production into account. This can for instance imply that certain food products will be enriched with additional nutritional contents – like vitamin A in sweet potatoes, what already is produced in some African countries. Also free trade policies have to take health and nutrition values into account, since much can be gained from it, like a more healthy population and establish a global sustainable and health-inducing food system.

PREVENTION OF UNHEALTHY LIFESTYLES

Probably due to scarcity of resources, and maybe also due the lack of sense of urgency, Ministries still only work on and defend their own area. This, while almost half of the population has overweight or is obese (CBS, 2013a), 90% does not consume the recommended intake of fruits and 95% does not consume the recommended intake of vegetables, and the intake of several other vitamins and minerals is below the recommended intake (RIVM, 2011). There are cuts on nutrition education for children and adolescents and citizens are barely informed on healthy nutrition. Although prevention is a sensitive subject, much can be gained through it. The annual costs related to overweight, obesity and an unhealthy lifestyle are meanwhile

at least increased to 7.6 billion euro in the Netherlands; 5.6 billion euro of direct annual healthcare costs and 2 billion euro of indirect social costs (RVZ, 2002; Panhuis-Plasmans *et al.*, 2012).

The Ministry of VWS does not want to prevent unhealthy diets because people have freedom of choice. However, if they become ill due to this freedom of choice, the society may meet the costs. Certainly, freedom of choice is an important possession, yet someone has only freedom of choice when it is completely informed. Without complete information a consumer cannot consider what would be the right choice and consequently not free to choose and make a considered decision. Undoubtedly, a government is not allowed to seduce or mislead citizens. However, consumers are nowadays misled by the food industry. It is allowed to the food industry to nudge, to importune consumers with impulses and other incentives to buy their, not always healthy, products. The question is why a government should not be allowed to nudge and therewith help and stimulate the consumer to make more considered choices (Interview 23 October 2014). The current government policy to make the supply healthier does not make consumers eat instantly more fruit and vegetables. The recommended intake of fruits and vegetables should worry the government, a Directive sugar, fat and salt will not be helpful to increase these levels. Besides, sugar, fat and salt have a striking position in the health and food safety domain. According to the WRR it is unclear, but probably historically developed, that sugar, fat and salt is not subject to food safety. There are no restrictions on levels of sugar, fat and salt in processed food products, while the health consequences can be large and result in life-threatening diseases in the long-run, like contaminants which are subject to food safety policies.

Also, because of its positive results (Battjes-Fries *et al.*, 2013), nutrition education among children and adolescents should be continued or intensified. Considering the levels of overweight and obesity, the unhealthy lifestyles and diets, and the continuously increasing healthcare and social costs as result thereof, the government has meanwhile moreover economic interests to be engaged in the prevention of welfare diseases and not only the resistance of those. Eventually, when a person is not able to protect itself, someone else should do it. But when society decides that consumers should have the freedom of choice and everyone should be allowed to decide upon themselves, then let consumers also be responsible for the consequences. Overall, the freedom of choice is a farce as long as people are not fully informed and facing misleading and not transparent packaging and labels at the shelves in the supermarket. A traffic light label and a ban on claims could help consumers by providing transparent information and prevent that a consumer is a defenceless victim of commercial marketing.

However, to make real effort, a sustainable and health-inducing system it is not only about prevention at the consumer side. All the fundamentals of the food system have their share in solving the problems of ecological sustainability, public health, and robustness. The fundamentals of demographic change and urbanization, nutrition transition and public health nutrition, energy, land, soil, water, biodiversity, waste, food availability and stocks, rural labour, and climate change are interconnected with each other and should be dealt in cohesion with each other. This is only possible when all actors in the food system will work together, determine the core problem, develop a joined food strategy and everyone work out of its role but keep the feeling of joined responsibility. Although it will be important to make one actor the problem owner and make that actor ultimately responsible. This might be one Ministry who provides the framework of what we can and cannot accept as society. Within this framework, the involved actors can work on the six goals, proposed by Lang *et al.* (2009): achieve sufficiency of production on ecological terms; preventing diet-related ill-health (within a sustainable food supply); harnessing all sciences to address the nature of production; lowering food's impact on the environment; achieving international development and social justice; and food democracy (Lang *et al.*, 2009: 46-52). But in the end, like any other public policy

in a constitutional state, the establishment of a sustainable and health-inducing food system is a political choice.

RECOMMENDATIONS FOR FURTHER RESEARCH

As any other research, there are constraints on what can be done within the framework of the research. For this research, a limited number of actors are interviewed. To obtain a more broad perspective what is going on in the food policy domain, food-related policy domains as environment and transport could be researched. In addition, I would recommend to examine the Ministry of Infrastructure & Environment [I&M] and the Ministry of Foreign Affairs [BZ], who have also a significant role in the food policy domain. Furthermore, to achieve a global sustainable and health-inducing food system, and therewith a maximum effect, the possibilities of an European or international food policy or food strategy should be researched.

Next to this, since food policy is a rather undiscovered area, it would be recommended to have more scholars that examine this area, also due its intertwining with several other policy domains. In relation to this, it would be suggested to do some further research on the role and way of boundary work, and in particular boundary spanning, in public administration while dealing with complex, multidisciplinary, social issues.

Society is changing, and therewith the position of the government. Despite the benefits of having a monocentric organized governance system with ministerial responsibility, most social issues are increasingly complex and multidisciplinary and demand interaction and cooperation between Ministries. Besides, many policy issues are dealt in several policy levels. Nevertheless, sensible public policy is highly important and has to be considered thoroughly before implementation. This research showed that the policy analysis of Hemerijck (2003) is difficult to apply on multidisciplinary and multi-level policy issues like food and nutrition. However, its four quality standards of policy and their accompanied fore core questions are important and can create order in policy. Therefore, it would be recommended to examine the policy analysis and develop an improved policy analysis that can deal with multidisciplinary and multi-level issues.

REFERENCES

ACADEMIC LITERATURE

- 6, P. (2004). Joined-Up Government in the Western World in Comparative Perspective: A Preliminary Literature Review and Exploration. *Journal of Public Administration Research and Theory*, 14(1), 103-138.
- Aldrich, H., & Herker, D. (1977). Boundary Spanning Roles and Organization Structure. *The Academy of Management Review*, 2(2), 217-230.
- Ambler-Edwards, S., Bailey, K., Kiff, A., Lang, T., Lee, R., Marsden, T., Simons, D., Tibbs, H. (2009). *Food Futures: Rethinking UK Strategy*. 2009: Royal Institute of International Affairs: Chatham House.
- Bakker, W., & Van Waarden, F. (1999). Ruimte rond regels : stijlen van regulering en beleidsuitvoering vergeleken. In *Beleid en Maatschappij (jaarboek 1999/2000)*. Amsterdam: Boom.
- Battjes-Fries, M., Van Dongen, E., & Haveman-Nies, A. (2013). *Evaluatie van Smaaklessen: Heeft Smaaklessen effect op determinanten van gezond en bewust eetgedrag?* Wageningen: Wageningen UR - Leerstoelgroep Humane Voeding. Retrieved from <http://edepot.wur.nl/252087>
- Bouckaert, G., Ormond, D., & Peters, G. (2000). *A Potential Agenda for Finland*. Finland: Ministry of Finance.
- Bovens, M., 't Hart, P., & Van Twist, M. (2012). *Openbaar bestuur : beleid, organisatie en politiek*. Deventer: Kluwer.
- Cash, D., Adger, W., Berkes, F., Garden, P., Lebel, L., Olsson, P., Pritchard, L., Young, O. (2006). Scale and Cross-Scale Dynamics: Governance and Information in a Multilevel World. *Ecology and Society*, 11(2). Retrieved from <http://www.ecologyandsociety.org/vol11/iss2/art8/>
- CFS. (2012). *Coming to Terms with Food Security, Nutrition Security, Food Security and Nutrition, Food and Nutrition Security*. Rome: FAO. Retrieved April 11, 2014, from <http://www.fao.org/docrep/meeting/026/MD776E.pdf>
- CIA. (2014). *The World Factbook - The Netherlands*. Retrieved October 5, 2014, from Central Intelligence Agency: <https://www.cia.gov/library/publications/the-world-factbook/geos/nl.html>
- Cox, A., & Chicksand, D. (2007). Are Win-Wins Feasible? Power Relationships in Agri-Food Supply Chains. In D. Burch, & G. Lawrence, *Supermarkets and Agri-food Supply Chains: Transformations in the Production and Consumption of Foods* (pp. 11-34). Cheltenham: Edward Elgar.
- Dinham, B. (1993). *The Pesticide Hazard: a Global Health and Environmental Audit*. London: Atlantic Highlands.
- Eerste Kamer. (n.d.). *Werkwijze Eerste Kamer*. Retrieved from Eerste Kamer der Staten-Generaal: http://www.eerstekamer.nl/begrip/werkwijze_eerste_kamer
- FAO. (2011). *Global food losses and food waste – Extent, causes and prevention*. Rome.
- Folke, C., Hahn, T., Olsson, P., & Norberg, J. (2005). Adaptive governance of social-ecological systems. *Annual Review of Environment and Resources*, 30, 441-473. doi:10.1146/annurev.energy.30.050504.144511
- George, S. (1976). *How the Other Half Dies: The Real Reasons for World Hunger*. Harmondsworth: Penguin Books.
- Gibson, C., Ostrom, E., & Ahn, T. (2000). The concept of scale and the human dimensions of global change: a survey. *Ecological Economics*, 32, 217-239.
- Heij, K., & Visser, W. (2007). *De Grondwet in eenvoudig Nederlands*. Den Haag: Sdu Uitgevers. Retrieved from <http://www.denederlandsegrondwet.nl/9353000/1/j9vvihlf299q0sr/vi5ehh5npqvr>
- Hemerijck, A. (2003). Vier kernvragen van beleid. *Beleid en Maatschappij*, 30(1), 3-19.

- Hernes, T. (2004). Studying composite boundaries: A framework of analysis. *Human Relations*, 57(1), 9-29. doi:10.1177/0018726704042712
- Hill, M. (2009). *The Public Policy Process* (Fifth Edition ed.). Harlow, United Kingdom: Pearson Education Limited.
- Hoppe, R. (2010). From “knowledge use” towards “boundary work”: sketch of an emerging new agenda for inquiry into science-policy interaction. In R. i. Veld, *Knowledge Democracy: Consequences for Science, Politics, and Media* (pp. 169-186). Springer. doi:10.1007/978-3-642-11381-9_13
- In 't Panhuis - Plasmans, M., Luijben, G., & Hoogenveen, R. (20012). *Zorgkosten van ongezond gedrag*. Bilthoven: RIVM.
- Kooiman, J. (2003). *Governing as Governance*. London: Sage.
- Koppejan, J., & Klijn, E.-H. (2004). *Managing Uncertainties in Networks: a Network Approach to Problem Solving and Decisionmaking*. London: Routledge.
- Lamont, M., & Molnár, V. (2002). The Study of Boundaries in the Social Sciences. *Annual Review of Sociology*, 28, 167-195.
- Lang, T. (2009). Reshaping the Food System for Ecological Public Health. *Journal of Hunger & Environmental Nutrition*, 4, 315-335. doi:10.1080/19320240903321227
- Lang, T., Barling, D., & Caraher, M. (2009). *Food Policy: Integrating health, environment and society*. Oxford: Oxford University Press.
- Lasswell, H. (1936). *Politics: Who Gets What, When, How*. New York: Whittlesey House.
- Lawrence, P., & Lorsch, J. (1967). *Organization and environment: managing differentiation and integration*. Boston: Harvard University.
- Lehnert, T., Sonntag, D., Konnopka, A., Riedel-Heller, S., & König, H.-H. (2013). Economic costs of overweight and obesity. *Best Practice & Research Clinical Endocrinology & Metabolism*, 27, 105-115. doi:10.1016/j.beem.2013.01.002
- LEI. (2014). *De agrarische handel van Nederland in 2013*. Retrieved November 29, 2014, from <http://www.rijksoverheid.nl/bestanden/documenten-en-publicaties/rapporten/2014/01/17/de-agrarische-handel-van-nederland-in-2013/de-agrarische-handel-van-nederland-in-2013-versie-3.pdf>
- Lelieveldt, H., & Princen, S. (2011). *The politics of the European Union*. Cambridge: Cambridge University Press.
- LTO Nederland. (2012). *LTO Nederland: Fact Check*. Den Haag. Retrieved November 29, 2014, from <http://www.lto.nl/media/default.aspx/emma/org/10823947/LTO+factcheck+-+versie+6+-+7-1-2013.pdf>
- March, J., & Olsen, J. (1989). *Rediscovering institutions: The organizational basis of politics*. New York: Free Press.
- Maxwell, S., & Slater, R. (2003). Food Policy Old and New. *Development Policy Review*, 21(5-6), 531-553.
- Nilsson, M., Eklund, M., & Tyskeng, S. (2009). Environmental integration and policy implementation: competing governance modes in waste management decision making. *Environment and Planning C: Government and Policy*, 27(1), 1-18. doi:10.1068/c0794j
- Oosterveer, P. (2005). *Global Food Governance*. Wageningen: Wageningen University.
- O'Rourke, R. (2005). *European Food Law* (Third ed.). London: Sweet and Maxwell.
- Oyebode, O., Gordon-Dseagu, V., Walker, A., & Mindell, J. (2014). Fruit and vegetable consumption and all-cause, cancer and CVD mortality: analysis of Health Survey for England data. *Journal of Epidemiology and Community Health*. doi:10.1136/jech-2013-203500
- Pennington, T. (2003). *When Food Kills: BSE, E. coli and disaster science*. Oxford: Oxford University Press.

- Pinstrup-Andersen, P. (2011). The Food System and its Interaction with Human Health and Nutrition. *2020 Conference: Leveraging Agriculture for Improving Nutrition and Health. Brief 13*. Washington DC: International Food Policy Research Institute.
- Popkin, B. (2003). The Nutrition Transition in the Developing World. *Development Policy Review*, 21(5-6), 581-597.
- Rijksoverheid. (n.d.). *Parlement*. Retrieved from Rijksoverheid: <http://www.rijksoverheid.nl/onderwerpen/parlement>
- Rittel, H., & Webber, M. (1973). Dilemmas in a General Theory of Planning. *Policy Sciences*, 4(2), 155-169. doi:10.1007/BF01405730
- RIVM. (2011). *Food Consumption Survey*.
- RVZ. (2002). *Gezondheid en gedrag*. Zoetermeer.
- Scharpf, F. (1999). *Governing in Europe: Effective and democratic?* Oxford: Oxford University Press.
- Shiva, V. (1991). *The violence of the green revolution : Third World agriculture, ecology and politics*. London: Zed.
- Star, S., & Griesemer, J. (1989). Institutional Ecology, 'Translations' and Boundary Objects: Amateurs and Professionals in Berkely's Museum of Vertebrate Zoology, 1907-39. *Social Studies of Science*, 19(3), 387-420.
- Sturdy, A., Clark, T., Fincham, R., & Handley, K. (2009). Between Innovation and Legitimation - Boundaries and Knowledge Flow in Management Consultancy. *Organization*, 16(5), 627-653.
- Sturm, R. (2002). The Effects of Obesity, Smoking, and Drinking on Medical Problems and Costs. *Health Affairs*, 21(2), 245-253. doi:10.1377/hlthaff.21.2.245
- Tarrant, J. (1980). *Food Policies*. New York: John Wiley & Sons.
- Termeer, C., Dewulf, A., Breeman, G., & Stiller, S. (2013, January 6). Governance Capabilities for Dealing Wisely With Wicked Problems. *Administration & Society*. doi:10.1177/0095399712469195
- The London Food Commission. (1988). *Food Adulteration and How to Beat it*. London: Unwin Hyman.
- Tilly, C. (2002). *Stories, Identities, and Political Change*. Lanham, MD: Rowman & Littlefield Publishers, Inc.
- Tompson, J. (1962). Organizations and Output Transactions. *American Journal of Sociology*, 68(3), 309-324.
- Torring, J., Peters, B., Pierre, J., & Sorensen, E. (2012). *Interactive Governance: Advancing the Paradigm*. Oxford: Oxford University Press. doi:ISBN: 9780199596751
- Tweede Kamer. (n.d.). *Hoe werkt het?* Retrieved from Tweede Kamer der Staten-Generaal: http://www.tweedekamer.nl/hoe_werkt_het/index.jsp
- Van Broekhoven, S., Boons, F., Van Buuren, A., & Teisman, G. (2014). Boundaries in action: a framework to analyse boundary actions in multifunctional land-use developments. *Environment and Planning C: Government and Policy*, 32, advance online publication. doi:10.1068/c1398
- Van der Meulen, B., & Van der Velde, M. (2008). *European Food Law Handbook* (First ed.). Wageningen, The Netherlands: Wageningen Academic Publishers.
- Van Thiel, S. (2014). *Research Methods in Public Administration and Public Management: An Introduction*. London: Routledge.
- Von Lengerke, T., & Krauth, C. (2011). Economic costs of adult obesity: A review of recent European studies with a focus on subgroup-specific costs. *Maturitas*, 69, 220-229. doi:10.1016/j.maturitas.2011.04.005
- WHO. (1990). *Diet, Nutrition and the Prevention of Chronic Diseases*. World Health Organization Technical Report Series, vol. 797, Geneva.
- WHO. (1990). *Public Health Impact of Pesticides Used in Agriculture*. Geneva: World Health Organization.
- WHO. (2008). *2008-2013 Action Plan for the Global Strategy for the Prevention and Control of Noncommunicable Diseases*. Geneva: World Health Organization.

- WHO. (2009). *Global health risks: mortality and burden of disease attributable to selected major risks*. Geneva: World Health Organization.
- WHO. (2014). *Health Topics: Nutrition*. Retrieved October 5, 2014, from World Health Organization: <http://www.who.int/topics/nutrition/en/>
- WHO/FAO. (2003). *Diet, Nutrition and the Prevention of Chronic Diseases*. World Health Organisation Technical Report Series, vol. 916, Geneva.
- WHO/FAO. (2014). *CODEX Alimentarius: International Food Standards*. Retrieved November 29, 2014, from <http://www.codexalimentarius.org/>
- Withrow, D., & Alter, D. (2010). The economic burden of obesity worldwide: a systematic review of the direct costs of obesity. *Obesity Reviews*, 12, 131-141. doi:10.1111/j.1467-789X.2009.00712.x
- World Bank. (2007). *World Development Report 2008: Agriculture for Development*. Washington: The International Bank for Reconstruction and Development / The World Bank.
- WRR. (2014). *WRR Rapport 93: Naar een voedselbeleid*. Amsterdam: Amsterdam University Press.
- Yan, A., & Louis, M. (1999). The Migration of Organizational Functions to the Work Unit Level: Buffering, Spanning, and Bringing Up Boundaries. *Human Relations*, 52(1), 25-47.

LEGISLATION, REGULATIONS AND POLICIES

- Costa v ENEL [1964] ECR 585 (6/64).
- Directive 2000/13/EC on the approximation of the laws of the Member States relating to the labelling, presentation and advertising of foodstuffs [2000] OJ L 109/29.
- Directive 90/496/EEC on nutrition labelling for foodstuffs [1990] OJ L 276/40.
- European Commission. (1997). *The general principles of Food Law in the European Union*. Commission Green Paper. European Commission COM (97) 176 final, Brussels, Belgium.
- European Commission. (2000). *White paper on food safety*. European Commission COM (1999) 719 final, Brussels, Belgium.
- European Union. (9 May 2008). Consolidated Versions of the Treaty on European Union [TEU] and the Treaty on the Functioning of the European Union [TFEU]. *Official Journal of the European Union*(2008/C 115/01). Retrieved from <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:C2008/115/01>
- Kingdom of the Netherlands. (June 2008). *Constitution of the Kingdom of the Netherlands*. Retrieved from <http://www.rijksoverheid.nl/bestanden/documenten-en-publicaties/brochures/2008/10/20/the-constitution-of-the-kingdom-of-the-netherlands-2008/07br2008g109.pdf>
- Ministerie van Economische Zaken. (2013). *Kamerbrief over implementatie Gemeenschappelijk Landbouwbeleid*. Directoraat-generaal Agro: Directie Europees Landbouwbeleid en Voedselzekerheid (DGA-ELV / 13196008). Den Haag: Rijksoverheid.
- Ministerie van Landbouw, Natuur en Voedselkwaliteit. (2009). *Nota Duurzaam Voedsel: Naar een duurzame consumptie en productie van ons voedsel*. Den Haag.
- Ministerie van Volksgezondheid, Welzijn en Sport & Ministerie van Landbouw, Natuur en Voedselkwaliteit. (2008). *Nota Voeding en Gezondheid: Gezonde Voeding, van Begin tot Eind*. Den Haag.
- Ministerie van Volksgezondheid, Welzijn en Sport & Ministerie van Landbouw, Natuur en Voedselkwaliteit. (2005). *Nota Veilig voedsel voor iedereen; een gezamenlijke verantwoordelijkheid*. Den Haag.
- Ministerie van Volksgezondheid, Welzijn en Sport. (2001). *Nota voedselveiligheid 2001-2004: Veilig voedsel in een veranderende omgeving. Vergaderjaar 2000-2001, 26 991, nr 48*. Den Haag: Sdu Uitgevers.

- Ministerie van Volksgezondheid, Welzijn en Sport. (2009) *Nota Overgewicht: Uit balans: de last van overgewicht*. Den Haag.
- Ministerie van Volksgezondheid, Welzijn en Sport. (2009). *Rapport beleidsdoorlichting Voedselveiligheid Periode 2000-2007*. Retrieved from <http://www.rijksoverheid.nl/bestanden/documenten-en-publicaties/rapporten/2009/05/01/rapport-beleidsdoorlichting-voedselveiligheid-periode-2000-2007/vgp-2928322b.pdf>
- Regulation 1169/2011 on the provision of food information to consumers, amending Regulations (EC) No 1924/2006 and (EC) No 1925/2006 of the European Parliament and of the Council, and repealing Commission Directive 87/250/EEC, Council Directive 90/496/EEC, Commission Directive 1999/10/EC, Directive 2000/13/EC of the European Parliament and of the Council, Commission Directives 2002/67/EC and 2008/5/EC and Commission Regulation (EC) No 608/2004 [2011] OJ L 304/18.
- Regulation 1305/2013 on support for rural development by the European Agricultural Fund for Rural Development (EAFRD) and repealing Council Regulation (EC) No 1698/2005 [2013] OJ L 347/487.
- Regulation 1306/2013 on the financing, management and monitoring of the common agricultural policy and repealing Council Regulations (EEC) No 352/78, (EC) No 165/94, (EC) No 2799/98, (EC) No 814/2000, (EC) No 1290/2005 and (EC) No 485/2008 [2013] OJ L 347/549.
- Regulation 1307/2013 establishing rules for direct payments to farmers under support schemes within the framework of the common agricultural policy and repealing Council Regulation (EC) No 637/2008 and Council Regulation (EC) No 73/2009 [2013] OJ L 347/608
- Regulation 1308/2013 establishing a common organization of the markets in agricultural products and repealing Council Regulations (EEC) No 922/72, (EEC) No 234/79, (EC) No 1037/2001 and (EC) No 1234/2007 [2013] OJ L 347/671
- Regulation 178/2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety [2002] OJ L 31/1.
- Tweede Kamer der Staten Generaal. (2005). Voedselveiligheid: Brief van de Ministers van Landbouw, Natuur en Voedselkwaliteit en van Volksgezondheid, Welzijn en Sport. *Vergaderjaar 2004-2005, 26 991, nr 115*. Den Haag: Sdu Uitgevers.
- Tweede Kamer der Staten Generaal. (2008). Duurzame Ontwikkeling en Beleid: Brief van de Ministers van Volkshuisvesting, Ruimtelijke Ordening en Milieu en voor Ontwikkelingssamenwerking [KADO]. *Vergaderjaar 2007-2008, 30 196, nr. 32*. Den Haag: Sdu Uitgevers.
- Warenwet van Ministerie van Volksgezondheid, Welzijn en Sport van 1935. Staatsblad 793. Identification number: BWBR0001969. Retrieved from <http://wetten.overheid.nl/BWBR0001969/>

STATISTICS

- CBS. (2013a). *Lengte en gewicht van personen, ondergewicht en overgewicht; vanaf 1981*. (CBS, Compiler) Retrieved April 4, 2014, from <http://statline.cbs.nl/StatWeb/publication/?VW=T&DM=SLNL&PA=81565NED&D1=0-4&D2=a&D3=a&D4=0&D5=a&HD=140404-1325&HDR=T&STB=G1,G2,G3,G4>
- CBS. (2013b). Doodsoorzaken; uitgebreide lijst, leeftijd en geslacht. (CBS, Compiler) Retrieved April 18, 2014, from <http://statline.cbs.nl/StatWeb/publication/?VW=T&DM=SLNL&PA=7233&D1=0,173,355,397,639,751-752&D2=0&D3=0&D4=0,4,9-16&HD=140418-1128&HDR=G2,G1,G3&STB=T>

CBS. (2014). Nationale rekeningen; opbouw binnenlands product (bbp). (StatLine, Compiler) Den Haag/Heerlen. Retrieved November 29, 2014, from <http://statline.cbs.nl/Statweb/publication/?VW=T&DM=SLNL&PA=82262NED&D1=0-4,9-17,20-21,88,91,94,97,130-132,135-136,139,142&D2=a&HD=141013-1643&HDR=G1&STB=T>

EUROSTAT. (2014). Agricultural Products. Retrieved from http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Agricultural_products

Inleiding

1. Kunt u vertellen wat uw werk en achtergrond is?
2. Welke onderwerpen richten u en uw organisatie zich op?
3. Heeft u het rapport van de WRR gelezen?
 - a. Zo ja: wat vond u er van?
 - b. Wat gaat u/uw organisatie ermee doen?

Voedselbeleid

4. Wat is volgens u voedselbeleid?/waar denkt u aan bij voedselbeleid?
5. Wat is er volgens u onderbelicht gebleven in de afgelopen jaren omtrent voedsel?
6. Wat is er volgens u overbelicht in de afgelopen jaren omtrent voedsel?
7. Welke beleidsdomeinen zijn er volgens u betrokken bij voedselbeleid?
8. Welke Ministeries zijn er volgens u betrokken bij voedselbeleid?
9. Hoe is uw werk en organisatie betrokken bij voedselbeleid?
 - a. Is dit veranderd in de afgelopen jaren?
10. Welk voedsel gerelateerde beleid is van kracht vanuit uw organisatie?
11. Vind u dat er sprake is van een geïntegreerd voedselbeleid?
 - a. Waarom wel/niet?
12. Heeft u/uw organisatie interesse in een (verder) geïntegreerd voedselbeleid?/Zou een (verder) geïntegreerd voedselbeleid wenselijk zijn?
13. Zijn er volgens u mogelijkheden om een (verder) geïntegreerd voedselbeleid te ontwikkelen?
 - a. Zo ja, wat zijn voorwaarden daarvoor? Samenwerking en afstemming
 - b. Zo nee, waarom niet?

Samenwerking

14. Met welke rijksoverheidsonderdelen (Ministeries en/of directies) werkt u samen voor voedselbeleid?
 - a. Op welke manier werkt u samen? RVO, andere Ministeries
 - b. Is hierin verandering opgetreden in de afgelopen jaren?
 - c. Wat zijn uw ervaringen met deze samenwerkingen?
15. In welke mate is er sprake van kennisuitwisseling tussen verschillende Ministeries en/of directies? Ja
16. Met welke EU-instellingen (en onderdelen daarvan) werkt u samen voor voedselbeleid?
 - a. Hoe werkt u samen?
 - b. Is hierin verandering opgetreden in de afgelopen jaren?
 - c. Wat zijn uw ervaringen met deze samenwerkingen?
17. In welke mate is er sprake van kennisuitwisseling met EU instellingen?
18. Met welke niet-overheidsorganisaties werkt u samen op het gebied van voedselbeleid?
 - a. Hoe werkt u samen?
 - b. Is hierin verandering opgetreden in de afgelopen jaren?
 - c. Wat zijn uw ervaringen met deze samenwerkingen?
19. In welke mate is er sprake van kennisuitwisseling tussen met NGOs?

Grenzen/Boundaries

20. Hoe zou u uw organisatie/afdeling identificeren?
21. In welke mate identificeert u zich met uw organisatie?

22. Wat bindt u aan de organisatie?
23. Voelt u zich onderdeel van uw organisatie? Waardoor komt dat?
24. Worden er teambuildingsactiviteiten georganiseerd?
25. Wat onderscheidt uw organisatie van andere Ministeries/beleidsdomeinen?
26. In welke mate zijn kernideeën, begrippen, concepten of definities duidelijk verschillend van die van andere organisaties (overheid en niet-overheid) en/of beleidsdomeinen?
27. In welke mate zijn deze kernideeën, begrippen, concepten of definities beslissend voor wat medewerkers doen?
28. In welke mate hebben anderen (lobbygroepen/NGOs/overheidsinstanties) invloed op de kernideeën, begrippen, concepten of definities van uw organisatie?
29. In welke mate zorgt de formele structuur voor onderscheid tussen uw organisatie en andere organisaties (overheid en niet-overheid) en/of beleidsdomeinen?
30. In welke mate bepalen formele regels of (fysieke) structuren het werk van medewerkers of organisatie?
31. In welke mate hinderen formele structuren het betrekken van lobbygroepen/NGOs/andere overheidsinstanties?

Boundary work

32. Hoe kan samenwerking (het werken naar eenzelfde doelen/samenwerking in een gemeenschappelijk project) tussen u en andere rijksoverheidsonderdelen worden bevorderd? **(fysiek/sociaal/mentaal)**
 - a. Wat zouden de voordelen zijn van meer gezamenlijke projecten?
 - b. Wat zouden de nadelen zijn van meer gezamenlijke projecten?
33. Hoe kan kennisuitwisseling tussen u en andere rijksoverheidsonderdelen (directies/Ministeries) worden bevorderd? **(fysiek/sociaal/mentaal)**
 - a. Wat zouden voordelen zijn van meer kennisuitwisseling?
 - b. Wat zouden nadelen zijn van meer kennisuitwisseling?
34. Welke vorm van relatie zou er op het gebied van voedselbeleid moeten ontstaan?

Afsluitend

35. Welke actoren zijn volgens u verder van belang in de ontwikkeling van voedselbeleid? m.a.w. wie zou ik nog meer moeten spreken?
36. Zijn er nog dingen die u wilt aanvullen/waar u nog iets over kwijt wil ten aanzien van voedselbeleid?

ANNEX II - LIST OF INTERVIEWS

Organization	Date Interview	Participant	Position within organization	Contact details
Ministry of VWS	14-10-2014	Letteke Boot	Senior policy advisor nutrition	ca.boot@minvws.nl
		Inge Stoelhorst	Policy coordinator	i.stoelhorst@minvws.nl
Ministry of EZ	21-10-2014	Joost de Jong	Strategic advisor	j.dejong2@minez.nl
PBL	15-10-2014	Melchert Reudink	Researcher Department Sustainable Development	melchert.reudink@pbl.nl
		Henk Westhoek	Senior researcher Agriculture and Food	henk.westhoek@pbl.nl
RIVM	23-10-2014	Jantine Schuit	Head Centre Nutrition, Prevention and Care	jantine.schuit@rivm.nl
Province Brabant	28-10-2014	Ton Cornelissen	Senior policy advisor agriculture and agrofood	ACornelissen@brabant.nl
Province Overijssel	11-11-2014	J. Neimeijer	Beleidsontwikkelaar agrofood	jhj.neijmeijer@overijssel.nl
WRR	27-11-2014	Josta de Hoog	Researcher	hoog@wrr.nl
LTO Nederland	27-10-2014	Albert Jan Maat	General Director	
FoodLog	24-10-2014	Dick Veerman		

ANNEX III - ORGANIZATION CHARTS

