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UNDERSTANDING THE WEAK LINK BETWEEN EU'S FARM TO FORK STRATEGY AND THE REALITY

A case study in the Netherlands

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Preface

"I wish the world was twice as big - and half of it was still unexplored. It's surely our responsibility to do everything within our power to create a planet that provides a home not just for us, but for all life on Earth." - David Attenborough

Let's just take a moment to think about this: we are consciously deteriorating our living circumstances by continuously emitting far too much Green house gasses and despite longstanding international agreements, we are hardly managing to turn the curve. One could wonder how did we manage to destroy the resources we have to live a rich life in terms of nature, natural resources, flora and fauna in just a second compared to the lifetime of earth. There's almost no newsitem without the mentioning of extreme weather conditions that are being linked to Climate Change. It's both astonishing and frightening. The causes and reasons that we are in this situation are many but can be simplified to the fact that we have over- and misused the planetary resources and have exceeded the planetary boundaries that safeguard a lifestyle in a climate that we can foresee, and we are used to.

I always have had respect for where our food comes from, admiring the farmers that need to work at the strangest hours and where their livelihoods completely depend on the unpredictable weather. Living in the North East of the Netherlands, I was surrounded as a child with acres of wheat, beets, oats and maize as well as pig, chicken and cow farms. I cherished the notion that our food was close at hand and I loved the smell of farms. Little did I know that much of those crops were either exported or used as animal feed, neither did I realize that the existing business model for farmers relies on expansion and upscaling with devastating impacts on nature and our living space.

My view on livestock agriculture changed when I started to learn more about the Climate effects as well as animal welfare and somehow, I realized I had lost touch with the whole food supply chain. Still, buying meat or dairy in the supermarket did not make me see what was behind the complete food supply chain, nor did it make me realize that we, as consumers, have a huge role in mitigating the effects of Climate change.

In June 2019, my then 17-year-old daughter asked me to join her in a vegan challenge, abstaining from any kind of animal protein. We did this for a year and after having read a lot

about veganism, Climate change and overall sustainability, I decided that I need to and want to do my part in the serious challenge of Climate Change. As you will know by now, this thesis comes from a passion: a passion for humanity, a passion for our planet and a passion for well being for all people within the boundaries of our planet. It comes with respect for the complexity and the interdependencies of institutes and organizations, but it also comes with frustration that our behaviours and established systems sit deep, and habits as well as established systems are hard to get rid of. Ultimately, this thesis also comes with a strong hope that I will be able to contribute, albeit a little, to the understanding of our possibilities to have a more sustainable life for us and future generations.

List of abbreviations

EU	European Union
CAP	Common Agricultural Policy
COP	Conference of the Parties-UN Climate Change Conference
F2F	Farm to Fork
GR	Gezondheidsraad- Dutch Health council
IPBS	Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services
IPCC	Intergovernmental Panel on Climate Change
KPI	Key Performance Indicator
MP	Member of Parliament
NGO	Non Governmental Organization
PBL	Plan Bureau voor de Leefomgeving – The Netherlands Environmental and Assessment Agency

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Sharon Wilts Jansen, August 2022

Abstract

The aim of this thesis is to understand how the Farm to Fork Strategy is being implemented in the Netherlands, what dilemma's are being discussed on national level and what role the government and MP's play. The research is done through the lens of Multi Level Perspective in socio-technical transitions. An analysis of documents published by the House of Representatives in the Netherlands was done as well as semi structured interviews with two organisations in the Netherlands that give insights in the situation in the Netherlands with regards to policy making and the implementation of F2F strategy. The analysis and interviews show that the current political discourse in the Netherlands focusses on the Dutch agricultural interests and the existence of the established business model, even though it is acknowledged that the current regime cannot continue because of the destroying effects to nature. The ambitions to act upon the Farm to Fork Strategy exist clearly but are being overshadowed by the Nitrogen crisis that derives directly from environmental impacts and are having economical consequences. As such, the discourse is evolving around the current crisis and not around the long term goals as stated in the F2F. However, there is a strong ambition of innovation and a multi stakeholder approach, and with this, niches are being formed that over time can stabilize in a dominant design, if the momentum increases.

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1. Introduction & Aim

1.1 The super wicked problem

"Global food production threatens climate stability and ecosystem resilience. It constitutes the single largest driver of environmental degradation and transgression of planetary boundaries. Taken together the outcome is dire. A radical transformation of the global food system is urgently needed. Without action, the world risks failing to meet the UN Sustainable Development Goals and the Paris Agreement"- Johan Rockström

The special report 'Climate Change and Land'[1] published in 2019 by the IPCC, was the mark of a new era where a scientific report with so many scholarly contributions was to boldly state that conventional human diets where animal proteins play a major role, needed to change drastically in order to comply with the Paris Agreement[2] where globally, countries had committed to limit global warming to an absolute maximum of 2 degrees Celsius. In February 2022 a new report was published by IPCC[3] that is building on a.o. the special reports that were published previously. This reports states that physical and mental health is negatively impacted by the adverse effects of Climate Change and that there is a strong connection to negative effects to food security and malnutrition in certain regions due to Climate Change. Unsustainable agricultural expansion, driven partly by unbalanced diets, increases ecosystem and human vulnerability and leads to competition for land and/or water resources.

In the same year that the special report 'Climate and Land' was published, the Lancet published a report where they defined what a healthy diet coming from sustainable sources looks like. In the report, a reference was presented, that can keep us nourished and well fed but would not exceed our planetary boundaries. The conclusion of this report is that a substantial dietary shift is necessary and a diet, rich in plant-based foods with fewer animal

[1] An IPCC special report on Climate Change, desertification, land degradation, sustainable land management, food security and green house gas fluxes in terrestrial ecosystems. Special Report on Climate Change and Land — IPCC site

[2] The Paris Agreement was the outcome of the COP21 Summit in 2015. It was globally seen as a breakthrough in the multilateral climate change process as it is a legally binding international treaty.

[3] IPCC, 2022: Climate Change 2022: Impacts, Adaptation, and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change

source foods confers both improved health and environmental benefits. Without action, the world risks failing to meet the UN Sustainable development goals[4] and the Paris agreement. Without action, today's children will inherit a planet that has been severely degraded and where much of the population will increasingly suffer from malnutrition and preventable disease (Willet et al., 2019).

There is vast research identifying the risks of the effects of Climate Change, where the IPCC reports play a key role in delivering scientific data and common understanding that climate change threatens human security in terms of food security, energy security, land security, water security and more. However, the risks of Climate Change were known long before. The Brundtland report[5] that was issued in 1987, was one of the first times that an urgent call was placed by the UN to address the environmental challenges in a global way and a call to propose long-term environmental strategies for achieving sustainable development by the year 2000 and beyond (Brundtland report, 1987). The report addresses how to look at the factors that influence global sustainable development, environment and economy, and that they cannot be seen separate from one another. It acknowledges that the systemic features do not merely operate within nations but also between nations. National boundaries have become so porous that traditional distinctions between matters of local, national, and international significance have become blurred. Ecosystems do not respect national boundaries (Brundtland report, 1987).

This is even more relevant today in a global economy where data travels fast and there seem to be no limits to movements of people and goods. The question of sustainable development is therefore highly relevant for the EU, being a global actor and having high ambitions with regards to sustainable development[6].

The latest report of the IPCC addressed the impact of our food production in a way that was not done before (Livelihoods, 2019). With the scientific data in place, the EU has worked on an overarching Strategy, the Green Deal (EU Green Deal 20?? , to tackle the Climate Challenge in the European Union. This strategy should address the different challenges we

[4] Sustainable Development Goals | unfoundation.org
[5] The Brundtland Report was published by the World Commission on Environment and Development (WCED) and was named after the Commission's Chairwoman Gro Harlem Brundtland. It developed guiding principles for sustainable development.
[6] In the overall EU 2050 vision, the Commission aims for a climate neutral EU 2050 long-term strategy (europa.eu)

face in the EU with regards to Climate Change, such as the transition to renewable energy, the shift to a circular economy, clean natural resources and more. Part of the Green Deal will be a legislative package with laws and regulations that will need to be adopted by member states.

In this thesis I will dive in to one particular part of the Green Deal, the Farm to Fork Strategy (hereafter abbreviated as F2F Strategy), which is at the heart of the Green Deal. It comprehensively addresses the challenges of our current food systems and recognizes the inextricable links between healthy people, healthy societies and a healthy planet. The strategy is also central to the Commission's agenda to achieve the United Nations' Sustainable Development Goals (UN, 2015). My interest lies in understanding how Member states in reality implement the scientific data with regards to Climate change and the dominant factors that are causing it. How is the Green Deal and specifically the F2F strategy being received and acted upon by Member States? What do governments actually do in order to support the EU Green Deal and more specifically the F2F Strategy? What collective action dilemma's need to be addressed?

This thesis will address a part of sustainable development in the EU and should be seen as a analysis to add to the discourse regarding the link between the ambitions of the EU and the reality in the Member states with regards to the shift to a more sustainable food system. I have chosen the Netherlands as subject for the case study as the Netherlands has an open economy that is highly dependent on the agricultural- and livestock industry that contributes to the Dutch GDP with 104,7 billion EUR per year[7]. The economic interests are high and even when sustainable development is high on the agenda, there are many interest groups and stakeholders that resist any change in their business model.

Moreover, the history of the post -World War II- Dutch farming sector is an example of how with governmental support, food security was ensured, by consciously intensifying and industrializing the farming sector. This transition in farming practices was to a large extent government initiated and an organized affair through the EU and Marshall aid program (Spaargaren et. al. 2012).

This makes the Netherlands an interesting case in the food transition that the EU is aiming for. The research design will consist of a mix of semi structured interviews as well as a deep

[7] Landbouwexport in 2021 voor het eerst boven de 100 miljard euro (cbs.nl)

dive in documents where I will research the discourse regarding the implementation of the F2F strategy through the public documents of the House of Representatives in the Netherlands. My research will hopefully contribute to a better understanding how complex EU questions are being handled on Member state level.

1.2 Aim & Contribution

The Commons have been studied for centuries. Aristotle in his time already said:

"What is common to the greatest number gets the least amount of care. Men pay most attention to what is their own; they care less for what is common; or at any rate they care for it only to the extent to which each is individually concerned. Even when there is no other cause for inattention, men are more prone to neglect their duty when they think that another is attending to it" (Aristotle, 384 BC-322 BC)

For complex collective action problems such as Climate Change there is a need of effective leadership and while Climate Change is often seen as a big overarching and complicated problem, we have, with the reports of the IPCC, guidelines to concrete and rather easy steps to make that can lead us in the right direction with regards to Climate Change. The call for action and the understanding for the complexity is not new. In the Brundtland report, published in 1987 by the World Commission on Environment and Development, it was described how each community and each country strives for its own survival without regarding the interest of others. However, there is only one biosphere that we depend on. While global population has risen and continues to do so, so have the scale and complexity of our requirements for natural resources increased. We need to understand the interconnections as economic development is too threatened by environmental risks.

To implement a strategy that is launched on EU level, such as the Green Deal and the F2F strategy, requires involvement from different stakeholders on different levels and implementation of EU policy is much more an ongoing process of adjustment and bargaining than putting agreed policies into effect (Jordan &Adelle, 2013).

The aim with this research is to get more understanding of what the Member states, in this case the Netherlands, are doing on national level to start to implement the F2F strategy and if

scientific data such as in the IPCC report play a role in the implementation. This will shed more insights on where the Netherlands currently is, with regards to the F2F strategy and might contribute to the understanding and acknowledgement of the complexity which will hopefully contribute to the further discourse on solutions. The aim is also to contribute to the discourse that actions of Member states are crucial to achieve the goals as stated in the EU Green Deal (EC, 2019) and the global SDG's (UN, 2015) with regards to the recommendations towards our food systems. The Netherlands are in particular interesting to research as there is an ambitious plan from the government to become CO2 neutral in 2050 (Climate law wetten.nl - Regeling - Klimaatwet - BWBR0042394 (overheid.nl), however there is also a very strong agricultural and livestock industry that was heavily industrialized after WWII originating from the idea that there should be always food security in the Netherlands. This developed in a business model that is doing irreversible harm to biodiversity, soil and water quality. Besides the environmental damage that is being done, industrialized farming is resulting in severe health risks (Spaargaren et. al. 2012).

I believe that more research in this field can have multiple benefits. It will contribute to better understanding whether the Member states are doing their part on using the IPCC data as well as the F2F Strategy and with that supporting a Climate resilient development in our food systems. In addition, more research will give insights in what Member states need to do in order to cater for the 21st century where our resources need to be more carefully distributed. Considering that this thesis will only take the Netherlands as a case study, it can be seen as a small contribution. However, The Netherlands makes an interesting case with its open economy and having made considerable progress in meeting several of its ambitious environmental targets as well as decoupling a number of environmental pressures from economic growth. On the other side, the Netherlands is still developing heavily in agriculture, and the current nitrogen crisis can be seen as a showcase of the state of the global food system.

1.3 Outline of the thesis

This thesis will have the following outline. Firstly, the aim and objective of the research are presented, followed by a thematic background as well as some important facts related to the theme. Then I will explain the theoretical framework that I have applied to build a picture of the basis of my analysis. This will be followed by a description of the literature that this study is departing from. After that I will dive into the empirical case and the methods that were used to answer the Research Questions. The analysis will reflect on what actions the House of Representatives as well as the government are taking to address the challenges described in the research problem. In addition, the analysis will provide an overview of stakeholders playing an important role in the Netherlands in the implementation of the F2F Strategy and why. Also, the collective action challenges that exist within the context of transforming the food system will be addressed in the analysis. It will also reflect on the dilemma's of scientific data with a global scope while there is a need to apply this data in each and every Member State. In the discussion part I will connect my findings from the analysis with the theoretical framework of socio-technical transitions theory as well as the previous research in order to ground my observations. Finally, I will reach my conclusion and address some insights and recommendations.

1.4 Scope of the research

This study will use the Netherlands as a case in researching what has been done by the House of Representatives in the Netherlands regarding the implementation of the EU F2F strategy and the change to more sustainable food systems. I will research what the House of Representatives is doing with regards to transforming our food consumption and production as highlighted in the IPCC report (IPCC, 2019) as well as shown in the F2F strategy (EC 2020). There are many ways of assessing and measuring this, and this study will specifically look at the role of the government and House of Representatives and how the F2F strategy, have come up in the discussions, Committee work and legislative proposals in the last 4 years. I do this through the lens of the socio-technical transition theory. This study does not include other players that according to the IPCC reports have an important stake in the desired food transition, such as consumers, enterprises or NGO's.

1.5 Research Questions

My interest lies in capturing knowledge how member states are using the scientific data regarding Climate Change as presented in the IPCC reports, in the implementation of the F2F strategy, where my starting point will be the IPCC special report on Climate Change and Land as well as the EAT- Lancet Commission report (Willet et al., 2019), that urges for a transformational shift in our food production systems as well in a shift to healthier diets that are to a large extent plant based. Both reports were published in 2019 and provide a solid base of scientific material. The Research Questions are:

- How are the House of Representatives and the government in the Netherlands implementing the F2F strategy in policy making?
- What collective action problems can be found in the discussions by the House of Representatives and the government in the Netherlands with regards to the F2F Strategy?

2. Background

2.1 Overall background

Healthy diets from sustainable food systems

There are several definitions of a sustainable diet. The dietary recommendations that I talk about in this thesis derives from the term 'healthy diets from sustainable food systems', as described by the EATLancet Commission report (Willet et al., 2019). The Commission recommends, in order to stay within the planetary boundaries as described by Rockström et. al. (2009), a diet that is healthy for humans but also respects that crossing certain biophysical thresholds could have devastating effects on humanity (Rockström, 2009). Diets should therefore consist largely of a diversity of plant-based foods, low amounts of animal source foods, they should contain unsaturated rather than saturated fats and a limited amount of refined grains, highly processed foods and added sugars. Following these guidelines means specifically that the intake of red meat should be reduced to no more than 200 gr per week and it leaves no room for processed meat (Willet et al., 2019). This means quite a shift in the dietary habits when we compare this to the conventional western diets, as we need to double the consumption of healthy foods such as fruits, vegetables, legumes and nuts, and we need to reduce our global consumption of less healthy foods such as added sugars and red meat, with more than 50%.

The EAT- Lancet commission states that a global food transformation is necessary to reduce the impact on human health and the environmental trends so current trends can be reversed, but a transformation can only be achieved if there is action on multiple levels by a range of actors. The leadership that is required by governments and actors in the food industry is significant, but also dietary behavior by the consumer needs to be assessed (Willet et al., 2019)

Livestock farming certainly puts pressure on the environment (IPCC, 2019), the livestock density index gives an indication on how big that pressure is[8]. The pressure that livestock farming puts on the environment is huge and today there is strong evidence that food production is among the largest drivers of global environmental change by contributing to

[8] Agri-environmental indicator - livestock patterns - Statistics Explained (europa.eu)

climate change, biodiversity loss, and soil deterioration. Food production depends on continued functioning of biophysical systems and processes to regulate and maintain a stable earth system; therefore, these systems and processes provide globally systemic indicators of sustainable food production. With the quantification of the scientific target there now is universal and scalable planetary boundaries for the food system (Rockström, 2019).

EU Environmental policies and strategies

The EU has an environmental policy in place since the 1960's, however until 1987 there was no formal status of environmental policy. This changed when the Single European Act included environmental policy in the Community Competencies. During this time the number of environmental policies increased significantly however many of these policies were not implemented. The difficult implementation process is caused mainly by institutional incompatibilities between the different Member States (Jordan & Adelle, 2013). Another reason is the structure of the EU itself. EU policies come often with a resource demand that Member states lack, policies on national level are not seen as a priority and policies have been hard to implement due to the lack of room for the specific circumstances of the different Member States (Jordan & Adelle, 2013)

The environmental strategies that the EU has introduced so far include the EU 2020 Climate & Energy package, the EU 2030 Climate & Energy framework and recently the 2050 long-term strategy (references). The overarching Green Deal (reference), where the F2F Strategy is an important component, intends to improve the global food systems to be healthier, fairer, and environmental friendlier. The strategy explains how our diets need to be transformed in order to be more sustainable and how sustainable food production can be ensured as well as how a food chain can be built that works for all stakeholders. Therefore, a set of legislation has been launched with clear goals and ambitions, however as mentioned before, the implementation of these strategies seems a struggle.

At the same time under the CAP (reference) there are current policies and EU campaigns that are not supporting the shift to a healthier diet from sustainable food systems such as the 'Love Pork campaign' that was brought to life by Denmark to fight the declining consumption

figures of pork meat[9] . On this note, it's also worth to mention that member states receive a significant amount of subsidies under the CAP which consist of 33% of the total EU budget[10], that today is used in many ways and not necessarily to shift to more sustainable food systems.

Farm to Fork Strategy

The EU Green Deal describes how to make Europe the first climate neutral continent by 2050 (EC, 2019). The F2F is at the heart of the Green Deal and as an ambitious, comprehensive strategy, focusses on building food supply chains that work for consumers, producers, climate and the environment (EC, 2020). It's objective is a transformation of our food system that will need to adapt to the global Climate challenges that are threatening our food security and our environment. Climate change effects can be reduced by making shifts in the way we produce food and the way we transport, process and market our food. An important note here is that the F2F strategy is not yet legally binding, but will be translated into legal documents to achieve its objectives. The EU is working on a legislative proposal that will start to be launched in 2023.

The Farm to Fork strategy addresses:

- Ensuring sustainable food production
- Ensuring Food security
- Stimulating sustainable food processing, wholesale, retail, hospitality and food services practices
- Promoting sustainable food consumption and facilitating the shift to healthy sustainable diets
- Reducing food loss and waste
- Combatting food fraud along the food supply chain

Whereas all points are important, I will in this thesis focus on promoting sustainable food consumption and production as well as facilitating the shift to healthy and sustainable food systems.

[9] Denmark launched the Love Pork campaign in 2018: Love Pork | REA (europa.eu)

[10] The EU budget for 2021 contains a total of EUR 168.5 billion in commitment appropriations. The CAP accounts for 33.1% of the 2021 EU-27 budget (EUR 55.71 billion)

Although it is clear that our diets need to shift to more healthier and sustainable diets, it is not elaboratively mentioned in the F2F strategy what a healthy and more sustainable diet looks like (EC, 2020). This strategy is meant as the guiding strategy for the member states in order to implement policies on a local level that will aim towards achieving the objectives of F2F. However, what the definition of a sustainable diet is according to the F2F strategy, remains unclear[11].

2.2 The Netherlands as case study

The Netherlands, a small country with an open economy, heavily influenced by trade and due to its excellent central position at sea, a great hub in Europe. The Netherlands is one of the 27 members in the EU and a founding member of the European Coal and Steel Community that was brought to life in 1951 to foster economic cooperation that was desired after the horrors of the second World War. It is one of the smallest countries in the EU, however with a population of a little over 17,6 million inhabitants and a size of 41,500 m2, it makes it, after Malta, the most densely populated country in the EU.

Today, the country has plunged in a true Climate crisis, with a court ruling from the Council of State forcing the government to promptly deal with its high nitrogen emissions [12]. The Netherlands is the country with the highest livestock density in the EU with 3.8 Livestock units /ha in 2016[13] and has been so for the last years. Although there is high interest in Climate, the country is highly dependent on agricultural exports, with a total of 104,7 billion Euro in 2021[14], making the small country the biggest global exporter of agricultural goods, after the US.

[11] f2f_action-plan_2020_strategy-info_en.pdf (europa.eu)
[12] Joined cases C-293/17 and C-294/17
[13] Agri-environmental indicator - livestock patterns - Statistics Explained (europa.eu)
[14] Figures from Statistics Netherlands

Dutch agricultural history

As always, it's essential to understand our past in order to understand our present, in this light it might be helpful to dive a bit into history to understand why the Netherlands is where it is today and why that is relevant for this research.

Dutch farmer and a social democrat, Sicco Mansholt, became the first Minister for Agriculture, Fisheries and Food in The Netherlands shortly after the second World War. He was a fierce fighter for European unity and being scarred by the food scarcity he had witnessed during the war, he vowed that there would never be famine again in the Netherlands. He worked out an agricultural plan that was designed to raise productivity and improve farmers' welfare. Until then, Dutch farming was often small scale, and relied on mixed farming. Mansholt, aspiring food security and optimization, implemented a powerful pricing scheme that offers farmers guaranteed rates for their produce. This government support would support heavy industrialization in the Netherlands and would drive a lot of smaller farms out of work. He invested heavily in agricultural education, research, public information and land planning and with this he laid the foundation for a thriving industry that, up to this day, is regarded as one of the most productive and efficient ones in the world. Later he moved on to be an MP in the EU parliament, continuing his pursue of upscaling the agricultural industry in Europe. Mansholt is seen as the founder of the corporatist form of polity in the Netherlands that resulted in an agricultural structure policy. This was called the Iron triangle consisting of organizations representing the primary sector, the Dutch Minister of agriculture as well as agricultural specialists in Parliament. This Iron triangle enabled an intimate communication between policy-making and agricultural practice (Spaargaren, 2012). This transition in agriculture, going away from traditional family farming, did not at all go uncontested and is an example of how a transition in food systems unfolds. In his transition of agriculture, Mansholt focused on price and income policies as well as rationalization policies where mechanization and scale enlargement played a big role which posed a direct threat to the traditional small farms that were based on family structure. To overcome this, a small farmers policy was created, where smaller farms were compensated receiving incentives to enlarge. This transition mainly took place after the WWII up to 1960 when the regime was established.

In his later years, inspired by the Club of Rome's report 'The Limits to growth'[15], Mansholt acknowledged that his policy had added to increased inequality and was fueled by the wish of an efficient and high revenue business model without addressing serious challenges such as food shortages, population growth, pollution and scarcity of fuels and raw materials. Today, what we currently see in the Netherlands, is this highly industrialized agricultural food system, that was laid out by Mansholt. This is having a devastating effect on biodiversity, soil, air and clean water[16] and forcing the country to rethink the current agricultural industry.

The challenge the country now stands for is if this established regime in agriculture can be transformed into a system that is more sustainable and still can cater for the needs of the population and contribute to economic goals.

2.4 The Dutch House of Representatives

The Netherland is a parliamentary democracy with a House of Representatives and a Senate (The State General). Members of Parliament have the right to propose bills or to amend bills proposed by the Government. Besides this, they have the task to scrutinize the work of the government. Ministers and State secretaries must inform the House of representatives adequately. MP's have the right to ask questions to the members of the Cabinet and to call them to account. A bill adopted by the House of Representatives, must be approved by the Senate in order to become law.

The Dutch government negotiates with other European governments on new European laws and regulations. In the case of the European legislative process, both chambers monitor the development of European measures and the government's involvement in these negotiations. They can also exercise direct influence on European plans, for example by consulting with the European Commission or with Members of the European Parliament.

[15] Published in 1972, by the Club of Rome, this book describes that the global system of nature in which we all live probably cannot support present rates of economic and population growth much beyond the year 2100.
[16] Report from The Netherlands Environmental Assessment agency

pbl-2018-notitie-voe
dsel-in-nederland-32:

Committees can be seen as the backbone of the work of the House of Representatives. A Committee is a group of MP's who deal with a particular policy area within a ministry or with a specific subject. Committees are composed of members of the various parliamentary groups and each MP sits in one or more Committee. Ministers and state secretaries are assisted by civil servants with a number of tasks, including drafting bills. It is the duty of the House of Representatives to scrutinize the work of the government, therefore the House must also retain relevant expertise, which is concentrated around the Committees.

Committees of the House examine and express their views on proposals and plans put forward by Ministers and state secretaries and sometimes by the House itself. Committees regularly carry out their own investigations, by holding consultations or paying working visits. Within the Committees, parliamentary groups can exercise considerable influence on proposals; therefore every parliamentary group endeavors to be represented on as many Committees as possible.

The main duties of the House of Representatives are co-legislation and checking that the Government carries out its work properly. The House of Representatives also plays an important role in policy making. The members of the House of Representatives are elected directly by the Dutch voters.

MPs have certain rights, laid down in the Constitution, in order to carry out their duties as well as they can. For instance, they have the right to propose bills themselves, or to amend bills proposed by the Government. Ministers and State Secretaries must inform the House of Representatives adequately. MPs have the right to ask questions of the members of the Cabinet and to call them to account. They can propose motions to give their opinion on the policies of the Government, to ask the Government to take action on a certain issue or not, or to express themselves more generally about certain matters or current developments.

3. Literature Review & Theoretical Framework

3.1 Transitions in food practices

The IPCC reports mention that our consumption of animal derived protein needs to be reduced to reach the Paris agreement. Previous studies show that people who do not eat meat, vegetarians or vegans still are in a minority and typically live in Western societies and mainly do so for animal welfare and health reasons. Governments have a crucial role to lead the food transitions and changing dietary behavior, and while that public understanding of the role of livestock in climate change is low, governments need to create an environment where trusted sources can raise awareness on what the impact of our current food systems are. Creating this awareness could lead to an increased willingness to eat less meat (Wellesley et al., 2015). Marteau et. al identify different types of interventions grouped by whether they change the physical or economic environments in which behavior occurs. How these interventions can best be implemented partly depends on whether they concern public or private sector settings. She states that complex, coordinated behavior can be mobilized by a shared, positive narrative, reflecting collective goals, alongside a clear vision, making vivid the many benefits of a net zero world, with a roadmap and timelines. The development of such a vision-both global and regional- is a priority and requires co-creation by citizens, governments, and industries, informed by scientific expertise and protected from corporate interference (Marteau, , Chater, , & Garnett, , 2021).

There is also some research to be found on the factors that are preventing a transition to a more plant-based diet such as the study by Stoll-Kleeman and Schmidt. In this study the different factors range from personal factors, (including socio-demographic factors and personality traits) to external factors where political and economic factors play a role as well as infrastructure (Stoll-Kleemann & Schmidt, 2016)

A study on dietary behavior in the UK showed that to understand and support the growing trend of eating more plan-based foods, policymakers and researchers need to better understand the reasons why people are reluctant to eat more plant based, however also subsidies to the livestock sector would need to be addressed as price is another important

factor to influence consumers. In addition, studies point out that interventions by the government are necessary and reduction of meat consumption is not only about eating less but rather differently (Grassian, 2019).

Generally, studies show us that there is a lack of awareness regarding the link between climate change and meat consumption. Unfortunately, but also understandably, most studies focus on one country or a few, whereas taking cultural aspects into consideration, one would need these studies in all EU countries in order to get a true understanding. In addition, it's worth noting that there might be environmental impacts if the EU changes to a healthier diet due to higher meat exports. So, it is important to understand all the factors that will impact dietary habits, including the existing trade policies and the profitability of the meat sector. Finally, I note that it is important to understand the challenges in changing dietary habits because food serves more functions than just nutrition and has social and cultural meaning (Macdiarmid, 2016)

Studies on the readiness of consumers to reduce meat consumption show that most consumers are not ready to make food choices based on what is best for the environment or climate (Austgulen et al., 2018). These studies also show that consumers are not aware that meat reduction plays a dominant role in reducing CO2. Interestingly, research shows that when the link is made between health and sustainable foods, consumer will be more willing to eat more plant-based foods. In addition, increasing consumers motivation and involvement in health and sustainability is a crucial aspect in increasing healthy and sustainable eating. There is some research on which different policy instruments have been used so far in order to enable consumers to make a more informed and more sustainable food choices. The preferred policy tool in the EU has been so far soft policy approaches such as educational programs, information campaigns, subsidies and nudging (Prag & Henriksen, 2020).

There are two important factors that stand out and have made a significant contribution to the present day food landscape: sustainable development and globalization and on different levels in society, the need to make both food production and consumption more sustainable has been acknowledged and accepted (Spaargaren et. al. 2012)

3.2 Research on policy making in food transitions

In the European Green Deal, it is stated that Climate Change and environmental degradation are an existential threat to Europe and the world. To overcome these challenges, the European Green Deal[17] will transform the EU in a modern, resource efficient and competitive economy, ensuring no net emissions of greenhouse gasses by 2050 and economic growth decoupled from resource use (EC, 2019). This suggests that there is a discourse on an economic model that fits the current challenges. However, the way to get there is basically left up to the member states. Denmark, a member state with a large agricultural sector, pledged to reduce national emissions by 70% in 2030 relative to 1990 levels (Prag & Henriksen, 2020). That reduction would be possible through measures such as decreasing food waste, facilitating research and development of new technologies and food processing. Measures to shift towards a more plant-based food production are not included

The SDGs are seen as a guiding document for governmental, corporate and civil society action for a shared and lasting prosperity, but for the SDG's to provide a long-term and universally relevant vision, they need to move beyond a focus on the cockpit. They need to inspire and challenge multiple agents of change including governments: 'planetary boundaries' to strengthen the urgency of addressing the environmental concerns, 'the safe and just operating space' to highlight the interconnectedness of social and environmental concerns and its distributive consequences for industrialized countries and emerging economies, 'the energetic society' to engage new agents of change to forge ahead with new, more sustainable ways of doing things, and 'green competition' to initiate ideas and technologies and stimulate new business practices (Hajer, et al., 2015).

Based on the research that I listed, I believe that research on what tools governments have in place to promote a more plant-based diet, will contribute to the debate on how the achieve the goals as stated by the UN with the SDGs.

Attracting and activating policy engagement for reducing animal derived protein is not straight forward. Despite the clear scientific evidence that our eating habits are resulting in devastating damage, political attention for specifically reducing meat consumption is almost absent. Cutting out meat is a sensitive topic and it seems wiser to address meat consumption

[17] Delivering the European Green Deal | European Commission (europa.eu)

in a varied manner than e.g. implement taxes or public-policy interventions as long as meat centered paradigm still exists (Dagevos & Voordouw, 2013).

3.3 Research gap

There is little research in how Member States are implementing the Green Deal and more specifically the F2F strategy. This has its obvious reason that the F2F strategy at this point is not effective yet. It is a strategy with a set of objectives and a proposed legislative framework (EC, 2020). However, the strategy was launched in 2020 as part of the European Green Deal and the subject of becoming more sustainable is not new in the EU. Overall, there is a lot of research to be found on the implementation of sustainability directions by companies or policies on national level but not so much on how sustainability initiatives coming from the EU are implemented on member state level. This identified research gap is where I will focus my research on.

3.4 Conceptual Frameworks

My point of departure are the following three reports that give us a clear scientific framework in the complex challenge of Climate change and the food systems that are necessary to mitigate the Climate Change effects. I have chosen these reports as they are widely recognized as guiding scientific documents in the area of Climate change and sustainable development.

Planetary Boundaries

Johan Rockström offers us a model that describes the planetary boundaries and the thresholds that we must not pass. Identifying and quantifying these boundaries support us to avoid activities that are causing unacceptable environmental change (Rockström, 2009). With the growing reliance on fossil fuels and industrialized forms of agriculture, human activities have reached a level that could damage the systems that keep Earth in the desirable Holocene state[18]. However, we have passed a number of thresholds and still it seems that the current

[18] The period of stability on Earth that we have known for the past 10,000 years is known as the Holocene. During this period, environmental change has occurred and Earth's regulatory capacity maintained the conditions that enabled human development. Climate change is threatening the Holocene and while Rockström in 2009 still talked about the Holocene, his research presents a new era now that is man's doing: the Anthropocene

overconsumption of these finite resources does not make us, inhabitants of this planet, act quick enough to turn the tide. Rockström points out the interconnectedness between the different earth-system processes and that the systems occur on local level but have impacts on regional or even global level. There is a delicate balance of systems that keep Earth in the desirable Holocene state and with overusing certain systems, we have reached a new period: the Anthropocene (Rockström, 2009).

IPCC

The Intergovernmental Panel on Climate Change (hereafter: IPCC) is the United Nations body for assessing the science related to Climate Change. The objective of the IPCC is to provide governments at all levels with scientific information that they can use to develop climate policies. IPCC reports are also a key input into international climate change negotiations. The IPCC is an organization of governments that are members of the United Nations or WMO (World Meteorological Organization). Comprehensive scientific Assessments reports are published every 6 to 7 years. The last one completed provided the main scientific input to the Paris agreement (reference).

The IPCC reports published in 2019 was defined as a special report on Climate Change, desertification, land degradation, sustainable land management, food security and green house gas fluxes in terrestrial ecosystems (reference). In this report it was stated clearly for the first time that Climate change is affecting our food security and one of the causes is our pressured food system. The reasons are overpopulations, income growth, increased demand for animal source proteins and climate change. Habitable land area is subject to human-induced degradation where drylands in drought have increases and more people living in area's of desertification. The report states observed temperature changes, an increase in GHG emissions, changes in land use that induce GHG emissions, increased agricultural production, increased Food demand, and increased desertification and land degradation (IPCC report, 2019). Globally, these reports are acknowledged as scientifically leading and used in global policy

making and are the basis for the UN Climate Change Conferences[19] held annually where agreements are forged between countries with respect to Climate Change.

EAT- Lancet Commission report

The EAT-Lancet Commission report, talks about a Great Food transformation in order to reach the Sustainable Development goals 2050 as laid out by the UN. According to the report, unhealthy diets pose a greater risk to morbidity and mortality than does unsafe sex, and alcohol, drug and tobacco use combined (Willet et al., 2019). Furthermore, the report states that there has not been defined scientific targets for achieving healthy diets from sustainable food systems and this has been hindering a transformation of the global food system that is large scale and with combined efforts on different levels. The report describes what a universal healthy reference diet looks like which is largely consisting of plant based foods, a low to moderate amount of seafood and poultry and includes no to low quantities of red or processed meats, added sugars, refined grains and starchy vegetables. The healthy reference diets looks substantially different than what we are used to in Europe.

Food production depends on continued functioning of biophysical systems and processes to regulate and maintain a stable earth system; therefore, these systems and processes provide a globally systemic indicators of sustainable food production. With the quantification of the scientific target there now is universal and scalable planetary boundaries for the food system. There is a need of increasing innovative production practices where especially the yield of crops must be increased (Willet et al., 2019). In addition, food waste and loss must be tackled.

This Great Food Transformation requires, according to the Commission, multi-level action in several sectors to change what kind of food is eaten and how it has been produced, to decrease the negative impacts on the environment while providing healthy diets globally.

Here, I would like to highlight that the healthy reference diet as stated by the EAT- Lancet commission is a diet that in some regions or even countries is well established, however for us in the Western world can be seen as extreme (Willet et al., 2019). On the website of het the

[19] Also known as COP: Conference of the Parties

Dutch Nutrition Centre[20], it is explained how meat consumption has changed from a luxury product to a food item that people deem necessary. The Nutrition Centre made adjustments in their guidelines and today advises to reduce the intake of especially red meat and supports a vegetarian diet[21].

3.5 Theoretical framework

Collective action theory

Reducing the emissions of greenhouse gasses by individuals and organizations that are increasing the threat of Climate Change is a widely acknowledged global challenge. Our food systems and our dietary habits play an important role in the emissions of greenhouse gasses. To transform our food systems and our dietary behavior in order to reduce CO2 emissions is a typical collective action problem where there is a conflict between the long-term interest in cooperation and the short-term interest in free riding on other's cooperative efforts(Jagers et al., 2020). Many actors at diverse levels will need to make costly decisions to reduce emissions (Ostrom, 2010). Besides, we might eat foods that have a high impact on the planetary boundaries but bring us status, social importance or cultural importance (Biermann, & Rau, 2020), so the price of not eating those specific foods might seem high and moreover, we regard our dietary choices as personal. Therefore, we don't know what others might do and we defect instead and wait until others act and this of course does not benefit a solution in the challenge to reduce CO2. Mancur Olsson (1965) stated that 'rational, self-interested individuals will not act to achieve their common or group interests. The existence of a large group with a common interest does not automatically give rise to collective action. There must be an individual incentive to join in or there must be compulsion, (Olson, 1965).

The public resources that are at stake, are the public goods that are threatened by Climate Change, such as clean air, sufficient water, the state of the oceans and biodiversity. Mitigating

[20] The Netherlands Nutrition Centre provides consumers with scientifically evidenced and independent information on healthy and safe food.
[21] White paper - Towards a more plant-based diet - Dutch Nutrition Centre.pdf (voedingscentrum.nl)

the effects of Climate change requires global collective action and the international multilateral organizations such as the Conferences of Parties and the UNFCCC remain a central forum for global Climate governance. However, more is needed and the developed collective action theory takes in a polycentric approach where different actors on different levels work together as a multiple governing authority. These insights by Ostrom have been the basis of this thesis. Ostrom (1998) states that in order to tackle these collective action problems, not only state intervention is necessary, but rather a poly centric approach where not only overarching governments, but also local initiatives, consumer associations play an important role to raise awareness and act.

Multi Level Perspective in socio technical changes

A wicked problem such as changing our global food systems and diets for the benefit of us all, where culture, norms, behavior and habits play a role, need solutions that will reform on different levels in society. Frank Geels (2012), describes technological transitions as evolutionary reconfiguration processes from a multi-level perspective. He defines technological transitions as major, long term technological changes in the way societal functions are fulfilled. Technological transitions do not only impact technology but impact infrastructure, market conditions, user practices and even symbolic meaning. Geels takes the perspective of sociology in technological transformations and delivered a framework that supports the understanding of sociotechnical changes that have impacts on different layers on society (Geels, 2012).

Geels draws the link to evolutionary economics, based on Nelson and Winter's concept of technological regime, where besides the view of variation, selection and retention there is also the view that evolution is a process of unfolding, creating new combinations, resulting in paths and trajectories (Nelson & Winter, 2002). My aim is to apply Geels' theory to the case of the Netherlands and the level of implementation of the F2F strategy since the change to a more sustainable food system will result in changes and impact stakeholders and with that different layers of society.

New practices in society might have a hard time to break through, as the established practice is embedded in our routines, infrastructure as well as governance landscape. There is often a mismatch with the established socio-institutional framework, but only for a period of time.

Because of changing market demands, legislative landscape and changed behaviors, new technologies will get a chance to break through (Geels, 2012).

Geels describes three levels of how technology advances, first as a niche, where an often radical innovation is delivered. When ongoing processes at the two other levels of regime and landscape, create a window of opportunity, the innovation that happened, can move a level up. A window of opportunity can be created through different events but often have to do with changes in the overall technology landscape, involving cultural, political and demographic changes. Also, tensions in the patchwork in regimes could cause an opportunity for an innovation to break through.

I will take this theoretical framework to depart from as the Global Food Transformation, as the EAT- Lancet report describes (Willet et al., 2019), is too dependent on interacting elements on different levels as well as innovations that are created in a niche and are just waiting for their break through. The fact that the Global Food Transformation is seen as necessary by a number of prominent institutions as well as on EU level, shows that the willingness on a landscape perspective exists, but there is still a lack of established regimes on meso level, such as a developed infrastructure, cultural embeddedness, an established meaning as well as user practices.

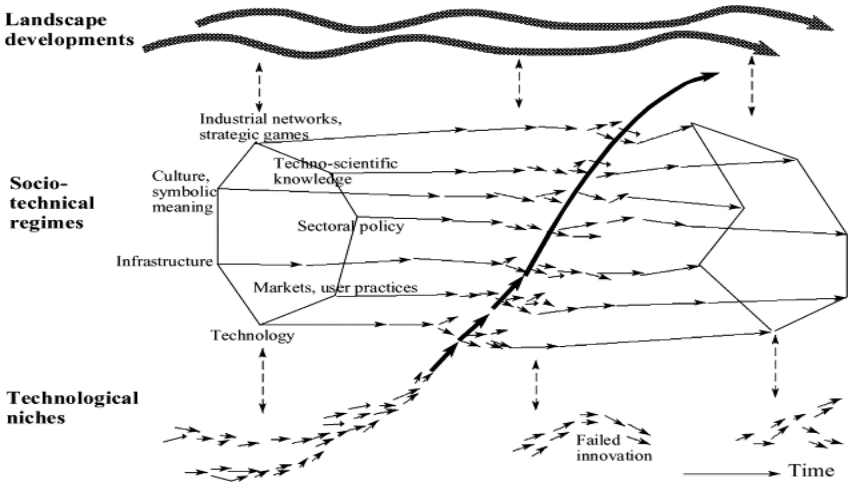

Figure 1: The three analytical levels of MLP by Geels (2012)

Looking at Geels model more in detail, developments are taking place, showing the call for a more sustainable food chain. These are not necessarily new developments. Examples of how these developments start and further develop in to more specific developments are evident in this research problem and could be coming from a policy angle, scientific knowledge or markets. The report of the Club of Rome (1972) was a milestone in the discussions about sustainable development and the challenges we are facing. Furthermore, the Brundtland report (1987), can be seen as a milestone too when it comes to landscape development as the challenges the world is facing is being stated clearly and was the start of the Sustainability development goals. With these reports, networks were created and strategically lots of initiatives were brought to life. It's fair to say that Gro Harlem Brundtland, chair of the Brundtland commission, is the mother of our current sustainable development movement where the Green Deal is the leading strategy in the EU.

In this study, I focus on the role of the government and MP's in the implementation of the F2F strategy launched at EU level. Even if the landscape seems to be in order to launch such a strategy and it has been supported by the Member States, many initiatives will need to be launched on member state level, or regional level with costly investment needs. By applying the MLP lens, where niches need to be developed in order to be taken to the next level where a structure or infrastructure is put in place, I aim to analyze how the F2F strategy is being implemented and what role the Cabinet and MP's play in this development.

Gert Spaargaren et al. (2012) described the transitions that have happened in modern history by applying Geels' MLP theory on food systems (2002). Since the 1970's many cases of more or less encompassing regime changes towards sustainability have been documented making use of niche arrangements, such as tax incentives, subsidies stimulation of best practices but disagreement continues to exist about principles that need to be applied. Major historical developments have impacted the landscape for socio-technological changes, such as globalization, the introduction of the internet and market based regulation. Geels adds the meltdown od the Chernobyl reactor that led to a huge shock and was seen as the arrival of a risk society and a new dimension of the new dynamics of reflexive modernity. This arrival of a risk society has tragically been reconfirmed with the invasion of the Ukraine February 2022. It is geo-political changes like this that will have an impact on the development of transitions

and Spaargaren et. al. (2012) claim that in reflexive modernity all social relations of food production and consumption are being stretched out over global levels of scale. As a result, all local processes are affected by globalization. Understanding the connections being remade between localizing and globalizing dynamics in the present phase of reflexive modernity can be regarded as the main challenge and analytical task for the social sciences (Spaargaren et al. 2012).

It is clear that a transformational change is needed in our food systems to develop a more sustainable food system that acts within the planetary boundaries. Transformational changes do not happen coincidentally or by one person, there is a need of collective action and with the MLP theory I aim to study what is happening from the side of the cabinet and the House of representatives.

4. Method and material

I have based my research design on the different stages laid out by Gray (2018) where both the planning and the operational stage have different stages that are of importance.

This study is a qualitative study where both interviews and document analysis were used. By analyzing parliamentary papers that are published by the Dutch House of Representatives in The Netherlands. Knowledge was gathered about the work the House of Representatives is doing to implement the F2F strategy in the Netherlands.

Qualitative research is a powerful source for analysis as it is highly contextual, collected in 'real life' settings and often over longer periods of time (Gray, 2018). Qualitative research does not give a picture of the here and now, but can show how and why things happen, incorporating people's motivations, actions, emotions. Qualitative data is much more diverse than quantitative data and is suitable to be used in situations where relatively little is known about the phenomenon, or to gain more perspectives and insights. Because of this, I believe qualitative research is relevant and beneficial for my thesis where the RQ's are:

- How are the House of Representatives and the government in the Netherlands implementing the F2F strategy in policy making?
- What collective action problems can be found in the discussions by the House of Representatives and the government in the Netherlands with regards to the F2F Strategy?

4.1 Document analysis

Document analysis is one of the many approaches within qualitative research and comprises of analyzing written documents. By systematically and objectively identifying special characteristics, inferences about the data can be made (Gray, 2018). Criteria of selection need to be applied in order to achieve a measure of objectivity. Gray identifies three classes in content analysis: common classes, special classes and theoretical classes, these categories are often brought to the data and not necessarily derived from them. After identifying categories, the analysis needs to be done, where it is crucial to reduce the volume of the material. Here three stages are identified: summarizing, explicating, and structuring (Gray, 2018). The

advantage of this method that one can systematically and objectively identify special characteristics in texts. Objectivity is a challenge but can be addressed by the creation of specific rules when selecting criteria. The downside of this method is to convert the vast amount documents into a result and argument (Gray, 2018). This has been a challenge but by using a systematic approach, the amount of documents was reduced.

On the website of the House of Representatives of The Netherlands[22], all written communication between the Dutch government and the Dutch Parliament must be published according to article 151 of the Rules of procedure of the House of Representatives[23]. A qualitative document analysis was performed on the parliamentary papers of the Dutch House of Representatives involving different levels of analysis. A search was performed on the database of the Dutch House of Representatives to find all parliamentary papers from 2018 and onwards with regards to the F2F strategy. Only documents belonging to the Ministry of Agriculture, Nature and Food quality were used, as this Ministry is responsible to implement EU strategies that belong to this scope, which provided me with a vast number of documents presented in table 1.

Since the F2F strategy is part of the Green Deal, a search was made for documents where the Green Deal was mentioned together with F2F as well as the Dutch translation of F2F ('Van Boer naar Bord'). Initially, the search was started with a broad scope, in order to understand where the search terms were used. With this I hoped to get an idea what documents popped up with regards to what the Parliament has initiated in the last 4 years with regards to the F2F discussion and the Food transition.

The words are all connected to the overall area of Climate Change. As stated earlier, the IPCC reports have been vital in the scientific research providing global guidance to governments in the area of Climate Change and have been a leading document in creating the Green Deal as well as F2F strategy. I decided to include the search term 'protein transition' as the transition to more plant based proteins is one of the recommendations from the IPCC report and the EAT- Lancet Commission report and also is mentioned in the F2F strategy. During my search I noticed that the Food transition that is required does not express itself only by search terms

[22] Home | Tweede Kamer der Staten-Generaal
[23] Rules of Procedure (houseofrepresentatives.nl)

as F2F or Green Deal. As the Netherlands is facing a Nitrogen crisis[24], where industrialized farming has been identified as one of the causes of high Nitrogen emissions and with that causing grave environmental damage, I decided it would benefit this research to include the term 'Nitrogen'.

I used 4 search terms in total:

1. Farm to Fork
2. Protein transition
3. Green Deal
4. Nitrogen policy

Table 1 gives the result of the initial search and in what kind of documents the search terms were found. Parliamentary papers consist of several different documents. Applying the 4 search terms resulted in 744 documents. To be more effective in finding answers to my RQ's, a selection was made of the parliamentary papers and included: 'Letters from the government' as well as 'Committee reports'. In addition, a decision was also made to focus only on documents that arose when searching for F2F (including the Dutch term for Farm to Fork). The reason is twofold: Firstly, this thesis evolves around finding answers regarding the implementation on the F2F strategy, therefore this search term is logical. Secondly: Time was a constraint and even though the search terms are connected, for the sake of a analysis of decent quality I needed to bring the number of documents down. Concentrating on just the document with the search term 'Farm to Fork' was in this process a logical step.

Highlighted in yellow in table 1, are the documents that were identified as the most relevant to my research and were analyzed. Further selection was applied here too by excluding documents that held little content but showed up in the search e.g. agenda's or notifications.

[24] The Nitrogen crisis is said to paralyze The Netherlands and having an effect on construction plans as permits to build are suspended, according a High Court ruling, until the country deals with nitrogen emissions. According to the ABN AMRO bank, 14 billion Euros worth of construction projects are in jeopardy as plans for new homes, roads and airport runways are blocked. Nitrogen crisis threatens Dutch environment—and economy (science.org)

With this, the total amount of documents that ended up being the most relevant for my thesis mounted to 36 documents.

Type of parliamentary document	Search term			
Parliamentary papers	Farm to fork	Protein transition	Green deal	Nitrogen policy
Decree lists	10	1	7	18
Letters to Government	73	12	92	29
Committee reports	45	13	23	16
Questions from the House of Representatives	0	0	0	0
Motions	0	0	0	0
Other documents from the House of Representatives	174	30	123	71
Reports	3	1	2	1
Legislative proposal	0	0	0	0
Total	305	57	247	135

Table 1. Overview of parliamentary papers found with the specified search terms

The analytical framework is constructed as such:

Titscher's (2007) sampling approach was used where firstly the sender is selected: The three steps in the sampling approach were:

1. **Sender**: Committee of Agriculture, Nature and Food quality. Since F2F is naturally related to the Ministry of Agriculture, Nature and Food, it made sense to concentrate the analysis on this Ministry.

2. **Documents:** ‘Letters from government’ and ‘Committee reports’ were selected. This selection was based on my RQ where I aim to find our what MP’s are doing in order to implement the F2F strategy. As mentioned earlier, the Committees, that consist of MP’s, are the backbone of the House of Parliament and play a crucial role in developing strategies, legislative proposals and further action that is necessary. I figured that I would probably find rich data in this part of the parliamentary papers. For the same reason, data was gathered from letters from the government. As in these documents, it is the Minister that informs the House of Representatives, on certain actions, stances or briefs.
3. A **sub selection of the documents** where I searched for meaningful words, phrases and paragraphs in the documents (Titscher et al, 2007). I identified meaningful documents in my research as documents that carry support or mention action or a willingness to act in the area of the 4 search criteria. For this reason, e.g. I did not analyse the agendas of meetings, but I did analyse the outcome of meetings as actions and decisions would be listed in the report of a meeting.

   With the selection of the documents the process of categorizing and coding started, where the selected categories needed to carry meaning of certain action: e.g.: proposing actions, or informing the House of representatives.

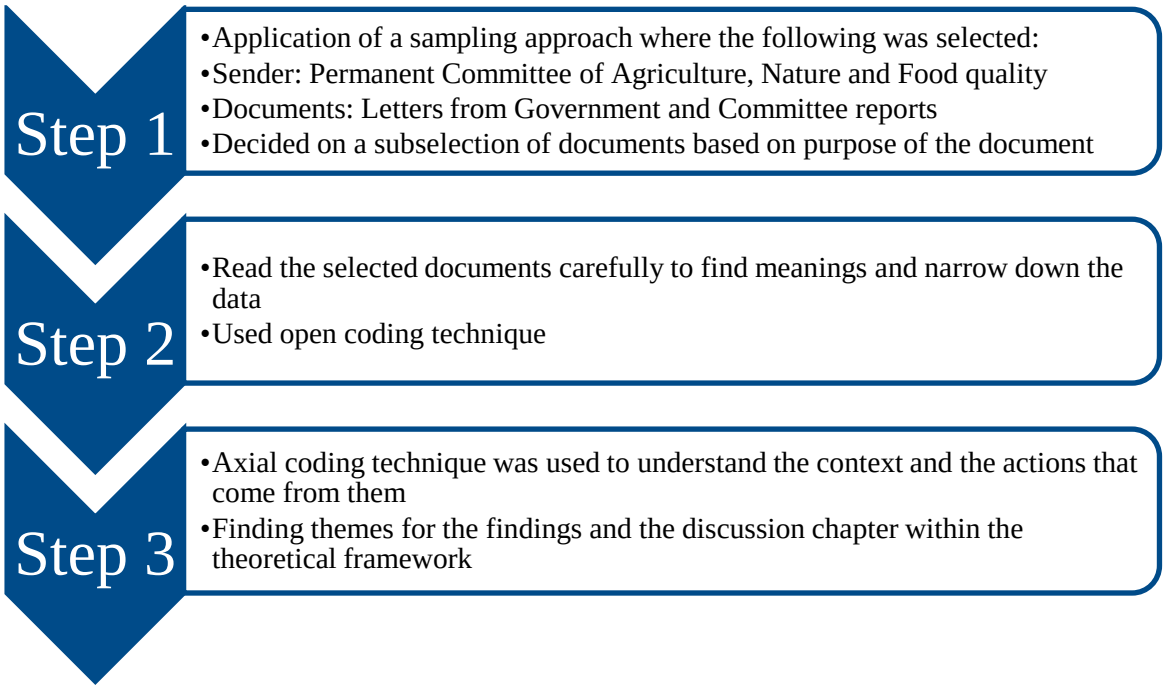

Figure 2. The Data Analysis process

4.2 Interviewing

The use of semi-structured interviews allows for more detailed responses and clarifications can easily be asked. Interviews are best to be used when exploring perspectives of informants and allows for nuances to be captured, and for questions to be clarified (Gray, 2018). Semi-structured interviews, that were applied in this study, are non-standardized and the order of the questions that have been prepared by the interviewer may change depending on what direction the interview takes.

Interviews in qualitative research can provide rich data that is hard to obtain otherwise. An interview being a verbal exchange in which one person attempts to acquire information from and gain an understanding of another person, the interviewee (Gray, 2018). In this thesis the method of interviews was chosen to get specific knowledge and experience in the policy making process regarding the food transition in the Netherlands. Interviewing allows for collecting different views, feelings and opinions from knowledge experts (Gray, 2018) and is therefore valuable in this thesis where there isn't much previous research. For the interviews I prepared an aide mémoire (Gray, 2018) where I wrote down the main themes related to my

research question. The two interviews that were held were both recorded to be able to capture everything, for this consent was asked in the beginning of the interview. This allowed me to fully concentrate on the interview without having to note.

For this study, two semi structured interviews were held with senior coworkers at organizations that have an advising role to the government and are responsible for delivering material for policymaking, respectively The Health Council of the Netherlands[25] and The Netherlands Environmental Assessment Agency[26].

The Netherlands Environmental Assessment Agency

The Netherlands Environmental Assessment Agency is the national Institute for strategic policy analysis in the fields of the environment, nature and spatial planning. It is an autonomous research institute and part of the Dutch Government organization; more specifically, the Ministry of Infrastructure and Water Management.

The Netherlands Environmental Assessment Agency, positioning itself between policy and science, points out the complexity in the objectives of the F2F strategy. They mainly write reports and documents that have to be relevant for the policies that need to be implemented and applied and are science based.

Other government departments may also ask the agency to conduct research into issues related to the environment, nature and spatial planning – in particular the Ministry of Economic Affairs and Climate Policy, the Ministry of the Interior and Kingdom Relations, the Ministry of Agriculture, Nature and Food Quality and the Ministry of Foreign Affairs. In this thesis there is a strong connection with the ministry of Agriculture, Nature and Food quality.

Interview with The Health Council of the Netherlands

The Dutch Health Council is an independent scientific advisory board with the legal task to advise government and parliament on the area of Public Health and Health care.

The task of the Health Council of The Netherlands is to advice policy makers in The Netherlands in the field of Public Health and Healthcare. The Health Council of the

[25] In Dutch: De Gezondheidsraad
[26] In Dutch: Planbureau voor de Leefomgeving (PBL)

Netherlands supports Committees that are put in place to answer a question of the government and provides dietary recommendations. The focus of these dietary recommendations has historically been on health rather than on Climate, but this is slowly changing. The Committees that do scientific research on behalf of the government are multidisciplinary and consist of subject experts from all over the country, often coming from the academic world.

4.3 Validity and reliability

The validity in the interviews was ensured by taking up the RQ's directly in the interview and allowing the interviewees to expand and elaborate in their answers. Although the number of interviews was limited in this thesis, the data coming from the two interviews as well as the document analysis, gave different views as well as the necessary depth. Reliability was ensured by stating exactly the same questions in the interviews as well as ensuring accuracy by fully recording the interview. The validity in the content analysis is more challenging as the search words in itself do not necessarily express how the F2F strategy is being implemented. I tried to therefore not only look at the search criteria but also what meaning these carry.

Although objectivity was aimed for, a reliable interpretation of the data remains challenging. The researcher functions as a lens of the material and needs to be aware of subjective reading and interpretation of the material.

The fact that Dutch is my mother tongue has been a tremendous advantage in both the document analysis as well as conducting the interviews. It made it much easier to search for the relevant documents and lead the interviews. Having professional experience in the area of sustainability has been a benefit in the analysis and interview process as well, it made it easier to quickly grasp the meaning and ask follow up questions.

4.4 Limitations

As the scope of this research is limited to the Netherlands, this means that the results of this research will only show the results of one Member state. Since all Member states in the EU are unique in cultural and social perspective as well perhaps in public administration and

policy making, the outcome of this study will be limited to a small part of the EU, but nevertheless might give interesting insights.

Another limitation is that using interviews carry a personal note. Although adhering to the questions, interest awakes to ask follow up questions as well. Also here, I tried to be objective but note needs to be taken of the subjectivity of the interviewee as well as my own. The interviewer effect cannot be avoided and will have impact on the responses given by the interviewee (Brinkmann, 2013).

With regards to the data analysis, also here a note can be added. Having used a framework and having drawn up the research design, it is still possible that words or meanings have been missed, since I performed a sampling and did not analyze all documents that were available. This would not have been possible in the timeframe and I therefore chose to limit the scope of my analysis.

5. Analysis & Results

The following section will give an overview of the outcome from the interviews and the document analysis. The outcome consists mainly of the researcher's notes where the aim has been to capture and summarize the discussions with the interviewees as good as possible. In addition, some quotes have been added from the interviewees and these have been presented with quotation marks.

5.1 Interviews

In the interviews the focus has been given to understand how the organization that was being interviewed, contributes to the implementation of the F2F strategy and what their thoughts and ideas are to further implement the F2F strategy. For this reason, I aimed to cluster certain topics and used headings to capture the outcome of the interviews:

Respondent 1 (R1): The Netherlands Environmental Assessment Agency (PBL)

Respondent 2 (R2): The Dutch Health Council (GR)

The complexity of the challenges related to a more sustainable food system as presented in the Farm to Fork Strategy

R1: The Netherlands Environmental Assessment Agency positions itself between policy and science and publishes reports that have to be relevant to the policies and have to be able to be applied and must be based in science.

It is the task of the Agency to highlight the complexity within agriculture and food systems. There are two sides that are important: First of all, the food patterns and how diets and habits can lead to a more sustainable food consumption. The other important side is how the different actors in the food chain can be supported and how the different actors in the value chain can support the farmers. When profit margins for farmers decrease, the standard reaction has been to upscale their operations, with support from other stakeholders such as banks and the government, however it might be more sustainable to support them in other ways.

R2: The Health Council receives a question from the Minister who requests to have a scientific basis for policy making. The task of the Health Council is to put together a multidisciplinary commission consisting of experts from the whole country, often subject matter experts that are professionally linked to universities. This process is supported by a team of scientific secretaries who prepare, advise the team of experts, do literature research and conduct interviews. The Dutch Health Council looks carefully to maintain objectivity and to assess al inputs. Therefore, there can also behearings held in complex matters where different parties such as NGO's or even lobby originations need to be heard.

The importance of scientific reports specifically IPCC and the EAT- Lancet Commission report

R1: The IPCC reports play a crucial role for the agency as the The Netherlands Environmental Assessment Agency bases its reports on science. The IPCC gives input to the COP meetings as well as to the UN framework convention for Climate Change. Since agreements between countries are made on the COP meetings as well as the implementation of the agreements is discussed, the scientific reports are of great importance. Agreements such as EU ETS[27] and effort sharing regulations have been proposed, however it is up to the countries how they intend to reach the objectives and how strategies are implemented. This is a great challenge as there is a tendency to protect national agriculture. Technical solutions create challenges if there's a lack of long term visions. The Netherlands Environmental Assessment Agency calls for an integral and long term vision to be able to continue after 2030 on the path towards sustainable development.

The EAT- Lancet Commission report is scientific, however as the process is not supported by the different countries it does not have the same status, it is just one of many reports. In the Netherlands, the reports of the Dutch Health Council play an important role, whose advice derives from the WHO and is then adjusted to the Dutch situation. The Dutch Health council publishes the advice and this is translated by the Dutch Nutrition Centre in concrete dietary recommendations.

[27] EU Emission Trading System: A 'cap and trade' system that caps the total volume of GHG emissions from installations and aircraft operators responsible for around 50% of EU GHG emissions.The EU ETS is a major tool of the European Union in its efforts to meet emissions reductions targets now and in the future. EU Emissions Trading System (EU ETS) (europa.eu)

R2: The Dutch Health Council's task is to advise on scientific basis. The Dutch Health Council tries to be as independent as possible and to produce an advice that would basically be the same as if another commission would have had the task. Scientific reports such as IPCC and the EAT- Lancet Commission report, play a role in the whole spectrum of scientific reports that is used. The Dutch Health Council is placed within the domain of scientific basis and bases all reports on science only and it is their task to remain as close as possible to the science available.

The reception/reactions in the food chain to a more sustainable food system

R1: "The reactions to the concept of a more sustainable food system and ideas that we have given are very different, but in general it's a good sign that the Minister for Agriculture, Nature and Food quality acknowledges that food choice is no longer an individual choice but that is depends on the environment and the culture."

Food supply determines to a great extent what people eat and meat is sometimes used as a traffic generator. The The Netherlands Environmental Assessment Agency tries to point out that the parties that are closest to the consumer have the most possibilities to steer those choices. Nudging can have a great effect. The meat processing industry is working e.g. on alternatives and often these have high gross margins and can be seen as an attractive product for retailers to sell.

It is a challenge however to let consumers pay more for better quality meat, however with small steps in the chain, steps can be made. Ten years ago an agreement was made for the certification of pork and chicken meat with better animal welfare conditions[28]. Today, the Dutch consumer does not have the choice anymore to buy the cheaper, less animal friendly meat options. However, two-thirds is exported and this meat does not necessarily carry this certification.

A concrete result of the F2F strategy is the industry code signed by large retail cooperations in the food chain, meant to support farmers and attract customers. A similar industry code is being developed for biodiversity.

[28] Certification: 'Beter leven Keurmerk' translates in 'Better living certification' and focuses on increasing animal welfare in the Netherlands

R2: “We advise government, the translation towards the consumer does not happen by us, but through another organization: The Dutch Nutrition Centre applies our advice in healthy menu’s and works more practical. This level of detail cannot be obtained by the Dutch Health Council. We produce advice, based on science, that is applicable to the Dutch market.”

F2F as a legal framework

R1: “The F2F strategy has no legal status, but 27 initiatives have been announced, of which half will be legislative proposals. A legislative framework for sustainable food systems will be launched in mid-2023. The larger goals in F2F still have to be approved by the countries and it should be seen as a framework where legislation is announced. F2F will also have consequences for the Common Agricultural policy.”

R2: “The F2F is not a scientific document, but a strategy, from this perspective we would not use this in our work. Our policy advice would however, need to contribute to the F2F.”

Obstacles in transitioning to a more sustainable food system:

R1: With regards to food the obstacles can be identified in our food culture and the public debate. How to compensate the losers? The consequences of Climate Change are enormous but often too far away from our daily reality, so how to present the environmental damage without being patronizing?

With regards to food systems: sustainable food systems are important for everyone but how to create concrete actions and how to get to a solution in a logical way that makes sense for all parties without leading to unfair competition?

R2: “If there is little scientific basis, it’s harder for us to advise, however it is still possible for subject matter experts to advise, but a consequence could be that we would not publish revised guidelines.”

Personal expectations/comments in implementing the F2F strategy

R1: Steps are being made and during the establishment of the industry retail code, an observation was made that it’s for the very first time that all parties in the chain are working together to find solutions and that’s a positive sign. The Dutch government has announced to reduce the biodiversity footprint with 50%, this was based on the IPBES report from 2019 where it was stated that biodiversity is declining rapidly and that our food consumption plays

a role. The The Netherlands Environmental Assessment Agency published on behalf of the government a report how this could be accomplished.

The House is working on an instrument what KPI's should be used by retailers how they can report on their sustainability performance.

R2: There will a revision of the guidelines 'Good nutrition' in the course of 2023. In this publication an integration of health and sustainability is aimed for. There always has been a dominant focus on health in the guidelines of the Dutch Health Council, but the expectation is that more focus will be on the environmental challenge and the integration of sustainability in the dietary recommendations. This integration is important as a call from the ministry for making this adjustment/integration would not be necessary anymore. There will also be a national protein strategy to support the transition to more plant based proteins.

5.2 Document analysis

Letters of Government

The Letters of the Government are mainly documents where the Minister of Agriculture, Nature and Food quality, informs the House about certain discussions that have taken place on EU level. There are several subjects that pop up when analyzing the documents that all are related with more sustainable food systems, and therefore closely related to the goals of Farm to Fork:

In the analysis, the Ministry of Agriculture, Nature and Food quality was in focus where the letters from Government and the Committee reports[29] formed the base of my analysis; the reason for this selection was the vast amount of documents to be found. In addition, the Committees are put in place to work on all subjects belonging to the responsibility of the Minister of Agriculture, Nature and Food quality. The Committee members are the ones that discuss with subject matter experts, gather knowledge and insights and organize field visits to

[29] Permanent Committee of Agriculture, Nature and Food Quality

relevant organizations to gather knowledge. The Committee can also request more research in a certain area.

The F2F strategy was presented in May 2020 to the House of Representatives, but was announced well before and I chose therefore to apply search criteria from January 2018 in order to also catch preparational documents.

In the letters from the government, different kind of documents are to be found:

- Documents where the Minister[30] informs the House of upcoming EU policies and acknowledges support for the policies.
- Documents where the Minister informs the House on the agenda of the EU Agricultural & Fisheries council
- Reports of the Agriculture & Fisheries council
- Proposal for revision of policy often based on motions by the House
- Follow up on revisions, proposed actions
- Reactions on questions from MP's

Overall, the documents include informative and supportive papers as well as documents that call for action.

Returning frequently in the documents that were found using the search terms: Animal welfare, Biodiversity approach, national agricultural interests, ecological agriculture, long term policy for rural areas, F2F strategy, food transition and protein transition. This shows the different area's that are touched by F2F strategy, it also shows the complexity and the interconnectedness.

Returning frequently in this documentation is the support from the government and informing the House of that support as well as that the Minister will further investigate what a certain decision means for the Netherlands. One example is that in the letters, support is given to a labelling system for more sustainable food options, as well as support for further innovations in the area of biological farming. This support for innovations is crucial for testing and

[30] Unless stated otherwise, with Minister, The Minister of agriculture, Nature and Foodquality is meant

experimenting and gives space for new methods. One of the documents is the presentation of Fit for 55 to the House, where the Minister of Agriculture, Nature and Food quality informs the House about the agenda and proposes to include expert organizations that can work through what the Strategy means for the Netherlands.

One area where the government was quite critical and mentioned that the EU had claimed too much power: The urge from the EU to collect more data in agriculture. According to this EU decision, Member States are required to keep statistics on livestock, animal and plant based production, agricultural pricing. The fear from the Dutch House of Representatives is that this will be an resource intensive exercise, taking away focus from acting on the real issues.

Overall outcome:

- The Minister supports the CAP and the changes to it and points out the importance of an integrated EU vision on the food system.
- The Minister wants to develop a National Protein strategy, where the balance between proteins coming from animals and plants should be 50/50 instead of 60/40. This is an example that was given in the interview by the Dutch Health council, where R2 announced that a Protein strategy was being prepared and is a sign that the protein transition as part of a more sustainable food system (as stated in the F2F strategy) is being driven by the Minister.
- Minister calls for transition in agricultural systems and supports further sustainability measures in agriculture, calls for the importance of experimenting and the importance of transition even or since there is not yet a solution that is supported widely.

With the support for experiments, there's a space for initiatives where e.g. inspirational meetings can be held for e.g. the livestock industry. New cooperation initiatives are being formed to get more support for a solution that will contribute to a more sustainable food system. The IPCC reports come up in the documents as the leading scientific basis for the call for a transition in food systems.

The Dutch Minister of Agriculture, Nature and Food quality is making steps towards a more sustainable food system by promoting more plant based protein, however animal derived protein still has a prominent place. The protein transition will focus on 50% protein deriving

from plants and 50% protein coming from animals, but still this is much more than the EAT-Lancet Commission report recommends. It shows the complexity of the challenge as well as the status of the Lancet report. In the Netherlands the dietary recommendations are made by the Dutch Health Council, who advices the ministry. A sharp decrease in animal proteins has not been recommended so far by the Dutch Health Council. A revision of the recommendations is planned for 2023 and this will perhaps bring a shift.

Committee reports

The Committee reports give an account to the House of representatives on the work that is being done in a certain area. For time efficiency purposes as well as aiming to follow the analytical approach, only the Committee reports from the Committee of Agriculture, Nature, and Food quality were analyzed. The Committee has regular meetings, once a month and their reports account for discussions with the Minister of Agriculture, Nature and Food quality and are mostly reports of the debates being held by Members of the Committee and the House of representatives.

Frequently returning subjects are the challenges of the intense livestock industry which have created calls from MP's to take action to improve the situation. Over the course of the years between 2018- 2022 there is a shift where the discourse on more sustainable food systems gets stuck in the debate on the nitrogen crisis that the Netherlands is facing right now. This is clearly dominant in the Committee reports. The Nitrogen crisis is a direct consequence of the intense livestock industry in the Netherlands and is caused by excess nitrogen deposits in the Natura 2000 areas[31] .

The documents from the Committee show a big willingness to adhere to the F2F strategy and although MP's have been critical to tools that are being proposed, such as instruments to measure and the collection of data, there are calls for:

- Innovation of the agricultural sector where it is necessary according to the committee that a new business model is created for farmers where upscaling is not being

[31] Natura 2000 is a network of protected areas covering Europe's most valuable and threatened species and habitats. The sites within Natura 2000 are designated under the Birds and the Habitats Directives The Natura 2000 protected areas network — European Environment Agency (europa.eu)

promoted, nor dependency for income support by the EU but rather other ways of creating earnings. Today 85%, of the 725 million Euro that The Netherlands received from the EU goes to income support to farmers, this could be used for innovation techniques and/or research.

- New ideas for more concrete actions in developing the agricultural industry.
- Proposals to uses measure such as taxes, subsidies, and legislation
- Clear call for stopping the intense livestock industry from an environmental perspective, an animal welfare perspective and a health perspective.
- Call for using new technologies and machinery to ensure a transition
- Call for cooperation with other stakeholders such as the meat processing sector
- Call for participating in ASAP conference [32], where governments, organizations and the industry comes together to discuss cross industry topics.

5.3 Results

From the interviews, it can be noted that the two organisations interviewed, the Dutch Health Council and The Netherlands Environmental Assessment Agency, have an important task in advising the Ministry and creating policy in The Netherlands. The two organisations differ widely in their area of impact. Where the Netherlands Environmental Assessment Agency has a role in spreading knowledge for policy making purposes, the Dutch Health Council has an advising task towards the Government.

In this thesis, the main question is how the F2F is being implemented by the government and MP's with focus on the needed transition in food systems. In addition, what collective action dilemma's are being discussed and worked on? With the interviews it became clear that both organisations play a crucial role in the implementation of the F2F strategy in the Netherlands and will continue to do so. However, it also becomes clear that because of a range of reasons, the transition to more sustainable food systems is quite complex and the transition needs to cater for the losses of established players in the market. These questions about the future of

[32] 2022 ASAP European Alliance Summit (asapeusummit.org)

the established food system seems to take a very big part in the discussions and seems to push the scientific base a bit to the background. Both interviewees acknowledge the scientific reports that urgently call for a more sustainable food system in the Netherlands, however the discussion quickly shifts back to the current market players and the market losses when a shift towards a more sustainable shift should be made. This is typical for collective action problems and from a MLP perspective it shows the need for continuing to offer options or successful innovations that become profitable and viable for all players in the food value chain. Once the critical mass is reached, that's when the dominant regime can be challenged and true change can happen (Spaargaren et al., 2012).

In addition, dietary recommendations to the government for purposes of policy making has been rather on the basis of health than on environment. This means that the primary advising organisation to the government has so far not taken in the environmental effects of our diets. In order to make a shift in our food systems it is crucial that governments play their part and to implement the F2F strategy, the dietary recommendations from an environmental perspective must be taken in.

The call for experiments can be seen as novelties or niches in the terms of Geels' socio technical transition theory and are needed to research, learn and gain experience. The 'niche phase' allows for supporting networks to be established, something which the Minister supported in his letters. Geels mentions that niches can be created by landscape developments and I argue that the niches that are needed to implement the F2F strategy, are the result from the landscape development where the F2F derives from. As I pointed out earlier, the F2F Strategy, being part of the Green Deal, comes from extensive scientific data and knowledge that goes back at least 50 years with the report from the Club of Rome. In that sense, the knowledge that we need to act to mitigate the consequences of Climate Change, is not new. What is new, is the way we identify to act. Here, it becomes clear that Member States are left on their own to implement strategies. In addition, Member States differ in infrastructure, market circumstances and behavior. However, the established regime in this playing field of finding a transition pathway, does not have to be an absolute hinder in development. Niches can provide a vast array of possible innovations and the established regime can act as the selected environment. Technical breakthroughs can happen with

hybridization where new technologies can link with old technologies to provide a stepping stone (Geels, 2012).

Innovations will put pressures on the existing regimes which will support a change of shape of that regime. Therefore, the fact that there is a big support for innovations coming from the Committee and the Minister, is a sign that slowly steps are being made towards a transition.

Questioning the established business model within the existing food system is also a way of promoting F2F and addressing the urgent need for a global food transition. This happens through the discussions within the House of representatives and the meetings of the Committees. However, the absolute biggest challenge in promoting F2F and contributing to more sustainable food systems is the established agricultural farming industry and changing the business model for farmers. This is still seen as the elephant in the room given the fierce and violent protests the country is suffering, and the level of disagreement in government on how to tackle this. Considering the current inflation, making life more expensive for the average Dutch household, government seems to focus on the current challenges of households and Climate challenges are still seen as future challenges.

With regards to measures that are at the disposal of MP's, these are discussed and proposed, not always with success, but in the documents it is clear that there is space to bring this forward. However, when an investigation for the viability for meat tax was proposed by the Minister in May 2022, this was rejected fiercely by the majority of the House. It's commonly believed that taxes on food are not a pathway for people to eat more sustainable. In addition, the execution of a potential meat tax was believed to be very hard to realize by the government[33]

From the analysis of the documents it is clear that the committees are working on alternatives in ways of cooperations, networking and are acknowledging the vast problem that touches many layers in society. These networks of cooperation and actors who support novelties are necessary to form a base in order to climb to the next level of the transition (Geels, 2012). In

[33] 541958 (wur.nl): In 2021, EY performed a research, commissioned by the Ministry of Agriculture, Nature and Food quality to assess if a meattax could be implemented and maintained. The conclusion was that short term a meat tax is hardly viable, this is mainly due to lacking digital infrastructure

this first level, the learning processes, that take time, are happening and different elements are gradually linked together.

6.Conclusions & Discussion

The aim of this thesis has been to understand how the Netherlands is implementing the F2F strategy and what the MP's and the government are doing to promote the F2F strategy. More concretely, the aim is to study what is being done to develop a more sustainable food system as described in F2F and what collective action dilemma's exist. Little previous research was at hand and content analysis was chosen where a selection of documents published by the House of Representatives were analyzed. In addition, two semi structured interviews were conducted to add on and give more in depth insights in the factors that play a role in the Netherlands with regards to the implementation of F2F.

The F2F Strategy is part of the regular updates by the Minister of Agriculture, Nature and Food Quality and by the Committee responsible for Agriculture. The level of implementation by the Netherlands can be seen as an initial state of finding out what the consequences are for the Netherlands. The F2F strategy is being discussed extensively and from the documents it is clear that the objectives of the F2F are being underlined by the Netherlands. The MP's are crucial in their work in the Committee by supporting the strategy, getting clarification of the consequences for the Netherlands and setting up networks. In terms of Geels, they are the vehicle in the understanding the interaction of actors, environment and innovations and their role is essential (Geels, 2012).

The MP's in the Committee show a big will to use new technologies that will make it possible to implement the F2F strategy and call for more cooperation with stakeholders in the whole food chain. They also challenge the existing regime that once was a novelty: the intensive livestock industry that thrives on upscaling and has made farmers income dependent on the EU subsidies. But, subsidies should promote sustainable development and should not function as a sleeping pill for an entire industry. The MP's have discussed the measures they have to steer the implementation of the F2F strategy and even though some measures have not made it, such as the meat tax, this is a clear sign that MP's are using their field to step up and daring to make proposals that are unconventional and sensitive. There is growing consensus that the established regime in the agricultural industry is responsible for the Nitrogen crisis that has

paralyzed the country in many other area's such as construction. As such, the environmental challenges are impacting economic progress. The crisis might be the catalysator for a turning point. The media are covered with news items regarding the nitrogen crisis and a large number of political debates evolves around just this. This can be seen as the window of opportunity as Geels (2012) describes, which is necessary to reach the next level from niche to a new regime.

In order to fully implement the F2F strategy it is important that food systems are changed based on Climate challenge mitigation and not only on health aspects. The F2F strategy addresses both aspects, however in the Netherlands only the health aspects are currently considered.

The content analysis that was carried out showed that there is support for the F2F strategy and a big will to act. The relevance of the F2F strategy is known and the Committee uses its resources to commission reports to gather more knowledge. The connection with research institutes[34] that work on behalf on the government is essential in the transformation to a more sustainable food system.

The fact that there is a permanent committee in the House of parliament that works on behalf of the Minister of Agriculture, Nature and Food quality, shows there is an established connection with matters that fall in this area. The F2F strategy has been identified as an area that the committee is working on in a broad sense since many points that the Committee works on fall under F2F, such as biodiversity, soil degradation, fresh water challenges, nitrogen emissions, CO2 emissions, pesticide use etc. The Committee works with this broad spectrum.

It's evident that implementing a strategy where a number of legislative frameworks will be part, will have an impact and is complex since many public areas are connected to F2F, such as housing, economy, health, infrastructure.

An important finding is that there is a clear will to experiment and develop platforms to gain knowledge, in order to develop towards a more sustainable food system, this links very well

[34] The two organisations that were interviewed for the purpose of this study can be seen as research institutes as well as they provide scientifically based knowledge used for policy making in the Netherlands

in to the niches that need to be set up on micro level. Spaargaren et al. (2012) stated that the interaction between activists, civil society, governance and science have generated important dynamics to start and speed up the process of food transition. I place a note here however: the existing regime needs to be broken as there are discussions that the existing business model is not benefiting the transition to a more sustainable food system. This underlines Spaargaren's et al.'s conclusion as well that we seem to be more hesitant to intervene and change an existing regime when considering food production and consumption practices (2012). Although the matter is complex and a lot needs to be done, it is crucial that steps are being taken by the many stakeholders on different levels. This is facilitated by the current public debate regarding nitrogen emissions.

The interviews show the deep knowledge and the necessary advisory bodies that are in place with knowledge that the government relies on. An important finding here is that the existing regime, has been profitable and has made people content and there is a challenge on how to compensate for the loss once the regimes changes where more investments are required. The Nitrogen crisis might be the crisis that is needed to shake the country out of the level of contentment but it will create new challenges that need to be solved.

From the interviews and the document analysis, it's evident that the will is there from the responsible Minister as the committee working with Agriculture, Nature and Food Quality to push the strategy. Important outcomes though are the catering of national interests. In an EU context, Member State need to know if their interests are being taken care of.

Geels (2012) states that the stability of established sociotechnical configurations results from the linkages between heterogeneous elements. The elements and the linkages are the result of activities of social groups which (re)produce them. One important note is the business model for farmers where the transition to a more sustainable food system is not seen as profitable today. This is directly caused by the subsidies they are getting to complement their earnings.

This study has shown that to implement the F2F strategy in The Netherlands, and to effectively transform the existing food systems as described in F2F, specifically means that a new and fair business model needs to be created that benefits a more sustainable food system and is in line with F2F and the scientific data. In addition, institutes that have a task advising government on Food systems transitions, should take the whole food system in consideration.

It seems that the upscaling industrialization efforts promoted by Mansholt in the years after the Second World War need to be broken down, as he later acknowledged in the seventies. It seems this is the hard part to do and this lies at the core of collective action problems. The established regime works, since we are benefitting from it. Breaking it down creates losses that need to be compensated. This is from a short-term perspective, both sensitive and economically non profitable.

As such, this study can be seen as a first step in understanding on what The Netherlands is doing to implement the F2F strategy. More research would be needed to draw conclusions with wider implications. It would be interesting, with regards to business models, to understand the implications of a changing business model and as well if our current way of creating business models still hold their strength. If we are keen to compensate the losses in an existing regime, should this be holding us back to transition to more sustainable systems, that can support us in the future. Perhaps this could be a call for further research looking at the way we build our business models and the criteria that makes a business model.

Having the MLP in socio-technical transitions in mind, my conclusion from the analysis is that there is an existing landscape that is putting pressure on the existing regime. This we see with the F2F strategy that has been put in place, the IPCC reports and the overall existing knowledge that a food transition is necessary in order to mitigate Climate change. However, although it is clear on a strategic level that action must be taken, it's not clear on tactical level, nor on operational level what this means. Member states need to implement F2F on their own and the existing markets and regimes do not allow for a transition. Besides, how will players involved in an established regime losing their stake in a transition, be compensated? This is, what I believe as being the weak link between an EU strategy and the implementation of that strategy on Member state level. With 27 different EU member states, there are potentially 27 different ways to implement a strategy that need to cater for the specific circumstances of that particular Member State. The case of The Netherlands shows us the complexity and even though there is an overall will, the established regime is not ready yet to cater for such a transition. In addition, short term challenges are overriding long term thinking. We will have to see over time, how the niches that have been started up, build their way into a new established regime

References

Austgulen, M.H., Skuland, S.E., Schjøll, A., Alfnes, F. (2018): Consumer Readiness to Reduce Meat Consumption for the Purpose of Environmental Sustainability: Insights from Norway. *Sustainability*. 2018; 10(9): 3058. https://doi.org/10.3390/su10093058

Biermann, G., & Rau, H. (2020). The meaning of meat: (Un)sustainable eating practices at home and out of home. *Appetite*, 153, 104730.

Brinkmann, S. (2013) *Qualitative interviewing*. Oxford: Oxford University Press

Broekema, R., Tyszler, M., Veer, van 't, P., Kok, F., Martin, A., Lluch, A., & Blonk, H. (2020). Future-proof and sustainable healthy diets based on current eating patterns in the Netherlands. *The American Journal of Clinical Nutrition*, 112(5), 1338-1347.

Broeks, M., Biesbroek, S., Over, E., Van Gils, P., Toxopeus, I., Beukers, M., & Temme, E. (2020). *A social cost-benefit analysis of meat taxation and a fruit and vegetables subsidy for a healthy and sustainable food consumption in the Netherlands*. BMC Public Health, 20(1), 643-12.

Campbell, T.C.M.C., Ii., T.M.C. and Campbell, T. C. M. C. (2016) *The China study, the most comprehensive study of nutrition ever conducted and the startling implications for diet, weight-loss and long-term health*. Dallas: BenBella Books, Inc.

Change, I. C. (2019). Land: An IPCC Special Report on Climate Change. *Desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems (2019): 41*.

Chichilnisky, G., (2020). GREEN CAPITALISM. *Journal of International Affairs (New York), 73*(1), 161-170.

Collste, D., Cornell, S., Randers, J., Rockström, J., & Stoknes, P. (2021). Human well-being in the Anthropocene: Limits to growth. *Global Sustainability*, 4, 1-17.

Culliford A, Bradbury J. A cross-sectional survey of the readiness of consumers to adopt an environmentally sustainable diet. *Nutr J*. (2020); 19(1):138. doi: 10.1186/s12937-020-00644-7. PMID: 33298065; PMCID: PMC7727219.

Dagevos, H. & Voordouw, J. (2013). Sustainability and meat consumption: is reduction realistic?, Sustainability: *Science, Practice and Policy*, 9:2, 60-69, DOI: 10.1080/15487733.2013.11908115

Dorsch, M., Flachsland, C. (2017). A Polycentric Approach to Global Climate Governance. *Global Environmental Politics*. 17 (2): 45–64. doi: https://doi.org/10.1162/GLEP_a_00400

Dunne, D., Gabbatiss, J., McSweeney, R.(2019, August 8). In depth Q&A: The IPCC's special report on Climate Change and Land, https://www.carbonbrief.org/in-depth-qa-the-ipccs-special-report-on-climate-change-and-land/

Geels, F. (2002). Technological transitions as evolutionary reconfiguration processes: A multi-level perspective and a case-study. *Research Policy*, 31(8), 1257-1274.

Grassian, Daniel Trentin (2019) A new way of Eating: *Creating Meat Reducers, Vegetarians and Vegans*. Phd thesis, University of Kent

Grinsven van, H.J.M., Erisman, J.W., de Vries, W., Westhoek, H., Lassaletta, L. (2020). Potential of Extensification of European and Dutch Agriculture for a More Sustainable Food System Focusing on Nitrogen and Livestock. *Just Enough Nitrogen*. Springer, Cham. https://doi.org/10.1007/978-3-030-58065-0_6

Hajer, M., Nilsson, M., Raworth, K., Berkhout, F., De Boer, Y., Rockström, J., . . . Kok, M. (2015). Beyond cockpit-ism : Four insights to enhance the transformative potential of the sustainable development goals. *Sustainability (Basel, Switzerland)*, 7(2), 1651-1660.

Hocquette, J., Ellies-Oury, M., Lherm, M., Pineau, C., Deblitz, C., & Farmer, L. (2018). Current situation and future prospects for beef production in Europe - A review. *Asian-australasian Journal of Animal Sciences*, 31(7), 1017-1035.

Jagers, S., Harring, N., Löfgren, &., Sjöstedt, M., Alpizar, F., Brülde, B., . . . Steffen, W. (2020). On the preconditions for large-scale collective action. *Ambio, 49(7)*, 1282-1296.

Jordan, A. & Adelle, C. (2013) *Environmental policy in the EU* (3rd edition), Taylor&Francis

Kemper, J., & Ballantine, P. (2020). Targeting the structural environment at multiple social levels for systemic change: The case of climate change and meat consumption. *Journal of Social Marketing*, 10(1), 38-53.

Livelihoods, (2019, September 4). *UN experts confirm: Land is a key resource to combat Climate Change.* https://livelihoods.eu/un-experts-confirm-land-key-resource-combat-climate-change-cop14/

Macdiarmid, J. I., Douglas, F., Campbell J., (2016): Eating like there is no tomorrow: Public awareness of the environmental impact of food and reluctance to eat less meat as part of a sustainable diet. *Appetite, (96),* 487-493, https://doi.org/10.1016/j.appet.2015.10.011.

Mansbridge, J., "The Case for Coercion And how to make that Coercion legitimate", Lecture 2015-You tube

Marteau, T., Chater, N., & Garnett, E. (2021). Changing behaviour for net zero 2050. BMJ

Muilwijk, H. et al. (2018), Voedsel in Nederland: *verduurzaming bewerkstelligen in een veelvormig systeem,* Den Haag: Planbureau voor de Leefomgeving (Netherlands Environmental Assessment Agency).

Muilwijk H., Westhoek, H., Huitzing, H., de Krom, M., Prins A., Vonk M., (2019), Kan ons voedsel duurzamer worden?, Den Haag: Planbureau voor de Leefomgeving (Netherlands Environmental Assessment Agency).

Nelson, R., & Winter, S. (2002). Evolutionary Theorizing in Economics. *The Journal of Economic Perspectives,* 16(2), 23-46. (Online), 375, N2293.

NLTimes (2021). *Government scraps 'eat less meat' from climate awareness campaign*. Gov't scraps 'eat less meat' from climate awareness campaign | NL Times

Nowag, J., Mundaca, L., & Åhman, M. (2021). Phasing out fossil fuel subsidies in the EU? Exploring the role of state aid rules. *Climate Policy*, 21(8), 1037-1052.

Olson, M. (1965). *The logic of collective action : Public goods and the theory of groups* (Harvard economic studies, 124).

Ostrom, E (1998). A behavioural Approach to the rational choice theory of collective action: Presidential Address, American Political Science Association, 1997, *The American Political Science Review*, 92 (1), 1-22

Ostrom, E. (2010). Polycentric systems for coping with collective action and global environmental change. *Global Environmental Change, 20*(4), 550-557

Ostrom, E. (2015). *Governing the Commons. The Evolution of Institutions for Collective Action.* Cambridge University Press

Prag, A., & Henriksen, C. (2020). Transition from Animal-Based to Plant-Based Food Production to Reduce Greenhouse Gas Emissions from Agriculture-The Case of Denmark. *Sustainability (Basel, Switzerland),* 12(19), 8228.

Raworth, K. (2017). *Doughnut economics: seven ways to think like a 21st-century economist*. Chelsea Green Publishing.

Raworth, K. (2017). Why it's time for Doughnut Economics. *IPPR Progressive Review*, 24(3), 216-222.

Rockström, J., Steffen, W., Noone, K. et al. A safe operating space for humanity. *Nature* **461,** 472–475 (2009).

Sanchez-Sabate, R., Sabaté, J. Consumer Attitudes Towards Environmental Concerns of Meat Consumption: A systematic Review. *International Journal of Environmental Research and Public Health.*2019; 16(7): 1220. https://doi.org/10.3390/ijerph16071220

Sandström, V. Valin, H, Tamas Krisztin, Petr Havlik, Mario Herrero, Thomas Kastner, (2018) The role of trade in the greenhouse gas footprints of EU diets. *Global food security* (19) 48-55, https://doi.org/10.1016/j.gfs.2018.08.007.

Schebesta, H., Candel, J.J.L. Game-changing potential of the EU's Farm to Fork Strategy. *Nat Food* **1,** 586–588 (2020). https://doi.org/10.1038/s43016-020-00166-9

Spaargaren, G., Oosterveer, P., & Loeber, A. (Eds.). (2012). *Food Practices in Transition - Changing Food Consumption, Retail and Production in the Age of Reflexive Modernity*. RoutledgeSpringmann, M., & Freund, F. (2022). Options for reforming agricultural

subsidies from health, climate, and economic perspectives. *Nature Communications*, 13(1), 82.

Stankuniene, G., Streimikiene D., Kyriakopoulos G.L. Sept. (2020): Systematic Literature review on Behavioral barriers of Climate Change Mitigation in Households. *Sustainability*. 2020; 12(18):7369. https://doi.org/10.3390/su12187369

Sterner, T., Barbier, E., Bateman, I., Van den Bijgaart, I., Crépin, A., Edenhofer, O., . . . Robinson, A. (2019). Policy design for the Anthropocene. *Nature Sustainability*, 2(1), 14-21.

Stiglitz, J. (2018). Where modern macroeconomics went wrong. *Oxford Review of Economic Policy*, 34(1-2), 70-106.

Stoll-Kleemann, S., & Schmidt, U. (2016). Reducing meat consumption in developed and transition countries to counter climate change and biodiversity loss: A review of influence factors. *Regional Environmental Change*, 17(5), 1261-1277.

Swedberg, Richard (2012) *Theorizing in sociology and social science: turning to the context of discovery*. (Theor Soc 41, pp. 1-40)

Tukker, A., Goldbohm, A. R., De Koning, A., Verheijden, M., Kleijn, R., Wolf, O., Perez-Dominguez, I., M. Rueda-Cantucha, J., (2011), Environmental impacts of changes to healthier diets in Europe, *Ecological Economics*, 70(10), 1776-1778. https://doi.org/10.1016/j.ecolecon.2011.05.001.

Tummers, L. (2019). Public Policy and Behavior Change. Public Administration Review, 79(6), 925-930.

Turnheim, B., Asquith, M., & Geels, F. (2020). Making sustainability transitions research policy-relevant: Challenges at the science-policy interface. *Environmental Innovation and Societal Transitions*, 34, 116-120.

Wellesley, L., Happer, C., Frogatt, A., (2015) *The Chatham house Report*, Changing Climate, Changing Diets, Pathways to lower meat consumption.

Willett, W., Rockström, J., Loken, B., Springmann, M., Lang, T., Vermeulen, S., . . . Murray, C. (2019). Food in the Anthropocene: The EAT–Lancet Commission on healthy diets from sustainable food systems. *The Lancet (British Edition)*, 393(10170), 447-492.

Wesseler, J. (2022). The EU's farm-to-fork strategy: An assessment from the perspective of agricultural economics. *Applied Economic Perspectives and Policy*, Applied economic perspectives and policy, 2022.

Westhoek, H., Overmars, K., & Van Zeijts, H. (2013). The provision of public goods by agriculture: Critical questions for effective and efficient policy making. *Environmental Science & Policy*, *32*, 5-13.

Documents and reports:

Brundtland, G., & United Nations Environment Programme. (1987). *Our common future*. Nairobi]: [United Nations Environment Programme].

Dutch House of Representatives: Kamerstukken | Tweede Kamer der Staten-Generaal

European Commission, A European Green Deal (2019), available at: A European Green Deal | European Commission (europa.eu)European Commission, Farm to Fork Strategy (2019), available at Farm to Fork Strategy (europa.eu)

f2f_action-plan_2020
_strategy-info_en.pdf

IPCC, 2022: *Climate Change 2022: Impacts, Adaptation, and Vulnerability.* Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem, B. Rama (eds.)]. Cambridge University Press. In Press.

Rockström, J. Stordalen GA, Horton R. Acting in the Anthropocene: *the EAT-Lancet Commission*. Lancet. 2016 Jun 11;387(10036):2364-5. doi: 10.1016/S0140-6736(16)30681-X. PMID: 27312291.

Organisation for Economic Co-operation and Development (OECD) Economic Surveys - Netherlands (2021). OECD Economic Surveys: Netherlands 2021

United Nations, sustainable development goals (2015), available at: THE 17 GOALS | Sustainable Development (un.org)

Willett, W., Rockström, J., Loken, B., Springmann, M., Lang, T., Vermeulen, S., . . . Murray, C. (2019). Food in the Anthropocene: The EAT–Lancet Commission on healthy diets from sustainable food systems. *The Lancet (British Edition), 393*(10170), 447-492.

Appendix 1

Appendix 1 Content analysis

Farm to Fork strategy	LETTERS FROM GOVERNMENT		IMPLICATION LEVEL
	Codes	Categories	Themes
	Farm to Fork, Climate Biodiversity, Green Deal, Transition (in the broadest sense within sustainability), livestock production, Nitrogen, Foodsytem, protein Verbs indicating action and support: Support, Will/Shall	**Update**s from the responsible Ministers to inform the House of Representatives **Proposed actions** from the responsible Minister Trying to get **broad support and leverage** for upcoming legislation **Proposals and Ideas** from the responsible Minister Identification of **work being done** by the EU Clarity on the **government's stance** Identification of **Support** **Clarification**	**Support** for Commission proposals and strategies in the area's of biodiversity, ecological agriculture, sustainable foodtransition, increase plantbased protein, animal welfare **Transition must happen in the whole chain**, action from retailers and wholesalers is a must Dutch position within the EU and the **national interests** Extensive power EU **New business models** needed for farmers with less focus on upscaling and more on mixed farming (not dependant on subsidies) Support for **increased innovation** Support for **science based advice** Need for **integrated EU long term vision** on the foodsystem Need for **experimenting** to

			allow for a platform of new initiatives Realization of **Certification systems** that promote animal welfare and better quality meat Need for **transition** Need for **cooperation** throughout the value chain in the foodsystem to create a wider platform. The need to bring different stakeholders together
	COMMITTEE REPORTS FROM THE PERMANENT COMMITTEE AGRICULTURE, NATURE AND FOOD QUALITY		
	Farm to Fork, Climate Biodiversity, Green Deal, Transition (in the broadest sense within sustainability), livestock production, Nitrogen, Foodsytem, protein Verbs indicating action and support: Support, Will/Shall Verbs indicating action and support: steun (support), Zal (will)	**Updates** from the Committee of Agriculture, Nature and Food Quality **Debates** with the House where MP's pose questions and ideas and **Challenge** **Proposed Actions** from the Committee of Agriculture, Nature and Food Quality Exploring ideas	Identification of the what needs to be done on national level, what challenges arise, what solutions are proposed, what clarification is needed What expert institution will be involved? Comparing with other Memberstates to learn Challenging the **subsidy / business model** that farmers rely on today Requesting ideas to step up **The interests** of the Netherlands in the EU

			Call for action towards supermarkets to take responsibility Exploring what measurements can be taken to steer towards a food transition Exploring what innovations in agriculture can be used, e.g.: digitalization, robotization Clear call to **stop intensifying Dutch agriculture** Call to use the subsidies coming from the EU for **innovations** instead of income support for farmers The change towards the transition lies in the **value chain** The **business model** needs to change **True pricing** research Call for **investments** in the protein transition Call for **development of instruments** to measure how much feed could be used for human consumption **True Pricing model**

Appendix 2

Interview guide

Intro
Thank you so much for participating in my thesis. The aim of my research is to get more knowledge of how the member states are implementing the scientific data that we know from the IPCC reports to change our food systems and our behaviour regarding food but also our diets per se. A more plant based diet can help fight Climate change faster and while this seems easily said, it's not easily done. The EU has put in place the Green Deal and F2F with ambitious goals, and with my study I dive in The Netherlands to see how the F2F is being used to switch to more sustainable food systems.

This is intended to be a semi structured interview, where I wish to capture, thoughts, insights & experiences. You will be sent a transcript afterwards to give your consent before further use of the outcome of the interview.

Research questions:
With the extensive scientific data that has been presented in the last IPCC reports where the Landuse report in 2019 was the most bold one when it comes to our dietary habits I wish to research:

- How are the House of Representatives and the government in the Netherlands implementing the F2F strategy in policy making?
- What collective action problems can be found in the discussions by the House of Representatives and the government in the Netherlands with regards to the F2F Strategy?

Introduction	Field	Questions to ask
Work/study situation		Could you tell me more about your assignment?
Policies, research	Competence of the respondents in the policies	
IPCC		Could you describe how the IPCC scientific data supports you in your work?
Green Deal		How do you in your daily work specifically work with the policies of the EU to make the changes that are aimed for?
Farm to Fork	Campaign to eat healthier: taken out eat less meat	In the F2F strategy, there are many proposals that can be done in order to switch to a more sustainable foodchain. A lot is aimed at the industries but an important component is the consumer demand. Why do you

		think proposing dietary changes on a national level is hard? What are the conditions of these discussions?
		Why do you think discussing diets are sensitive?
	Competence of the respondents on the tools on country level	
		Can you describe the work that is being done on national level to implement F2F? By the government and the House of Representatives?
Obstacles		Can you describe the biggest obstacles for Member states, for the Netherlands to accelerate the work that is put out in the F2F strategy?
		Can you describe more about the existing preconditons that are in place, if those are the right ones? Example: Kate Raworth talks about a doughnut economy, not putting GDP at the centre of growth but having a thriving economy at the centres?
	Connection to economics, GDP	Can you describe the interdependencies to other area's that have consequences to the operalization of the F2F strategy?
Personal comments and thoughts		What are your concerns with regards to the scientific data we know regarding Climate Change and the steps the Netherlands are making?
Ideas		What are your thoughts and ideas on how to implement F2F on an overall level?

Sincerely,

Sharon Wilts Jansen

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