Is the Road to Food Security Paved with Cheap Food?

A Discourse Analysis of National Norwegian Food Policy
(2008-2023)

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Dedicated to my little brother, Lorik Rustaj

(19.02.2005 – 30.01.2023)

You, your memory, and your love of food, will always live in me.

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Abstract

Food security is a central pillar of Norwegian as well as international food policy, making it an interesting area of further inquiry. The goal of this thesis is to contribute to knowledge about food security and its discursive and social effects. I have done this by conducting a 'what is the problem represented to be?' analysis of landmark white papers and a selection of political strategies published between 2008 and 2023. My research questions are: 1) How is food security problematized in Norwegian national agricultural policy between 2008 and 2023? and 2) In what ways is food security being envisioned as a path towards an inclusive and sustainable society? I draw on transformation literature and a relational understanding of capitalism in the analysis. A central contribution from the transformation literature is the framework of leverage points for change. This gives me a tool to grasp what kind of decision- and meaning-making occurs in the policy. Furthermore, it allows me to suggest some possible consequences of the problematization of food security in the text corpus. Distinguishing the project of capitalism on the one hand, and capitalism as a historical process on the other, is helpful to understand discursive and social effects of the way food security is represented in the text corpus.

I argue that when population growth is at the forefront of the food security discourse, the obvious solution becomes ramping up food production. I highlight the way measurement of population is used as a political tool, compare the way global and national population growth is problematized and suggest some possible consequences for this way of understanding the problem of food security. Then, I look at how the policy constructs a narrative of agricultural development since and pay attention to the binary of industrialized/developing countries. I discuss implications for relations between humans and nature and argue that the problematization of food security obscures alternative ways of addressing the issue of hunger.

The green revolution is identified as the cornerstone for agricultural development in the 20th century and frames the second part of the analysis. I argue that the related concepts of economic and sustainable development are central to the emerging solution to the future of food security in the text corpus. Then, I analyze innovation as a key concept in the policy and ask if the way innovation is conceptualized suggests that the policy is attempting to move the sector in the direction of a new green revolution to achieve increased food production. In light of this, critically examine the issue of hunger as it is conceived in the text corpus.

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Any mistakes are of course my own.

Merita Fjetland, Oslo, Norway 11.11.2023

Contents

1. Introduction

> "The road to the modern world has been paved with Cheap Food. Cheap Food was, of course, always cheap *for some*."
>
> Jason W. Moore (2015)

Food security is currently at the center of proposed solutions to the interconnected issues of hunger and malnutrition, climate and environmental changes, food production, sustainable transformation, and social justice. The term was first used in a policy context in the 1970s, following the Sahelian famine and global food price crisis (Jarosz, 2014). The issue of food security gained increased attention and interest following the food crisis in 2007- 2008, when market prices for staple food commodities increased by between 50 – 100 % compared to the year before, and world-grain reserves were at their lowest recorded level, severely affecting peoples access to food around the world (McMichael, 2009). Though Norway was far from the hardest hit in this regard, it coincided with several policy releases nationally concerning food security and its connected issues. When the Norwegian Ministry of Agriculture and Food[1] released its first Climate strategy for the sector, the sitting minister Lars Peder Brekk characterized the problem as follows:

> We live in a world facing great challenges. Earlier food has been unequally distributed, but now we are experiencing an even more severe situation; there is no longer enough food to distribute. The food security crisis and environmental problems are interconnected and strengthen each other. A healthy globe is the foundation of secure food production. At the same time the work to prevent hunger is a prerequisite for the world to get out of the environmental crisis. (Ministry of Agriculture and Food, 2008:4)

What, exactly, is the issue of hunger in a world facing climate change, pandemics, war, conflicts, and growing inequalities? Plenty of solutions have been suggested. Some influential reports include those from World Bank (2007), UN (2015), HLPE (2013; 2019), and IPCC (2019). Yet, the UN Sustainable Development Goals Report (2023a) shows a deterioration in *goal 2.1.2 Achieve food security* since 2015. Hunger and food insecurity is estimated to affect 2.4 billion people, or 29.6% of the global population (UN, 2023b). An estimate of 391 million more people

[1]Norwegian: Landbruks- og matdepartementet

has been adversely affected by food insecurity and hunger since 2019 alone (UN, 2023b). In light of this, the SDGs report points to the need for "urgent coordinated action and policy solutions" (UN, 2023b: 14) to transform food systems, address entrenched inequalities, invest in sustainable agriculture, and reduce the impact of conflict and the pandemic to reach *Goal 2: Zero Hunger.*

Current agricultural practices pose the single greatest threat to biodiversity loss on a global scale (WWF, 2020) and billions of people are food insecure and hungry (UN, 2023b). Abson et al (2017:30) identifies an urgent need to "examine more deeply the root causes of unsustainability".

> Given the ongoing failure of humanity to leave behind unsustainable development trajectories, the question naturally arises whether the most widely used interventions so far have perhaps targeted relatively ineffective leverage points (Abson et al, 2017: 31).

The IPCC[2] (2019) shows that food security is already being affected by climate change. Both the IPCC (2019; 2012) and IPBES[3] (2019) argues that fundamental changes are needed in material and social structures to face climate and environmental changes in the next century. The problem representation put forth by the Agricultural Minister in 2008 suggests that scarcity is the main challenge. Following the food crisis in 2008 there was an upsurge in what Almås and Campbell (2012) have called a 'neo-productivist' agenda in the international and national policy. This entails an increased focus and resources directed towards achieving higher volume and higher productivity in food production. According to the authors, this was a shift away from the political doctrine of multifunctional agriculture, where the multiple contributions of the agricultural sector were used to justify import protections, high subsidies, and other protections of the sector. It is worth noting that The UN Food and Agricultural Organization (FAO) estimates that 1/3 of all food produced is wasted (Gustavsson, Cederberg, Sonesson, Otterdijk & van Meybeck, 2011), complicating the call for increased production. Holt-Gimnez et al (2012) argue that we currently produce enough food for 10 billion people, suggesting that poverty and inequality are the driving forces of hunger – not scarcity. In the following, I take it a step further and argue that current organization of our societies' economic capacities are at the root of hunger and food insecurity.

[2] Intergovernmental Panel of Climate Change

[3] The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services

Food and food production is inevitably connected to cultural practices and imbedded in historical formations (Pratt & Luetchford, 2014). The multifunctional view is still strong in food policy nationally, but the shift towards productivism is noteworthy (Almås & Campbell, 2012). Multifunctionality is a normative view suggesting that agricultural sectors should be protected from international markets because of the multiple contributions agriculture provides. These include cultural landscapes, food supply, ecosystem management and so forth. Productivism has been important since the conception of capitalist agriculture (Moore, 2010; Moore, 2015), and the multifunctional view of agriculture has been denied to countries outside of Europe and North America through policies such as structural adjustment programs enacted by the IMF (Schanbacher, 2010). In Norway, Almås (2004) argues that 'institutional thickness' through institutions like the Agricultural Agreement[4] has protected the Norwegian food sector from market liberalization to some extent. At the same time, power between national and international agriculture as well as national and international food policy are under pressure (e.g., Farsund, 2014; Bjørkhaug, Almås & Vik, 2015; NOU, 2011). Liberalization of food and agriculture hits small farmers in the global south the hardest, but the trend is global (Patel, 2013).

In short, there are several key debates surrounding our food systems that coincide in the food security framework. According to Almås, Bjørkhaug and Vik (2015) there are three important factors that play into research in the agricultural sector. Firstly, the description of reality is controversial in both policy and research circles. Questions concerning who has power, how power changes over time, and how to understand these changes are central debates. Secondly, there are real conflicts of interest in the sector. A notable example is the debate surrounding the national grocer-monopoly held by Norges Gruppen, Rema 1000 and Coop (NOU, 2011). Changes in policy, shifts in power and the markets have very real effects on the actors involved. Thirdly, they point out the multiplicity of normative positions around food production and distribution. For example, how should the relation between producers and distributors be organized? This results in a complex field, and one that is important to study. The authors point out that the combination of a changing reality in the food sector, conflicts of interests and multiple normative positions shows the need for independent research on the Norwegian food sector. It is my aim to contribute to our knowledge of the discursive effects of food security by addressing the following research questions: 1) How

[4] Norwegian: Jordbruksavtalen

is food security problematized in Norwegian national agricultural policy between 2008 and 2023? and, 2) In what ways is food security being envisioned as a path towards an inclusive and sustainable society?

The time period 2008 – 2023 is an important frame for the analysis. The food crisis in 2008 put food security high on the political agenda, both in Norway and internationally, which is why I ultimately chose it as a starting point. To do this, I carry out a discourse analysis using 'What is the problem represented to be' (WPR) analysis (Bacchi, 2009). Bacchi (2009) understands discourse as systems of meaning, and her WPR- analysis builds on the idea that policy is elaborated through discourse. Furthermore, she argues that "policy gives shape to 'problems'; they do not address them." (Bacchi, 2009: x). In the process of policy making, the people and institutions involved must engage in describing the issue at hand, resulting in problem representations. As will be discussed further in *chapter 3*, problem representations shape the solutions that are suggested, as well as shaping the limits of our imagination in relation to the issue.

I draw on Moore's (2011;2015;2017) view that capitalism is an ecological regime that develops through various and complex nature-society relations. Capitalism is sometimes defined in purely economic sector terms. In this project, however, I adopt a broader view of capitalism. Fraser (2014) sees capitalism to organize societies more generally, not just the economic sphere of a society. She argues that value production and value accumulation under capitalism is dependent on state organization, unpaid labor and social reproduction, and the earth's ecology. For Moore (2010) 'ways of seeing' is crucial to the methodological and theoretical approach to capitalism. He argues that the conception of capitalism as the industrial, modern society that 'acts' upon nature misses the rich relationality of development through human and other than human natures that capitalism as world-ecology attempts to highlight (Moore, 2010; 2015).

Some have pointed to contradictions and crisis of global capitalism as it relates to climate and environmental changes (e.g Nyberg & Wright, 2015; Wichterich, 2015; Moore, 2003; 2015; 2017). Some suggest that capitalism has built-in ecological contradictions, such as the centrality of nature as both free resource and waste-sink in value production and accumulation (Fraser, 2014). Moore (2015) identifies 'Cheap Food' as a central pillar in capitalist production, arguing that our current food-systems tendency to ravage ecosystems are not accidental but systemic to capitalist

production, particularly as it relates to productivity and profitability demands. In this light, I aim to address how the food security framework is part of capitalist organization of nature.

I define and discuss relevant background in Chapter 2. Here, I discuss the definition of food security and describe some important historical context. Then, I clarify two important analytical tools for this project: transformation and capitalism. In Chapter 3 I define and discuss my theoretical position within social constructionism and define discourse for the intents of this project. Then, I go on to discuss my methodological framework and how it has been applied to the text corpus. Furthermore, I give a detailed description of my data collection and selection process, and present the text corpus resulting from this. Before delving into the analysis, I briefly discuss the importance of reflexivity in discourse analytical research.

In the first analysis chapter I carry out a WPR analysis of the problem representation of food security. I discuss how the Norwegian governments in the time period understand and address the 'problem' of food security. I first look at the key concept of population growth, and the way it is central to construct a productivist approach to the issue of hunger. I see this in light of another central discourse, namely the Anthropocene narrative. I draw on what Moore (2015) identifies as the 'popular Anthropocene' to distinguish between the interdisciplinary work within academics that uses the concept, and the way that it is conceived in the policy. Then, I look at development as another key concept and start a Foucauldian genealogy to trace the origins of the food security discourse. I pay attention to how the text corpus constructs a narrative of agricultural development and the role this plays in the problematization of food security. I argue that the way the text corpus understands and constructs the past is central to its solutions for the future.

In the second analysis chapter I build on and continue the textual analysis from the previous chapter. I frame this chapter with what arguably is the central agricultural development in the 20th century: the green revolution. I argue that agricultural revolutions that cheapen food have been central to capitalist economic organization more generally. The cost of food has a particularly important role because it directly conditions the cost of human labor-power. The revolutions have as such been characterized with appropriating the work/energy of human and more-than natures within the food sector. Building on the discussion of development from the previous chapter, I shift attention to economic development and sustainable development, and argue that the latter should be seen in continuation of the former. Furthermore, the way innovation is conceived of as a method

to achieve economic and sustainable development is explored. I argue that when innovation is bound by the growth objective, this limits the potential of human innovative capacity towards transforming our food systems. In light of this, I draw on Patel's (2013) understanding of the continuities that can be traced from the green revolution up until today. I identify the emerging solution to hunger and food security in the text corpus is dependent on what I have termed a new green revolution in order to secure cheap food in the future. I argue that this problematization is a major threat to food security in the 21st century.

In the concluding discussion I pull together the findings from the previous chapters and discuss implications of the problematization of food security in terms of 1) the direction of current food systems and 2) the way food is valued in the food security framework. Then, I briefly discuss food sovereignty as the most established alternative to food security currently. I also discuss the relationship between the two, and possibilities and barriers to combining the two approaches to hunger. Lastly, I suggest possible ways forward in national Norwegian food policy in light of my findings.

2. Background

It is well known that food policy is complex. The idea that the sector is unlike other sectors, and thus need special political attention has been the underpinning of agricultural exceptionalism for decades (Skogstad, 1998), and is the root idea of the multifunctional conception of agricultural policy (Almås & Campbell, 2012). The following illustrates the complexity of the sector:

> In the Norwegian agricultural policy community, variations over a joke on the complexity of agricultural policy was repeatedly told over a period of at least 20 years. It stated that the agricultural policy was so complicated that only God the Almighty and the Secretary General of the Ministry of Agriculture and Food, Per Harald Grue, who worked in the Ministry from 1972 to 2009, understood it – and that God hasn't been seen for a while. After Grue's retirement in 2009, the joke's last paragraph changed to: – and now Grue too has left. (Vik, 2020:1)

All jokes aside, to handle the complexity of the sector in a good way, it is necessary to lay some groundwork on what food security is and has been, how it has developed as well as defining central terms used in the analysis. In the following I introduce the reader to an influential definition of food security, a historical overview of important events and movements, as well as two central terms in my analysis: transformation and capitalism.

2.1 Food Security – a primer

Food security is one of four overarching goals in Norwegian agricultural policy. It is a goal encompassing far-reaching topics such as increased production, sustainability, healthy diets, Norway as an international actor and safeguarding consumer interests. All overarching goals ultimately get tied back to food security: "The three remaining overarching goals all build on food security" (Meld. St. 9, 2011-12:16). The remaining goals are namely agriculture across the country, increased value production and sustainable agriculture. These four goals remain the same across the period, even though their formulation varies some. Already, we can see the complexity of the food security discourse. It is a framework that has been used to describe and address a range of developmental issues in national and global contexts. In the following I prime the forthcoming analysis by presenting a common definition of food security and account for some important events in the development of food security as a political framework.

2.1.1 Defining food security

Pressure on current food systems has been discussed in different policy circles for a long time. The focus on food security started to emerge after WWII and has increasingly been embedded in institutions like the United Nations (UN), the International Monetary Fund (IMF), World Bank and World Trade Organization (WTO) (Schanbacher, 2010). This will be discussed at length later in this chapter and in the analysis. At the UN Global Food Summit in Rome, 1996 the congregation came to the following definition of food security:

> Food security exists when all people, at all times, have physical and economic access to sufficient safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life. (World Food Summit, 1996)

Since then, both the Millennium goals and the Sustainable Development Goals (SDGs) have included goals to reach food security (UN, undated a). Food security is usually divided into four aspects that must be fulfilled simultaneously for a state of food security to be reached. The World Bank defines the four dimensions as follows:

> **Physical availability of food:** Food availability addresses the "supply side" of food security and is determined by the level of food production, stock levels and net trade.
>
> **Economic and physical access to food:** An adequate supply of food at the national or international level does not in itself guarantee household level food security. Concerns about insufficient food access have resulted in a greater policy focus on incomes, expenditure, markets and prices in achieving food security objectives.
>
> **Food utilization:** Utilization is commonly understood as the way the body makes the most of various nutrients in the food. Sufficient energy and nutrient intake by individuals are the result of good care and feeding practices, food preparation, diversity of the diet and intra-household distribution of food. Combined with good biological utilization of food consumed, this determines the nutritional status of individuals.
>
> **Stability of the other three dimensions over time**: Even if your food intake is adequate today, you are still considered to be food insecure if you have inadequate access to food on a periodic basis, risking a deterioration of your nutritional status. Adverse weather conditions, political instability, or economic factors (unemployment, rising food prices) may have an impact on your food security status. (World Bank, undated)

Despite some movements towards these goals, there has been an increase in hungry people since 2015 and according to the UN (undated b) we are not on track to meet Zero Hunger (goal 2, SDGs) by 2030. Hunger and food insecurity are thus a reality for many, and with climate and environmental changes food systems are increasingly under pressure. The total estimated number of hungry and malnourished people globally is 2,4 billion (UN, undated a). This has led many to organize and protest, as well as coming up with alternatives to the food security discourse (Schanbacher, 2010). One example is the food sovereignty movement, led by La Via Campesina[5].

The food security debate has been characterized by fierce debates and contentions from a large range of actors (Schanbacher, 2010). Historically and currently there have been large material differences between actors in these debates. According to Fouilleux et al (2017) actors with vested interests, such as transnational food corporations, have had abundant resources to promote what the authors term productivist food security. Actors calling for alternatives to the productivist logic, such as La Via Campesina and other civil society groups, have generally not had access to the policy-making processes (Fouilleux et.al., 2017). During the World Food Summit in 1996 mentioned above, La Via Campesina was excluded. They organized their own Food Sovereignty conference, resulting in a declaration where they wrote:

> Peasants and small farmers must have direct input into formulating agricultural policies at all levels. This includes the current FAO World Food Summit from which we have been excluded. The United Nations and related organizations will have to undergo a process of democratization to enable this to become a reality. (La Via Campesina, 1996:3)

A central demand next to democratic control was reorganization of food trade, where reframing food from a commodity to food as a basic human right and need. Despite the traces of the multifunctional agriculture discourse where food production is not only part of commodity production but also commons, there are few challenges to the food security discourse that is brought up in the policy.

2.1.2 The development of the food security framework

The end of WWII marks the rise of the U.S centered food regime (McMichael, 2013), and the emergence of multilateral trade arrangements that have shaped the direction of agriculture in many

[5] An umbrella organization for smallholders and farmers around the globe The name translates from Spanish to 'the peasant way'. In Norway, Norsk Bonde og Småbrukarlag is a member organization.

ways. Two important developments should be highlighted in this regard. Firstly, the U.S centered food regime was supported by both import controls and export subsidies (McMichael, 2013). The political and economic power of the U.S at the time influenced other industrializing countries, principally in Europe, to follow the protectionist line. Developing countries on the other hand, were subject to food-dumping resulting from the surplus of food produced in the U.S. This led to a host of problems, including intensification of U.S provided food dependency in these countries. Secondly, the Bretton Woods institutions were founded in 1944, together with GATT in 1947 – the predecessor of the World Trade Organization. This trio marks the emergence of a new direction in the world economy, and the emergence of food security should be seen in light of this development.

From the conception of the Bretton Woods institutions, food security has been entangled with global economic development. The World Bank in particular has played an important role in defining policy trajectories and rhetoric, whereas the IMF has played the role of imposing economic conditions in which food security is to be realized (Schanbacher, 2010). The conception of the World Bank was based on the idea that such an institution would harmonize the world economy and bring the developing world out of poverty and into the capitalist economic sphere, argues Schanbacher (2010). One thing to note about these foundational ideas is the misrecognition of the role of developing countries in the global economy. The World Bank's perception of poverty as a result of being outside capitalist economy made the obvious solution inclusion in the global market and stimulating economic growth.

According to Schanbacher (2010) the World Bank's primary function is to provide financial and technical aid to developing countries, something that has been principally done through structural adjustment programs (SAPs) since the 1980s. SAPs aim to integrate developing economies into the global market. The agricultural sector is generally targeted with policy measures that favor increased output, crop production geared toward market demand, as well as a move towards capital intensive farming methods that usually rely heavily on fertilizers and chemical input (Schanbacher, 2010). These policies operate with the idea that if farmers have access to national and global food markets, it will provide them with an income that in turn will support the economic access dimension of food security. This conception of agricultural development is also present in the Norwegian policy:

> Agricultural development is dependent on investments in infrastructure, research and technology, improved access to input factors, investment in storage and processing, and facilitation of private investment. Improved ties to local and regional markets, as well as improved integration into the international trading system and removal of trade barriers, are also key. (Meld. St. 9, 2011-12: 37)

Importantly, the World Bank operates with a view of economies and development that follows evolutionary paths (Schanbacher, 2010). This entails an idea that economic growth is the driver of increased welfare and the elimination of poverty. Industrialized countries with capitalist economies provide the blueprint for development, including in the agricultural sector. As the quote illustrates, Meld. St. 9 (2011-12) adopts this view by identifying agricultural development through a green revolution framework: development happens through capital intensive infrastructure, access to inputs, private investments, and free markets. The major difference between the industrialized countries' historical trajectories compared to the path espoused for developing countries by the World Bank is the emphasis on free markets in the development of the agricultural sector. Most western countries held a protective line of their agricultural sector until the neoliberal turn in the 1970s and 80s.

Going beyond the systematic definition of food security we can analyze how the World Bank, the IMF and the WTO conceive of food security through their practices and theory around production, distribution, and consumption. Like the UN agencies IFAD and FAO, the World Bank identifies agricultural (and broad-based rural) growth as the most important area for growth to ensure the elevation of poverty globally. In their 2007 report they argue that economic growth in countries where agriculture is the main occupation "requires a productivity revolution in small holder farming" (World Bank, 2007:1). Similar views are expressed in the policy:

> As a result of a lack of investment in agricultural development, there is untapped potential for increased production in parts of Latin America, Africa, and the belt from Eastern Europe into Asia. Increased investment, transfer of technology and knowledge, access to markets and stable frameworks for international trade are important factors for realizing the production potential in these areas. (Meld. St. 11, 2016-17: 15)

Like the World Bank, the IMF centers its practices around the idea that free markets are the most efficient way to achieve increased participation for developing countries in the global economy. Schanbacher (2010) points out that of the three financial institutions, the IMF is the least directly

involved with agriculture. However, given its role in surveillance of economic and financial policy and development, financial assistance through loans and technical assistance through advice on effective management of economic policy, it still contributes to the context in which food security can be enacted. A central conviction in the IMF is the importance of foreign investors. According to Schanbacher (2010) the idea is that foreign investors and companies will contribute to the local economy, but this is not always the case.

The FAO broadcast a vision of food security that centers the global poor's role in agricultural growth. Since FAOs conception in 1945, it has had an explicit goal to tackle global poverty through addressing inefficiencies and inequalities in the global distribution of food. Schanbacher (2010) points to how FAO's first director argued that food security for the global poor would both create a safer world where world wars could be avoided and at the same time lay the foundation for economic growth that would raise everyone's standard of living. FAO advocates for a "twin track approach" (Schanbacher, 2010:8) to food security, where area-specific research and policy should be implemented together with social safety nets provided by local governments to encourage agricultural growth. The influence of this view is evident in the policy:

> Hunger and malnutrition is a very complex problem, and have various causes such as war and conflict, poor governance and general poverty. Improved social schemes, employment and economic development are therefore just as important as increased production for improved food security in these countries. (Meld. St. 9, 2011-12:36)

Because global integration has proved harmful for many poor farmers, FAO recognizes that market liberalization is not always the best policy. At the same time, the role of economic growth and trade are ultimately crucial. For FAO the end-goal of agricultural growth is to eliminate poverty through integration in the global market. As Schanbacher (2010) points out, the role of neoliberal reforms and restructuring in creating poverty and hunger is left unproblematized. We can see how the approach to what is called the least developed countries in the national policy reproduce the idea that the problem of poverty is rooted in exclusion from world markets:

> Duty-free and quota-free market access for all products from the world's least developed countries (LDCs) is a key measure in the Government's development and trade policy, as well as in the action plan for combating poverty in the south. The purpose is to promote trade and development, and to

> help the poorest countries become better integrated into the world economy. (St. Prop 68, 2005-06: 33)

The global marketplace is seen as an arena for opportunities, given that specific policies are put in place to encourage agricultural growth, such as access to markets and technology and knowledge transfers from developed countries. The role of capital-intensive agriculture in environmental changes is also largely left unproblematized across the national policy.

The UN agency IFAD was established in 1974, with the purpose of "financing agricultural development projects primarily for food production in developing countries" (World Food Conference, 1974: 13). In recent reports IFAD proclaims objectives to ensure successful economic development for rural poor populations (Schanbacher, 2010). Schanbacher (2010) points to how IFAD operates with a certain view of the relations between development and natural and financial resources. Natural resources are seen as the capital base in which rural poor populations can harness production and economic growth, and it is thus important to protect and manage this capital base. Knowledge transfers and agricultural technologies will in turn help farmers and food workers to manage the land more efficiently and productively, which ultimately will let them integrate and be competitive in commodity markets at different scales. In IFAD's view, this will provide income to members of rural communities and secure buying power and access to food commodities.

Schanbacher (2010) argues that securing access to land and resources as well as improving infrastructures related to food production and distribution are imperative for food security. However, he questions the claim from IFAD and FAO that the most efficient and effective way to accomplish food security is through "steady and guided global integration" (Schanbacher, 2010:5). IFAD on the one hand has made use of microfinance institutions (MFIs) in their work, with the intent to provide funds that enable poor communities to become financially self-sustaining. Note how the primacy is not direct access to food, but economic access to food commodities in this conception. Furthermore, IFAD explicitly expresses that MFIs must be profitable and growth-oriented to "deserve assistance" (IFAD, read in Schanbacher, 2010:6).

2.2 Transformation

Despite significant research over several decades concerning climate and environmental changes, there is a large gap between where we are currently situated and what must be done to stop the

developments and address the changes already happening. The IPBES (2019) describes the societal changes needed as follows:

> Goals for conserving and sustainably using nature and achieving sustainability cannot be met by current trajectories, and goals for 2030 and beyond may only be achieved through transformative changes across economic, social, political, and technological factors. (IPBES, 2019: XVIII).

The IPCC similarly points to transformational change of systems as crucial, and defines transformation:

> The altering of fundamental attributes of a system (including value systems; regulatory, legislative, or bureaucratic regimes; financial institutions; and technological or biological systems). (IPCC, 2012:3)

The transformation literature I am bringing in here is concerned with how societies and complex systems can change. It is important to note that transformation concerns deep changes. An important contribution from the field is research pointing out how one-sided policy mainly led to incremental changes, and not transformational ones (Abson et al, 2017). The transformation literature comments and provides research on possible ways to achieve transformational change. Donella Meadows (1999) identifies twelve leverage points – or places in a complex system where intervention can lead to larger changes. The twelve leverage points are located at different places in a system and have varying potential for transforming it. Deep transformation, according to Meadows (1999), is mainly achieved with leverage points addressing the goals of the system, values the system operates with, as well as central worldviews and the ability to influence and change paradigms. These are also often the hardest levers to pull.

Based on Meadows (1999) framework, Abson et al (2017) comes up with four categories of leverage points: *parameters, feedback, design, and intention.* The first two are 'shallow' leverage points, while the remaining ones have deeper transformational potential. Parameters are easy to change, but rarely lead to systems changing (Meadows, 1999). Examples of parameters are incentives, taxes and standards. Westskog et al (2021) describe the first level of change as effectivization: "Measures ensuring that emissions per unit are reduced. These are implemented within the current structures and systems." (: 9). Reducing food waste across the food system is an example of this. Feedbacks concern the interaction between elements in a system (Abson et al, 2017), such as the flow of food commodities from producers to distributors. Meadows (1999) and

Abson et al (2017) argue that feedbacks has somewhat higher potential for change compared to parameters, but the potential for systemic change is still low in this category. Only addressing shallow leverage points will be blocked by the deeper leverage points related to design and intention of the system. Addressing designs in the system, such as laws, power distribution and institutional organization, can lead to transformational changes. The highest leverage points have the deepest transformational potential through addressing the intentions of a system, such as norms, values, worldview, and the goals of the system (Abson et al, 2017; Meadows 1999). Meadows was also the main author of the seminal *Limits to Growth* (Meadows, Randers & Meadows, 1972), arguing that the infinite growth imperative is inherently unsustainable on a finite planet – essentially addressing the goals, values, and worldviews of the capitalist system.

As alluded to earlier, the language of 'deeper' and 'shallower' changes has become important in international, high-level research on climate change. In the special report *Climate Change and Land* (2019), the IPCC distinguishes between autonomous, incremental, and transformative changes in food systems. Autonomous refers to changes following changes to land-use, markets, and welfare, but not directly by climate change. In earlier IPCC reports autonomous change has been called spontaneous and passive transformation. Incremental change often focuses on improving existing resources and practices, whereas transformative change happens when fundamental structures in a system, such as power-relations, lifestyle and financial regimes change (IPCC, 2019). Regarding food systems, transformational change could entail changing how and what we produce or changing/repurposing infrastructure. Another example could be moving from a commercial food system to a decommodified one, changing the way we engage with food on a societal scale. From the IPCC (2019) standpoint a just transformation to sustainable societies entails changing fundamental aspects of current socio-ecological systems.

2.3 Capitalism – a working definition

The transformation literature helps me far on the way to define the social practices in which I am situating this thesis. To sum up so far, there is consensus that large changes are necessary to respond appropriately to climate and environmental change, but there are large and concerning gaps from theory to practice. The transformation literature contributes by identifying possible ways to move towards a just and sustainable society by taking into account how complex systems change, adapt and transform. This framework is very useful when analyzing agricultural policy in light of climate

change. As someone who does not know the intricacies of climate or ecosystem sciences, it gives me a framework to analyze policy not based on it being 'right' or 'wrong' in a hard science way (which I am not qualified for), but rather as a way to grasp what kind of decision making is going on within the complex system that is Norwegian national food policy. This allows me to suggest possible consequences of current problematizations of food security– fulfilling a dimension of WPR-analysis (Bacchi, 2009), as I shall come back to in the following chapter. However, I do find the transformation literature lacking in explicit discussions and definitions of capitalism and in the following I will turn to other sources to fill this gap.

Capitalism is a central frame for this analysis. Marx (2013 [1867]) argues that four dimensions are particularly important under capitalist social organization. First, the private ownership of the means of production, creating a divide between owners and producers. Secondly, the labor market frees producers in a double sense: from the means of subsistence and the means of production. Freedom here is not unequivocally a positive notion, but complex. This freedom shapes social relations in capitalist societies. Third, capitalism is oriented towards economic growth and self-expansion, where some individuals and organizations accumulate capital. Lastly, private owners in the market have the power to reinvest the surplus capital that a given society has produced. In my analysis I will look at how these four characteristics show up as foundational to the goals of the system (Meadows, 1999). This is crucial because capitalism is never mentioned in the policy, but rather taken for granted. Having an analytical tool to understand capitalism is thus necessary for understanding the meaning-making the text corpus engages in.

Furthermore, I am drawing on the long-standing idea in Marxist understandings of capitalism: namely that capitalism is not (only) an economic system, but a way of organizing social relations. Moore (2015) adds to this by arguing that capitalism is a way of organizing nature. This happens in a mosaic of practices and actors. He distinguishes between capitalism as a project and capitalism as a historical process. The project of capitalism according to Moore (2015) has been to do to nature as it pleases. Nature is external, coded, rationalized and quantified to serve economic growth, social development, green economy and so on. In short, Moore (2015) calls it a project of humanity out of nature. Capitalism as a historical process is something radically different. Even though projects of capitalism are working to make nature external, the web of life on earth underpins the entire economic system. The historical process of capitalism then, must necessarily

go through the web of life. Putting nature to work, human and otherwise, is essential to capitalism as a historical process.

Based on these assumptions, Moore (2015) uses the terms world-ecology and oikeios to pry open the dualism of society/nature paradigms. A central proposition is that reality has overwhelmed the society/nature binary's capacity to track the changes that are unfolding, accelerating, and amplifying in front of us. World-ecology is a term rising from work about relational thinking about capitalism, nature, power and history. It highlights the relationality of nature and attempts to grasp humanity-in-nature as a historical process. Oikeios, can be seen as a specification and refers to the creative, generative, and multi-layered relations of species and environment. Moore's (2015) central thesis is that capitalism is historically coherent from its conception, even if 'vast but weak'. Capitalism is in Moore's view guided by the law of Cheap Nature. He identifies the 'Four Cheaps' as food, energy, raw materials, and labor power. Cheap food is defined as "more calories produced with less average labor-time in the commodity system" (Moore, 2015: 241). At the core of the law of cheap nature is the ongoing, expansive, innovative quest to turn the work/energy of the biosphere into capital.

3. Theory & Methods

> "Policy is about meaning creation and our task is to identify how meaning is created"
> (Bacchi, 2009:7)

This thesis is concerned with contributing to critical knowledge about food security as a discursive practice in national Norwegian food policy. I aim to analyze the worldview that is presented in a set of political documents. Worldview shapes actions. In national political documents a basic goal is to do something about a given issue or set of issues. Drawing on Bacchi (2009), I understand this process as a contribution to world-making. To address the 'problem' (Bacchi, 2009) of food security, the documents must contain descriptions of what food security is in the first place, and how the concept is approached. This makes for an interesting and fruitful exploration of what kind of world-making the Norwegian government is engaging in with the issue of hunger and food security.

National policy is a powerful contribution to world-making processes both in terms of discursive and material power. National policy wields discursive power, because of the authority held by government in shaping discourse that other actors must relate and respond to in some capacity. National policy wields material power, because the government stakes out the political course, including money-flow, that will shape and affect other actors in the field. In this case the main actor I am concerned with is the Norwegian Ministry of Food and Agriculture. Given that this project is methodologically based in a discourse analysis, the element of discursive power is the most prominent here. As such, a 'what is the problem represented to be' (WPR) analysis is an ideal methodological tool to analyze Norwegian food policy. As the name suggests, WPR is concerned with identifying how problem-representations come about and thus challenging representations that are dominant or taken for granted. Using WPR analysis gives me tools to textually analyze the policy at hand as well as explore intertextual aspects of the text. WPR analysis encourages challenging dominant representations through tracing the historical context in which they emerged.

In this chapter I will lay out my theoretical and methodological framework. First, I will position myself in the discourse analytical field with a brief discussion of social constructionism as well as defining discourse for the purposes of this project. Secondly, I will present and discuss the

methodological framework that has been applied to the text corpus, as well as a description and discussion of the texts included in the analysis. I also briefly discuss the three-dimensional view of texts from Critical Discourse Analysis (CDA) (Fairclough, 1995). Lastly, I address the importance of reflexivity in discourse analytical research.

3.1 Social constructionism and discourse

Discourse analysis consists of a large field of methodologies and spans several disciplines, including sociology, history, and psychology. Burr (2015:2) urges us to think of the different approaches to discourse analysis as linked through 'family resemblance'. Though the field is diverse, we can say broadly that discourse analysis' share some social constructionist assumptions. Burr (2015:2-5) identify the four following: 1) a critical stance toward taken-for-granted knowledge, 2) historical and cultural specificity, 3) knowledge as sustained by social processes and 4) knowledge and social action go together. In this project I am concerned with all these assumptions. Firstly, I am challenging the taken-for-granted assumption that food security is the best approach to think about the future of food. To do this, I have begun to trace back the history of the concept and pointed out the institutions that have shaped it in the previous chapter. I follow this up in the analysis by a close textual analysis of the text corpus, as well as drawing lines between national and international food policy. In the second analysis chapter I expand on what Raj Patel (2013) has called the long green revolution. As we shall see, the long green revolution showcases how knowledge and social processes are intimately linked. In this way, a social constructionist approach fits well with the aims of my project.

Different approaches to discourse analysis have different ways of conceptualizing the constitutive power of discourses (Jørgensen & Phillips, 2013). Some approaches go as far as positing discourse as more or less entirely constitutive of social reality (e.g. Laclau, 1993). Others see the relationship between discourse and other social practices as dialectical, informing each other in various ways (e.g. Fairclough, 2010; Bacchi, 2009). I position myself with the latter. In the dialectical view of discourse, we cannot simply separate discourse from other social practices. As Fairclough (2010) points out, analyzing discourse effectively means analyzing sets of relations. A discourse is in this view itself a set of complex relations.

As mentioned in the introduction, there are already contestations on description of reality in relation to food and agriculture in the industry, policy circles and research communities. I argued

that this is one of the reasons why it is imperative to have public-interest research on the field. Furthermore, a discourse analytical approach is ideal in the sense that it is inherently critical of taken for granted knowledge and aims to situate the present in cultural, historical and social processes. This is what I aim to do with the problem representation of food security using WPR (Bacchi, 2009).

3.1.1 Defining discourse

Depending on the project, discipline and aims of the researcher, there are a number of ways to define the term 'discourse'. It is common for discourse to be defined around sets of meanings and practices that create a certain way of seeing the world and put bounds on what can be communicated. For example, "a set of meanings, metaphors, representations, images, stories, statements and so on that in some way together produce a particular version of events" (Burr, 2015:74- 75). Burr's definition highlights the complexity of discourses by drawing attention to the multiple types of texts that contribute to a discourse being established.

Bacchi (2009:35) defines discourse as "socially produced forms of knowledge that set limits upon what it is possible to think, write or speak about a given social object or practice." As she points out, to name something a discourse is to put into question its validity and truth. Discourses do not only put bounds on communication however, as Dryzek (2022) points out "discourses both enable and constrain communication" (:10). Without established meanings decision making will be halted. In a policy context, discourse enables a wide array of actors to interact, at the same time as it restricts the possibilities of action. I see this complexity as important to keep in mind when it comes to food security, because it is an attempt to organize food systems on a global as well as national scale.

The above definitions do not explicitly mention power as an element of discourse. Since I am explicitly aiming to contribute to knowledge about the way language is involved in decision making about food systems in capitalist societies, it seems necessary to include a word about the relationship between power and discourse. We could say that Bacchi's (2009) definition implicitly hints to power by referring to the socially produced nature of discourse. Furthermore, her analytical framework is concerned with power, and she points out how governments are at an advantageous

position in policymaking. To make the point more explicitly however, I find the following definition useful:

> Discourse can be understood as a shared way of understanding the world that is unavoidably connected to political power; as such, discourse shapes how social agents do and do not respond to social and ecological issues and constructs normative boundaries of accountability and responsibility. (Johnston, 2008: 242)

As such, Johnston (2008) makes the point that a critical approach to discourse analysis should put a particular focus on how discursive activities play an important role in making, upholding, and validating relations of power and privilege.

3.2 Methodological framework

The main methodological resource I have drawn on is the work of Carol Bacchi and her book *Analyzing Policy: What is the Problem Represented to be?* (2009). A discussion of her work will be the focus in the following, followed by a brief discussion of the role Critical Discourse Analysis (CDA) plays in my understanding of texts.

3.2.1 'What is the problem represented to be' analysis

Bacchi's (2009) WPR analysis is centered around understanding problem representations in public policy. The starting point for Bacchi (2009) is a critique of conventional policy analysis built on the assumption that policy addresses problems 'out in the real world'. If we make this assumption in our analysis, we miss the central point that governments themselves are active participants in giving shape to problems through policy. In fact, governments are in an advantageous position to shape problem representation through public policy, making it crucial to examine policy critically. A central assumption in this thesis, building on the social constructionist view presented earlier, is that the way we represent the world matters and has consequences beyond the representational. In this view then, problems are not 'out there' in the world ready to be addressed – but actively shaped by policy. The way policy is shaping problems consequently has implications for what kind of solutions are possible to implement and even imagine.

Bacchi (2009) argues that the conception of policy as simply addressing problems is conservative in nature. The approach suggests that societies are generally well-functioning and only need smaller fixes here and there. Conflicts on how reality is represented are not considered in a

sufficient manner with such approaches. She points to evidence-based policy as an example of how governments often approach issues. The assumption being to discover what will solve 'the problem'. I will certainly not argue that evidence-based policy is a negative thing. The point here is simply that this view fails to consider important aspects of how policy shapes the issues at hand in the first place.

In contrast, Bacchi (2009) understands a problem as the specific way in which a policy conceptualizes and addresses an issue. Governments must implicitly or explicitly describe and highlight certain aspects of an issue, while leaving out other aspects or understandings. This makes it explicit that governments are active in the construction of what the problem is represented to be. The task for the researcher is not only to assess what the problem is represented to be, but to examine how the problem representation has come about and how it could have been different. I will go through the accompanying WPR questions and how they have been applied to the text corpus in the next section.

One of the goals in WPR analysis is to gain insights into the "the thinking that informs governing practices" (Bacchi, 2009: xiii). Bacchi (2009) points to governance as something more far-reaching than government. This is an important point in terms of seeing all the actors that act when a problem representation is being formed into policy. This is certainly true for agricultural politics, which is notoriously complex with a range of actors and competing interests involved (see e.g., Vik, 2020 for a discussion on the 'agricultural policy trilemma'). The text corpus bear witness to this complexity, with the cross-referencing of expert reports, international policy, and involvement of a range of interest groups and organizations. Though I have chosen to focus on white papers first and foremost, the share amount of different genres of agricultural policy papers also reflects the range of interests that are involved in the field.

Another main goal of a WPR approach is to identify deep conceptual premises in the way public policy represents problems (Bacchi, 2009). This focus lets us put away concerns around intentionality, which can be a distraction when analyzing policy. Instead of focusing on what was 'really' meant, the focus is on presuppositions, assumptions, and historical factors such as how and where certain problem representations have come about and where they have been put forth. Since I am quite critical to the problem representation of food security as it is in the text corpus, I find it useful to include the following definition of what critique is and is not:

> A critique does not consist in saying things aren't good the way they are, it consists in seeing on what type of assumptions, of familiar notions, of established, unexamined ways of thinking in the accepted practices are based. (Foucault, 1994: 456 read in Bacchi, 2009: xv)

Critique in its best form should be generating new ways of seeing an issue. It is my aim with this thesis to contribute to new ways of understanding food security.

Bacchi (2009) also emphasizes the importance of challenging both international and national borders. Discourses cannot be neatly categorized within a national context, and I have already established that this is the case with food security. I follow up Bacchi's (2009) emphasis by situating the analysis of food security in a historical and international context. In the previous chapter I gave a brief historical account of the development of food security and its role in international food policy, as well as identifying some important actors involved. This will be elaborated on in the analysis. As the reader shall see, in my analysis I attempt to draw lines internationally to highlight the entanglements of Norwegian agricultural policy informed by larger discursive fields. This approach shines light on the historical contingency of the ways in which we are governed as well as the possibilities for different kinds of policies. It is my goal to shine light on "relations of rule" (Bacchi, 2009: xvii) by adopting this approach.

A last point within the methodological framework of WPR (Bacchi, 2009) is that "problem representations are elaborated in discourse" (:35). Governments are actively creating and constructing problems as a necessary part of policy making. As such, they are important actors in the discursive field. The way that a problem is constituted matters because it has real world effects on the issue at hand and the people who are involved in it. For a more practical understanding of WPR analysis, I now turn to the questions put forth by Bacchi (2009) that have served as my main analytical tools.

3.2.2 Analytical approach

Bacchi (2009) develops a set of questions that I have used to sensitize my reading of the text corpus. These questions have not been used rigidly, but rather has aided me to develop the analysis in several rounds of working with the data. As Bacchi (2009) points out, policy is often nested within other policies, and as such several rounds of analysis and consideration is necessary. Furthermore, the questions are not necessarily to be addressed separately from each other. In the analysis I sometimes highlight particularly relevant questions to certain themes, however the set

of questions should first and foremost be seen as a cohesive and flexible framework that helps with interpreting the data at hand. The six questions are summed up in the following:

- What is the problem represented to be in a specific policy?
- What presuppositions and assumptions underline this representation of the problem?
- How did this representation of the problem come about?
- What is left unproblematic? Where are the silences? Can the problem be thought of differently?
- What effects are produced by this problematization?
- How/where is it produced, disseminated, and defended? Is it/could it be questioned, disrupted, and replaced?

All the questions are meant to aid our understanding of the problematization of a given issue or set of issues. In the beginning stages of the analysis, I relied on an open-ended approach to the text corpus, and mainly was asking questions about what the most prominent 'problems' were in the policy. When I decided to focus on food security, I started by applying the first question. According to Bacchi (2009) it is a form of commonsense that underlies here, because how an issue is thought about will have implications for how it is addressed. Even though the task of identifying what the problem is represented to be is a relatively simple directive, it can also be challenging given the web of policy that issues are often entangled in. Therefore, it is important that this is not brushed off quickly. To ensure this I have come back to the first question several times. In this process, I eventually identified population growth, development, and innovation as key concepts in the problem representation of food security.

Key concepts are related to the second question in Bacchi's (2009) framework. This question serves to deepen our surface level understanding of the problematization. It encourages researchers to go deeper and explore the logic that underlies the problem representations at hand. In short, it helps the researcher to understand how the policy makes sense of some things as opposed to others. This can be a question of exploring what knowledge has been relied upon for a certain solution to seem 'obvious' or 'right'. To use an example from my analysis, I have looked at how measurement of population is used as one way to legitimize productivism as a strategy towards food security in the text corpus. The point is not to say that the measurement itself is 'wrong', but rather to point out how it is used to support a certain argument. As Bacchi (2009:5) says: "The question becomes

not why something happens, but how is it possible for it to happen? Which meanings need to be in place for something to happen?" (Bacchi, 2009: 5). In the example from my analysis, FAO is one central actor from where knowledge is assembled to make sense of the problematization of food security.

Binaries are important to explore, as they are sites where we can say for certain that policy simplifies reality. Binaries are also related to the second question. We do not explore binaries to condemn policymakers, but rather to point out the inherent simplification that must happen when an issue is represented. It will to some extent always be necessary to simply the relationships and elements that go into policy making. For Bacchi (2009) this is a necessary part of representing issues. The task for researchers is to explore critically how these simplifications are contributing to the overall meaning of the policy at hand. Binaries are good places to start because they are easy to identify. Generally, binaries assume an A/not-A relationship. In the text I have paid attention to an important binary in the text corpus: namely the Developed/developing binary. Even though this binary has evolved and changed over time, the analysis shows how this binary is still very influential in the narrative of contemporary as well as future agriculture.

The analysis of binaries and key concepts are already touching on the third question, which asks us to consider how certain representations come about. This question is important to start reflecting on the processes, discursive and non-discursive, that have contributed to the understanding of a problem at hand. It highlights the historical contingency of all problem representations. Knowing that other possibilities exist, how can we better understand where we are currently positioned on a given issue. Identifying important decisions that have been made, to trace developments and discourses across boundaries is important here. I have done this in the previous chapter, by highlighting important historical events related to the food security framework – and continue to build on this in the analysis. This approach is inspired by the work of Michel Foucault, and is essentially a genealogy (Bacchi, 2009). The goal of a genealogy is partly to reject the assumption of 'natural' trajectories, and to explore the specifics that have led to a certain understanding.

When tracing genealogy, the researcher also starts developing a sense of what gets let out of the problem representation (Bacchi, 2009). Things that are assumed to be unproblematic and silent can be just as important to understand the problematization as what is actually said. Furthermore, the researcher will likely meet alternative ways of understanding the problem, both because the

policy texts themselves are made up of complex discourses, and because the researcher should expand our understanding by finding other examples in research, case studies, reports and so on. The fourth question explicitly asks about this dimension of problem representations and encourages the researcher to be reflexive towards our own alternatives as well as to the representations we are analyzing. The cultural context that policy exists should be explored and emphasized in the analysis.

It is not always easy to say something about the effects certain discourses have in our lives. Bacchi (2009) still emphasizes the importance of saying something about the possible effects problem representations can have. There is a normative aspect of this way of understanding policy, because she assumes that some problem representations are harmful and create difficulties for some more than others. In my understanding of discourse more generally I have emphasized the role of power, and I seek to contribute to an understanding of food security where the role of political economy is central. To do this, I have equipped the analysis by drawing on the transformation literature and a relational understanding of capitalism.

Bacchi (2009) distinguishes between discursive effects, subjectification effects and lived effects. In this thesis I address all three in different ways. The discursive effects are explored through textual analysis, and by drawing connections across time and space in order to trace where and how certain representations have come about. Subjectification effects are explored when I say something about the consequences it might have for the people that are implied in a policy. How does policy contribute to subject positions becoming available and possible is a central question here. Lived effects are concerned with a representation's impact on life and death. At a very fundamental level, food security is shaping lived effects, and this is addressed at several points in the analysis. A key concern is that the way food security is understood in Norwegian national policy between 2008 and 2023 forwards an understanding of hunger as something a-historic and a-political. Bacchi (2009) points out that there should not be a focus on concrete outcomes when applying this question to the analysis. Rather, the researcher should focus on more subtle influence. I have done this again by applying the framework of leverage points – or places to intervene in a system (Meadows, 1999).

Lastly, Bacchi (2009) draws the researcher's attention to how and where representations have been developed, and furthermore how they are or could be represented differently. In relation to the rest

of the analysis, the researcher can form an understanding of the dominant representations and possible effects that are judged as harmful. We ask with this question, how does a particular problematization draw legitimacy, how is target audience reached? To answer these questions, I build on the genealogy by mapping out who important actors are and have been in the food security policy field and imply possible consequences of this way of understanding food security. This lets me go beyond the textual and discursive aspects of the text and enter into a broader social analysis. To better understand the relationship between text, discourse and social practice, I have made use of Fairclough (1995) understanding of texts as three dimensional. In the following section I briefly describe the three-dimensional model.

3.2.3 Critical Discourse Analysis: Three dimensions of a text

Though the main methodological framework for the analysis is WPR-analysis (Bacchi, 2009), I find it helpful to structure the analysis using the three-dimensional view of texts from critical discourse analysis (CDA) (Fairclough, 1995). The three dimensions, as shown in *figure 1*, are text, discursive practice, and social practice (Fairclough, 1995: 74). The main goal of separating the three analytically is to bridge the separation between micro and macro analysis. This is done particularly through the discursive practice dimension, bridging text and social practice (Jørgensen & Phillips, 2013; Fairclough, 1995). As the figure illustrates, the dimensions are nested and inform each other.

Figure 1. Fairclough's three-dimensional model for CDA

Using Fairclough's model highlights how texts influence and are influenced by social and discursive practices. The discursive practice dimension focuses on how texts relate to each other and draw on existing discourses and narratives to reproduce and refigure discourses (Fairclough, 1995:189). Distributive and creative institutional practices are also part of the discursive practice

dimension (Fairclough, 1995). Jørgensen and Phillips (2013) point out that for CDA linguistic analysis alone is not sufficient. Social practices are not only constituted by linguistic practices, but other practices that contribute to larger social practices must be considered. Therefore, it is necessary to include sociological theory about the phenomena in question. I do this throughout the analysis, as well as by including sociological understandings of transformation and capitalism as analytical tools.

3.3 Data selection and collection

The data selection in a research project shape and informs the analysis in various ways. Bacchi (2009) points out that choosing policies is already part of the analytic process and will thus reflect particular aims and interests of the researcher. It is therefore important to keep in mind the aims of the project when forming a text corpus. In my project the aim is to say something about food security as a discourse in national Norwegian policy, and as such a natural starting point was to get an overview of the policy published between 2008-2023. My search started at Regjeringen.no and Stortinget.no. Both contain full digital archives of publications from all Ministries throughout the period in question. All documents are readily available to be downloaded from these archives.

After familiarizing myself with the variety of publications from the Ministry of Food and Agriculture, I decided to focus on the white papers[6] published in the period. The white papers are well-suited to be the ground of investigation of food security, as they stake out the proposed course for Norwegian food and agriculture in the near and distant future. The other documents published by the Ministry are thus informed by the whitepapers. Other kinds of documents include strategies, NOUs, Propositions to the Storting, Law amendments, Action plans, pamphlets, and guidelines. Three strategy documents have also been included in the text corpus to supplement understandings of food security in the white papers.

There are several reasons why I have chosen to focus on what food security is represented to be in Norwegian food policy. When I first started the project, I had, as mentioned, a relatively open-ended approach to the food policy. I was guided by curiosity around what the prominent discourses were in general and spent time reading over a thousand pages of policy from the period 2008-2023. In this process, I took detailed notes and saved sections that were relevant to my initial question.

[6] White paper is used to translate 'stortingsmeldinger' (Regjeringen, 2011)

Even though this process was time consuming, it gave me a valuable overview of the discursive field in national food policy. Furthermore, it made the process of narrowing down which sections to include in the analysis easier at later stages.

Food security stood out early in this process, given its importance as one of four overarching goals. Furthermore, it caught my interest that food security was described as underpinning *all* food policy presented by the Ministry of Agriculture and Food, as well as the Norwegian Food Law[7]. Another factor that played into my choice was the complexity and number of issues that fell into the food security discourse. My initial interest in food policy stems from the way food production, distribution and consumption highlights the mosaic of relations that humans are engaged in with more than human natures. In this lens, the Ministry of Agriculture and Food is a central contributor to how the state of Norway organizes nature. The food security discourse explicitly incorporates environmental and climate issues in its problematization, and thus let me say something about the worldview that informs the Ministry's engagement in organizing nature. Finally, the food security discourse is a discourse that travels and even transcends borders. Given that our current food systems are characterized by increasing globalization and international trade, it seemed important to encapsulate this dimension in my exploration of dominant discourses in the national political field.

Finally, the time period 2008 – 2023 is an important frame for the analysis. The food crisis in 2008 put food security high on the political agenda, both in Norway and internationally, which is why I ultimately chose it as a starting point. The Ministry published its first climate strategy that connected food security to climate change and environmental issues in the wake of the crisis (Ministry of food and agriculture, 2008). Several other time periods were considered: 1950 – 2023, 1990 – 2023, 2000 – 2023. This could have deepened the analysis and allowed me to compare the way food security was problematized before and after the crisis. However, it was evident early on that one of the more time-consuming tasks was to comb through policy documents to collect the text corpus. In light of time and resource constraints, I decided that a longer time frame would be outside of the scope of this project despite possible benefits. I have instead relied on previous research to form an understanding of food security prior to 2008.

[7] 'Matloven' in Norwegian.

In the period 2008 – 2023 seven White Papers have been published by the Ministry of Agriculture and Food, in which four have been included in the text corpus. Two white papers have been excluded because they do not concern the food sector: one concerns the forestry industry and the other concerns the fur industry. The last excluded white paper concerns the Reindeer industry. Even though this does concern the food sector, it does not mention food security at all and was thus excluded from the text corpus. It is worth noting that this is an interesting finding, suggesting that the Ministry of Agriculture and Food do not view the Reindeer industry as an integral part of food security in Norway. Given that this is traditionally and currently an important livelihood for Sami populations, it is critique-worthy that it is given a marginal place in the Ministry's conception of food security. In the context of my thesis, I ultimately decided that this is beyond the scope of my research questions. I highly recommend that future research look closer into this aspect of Norwegian food policy and its connection to food security.

There were 22 strategies and plans published by the Ministry of Agriculture and Food in the time period. Only three have been chosen to supplement the understanding of food security that is laid out in the white papers. The strategies excluded from the text corpus have the following topics: five of the strategies concern pollinators and securing gene pools, three concern pesticide use, two concern work related crime, two concern forestry, two concern circular economy, one concern export, one concern tourism, one concern organic agriculture, one concern protection of topsoil, and one concern urban agriculture. All of these have been considered outside the scope of this thesis.

At the start of the project, I also included propositions to the Storting about the Agricultural Agreement[8], given the institutional importance the agreement has on the relationship between the state and farmers organizations. The Agricultural Agreement distributes subsidies for production of key food commodities, as well as allocating other funds. I considered including propositions with an interval of four years[9] (2008, 2012, 2016 and 2020) in the text corpus. When it became clear that food security would be the central topic of my research, I ultimately decided to exclude these documents on the grounds that the topic of food security is discussed to a very limited

[8] Jordbruksavtalen
[9] The propositions are published every year in connection to the negotiations between the state and farmers unions.

capacity in the propositions. When food security is discussed, the propositions echo what the larger publications on food policy that is included in my text corpus.

Furthermore, I considered limiting the time period to 2008 - 2021, because the Ministry of Agriculture and Food under the Gahr-Støre government have yet to publish a new overarching white paper for the food sector. The most recent white paper for the food sector was published under the Solberg government in 2016 (Meld. St. 11, 2016-17). However, when the new ministry collaborated on a strategy on climate change, hunger and vulnerability, published early in 2023, I decided to include it given its direct relevancy to the topic at hand. This is one of two strategies published under the Gahr-Støre government concerning the food sector. The one not included is also a collaboration with other ministries and concerns social dumping and work-related crime. I considered this irrelevant to my research. The text corpus has been collected from the following documents, all of which have been downloaded from public archives on regjeringen.no:

Document	Genre, government, and ministry
Norwegian Ministry of Food and Agriculture (2008) *Ministry of Agriculture and Food Environmental Strategy 2008 - 2015*	**Strategy.** Published under the Stoltenberg government. Ministry of Agriculture and Food
St.meld. nr. 39 (2008-2009) *Klimautfordringene - landbruket en del av løsningen*	**White paper.** Published under the Stoltenberg government. Ministry of Agriculture and Food
Meld. St. 9 (2011-2012), ***Landbruks- og matpolitikken. Velkommen til bords***	**White paper.** Published under the Stoltenberg government. Ministry of Agriculture and Food
Meld. St. 31 (2014-2015), *Garden som ressurs - marknaden som mål. Vekst og gründerskap innan landbruksbaserte næringar*	**White paper.** Published under the Solberg government. Ministry of Agriculture and Food
Meld. St. 11 (2016-2017), ***Endring og utvikling - En fremtidsrettet jordbruksproduksjon***	**White paper.** Published under the Solberg government. Ministry of Agriculture and Food
Regjeringen (2021) *Matnasjonen Norge*	**Strategy.** Published under the Solberg government. Ministry of Agriculture and Food, Ministry of Health and Care Services, Ministry of Trade, Industry and Fisheries
Regjeringen (2023) *Climate change, hunger and vulnerability: strategy for climate change adaption, disaster risk reduction and the fight against hunger*	**Strategy.** Published under the Gahr-Støre government. Ministry of Foreign Affairs, Ministry of Agriculture and Food, Ministry of Climate and Environment and Ministry of Justice and Public Security

Figure 2: overview of documents that the text corpus has been collected from

As mentioned, all the policy documents selected have been read and reread in their entirety and considered closely through notetaking. Food security is multifaceted and complex, and the process of familiarizing myself with the text corpus was long and non-linear. Getting lost in details happened regularly at the early stages of selecting, collecting, and getting an overview of the text corpus, simply because of the volume of pages I was going through. The process of getting lost has ultimately been a strength because it gave me a much-needed insight into important processes, actors, relations, and other context at play in the agricultural policy field. It has given me a broad overview of the national discursive field. This has made me more comfortable in narrowing down the text corpus at later stages in the analysis. At the same time, going through and building an understanding of the policy itself involved getting an overview of close to a thousand pages of core material, in addition to documents that have ended up not being included. Eventually, I saw the need to narrow down the amount of data I was handling.

My guiding principles when narrowing down the data was to capture both the general direction the food policy was arguing for, as well as to include all the instances where food security and development and innovation was mentioned explicitly. I included development and innovation as part of the criteria for inclusion because of its importance in the food security discourse historically, but also textually. To capture the general direction of the policy, I decided to include all introduction chapters of the white papers. Meld. St. 9 (2011-12) and Meld. St. 11 (2016-17), **bold** in *figure 2,* are the white papers with the largest scope. They are published by two different governments and ministries of food and agriculture. These have been most central to the analysis as they stake out the pathway for Norwegian agriculture. Furthermore, they clarify and discuss overarching goals and how to achieve them. Given that food security is one of four overarching goals, it has been central to include these in the analysis.

Meld. St. 9 (2011-12) consists of 302 pages and 12 chapters and Meld. St. 11 (2016-17) consists of 162 pages and 14 chapters. The following pages were included:

Meld. St. 9 (2011-2012). *Landbruks- og matpolitikken: Velkommen til bords.*	p. 11-138, 218- 250, 280 – 290
Meld. St. 11 (2016-2017). *Endring og Utvikling: En fremtidsrettet jordbruksproduksjon.*	p. 7-64, 72-76, 123-153

For Meld. St 9 (2011-12) this includes *chapter 1* 'Food production for the future', *chapter 2* 'Developmental characteristics and framework conditions', *chapter 3* 'Safe food and animal welfare', *chapter 4* 'Competitive and sustainable value chains for food', *chapter 5* 'Diversity of food and business development' and *chapter 9* 'Environmental resources in Norwegian agriculture'. 10 pages of *chapter 11* 'recruitment, knowledge and innovation' concerning knowledge production and innovation have also been included. The excluded chapters consist of a chapter on forestry, a chapter on reindeer herding, a chapter on rural industries, a chapter on property and settlement policy and a chapter on simplification and management. These have all been considered outside the scope of this analysis.

For Meld. St. 11 (2016-17) this includes *chapter 1* 'Introduction', *chapter 2* 'A changing world', *chapter 3* 'A consumer-driven value chain', *chapter 5* 'Changes and development in the agricultural sector', *chapter 4* 'Diversity in the primary industry', *chapter 6* 'Framework policy for trade', *chapter 8* 'Increased production based on Norwegian resources', *chapter 12* 'Environment and climate', and *chapter 13* 'Organic production and consumption'. The excluded chapters from this document consist of the following: a chapter on the agricultural agreement and wages, a chapter on simplification, a chapter on market balancing, a chapter on education and recruitment and a chapter on leave and substitutes for farmers. Even though I included parts of the chapter on education and recruitment in Meld. St. 9 (2011-12), I excluded the corresponding chapter in Meld. St. 11 (2016-17) because there was no discussion on innovation and knowledge production, which was the reason for the formers' inclusion. Discussions on innovation and knowledge production occur in several of the chapters from Meld. St. 11 (2016-17) mentioned above.

Given the amount of data resulting from this collection, as well as the scope of the white papers described above, an exploration of the problem representation of food security could be limited to these two documents. However, I wanted to explore the role food security played in the smaller, more niche publications from the Ministry of Food and Agriculture. The remaining white papers, St. Meld. Nr. 39 (2008-09) consists of 177 pages and 12 chapters, and Meld. St. 31 (2014-15) consists of 66 pages and 7 chapters. The following pages have been included:

St.meld. nr. 39 (2008-2009) *Klimautfordringene - landbruket en del av løsningen*	p. 1 – 38, 87 – 112, 133 – 171
Meld. St. 31 (2014-2015) *Garden som ressurs- merknaden som mål: Vekst og grunderskap innan landbruksbaserte næringar.*	p. 1-23, 60 – 63

The following chapters from St. Meld. Nr. 39 (2008-09) have been included: *chapter 1* 'Main topics in the white paper', *chapter 2* 'A changing climate', *chapter 3* 'Climate, energy, agriculture and food – international and national frameworks and challenges', *chapter 7* 'Reducing greenhouse gas emissions – agriculture, food and consumption', *chapter 9* 'Adaptations and preparedness to meet climate change', *chapter 10* 'Knowledge production and communication' and *chapter 11* 'International collaboration on agriculture and climate'. The chapters that have been excluded from the data collection consists of a technical chapter on absorption and emissions of greenhouse gases, a chapter on climate accounting in national agriculture, a chapter on carbon-binding in forestry, a chapter on increased production of renewable energy based on agricultural resources, and a chapter on economic and administrative consequences of the white paper.

Meld. St. 31 (2014-15) is mainly included because it signals an increasing emphasis on the role of individual farmers to develop their farms beyond primary food production to ensure economic survival. Even though this does not touch directly on food security, it does touch on the orientation of development that are proposed in the time-period and is thus relevant to my analysis. The following three chapters were included: *chapter 1* 'Main topics in the white paper' and *chapter 2* 'stimulating entrepreneurship, growth and innovative business practices and *chapter 5*

‘agriculture-based business development in the EU’. I choose to exclude the following four chapters: one on the potential in different parts of the food sector, one on the agricultural entrepreneur within the national agricultural framework, one on economic and administrative consequences of the white paper and one on developing knowledge on how to best approach entrepreneurship in the sector. The last chapter mentioned is geared towards how the ministry collects information from the sector and was thus considered outside the scope of my analysis.

Finally, the following parts of the strategies have been included:

Ministry of Agriculture and Food (2008) *Ministry of Agriculture and Food Environmental Strategy 2008 - 2015*	p. 1-12
Regjeringen (2021). *Matnasjonen Norge.*	p. 1 – 42
Regjeringen (2023) *Climate change, hunger and vulnerability: strategy for climate change adaption, disaster risk reduction and the fight against hunger*	p. 1 – 36

The first strategy consists of 65 pages and includes two chapters, where *chapter 1* ‘Introduction’ has been included. *Chapter 2* on goals, strategies, and measures until 2015 was excluded on the basis that the same topics are covered in Meld. St. 39 (2008-09) in more detail.

The remaining two strategies have been included in their entirety. *Matnasjonen Norge* (Regjeringen, 2021) consists of 5 chapters. *Chapter 1* ‘The vision for Norway as a Food Nation’, *Chapter 2* ‘Foundational premises and central drivers’, *Chapter 3* ‘Prioritized areas of development’, *chapter 4* ‘Implementation’ and *chapter 5* ‘Norway as a food nation today’. The strategy is a broad view of developmental goals and efforts in the food sector and was thus considered a valuable inclusion.

Lastly, *Climate change, hunger, and vulnerability* (Regjeringen, 2023) consists of 10 chapters in the following order: ‘Introduction’, ‘Global trends and challenges’, ‘Objective: Reduced climate

change vulnerability and hunger in developing countries', 'Focus Areas', 'Climate Change and Security', 'Interaction between humanitarian efforts and long-term development assistance', 'Role of the private sector', 'Digital transformation and Innovation', 'Partners' and 'Implementation'. As mentioned above, this strategy has been included given its direct relevance to the topic of hunger.

3.3.1 A note on translation

The strategies from 2008 and 2023 are available with English translations. The rest of the documents are only available in Norwegian. As such, I have translated quotes included to illustrate the analysis in this thesis. I have also translated the names of the chapters described above in data selection and collection were official translations where not available. My goal with translation has been to convey the meanings from the original quote in the best way possible, and as such I have considered the translations in several rounds. Any mistake is my own.

3.4 Reflexivity

A policy is inherently shaped by its framing. In this chapter I have argued that in constructing policy, governments must make decisions about what to include, exclude and how to present the information at hand. As such, they are privileged actors in representing the problem. In *Ways of Seeing* Berger (2008 [1972]: 7) makes the following observation:

> (…) there is also another sense in which seeing comes before words. It is seeing which establishes our place in the surrounding world; we can explain that world with words, but words can never undo the fact that we are surrounded by it. The relation between what we see and what we know is never settled.

I take from this that no way of seeing the world is neutral. Governments privileged position in problematizing issues can make it seem like they occupy a neutral position, but as Bacchi (2009: x) points out, policy has an undeniable cultural dimension. Furthermore, the representations that operate in public policy play central roles in how we are governed and thus how we as researchers understand the texts in front of us. The positionality that Berger (2008) gets at is thus central to the ways of seeing that is going on in public policy, as well as in research. In this and earlier chapters I have accounted for my analytical and methodological frameworks to clarify my own positionality.

Analyzing in this way requires reflexivity from the researcher. First, diving into deep seated cultural beliefs requires an awareness of the fact that researchers can never be entirely separate from these same beliefs. Bacchi (2009) encourage researchers to apply the full set of questions to our own policy proposals and problem representations. Recognizing the complexity of problem representations is also important in this regard. The researcher should attain a high level of contextual understanding of the issues that directly affect and surround the topic at hand. This entails identifying how representations fit into wider debates and goes beyond a merely descriptive context. Different representations should be considered in this contextualization process. Lastly, going several rounds with the sensitizing questions described earlier in this chapter is important to develop the analysis. Bacchi (2009) emphasizes that they should not be seen as a one-off exercise, but a nested task, where one question is often embedded in another. This gives the researcher a richer understanding of the text, discourses and social practices at hand.

4. What is food security represented to be?

"How would it feel to live in a world where no one had to live or die in hunger?"

Donella Meadows (1987:1)

What exactly is food security? Jarosz (2014) argues that uniform definitions should be resisted. As we have already seen in earlier chapters, definitions of food security are useful as a starting point but can only take us so far. An understanding of the political history that the framework has risen in is necessary, and context is important for a deeper understanding of what food security is and does in the text corpus. In this chapter, my aim is to show the reader how food security is given meaning in the policy and draw attention to two key concepts that build this meaning: development and population growth. Probing deeper into what role these concepts play in the policy puts us well on the way to understanding the problematization of food security. As such, this chapter also lays the foundation for understanding what futures are imagined in terms of food security in the text corpus.

The future of food is grounded in the food security discourse. Meld. St. 9 (2011-12) opens its first chapter, 'food production for the future' with pulling attention to the problem of food security. The first climate strategy whitepaper from the Ministry of Agriculture (St. Meld. 39, 2008-09) opens its first chapter with the heading 'Climate challenges and food security', and Meld. St. 11 (2016:9) foregrounds the need for increased food production in the future. In this chapter I expand on the way food security is problematized by focusing on the way population growth is used in the policy. I argue that the way population growth is used favors a productivist approach to address the issue of hunger. Population growth as a key concept is considered in three ways: 1) measurement of population as a political tool, 2) global and national representations of population growth and 3) possible consequences of representing the problem in this way. Then, I look at how a certain conception of development shapes the way food security is thought about in the text corpus. I argue that even though development is seemingly a neutral and descriptive concept in the policy, it carries deep-rooted cultural ideas about how contemporary societies have come into being. Lastly, I explore how both these key concepts contribute to what I call a capitalist ontology in the food security discourse.

4.1 Population growth and food security

The problem representation of global food security in the text corpus is supported by the idea that food is an increasingly scarce commodity/resource, and furthermore that population growth is a central driver of this development. Two examples illustrate this connection. Meld. St. 9 (2011-12: 11) opens with the quote presented above, whereas Meld. St 11 (2016-17: 16) points to population growth as a "global challenge" in terms of food security. Though population growth is not the only driver identified in the text corpus, it is heavily emphasized and foregrounded in the problem representation. Implicitly, this suggests that there is something essential about humans, and more importantly, human development that necessarily leads to environmental destruction and resource scarcity.

Emphasizing the role human activities in the past and present is a well-established part of working towards climate justice and sustainable transitions. Earths ecology and atmosphere have been unprecedently changed over a short period of time on ecological and geological time scales due to human activities (see e.g., IPCC, 2019; IPBES, 2019; WWF, 2020). It is thus no surprise to see an emphasis on the role of people and population in the problem representation of food security. This is an example of interdiscursivity with wider representations of climate change in the text corpus. Most notably, this can be connected to the Anthropocene discourse. The main claim can be summarized as follows: humans have been on a trajectory towards global warming, which has been ramping up since the industrial revolution and the great acceleration post WWII (see e.g. Crutzen & Stoermer, 2000 for an influential representation of the Anthropocene).

Bacchi (2009) asks what underlying presuppositions and assumptions underlie a problem representation for it to seem like the obvious solution to a problem. The Anthropocene discourse within the food security discourse is important in this regard. Scarcity of food, both currently and in the future, is at the core of the problematization of food security in all the documents included. I want to revisit the following quote included in the introduction:

> We live in a world facing great challenges. Earlier food was distributed unequally, but now we are experiencing an even more severe situation; there is no longer enough food to distribute. (Ministry of Agriculture and Food, 2008:4).

Distribution of food is in this view secondary to the larger emerging problem: a lack of food. If food is scarce, the obvious solution is increased food production. Implicitly, the scarcity framing foregrounds 'pressure' on environments to produce enough for growing human populations. Though distribution is part of the problematization of food security, it is largely seen as a technical issue that can be solved through marketization and development of food systems. Lack of food and population growth combined are in this way at the core of the problematization of food security in light of climate change in the text corpus.

From a world-ecology and oikeios perspective (Moore, 2015), the food security discourse would have to address historical patterns of power, capital, and nature that culminate in current social practices shaping food production, distribution and consumption. However, these are not foregrounded factors in the way food security is represented in the policy. Population growth, climate change and pressure on natural resources are instead consistently centered. These build the conceptual logic of the food security problem representation in the policy. We can think of them in terms of Bacchi's (2009) key concepts, categories, and binaries. First, population growth can be seen as a key concept because it holds explanatory power in why food security needs to be foregrounded in the policy:

> Population growth, climate changes, pressure on natural resources and rising raw material costs have made food security a highly topical and increasingly important theme nationally and internationally. (Meld. St. 9, 2011-12: 11)

The above quote identifies the problem of food security in a kind of 'converging crises' (George, 2010) framing that does not reflect the role of power and capital in the production of cheap food. The way population, climate and pressure on resources is used can be seen in light of the popular Anthropocene framing of climate change, often entailing a Malthusian understanding of the role of humanity's impact on earth systems. A common conception of the Anthropocene entails a story about humans, as a generalized category, 'overwhelming' nature's capacity (e.g., Steffen et. al, 2007; Crutzen & Stoermer, 2000). Moore (2015) argues that this perspective fails to historicize humanity's modern relation with the web of life because it conceives the problem as humans *and* nature rather than humans *in* nature. The quote points to 'pressure on resources', conceived as a consequence of humans acting on nature. Another example further illustrates this point: "Global warming is putting pressure on ecosystems." (Regjeringen, 2023: 9). The pressure on ecosystems

analogy places the actor outside of the ecosystem. Though consequences of human activities need to be understood, the relations underpinning value accumulation under capitalism can highlight the historical contingency of world-ecology. Furthermore, it makes for a much more specified categorization of the responsible actors and makes it easier to identify which current world-ecological projects are actively driving global warming and harming ecosystems.

Another example of interdiscursivity is the use of numbers from the UN organizations related to food and agriculture in the text corpus. FAO estimates a global population of 9 billion in 2050. Textually, the year 2050 becomes a future horizon for increased food production:

> At the same time, food security – access to sufficient and safe food – is threatened in parts of the world. The world's population is increasing sharply. So does the need for food and energy. The Food and Agriculture Organization of the United Nations has estimated that close to one billion people, 14 percent of the world's population, were malnourished in 2008. By 2050, there could be nine billion people on Earth; in this scenario we must produce twice as much food to avoid hunger and destitution. (St. Meld. 39, 2008-09: 9)

Again, scarcity seems to be the underlying concern. The issue of hunger gets directly tied to population growth, both at present and in the future. The quote illustrates how at several points in the text corpus estimates of population growth is used to argue for increasing food production between 100% and 60%. This is considered a central challenge in the text corpus, and environmental consequences from land-use, waste, energy and climate change are brought up as considerations. Despite the significant barriers and potential harms to increased food production in the 21st century, the text corpus argues that increased production is essential to global food security. We can see this in light of a re-emerging productivist approach in the policy.

4.1.1 Measurement as a political tool in representing the problem

Bacchi (2009) emphasizes how measurement often is an important tool in problem representations. This is the case in the problematization of food security. The construction of population growth as a central category is supported through measurement. Food security is seen through the prism of the year 2050, a central horizon based on FAO figures that estimate population growth and increased production. According to Meld. St. 9 (2011-12:11) food production must increase by 70% to meet the prospect of 9 billion people on earth in 2050. This figure changes throughout the

period, from doubling food production (Meld. St. 39, 2008-09: 9) to increasing production by 60% (Meld. St. 11, 2016-17:15). Fouilleux et al (2017) points out that even though the food crisis in 2007/2008 happened in the context of excess production, the emerging problem representations around food security since have focused on increased production rather than issues of distribution. Similar conceptions are present in the policy: "The world's population is increasing. The need for food and energy is also increasing." (Meld. St. 39, 2008-09: 9). By foregrounding population as central to the problem of food security, the obvious solution becomes increased food production. From the oikeios perspective, this obscures the relations that are constituting contemporary industrial agriculture, food value-chains, changes in land use, toxification and unequal distribution of food, and in turn how these lead to food insecurity.

Fouilleux et al (2017) point out some key issues with the way food security and insecurity has been measured historically (and to a large extent still) by FAO. According to the authors, the economic models measure the national average number of calories. Food production, import, export and subtraction of food waste is divided by the population of a given country. Fouilleux et al (2017) point out that this model privileges one solution in food insecure countries: productivist agriculture that centers increased production over other values in agriculture. Furthermore, as a measuring tool the model participates in the process of constructing the concept of food security. For example, food waste and inadequate distribution are given little emphasis as part of the solution despite major issues that need to be addressed. Furthermore, the model does not consider how land use could change and be used to produce other kinds of natures. How much land is used for industrial meat farming or biofuels which could be used for plant-based foods that people could eat directly, for example? In this way, the 2050 horizon both justifies and favors a productivist approach.

4.1.2 Global and national representations of population growth

Global population growth and national population growth are conceived differently in the text corpus. The two can be conceptualized as two distinct categories. As Bacchi (2009:9) points out "categories are concepts that play a central role in how governing takes place". So far, I have focused on the way the former has been represented, simply because this is the most prominent way population growth shows up in relation to food security in the text corpus. To sum up, global

population growth is represented as one of the main problems the world is facing when it comes to addressing hunger. It is thus key to the problematization of food security. It is worth contrasting this with the way national population growth is represented:

> It is consumer demand that provides the production opportunities. As the population grows, output must be increased in pace with changes in demand in order to keep the domestic market shares at the same level. (Meld. St. 11, 2016-17:72)

Here, population growth within Norwegian boarders is cast in a positive light: providing opportunities in the food sector. Though a central challenge brought up in the text corpus, as we see in the above quote, is to keep national market shares with the increasingly competitive international food markets, it is not hunger that is foregrounded in these discussions. I want to draw attention to the category of 'consumer' here. A key difference from the standpoint of the text corpus between the 'global hungry' and national population is that the former is not integrated into economic relations where they occupy the role of 'consumer'. The UN definition of food security presented in the second chapter does suggest that becoming consumers is central to achieving food security:

> Food security exists when all people, at all times, have physical and economic access to sufficient safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life. (World Food Summit, 1996)

It is not given that economic access refers to capitalist social relations. As we shall see in the following sections, however, economic access is imagined in a particular way with few, if any, alternative visions.

Representing national population growth in terms of market opportunities can be seen as drawing on deep-seated ideas about risk and opportunity in capitalist economic thinking. Wright and Nyberg (2015) argue that the risk/opportunity framework that capitalist economics operate with incentivizes actors to see the world as a place where risks are to be minimized and opportunities harnessed. In contrast, global population growth is framed as a risk for the future of food production. This is not a new problem representation in debates about food, in fact it is a classic one that we can trace back to the English researcher Thomas Malthus, whose main contribution has been arguing that food stocks will eventually not keep up with population growth. Framing hungry people in this way sets them up to be the problem to be solved and will have consequences

for their lives. On the other hand, it is assumed in the text corpus that as a rich, industrialized country Norway will likely be able to buy food on international markets and in this way achieve food security where national production fails to. Meld. St. 9 (2011-12) argues that for this reason, Norway has a moral imperative to increase food production – but it does not challenge the structural inequality that puts the nation in this position by, for example, suggesting transformative changes to international food trade. In this context, the role of the consumer category is left unproblematized. Again, increased production and integration into current food systems are prioritized as levers to address the issue of hunger on a global scale. The design of the system is largely intact in this vision of food security.

4.1.3 Possible consequences of problematizing food security in terms of population growth

Though my goal is not to declare national food policy a success or failure, it is worth pointing out that the problematization around food scarcity is arguably inaccurate. It is not obvious that the problem of food security is food scarcity, as the productivist approach would suggest. We know that approximately 1/3 of food is wasted, and that large quantities of crops go to biofuels and animal livestock (Holt-Gimenez et al, 2013). The food crisis in 2007/08 is also illustrative. Fouilleux et al (2017) points out that this crisis happened in the context of excess food production, not scarcity. The rising prices and market failures harmed already vulnerable people the most. Despite there being excess food and an apparent inability to distribute it to secure access, the focus in the policy debates since has been largely geared towards increased production, with FAO as a lead actor in this regard since 2008 (Fouilleux et al, 2017).

Bacchi (2009) asks 'how and where has this representation been produced, disseminated and defended?". As we have seen, FAOs role in these debates is evident in the text corpus and is a leading reference point in the policies conception of food security. According to the Fouilleux et al (2017), the productivist focus has been influenced by vested interest in policy forums, such as trans-national food corporations with resources to promote productivist food security. Drawing on the transformation literature to evaluate what level of leverage the productivist approach is operating on, we can see that it is shallow. A key insight from Meadows (1999) and Abson et al (2017) work is that increasing the volume of something, while keeping the system largely intact, rarely leads to transformative changes. The role of vested interests in the food security debates is

thus concerning, given that they have little incentive to advocate for change at deeper leverage points, such as changing the goals of the system, in which they are in an advantageous position.

Another point worth noting is the increasing financialization of food markets (McMichael, 2013). Financialization of markets more generally has led to the rise of what Sassen (2017) calls complex predatory formations. For Sassen (2017) these formations are a key challenge to create more just societies. Complex predatory formations refer to the tools that financialized capitalism makes use of. These tools are often a mix of elements from law, accounting, algorithmic mathematics, logistics and advanced technologies (Sassen, 2017:1-3) that are used in extraction processes in financial markets. The complex formations are according to Sassen (2017) often hard to legislate against. Public policy is often defined in separate silos and sectors that are not able to address the far-reaching consequences of the complex predatory formations, according to Sassen (2017). Though the document search described in Chapter 3 show that the Ministry of Agriculture and Food collaborate with other ministries when publishing policy, there is a significant challenge to address the power discrepancies in both national and international food markets in effective ways. NOU (2011) suggested several ways of addressing national discrepancies of power in the food sector but have been followed up to a limited extent in the food policy at hand. Since 2011, moreover, the grocer monopoly in Norway has only gotten stronger (Almås, Bjørkhaug & Vik, 2015).

Bacchi (2009) asks how established problem representations could be 'questioned, disrupted and replaced'? As mentioned earlier, actors such as the international peasant and smallholders' organization La Via Campesina and the Zapatista movement have had limited access to these arenas. Looking back to the UN World Food Summit in Rome 1996 we can see how the exclusion of La Via Campesina led to a separate Food Sovereignty conference led by the organization. The following is an excerpt from the Food Sovereignty declaration:

> Peasants and small farmers must have direct input into formulating agricultural policies at all levels. This includes the current FAO World Food Summit from which we have been excluded. The United Nations and related organizations will have to undergo a process of democratization to enable this to become a reality. (La Via Campesina, 1996:3)

Other central demands include reorganizing food trade and reframing food from commodity to essential human right and need. Both of these demands operate at higher leverage points in the

food system, addressing design and intent. This highlights the contested nature of the food security debates, and shows that certain problem representations never make it into Norwegian public policy. Even though there are examples that conceptualize food as a common good, the productivist approach is the dominant representation of global food security in the text corpus. Moving away from the focus on population growth and increased production in public policy can make rise for alternative visions for how we 'do' food in the future, possibly giving us more transformative solutions to the interconnected issues of hunger, climate change and environmental destruction.

4.2 Development, food security and the narrative of progress

Development carries powerful cultural meanings related to how contemporary societies have come into being. It is crucial to examine the narratives constructed about both the past and future, to get a full view of the role development has in the problematization of food security. Terms like 'general societal development', 'economic development' and 'sustainable development' are terms holding significant power in contemporary political landscapes. In the text corpus, the first term is generally used to describe historical events and movements in the agricultural sector, both nationally and internationally. In other words, to describe how we got here. This will be discussed in the following. The remaining two point to the future, as pathways to achieve food security. These will be discussed in chapter 5.

Norwegian agriculture has followed similar developments during the last century as other industrialized nations (for an in-dept historical account of the period, see Almås 2002; 2004). This was happening in the context of changing rural and urban relations. In the period between 1945 and 1950 the population in cities for the first time exceeded the population in the countryside. According to Almås (2004) this marks a period in Norway where a peasant tradition of more than 2000 years came to an end. Farm-structures changed from being large labor units consisting of both family members and hired workers to becoming household operations. When labor moved from the countryside to the industrializing cities, increased labor-saving technology on farms became necessary to keep up with and increase production. Almås (2004:297) describes the mood in the agricultural circles mid-20th century as follows:

> For a long time, the agronomic goal was to make two blades of grass where only one had grown before. That was the goal in agricultural research as well as for the farmers, and farm policy also

> pushed for increased productivity. Progress in farming was measured in cubic meters, in liters and tons.

Note here that the productivist thinking that underlies the green revolution was thus very much present in Norwegian agricultural circles at the time.

Norwegian agricultural history is conceptualized as a successful story of development in the text corpus. This narrative uses 1950 as a starting point, even though there are vague references to long traditions of Norwegian agriculture before this point. The following description encapsulates this shift from 'traditional' to 'industrial' agriculture:

> Agriculture is an industry that has gone through large changes, and employment and the number of farms has been significantly reduced since 1950. At the same time there has been great productivity growth in the industry. Despite the reduction of the number of agricultural holdings, the production volume has increased. General societal development with industrialization, urbanization, economic growth, and welfare development are central drivers. (Meld. St. 11, 2016-17:9)

The traditional aspects are marginalized, but at the same time romanticized at several points in the policy (e.g. Meld. St. 31, 2014-15: 5-6). Traditional agriculture is not conceived of as 'serious' production viable in the food commodity market, but rather as a tourist attraction and as conservation of historical modes of living. Recent reports from the IPCC (2019) and the IPBES (2019) emphasize the role of traditional and indigenous knowledge to successfully adapt and mitigate climate and environmental change. It is acknowledged in the text corpus that pre-industrial methods might be beneficial in this regard, but there is a lack of large-scale funding towards this end. The departure from traditional agriculture then, is in many ways seen as a necessary step in societal development. There is a notable exception here in the recent strategy on hunger and climate adaptation: "Norway will work to safeguard the rights of indigenous groups and local communities, including small-scale producers, as stewards of resources and ecosystems." (Regjeringen, 2023:7). It remains to be seen how this will be handled in future white papers encompassing the food sector.

4.2.1 Industrialized/developing – a central binary

Like population growth, the concept of development has geographical dimensions, where differences between societies are explained in terms of differing levels of development. The distinction between industrialized countries and developing countries is the basic global and

geographical division the text corpus operates with. This is a point in the text corpus where historical relations of empire, colonialism and extraction are simplified to a more convenient story of development. I will come back to the ways that capitalist economic development has been shaped by empire and colonialism in the next chapter. Here, I will look at how the industrialized/developing binary categorizes and measures countries in light of the narrative of development in the text corpus. The use of the industrialized/developing binary signifies how societies are thought about in terms of an evolutionary conception of development, overlapping with the Anthropocene discourse discussed in the previous section. This is a point where the population argument and the development argument meet.

The development of industrial agriculture is synonymous with a certain conception of societal development in the text corpus. Even though different conceptions of modernization theory exist, it can largely be characterized as "a total social process associated with (or subsuming) economic development (…) [and] that this process constitutes a 'universal pattern'." (Bernstein, 1971: 141). When representing the historical movements following 1950, the texts highlight certain aspects of the development, while backgrounding and omitting others. What becomes apparent in a close reading of the texts is the assumption that industrial agriculture overall has been both necessary and beneficial for societal development. The following quote illustrates the connection between industrialization and welfare that is present in the text corpus:

> Together with technological development, this has led to fewer workers in the primary industry. Agricultural effectivization was an important prerequisite for welfare development the decades after World War II. (Meld. St. 11, 2016-17:9).

Continued effectivization is a central goal in the policy throughout the period. This suggests that further effectivization is viewed as necessary in order to uphold and indeed increase welfare, nationally and internationally. Looking back to how Westskog et al (2021) describe effectivization as "[m]easures that lead to emissions per unit being reduced. These are carried out within the current systems and structures." (: 9) we can assume that effectivization alone is not likely to lead to transformation. Interestingly, the quote from Meld. St. 11 (2016-17) implicitly suggests a causal relationship between less labor power per unit of food produced and overall welfare development. This relationship is core to the definition of cheap food that Moore (2015) operates with.

Something like changing food preferences, which has deep cultural implications, is simply attributed to economic development: "Economic development in major Asian economies has led

the population to demand a more diverse and livestock-based diet" (Meld. St. 11, 2016-17:15). Seen in this way, the move towards a new diet seems almost natural. When development is measured through the lens of industrialized countries' trajectories other possible explanations are obscured. Furthermore, historical changes in the way people in industrialized countries relate to food are also simplified with this framing. Had a more complex understanding been equipped in the policy, it would be difficult to assume the binary relationship of industrialized/developing economies.

Bacchi (2009:8) points out that "disputes over the meaning of key concepts are related to competing political visions. A great deal is therefore at stake in the meanings assigned to concepts." This could explain why development is such a central concept, but not up for debate in the policy. Organizations like La Via Campesina do have different understandings of what development and food security mean and suggest alternatives to both. These competing visions are not present in the text corpus. Instead, the policy points to the further development of a multilateral global economy as a central condition for agricultural development:

> The multilateral trade regulations established after WWII have contributed to predictable framework conditions for trade with commodities through among other things reductions in trade barriers. WTO now has 164 member states and covers almost all international trade. The system covering dispute resolutions, regulations and negotiations contributes to predictable and regulation-based world trade, something that is especially important for small and medium sized economies such as Norway. (Meld. St. 11, 2016-17:16)

The assumption that human welfare and economic development are intertwined shapes the problematization of food security. Rather than transforming the food system, preserving it with technical tweaks and further integration is central. In this view, welfare gets tied to cheap food. We should question if this is beneficial for the national and global population, or if it serves different interests. Cheap food is a central prerequisite for the functioning of capitalist relations of production. The cost of labor power is directly conditioned by the cost of food because the reproduction of life itself is necessary for anyone to be able to work and produce value. This is not explicitly discussed in the text corpus, giving reason to question which interests are given primacy in the policy. Cheap food might be central for the survival of capitalist societies, but are capitalist societies necessarily central for the welfare of humans?

4.3 The capitalist ontology of food security

The emerging solution to hunger in the text corpus is the expansion of cheap food. Capitalism is in Moore's (2015) view guided by the law of 'Cheap Nature'. At the core of this law is the ongoing, expansive, innovative quest to turn the work/energy of the biosphere into capital. Importantly, nature is only cheap in a historically specific way. Moore (2015) argues that capitalist commodity frontiers have played an important role in the production of Cheap Natures, as they set the stage for growth and value accumulation by allowing for the reduction of socially necessary labor-time. Cost-effective food production, particularly after 2016-17 is high on the agenda. Meld. St. 11 (2016-17) defines cost-effective food production as "continuously developing opportunities and reducing cost per unit". This conception overlaps significantly with Moore's (2015) own definition of cheap food. Moreover, the emerging image when piecing together the elements of the food security discourse supports the view that current food production is on a quest to turn the work/energy of the biosphere into capital (Moore, 2015). These assumptions, explicit and implicit, suggest that the direction of the food system relies on continuous cheap food as the solution to hunger, and thus shape the way food is thought about in the text corpus.

The conceptions of development and population growth support the idea that there is an underlying capitalist ontology in the text corpus. This ontology is exemplified through the way capitalism is never explicitly named or discussed but is essential to the development framework that is proposed. The silence reflects that the policy has a taken for granted relationship to capitalism as an economic and social system. Furthermore, population growth is centered as the leading cause for resource scarcity and pressure on environments, pulling attention away from actors who arguably have more control over how resources are used and distributed. It is notable that the problematization of food security through the key concepts discussed in this chapter does not lead to proposing transformative changes in the food system.

Food security is largely seen as a technical issue, with technical solutions. I do not simply mean technological solutions here, even though that is also part of it. Rather, I am referring to incremental leverage points as discussed in chapter 2. Effectivization and increased production are prime examples of incremental leverage points (Westskog et al 2021; Meadows, 1999). These measures can be important to be sure. These leverage points might have some potential to positively impact the state of hunger on a global scale. All means that lead to less hunger and

malnutrition are important given the very real, in the worst instance life or death, consequences for affected people and communities. However, this is exactly why it is worth drawing attention to the seeming unwillingness to approach the issue of hunger from a deep systemic and historical viewpoint. When we fail to do this, the root-causes of hunger are at risk of being naturalized. This will in turn shape our proposed solutions to hunger. Obscuring capitalism as a central organizing and far-reaching institution is central to this failure to address root causes.

There are elements of both productivist and multifunctional discourses in the food security representation. Both discourses have emerged in the context of capitalist food production through the 20th century (Almås & Campbell, 2012). There is a recognition that agricultural production produces non-marketable goods that benefit Norwegian society:

> Effects that are not measurable in kroner should also be considered in a socio-economic context. Agriculture does not just produce food and feed, but also common goods such as food security, cultural landscapes, biodiversity, aquatic environments, settlement and carbon uptake in soil. (Meld. St. 11, 2016-17:45)

Above, the Solberg government highlights the larger environmental processes that agriculture exists in, and food security is conceived as a common good. A similar view is presented in Meld. St. 9 (2011-12): "Beyond producing commodities and services for a market, the Norwegian agricultural and food sector supplies a range of common goods, i.e. goods that cannot be sold in a market." (:15). This focus on agriculture as more than food commodity production has been termed multifunctional agriculture, and has been described as the European food sectors' alternative to a neoliberal turn (e.g. Almås & Campbell, 2012). According to Almås and Campbell (2012), this has been a central justification for protecting national agricultural markets in the face of opening markets after the neoliberal turn. It is notable that developing countries have not had the same opportunity to address their agricultural sector as a result of the Structural Adjustment Programs (SAPs) many have been subjected to as a pre-requisite for inclusion in trade agreements (Schanbacher, 2010).

Though non-marketable goods are recognized and considered valuable contributions to Norwegian society, both governments also tie the production of common goods tightly to the value-production in capitalist markets, for example:

> Furthermore, the goals concerning increased food production[10] and agriculture across the country cannot be reached without value production and competitive value chains in the agriculture and food sector (Meld. St. 9, 2011-12:23)

Long term food security, as well as agriculture across the country (settlement, cultural landscapes) constitute two of the most important common goods. Interestingly, the policy seems to exclude the possibility of these outside competitive, capitalist markets. In this way, the government frames the common goods that are produced by agriculture as only possible through the institutions of capitalist value production. In this framing it is assumed that they would not exist otherwise.

Value-accumulation is a central aspect of capitalist organization of societies. In the second chapter I distinguished between the project of capitalism and the process of capitalism, arguing that the project of capitalism entails separating 'the economy' from 'the environment', whereas the process of capitalism goes through nature (Moore, 2015). Representations we have encountered in this chapter, notably the 'pressure on environments' framing is a good example of this. Moore (2015) and Fraser (2014) point to this dynamic as a prerequisite for accumulation of capital – the role of world-ecology is unrecognized, but necessary for capitalist value production. The policy turns this on its head and argues that: "Increased value-creation and continuous development is a prerequisite for a viable agriculture and food sector." (Meld. St. 9, 2011-12:12). Here, value-creation and development become the prerequisite for production and distribution of food. The Solberg government presents a similar argument, geared specifically towards increased production: "Increased competitiveness and effectivization in the industry will be decisive in order to reach the government's goal to increase agricultural production." (Meld. St. 11, 2016-17:18). The role of competitiveness and effectivization is not up for debate in the policy, it is simply assumed as a fundamental feature of the sector if it is to be competitive and meet the political goals. These examples position the text corpus within the project of capitalism, and it is crucial to have a critical view of these representations.

Agricultural development is seen in terms of innovations along the production chain as well as changing markets and frameworks:

[10] A subgoal of the overarching goal that is long-term food security

> Norwegian agriculture has undergone major changes, driven by changed framework conditions, technological development and new knowledge. Everything indicates that there will continue to be opportunities for growth in the sector as a result of new products and services, new ways of interacting, new ways of organizing business activities, etc. (Meld. St. 9, 2011-12: 287).

The text relates to innovation and technology as forces in themselves and avoids connecting them to larger geopolitical and world-ecological changes in capitalism. More specifically, there is a limited focus on the relationality of capitalist development. When it comes to changing framework conditions, this is represented as a development that makes rational, economic sense in a global context. This becomes especially apparent when the policy refers to agriculture in the global south. Agricultural development has been identified as a central growth engine in developing countries, where the aim is to integrate rural populations into capitalist economic structures through market-based supply and demand of food commodities.

> The food crisis has led to growing awareness of agriculture's role in a development context. This is reflected in, among other things, the World Development Report for 2008 by the World Bank. The report calls for increased investment in agriculture in developing countries and argues that the agricultural sector must be centered if we are to achieve the Millennium Development Goal of halving poverty and deprivation by 2015. One reason for this is that 75 per cent of the world's poor live in rural areas, while only four per cent of development aid goes to agriculture. Growth in the agricultural sector is also considered four times more efficient for development compared to growth in other sectors. (Meld. st. 39, 2008-09: 32).

The agricultural sector in Norway is seen differently. Norway is considered a developed country with an already sophisticated farm and food production structure geared towards market supply and demand. The central challenge nationally becomes 'greening' the technologies along the production chain through innovation and knowledge production to ensure continued economic growth and sustainable food production. For example, Meld. St. 9 (2011-12:38) argues that "Climate adaptation and improved resource management provide more stable income for farmers" and Regjeringen (2023:4) argue that

> Climate action, in particular climate change adaptation, will be a key element of the implementation of the food security strategy and the effort to achieve the goal of increased food security at the local and national level.

The way development is used to problematize food security builds on an evolutionary view of how societies develop, where industrialized nations are privileged and used as a measuring stick for developing countries as discussed in the previous section. The population growth argument as it is conceptualized in the text corpus suggests that the global hungry themselves are the main challenge to hunger. This is both a circular argument and blames the main sufferers instead of addressing how some people are more likely to suffer from hunger than others. The geographical dimension of this is crucial, and even though geography is discussed, histories of colonial and neocolonial relations are not present in the text corpus. Relatedly, capitalist relations nationally and internationally are similarly absent from the problem representation. The meaning making in the text corpus is thus dependent on a view of capitalist development as overwhelmingly positive and even necessary for progress. This further supports the idea that an underlying capitalist ontology operates in the text corpus. Let's consider the following quote:

> Global food security is created when countries exploit their natural preconditions for food production and well-functioning trade systems. All states have through the UN committed to ensure food security for their own citizens. (Meld. St. 9, 2011-12:11)

Two main aspects of achieving food security are highlighted above: exploiting natural preconditions and well-functioning trade. Exploitation here could refer to using or engaging the natural resources of a country, which is reasonable and necessary in terms of food production. Similarly, well-functioning trade systems would likely be important to address and avoid hunger in any economic or social system. Well-functioning trade as a policy goal could be transformative in nature. However, in the context of the problematization of food security I have shown that transformative measures are lacking in the policy. This gives way for a different understanding of the quote above.

Food security is problematized through an economy/nature binary. Natural preconditions and trade systems are conceived of as separate spheres. The relationship between human economies and the land is cast through exploitation. Furthermore, nature is viewed as a precondition that countries can act upon. In turn, food commodities are in this view best distributed in international and national capitalist markets that are governed by particular trade agreements orchestrated by the WTO. Moore's (2015) distinction between capitalism as a project and capitalism as a process is useful here. As discussed in Chapter 2, the former can be described as a project of humanity out

of nature. The way I have conceived of capitalism here argues that capitalism cannot move outside of nature. Crucially, the project of capitalism is an ideological one – shaping the way we understand capitalist social relations as something neutral and even natural. In terms of governance, the way both nature and economy are understood will shape policy proposals, and furthermore what is politically possible to imagine.

4.4 Conclusion

The food security debate has been characterized by fierce debates and contentions from a large range of actors (Schanbacher, 2010). Some of these perspectives never make it into the Norwegian policy. Historically and currently there have been large material differences between actors in these debates. According to Fouilleux et al (2017) actors with vested interests, such as transnational food corporations, have had abundant resources to promote what the authors term productivist food security. Actors calling for alternatives to the productivist logic, such as La Via Campesina and other civil society groups, have generally not had access to the policy-making processes (Fouilleux et.al., 2017). A central demand next to democratic control was reorganization of food trade, were reframing food from a commodity on a market into food as a basic human right and need for nutrition. Despite the traces of the multifunctional agriculture discourse where food production is not only part of commodity production but also commons, there are few challenges to the food security discourse that is brought up in the policy. As we have seen, even though there are elements of a multifunctional discourse, this ultimately gets tied to value-production in the market.

In this chapter I have done a textual and interdiscursive analysis of how food security is problematized by looking at two key concepts in the text corpus: population growth and development. The way population growth is used in the text corpus suggests that the main problem of hunger is food scarcity, making increased food production the obvious solution. In addition to the need for more food, the text corpus sees population growth in light of increased pressure on environments, increased need for energy and climate changes. The way development is conceptualized on the other hand carries deep-seated ideas about how modern societies have come into being.

The term ‘general societal development’ is used to construct a story that connects the path from traditional agriculture to industrialized agriculture in the mid-20th century. The text corpus attributes development in the food sector to the general development of society. In this way, it is a

story that takes us from the past, through the current, and to the future. There are geographical aspects to this story. Industrialized nations occupy a privileged position compared to developing nations when we view the world in terms of a specific developmental pathway. Crucially, the pathway has in many ways already been defined by the path industrialized nations have taken historically. Furthermore, the power that is lodged within this representation of development– and the real-world effects that it has – is not up for discussion in the text corpus. Building on this analysis, I have argued that food security has an implicit capitalist ontology that is essential for the meaning-making the policy engages in.

To understand the way development contributes to meaning in the text corpus it is imperative to contextualize the use of these terms. In the next chapter, I dive deeper into the text corpus conception of economic and sustainable development. Then the green revolution is brought up as a frame for analyzing and understanding the problematization of food security in the text corpus. The capitalist ontology is highlighted by what we can call the success-story of the green revolution. The story of successful development in Norwegian agriculture is both structurally and discursively related to the story of a successful green revolution in the 20th century.

5. Saved by a new green revolution?

"The day that hunger is eradicated from the earth there will be the greatest spiritual explosion the world has ever known. Humanity cannot imagine the joy that will burst into the world on the day of that great revolution."

Fredrico Garcia Lorca (in Meadows, 1987:3)

Agricultural revolutions have been central to the development of capitalist societies since the conception of capitalism in the 15th century. Moore (2010) argues that for almost six centuries capitalism and agriculture have been intertwined through the expansion of food surplus through agricultural revolutions. An example is illustrated by the treadmill of production theory developed by Cochrane (in Almås, 2002:227-228). This theory points to how farmers themselves were not the beneficiaries of increased productivity in the sector. Increasing productivity meant investing new technology in order to reduce cost. The technology was freely available in the market, and thus many farmers would take the same path to increase productivity on their farm, leading to increased production but lower food prices. Cochrane thus argues that consumers rather than farmers benefit from the increased productivity. Moore (2015) would add that not only consumers benefited from the cheapening of food – perhaps more importantly, capitalists benefited because the cost of reproduction of labor power is directly influenced by the cost of food for consumers/workers.

Furthermore, agricultural revolutions have been important for establishing hegemonies in capitalism (Moore, 2015; McMichael, 2013). Controlling food production and related knowledge is a powerful thing. Moore (2015:244) calls the Dutch Republic the "mecca of agricultural knowledge" in seventeenth century Europe, before the rise of the English model and later the American model of agriculture – both spreading their knowledge and extending their power around the world in various ways (Moore, 2015; McMichael, 2013). Though a discussion of agricultural revolutions since the advent of capitalism would make for an interesting and useful analysis, the most recent agricultural revolution will be in focus here– namely the green revolution. This is done both because there is continuity with the green revolution that can be traced in the text corpus, and because it would be beyond the scope of this thesis to undertake an analysis of all the major

agricultural revolutions since the advent of capitalism. For accounts of earlier agricultural revolutions and expansions under capitalism see Braudel (1972), Moore (2010; 2003) and Brockway (1979).

The green revolution might be described as *the* cornerstone for agricultural development in the 20th century. Its starting point is often dated around 1940 (see e.g. Conway & Rajiv, 2012:41). This is when the vice president of the US at the time went on a trip to Mexico that eventually resulted in the development of the Mexican Agricultural Program (MAP) (Conway & Rajiv, 2012; Patel, 2013). Together with the American Rockefeller Foundation, the US and Mexican governments started a sustained research program where the young biologist Norman Borlaug was hired. The main goals of the program were to illustrate what modern science could do for plant breeding, particularly for developing countries, by improving crop yields by three- to fourfold (Conway & Rajiv, 2012). The program was received as extremely successful and under Borlaug's direction the program is credited with the early development of "miracle wheat" in 1954 (Patel, 2013:5) as well as other higher-yielding crops of maize and rice (Conway & Rajiv, 2012). Borlaug won the Nobel prize for his achievements. The new varieties of staple crops and the knowledge that bred them eventually spread through the world in the 1950s and 60s. In developed countries, the take-off of improved yield crops started shortly after the World War II (Conway & Rajiv, 2012), as is the case in Norway (Almås, 2004). Between 1950 and 1976 the American W.K. Kellogg Foundation gave yearly grants to young Norwegian agricultural scholars (Almås, 2004). According to Almås (2004) many of the grant receivers went on to become leading figures in their field. Farmers at this time also started adopting inorganic fertilizers, synthetic pesticides, and investment in a range of new agricultural technologies – including heavy machinery (Conway & Rajiv, 2012).

In this chapter I take a step back and zoom out to the social practices and historical context that the text corpus exists in. As Fairclough (1995) points out, the textual, discursive, and social practice dimensions of a text are to a certain extent only analytically separate. As such, I have already touched on social practices in the pervious chapter. Similarly, the textual and interdiscursive dimensions will also be present in the following discussion. The aim of this chapter, however, is to address the third question Bacchi (2009) poses: "How has this representation come about?". To do this, I perform a Foucauldian genealogy tracing how the food security discourse has emerged in the context of historical movements in the development of capitalist food systems, and the green

revolution in particular. This is a necessary step to understand the food security discourse particularly because discussions of capitalism are entirely absent from the text corpus. Capitalism is simply assumed to be the only viable mode of economic and societal development. This finding is interesting in itself, as it points to a major silence in the text corpus around how we organize the economic capacities of our societies and social relations that follow.

I start the chapter by furthering my discussion on development from the previous chapter, now focusing on the remaining two: economic and sustainable development. Then I go on to discuss how innovation under capitalism is problematic in view of transformation of societies. Thirdly, I investigate how an expanded view of the green revolution can illuminate how the future of food security is thought about in the text corpus. Lastly, I discuss the value of food that emerges from this vision and how it could be viewed differently.

5.1 Economic and sustainable development

There has been an increased focus on environmental aspects of food production and economic development. At the same time, there is a continuity in the food security discourse, that is similar to earlier modes of capital accumulation and agricultural revolutions. This continuity is interesting because it suggests that the policy is engaging in giving new configurations of older problematizations. The causes of hunger are understood as directly related to the level of economic and developmental capacity a country has, as long as it is sustainable. Sustainable development, as we shall see, is a version of the economic development discourse. Therefore, we must look at how economic development has emerged on the global stage.

5.1.1 Economic Development

The development discourse does not originate in the national policy, rather it is a concept that travels between and even transcends borders. Institutions like the WTO, World Bank, IMF, and the UN play key roles in arriving at definitions and policy concerning economic and sustainable development internationally. These institutions are prominent as reference points in the text corpus and set an authoritative tone with the knowledge that has travelled from these institutions to the text corpus. The exception is concerned with how WTO trade policy affects the Norwegian agricultural sector, which is questioned to varying extent in the period. After the election of the conservative government in 2013, this concern is still present but significantly less than earlier. Liberalization as an economic development strategy is generally seen as positive for productivity

in the sector after this point. Whereas Meld. St. 9 (2011-12: 18) argues in 'Norway as a constructive actor' to adopt an offensive and protective stance in trade-negotiations as they related to the agricultural sector, Meld. St. 11 (2016-17) opens for "Working towards freer trade with agricultural products to contribute to global welfare development and food security, as well as with regard to Norwegian consumers and diversity in the Norwegian food market." (Meld. St. 11, 2016-17: 58). Here, global welfare and food security gets directly tied to freer trade with agricultural products, as well as benefiting the Norwegian consumer.

The idea that global welfare is tied into a certain kind of economic development is an old one. A good place to start to understand our current conception of development is going back to the landmark speech, ushering in the era of the developmental agenda, given by the American President Harry Truman on January 20th, 1949, for his inauguration:

> We must embark on a bold new program for making the benefits of our scientific advances and industrial progress available for the improvement and growth of underdeveloped areas (...) The old imperialism — exploitation for foreign profit — has no place in our plans. (cited in Banerjee, 2003: 149).

Even though the term development has been used for more than 200 years to refer to economic growth, this was the first-time development and underdevelopment was coupled together on a major political stage (Banerjee, 2003). Banerjee (2003) argues that in this moment, the Third World was born. Even though the people and the geographical spaces were already in existence, this marked a change in the relations from 'old imperialism'. Bacchi (2009) argues that people categories are central to governance. In this way we can think of people categories as 'made up' in the sense that they function in particular ways in order to govern, and as such have to construct particular meanings in problem representations. Categories do not exist out there, a priori. The third world and more than 2 billion people at the time were defined in terms of underdevelopment - giving development a new meaning (Banerjee, 2003).

Discursively, President Truman's speech marks a shift in the way economic powers at the time conceptualized societies where the relations between them had been that of empire and colonization. We can define empire as:

> a relationship, formal or informal, in which one state controls the effective political sovereignty of another political society. It can be achieved by force, by political collaboration, by economic, social or cultural dependence. (Doyle, 1986: 45)

Colonialism, by extension involves settlement in outside territories and often follows imperialist projects historically (Banerjee, 2003). Coming back to the 'Four Cheaps'[11] (Moore, 2015) can be illustrative of the connection between development, colonialism, and empire. Even though the developmental agenda is often attributed to coincide with Truman's speech in 1949, the role of expansion of capitalist endeavors has been central since the economic system's conception. Moore (2015) argues that the 'Four Cheaps' has historically been possible through accumulation by appropriation of relations that have been outside of direct capital production. This has been "possible on a planet where capitalization is limited and most life reproduces itself without the help of capital: the reality of early but not 21st century capitalism" (Moore, 2015:73). Furthermore, the end of direct colonial rule does not necessarily mean that imperial relations dissolve. To use the language of the transformation literature: changing complex systems involves changing the design and goals of the system. A central question then becomes what is the underlying goal espoused by the development discourse, and did this fundamentally change with the discursive shift after WWII?

The development discourse has a clear objective: economic growth. It is important to note that this is simply one way to understand development. Even though it carries powerful cultural meanings, other conceptions of development do exist, such as the human development index, where human welfare is centered. Economic growth, however, is given primacy in the way the text corpus imagines the future of food security. In this view, human welfare follows economic growth. Here I want to go back to my discussion of what characterizes capitalism as a system from chapter 2. One of the four characteristics of capitalism Marx (2013) highlights is capitalisms orientation towards economic growth and expansion, where individuals, through the power of their positionality in capitalist societies, accumulate capital. Growth is highly prioritized in the policy, with increased value production as one of four overarching goals for the agricultural sector. Furthermore, growth in the sector is central to the meaning-making around development in the past and future:

[11] Labor-power, food, energy and raw materials

> Norwegian agriculture has undergone major changes, driven by changed framework conditions, technological development, and new knowledge. Everything indicates that there will continue to be opportunities for growth in the sector as a result of new products and services, new ways of interacting, new ways of organizing business activities, etc. (Meld. St. 9, 2011-12: 287).

In the above quote, growth is positioned as the ticket to continued development in the sector. Furthermore, the policy points to new ways to interact and organize commercial activities as sources of economic growth. This can be interpreted as an opening to alternative ways of organizing the sector at large, potentially in a transformative way. However, in the context of the problematization of food security in the text corpus at large – this is not a supported interpretation. By now, I have established that the representation of development within Norway and outside of Norway – particularly in developing countries – are connected discursively. In the problem representation of food security industrialized nations such as Norway are seen the forefront of development. Structurally, private actors in the market have the power to reinvest the surplus capital that given societies create. As I have pointed out earlier, the collective energy that goes into growth and capital accumulation extends beyond what can be accounted for in economic terms.

As we saw in the previous chapter, the policy constructs a story of not only economic, but general societal development. The idea that this development follows a certain track is often attributed to 'modernization' and is prominent in the understanding of development in the text corpus. This problematization fails to recognize the complex relationships that have been assembled to realize the historical developments we have seen within agriculture. Instead, the force of development seems to be located outside of the reach of political action and direction. The way that we view agricultural revolutions then, is seen through the lens of modernization:

> From the Dutch and English agricultural revolutions of the early modern era to the family farm and Green Revolutions of the nineteenth and twentieth centuries, the bloody expropriations of capital have justified themselves on the basis of this signal achievement ('modernization'). (Moore, 2010: 395).

But there is an issue with this framing. Agricultural revolutions do not 'just happen'. As we shall come back to later in this chapter, agricultural revolutions have historically been a result of complex relationships between state, empire, science and capital. The concept of modernization is thus ill-equipped to explain these developments.

Banerjee (2003:148) highlights three characteristics of colonialism: the domination of physical space, reformation of minds – particularly important is the role of knowledge systems and culture, and incorporation of local economic histories into a western perspective. All of these characteristics are similar to the way the development is problematized in the food security discourse. I have been discussing the track that developing countries are expected to take in order to be 'properly' integrated in food markets and the global economy as it is currently organized. In s*ection 2.1.2* I laid out some historical events as they relate to the food security framework and how it has come into being discursively and in practice. Structural Adjustment Programs (SAPs) imposed by the IMF have been integral to how economic capacities in developing countries have been organized (Schanbacher, 2010). This track is shaped by the story of development that industrialized countries are imagined to have taken. I say imagined because the story of development that is present in the text corpus is necessarily simplified, highlighting some things and neglecting others. The point is that the binary the development discourse operates with suggests that western perspectives on development have not been fundamentally changed despite the discursive shift from outright imperial and colonial relations of economic development. The softer or more subtle ways of speaking about economic development still carry with them notions that guide *how* space should be used in terms of agriculture, what types of knowledges are valuable, desirable and prioritized, and what modern economic development should look like. Without suggestions of alternative pathways in the text corpus, the development discourse that is central to problematization of food security can be said to be dominating the political possibilities for the future of food.

5.1.2 Sustainable development

Economic and sustainable development are interrelated concepts in the text corpus. The increased emphasis on environmental concerns in questions of value production does signal that green critiques have been incorporated in public policy. As examples from the policy show, there is a discursive emphasis on the centrality of sustainability in food production. One of the four overarching goals in the period is sustainable food production. In this regard, there is also an accompanying idea that this shift to sustainability requires significant changes in the system. Sustainable development in food production, however, is still imagined through the structures of capitalist agricultural production and distribution. As we have seen, the role of international

integration in markets and trade has become stronger over the period at hand. In the problematization of food security, the sector needs to prepare for the threats this may bring, as well as harness the opportunities that comes with this development.

Before going into the tools and methods[12] that the text corpus emphasizes as important for sustainable development of society, it is necessary to pay attention to the sustainable development as interdiscursive element. The discursive shift in the meaning of economic development after WWII can be seen as part of a continuous history of othering and marginalizing certain populations and territories in order to incorporate them into capitalist relations. Expert knowledge practices, domination of territory and structuring economies in a certain way are all central to both. This is not to be dismissive of the possibilities that current agricultural practices might lead way to in the future, but rather to suggest as Escobar (2012:20) points out, that

> Science and expert discourses such as development produce powerful truths, ways of creating and intervening in the world, including ourselves (…) Narratives, such as the tales in this book, are always immersed in history and never innocent.

In the previous section I argued that the development discourse in the text corpus has similarities to colonial modes of thought and practice. As Moore (2015) points out, the process of capitalism, through colonization and appropriation, do have a continuity since its early conception up until today. Furthermore, the role of science in colonization projects have always been central (Moore, 2015; Brockway, 1979). The expert discourses do not originate in the national policy itself but draws on powerful representations of the world that travel and transcend borders. Deep cultural beliefs about how the world should be are lodged in these representations and have lived effects in how hunger and food security are addressed.

Sustainable development then, should be viewed as a continuation and a variant of the development discourse at large. One of the early influential conceptions of sustainable development can be found in *Our Common Future*, commonly referred to as the Brundtland Report:

> Humanity has the ability to make development sustainable to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs. The

[12] Mainly knowledge production and innovation

> concept of sustainable development does imply limits - not absolute limits but limitations imposed by the present state of technology and social organization on environmental resources and by the ability of the biosphere to absorb the effects of human activities. But technology and social organization can be both managed and improved to make way for a new era of economic growth (World Commission on Environment and Development 1987:24)

Sustainable development and economic growth go hand in hand in this conception. The role of technology, furthermore, is seen as one of the areas in which limits to economic growth can be transcended. The report points to social organization of environmental resources. In my definition of capitalism, I have emphasized the environment-making that capitalism engages. Capitalism is not a project outside of nature, but rather a process that necessarily moves through a mosaic of natures – humans and otherwise, and furthermore is active in the creation of new natures (Moore, 2015). Relatedly, Banerjee (2003) argues that discourses of development construct particular views of 'the environment' and 'nature'. He points to the long-standing distinction in Western thought of nature as the "wild, untamed and often hostile force" as opposed to environment as something "manageable and goal-directed" (Banerjee, 2003:152). The latter coincides with the representation of environmental resources presented in the Brundtland report, as well as conceptions of environment in the text corpus.

5.2 Innovation as world-ecological method

Agricultural development has been identified as a central growth engine in developing countries, where the aim is to integrate rural populations into the global capitalist economy through market-based supply and demand of food commodities (see e.g., World bank, 2007). We find this idea in the text-corpus:

> As a result of a lack of investment and investment in agricultural development, there is untapped potential for increased production in parts of Latin America, Africa and the belt from Eastern Europe into Asia. Increased investment, transfer of technology and knowledge, access to markets and stable frameworks for international trade are important factors for realizing the production potential in these areas. (Meld. St. 11, 2016-17: 15)

Wichterich (2015) identifies two tendencies that are in tension with the development trajectory described above. First, Wichterich (2015) shows how the idea of continued growth in institutions such as the World Bank relies on the further economization of nature for the purpose of maximizing

resource efficiency and continue growth. Similar to Banerjee (2003), she is critical to the way economic thought conceptualizes nature as resources to be neatly managed. Second, Wichterich (2015) points out that the idea of green growth relies on inclusion of poor women and other marginalized groups in the market. Even though Meld. St. 9 (2011-12:37) argues that local populations in developing countries should have control over their own resources, the larger framing of food security that is put forward undermine self-determination. Similarly, women are pointed to as central actors in these communities. A central concern with current approaches to gender justice particularly in the developing countries, is women being framed as "untapped resources" (Wichterich, 2015:74). Gender justice is reduced to the commodification of labor that has been outside the market. Wichterich (2015) points out that the World Bank, amongst other institutions, has been largely ambivalent to these critiques. The way inclusion of women in agricultural development in the text corpus, particularly in developing countries, can be seen in light of Wichterich's (2015) critique.

The agricultural sector in Norway is seen differently because Norway is at a different place in the development-track the text corpus operates with. An already industrialized farm and food production structure geared towards market supply and demand is central to this position on the track. The central challenge nationally is rather identified as 'greening' the technologies along the production chain through innovation and knowledge production to ensure continued economic growth and sustainable food production. The track itself is not called into question.

A central question then becomes: how is innovation justified and argued for in the text corpus? The definition of innovation used in Meld. St. 9 (2011-12) is a good starting point: "a new good, service, production process, application or organizational form launched in the market or used in production to create economic value" (St. Meld 7, 2008-09 cited in Meld St. 9, 2011-12: 287). In St. Prop. 5 (2005-06) competition from EU as it expanded east in Europe was a central concern in the period before 2008. This was seen as a threat to the viability of the Norwegian food industry, which in turn threatens the primary production. The problem is represented as a question of keeping up with competitive forces in the market in order to have viable Norwegian food production. Failing to compete in this view is ultimately the threat that farmers, food producers and industry must avoid. Competitiveness in the sector is thus of central importance:

> Primary production depends on a competitive food industry as a customer base, and the food industry depends on raw materials that are competitive in terms of both price and quality. The Norwegian food industry is increasingly exposed to international competition through imports of agricultural products. (St. Prop. 5, 2005-06: 29)

This kind of competition, from the EU and otherwise, is a concern discussed in the text corpus as well. In the above quote competitiveness gets tied to the dynamic between farmers and the food industry. The relationship between primary production and national industry is seen as more or less harmonious, where a mutual dependence between two legs of the production chain is emphasized. The harmonious view can be explained by the agricultural agreement to some extent. Even though the industry is not part of the negotiations, the agreement is meant to ensure good conditions for food production in the primary sector, which in turn affects the industry. On the other hand, the national food industry is seen in the context of the global food market where competition is steep. In this way competition is seen as mutually constitutive for the farmers and the food industry, whereas in a global context competition from global markets are perceived as a threat to the Norwegian food industry. This threat in turn, makes it all the more important for the entire Norwegian food chain to be competitive in order to keep up with international markets and produce more food. Innovation is represented as a solution to the problem of competition in this way. The international conditions Norwegian producers and industry must compete in becomes an important background for the policy's ambition to allocate resources to promote innovation.

The role innovation plays in the policy is tightly coupled with capitalist value creation, competition, and productivity gains. I have illustrated how the concept of food security has developed through central economic and political institutions since the 1950s. This has shaped the way the food security discourse is expressed in the policy, as well as shaping the conditions that food production happens under. The changing conditions are part of the problem representation in the policy, something that needs to be responded to so that the overarching goals can be reached. Innovation is called upon to realize goals in future food production:

> To achieve the goals, value chains in the agricultural and food sectors must create value and be competitive. Research, innovation, and consulting will be important instruments. Increased value creation requires innovation and utilization of a diversity of resources. The industry will continue to experience solid productivity growth. (Prop. 164s, 2012-13: 52)

And,

> A continued high level of ambition for research and innovation activity will be important for increasing food production, improving animal welfare and strengthening competitiveness in agriculture and the food industry in an environmentally friendly and sustainable manner. (Meld. St. 11, 2016-17: 52).

In both quotes above, innovation and knowledge production are framed as vital strategies to ensure increased food and value production. The competitiveness of the industry also gets directly tied to the level of innovation. There are many ways we can understand the concept of innovation, but here I want to turn attention to innovation as frontier work within capitalism. Moore (2015) points out how historically and currently, frontiers of capitalism are crucial in value accumulation. The role of innovation can in this light be understood as a mechanism and a strategy to identify elements outside of capitalist value relations in order to integrate it in capitalist production. In other words, innovation is a form of frontier work. It is unclear if capital can innovate its way out of climate and environmental changes, despite this being a central strategy for addressing the problem in the policy. The capitalization of frontiers has according to Moore (2015) been dependent on scientific breakthroughs, state organization and appropriation of the co-produced oikeios.

In *chapter 4*, I showed how increased food production is a central solution to the population growth discourse that food security operates with. Increasing agricultural productivity is seen as central to achieving both sustainable production and food security. Innovation is central to the way the text corpus imagines achieving this end: "New knowledge will also contribute to high self-production of food and realization of opportunities for innovation and innovation within a changed climate." (Meld. St. 39, 2008-09:16). Here, new knowledge is connected to the sector's ability to produce more food and to be innovative in this endeavor. Climate change is a central frame in this regard because the policy sees it as a central challenge to increase production and move towards sustainable agriculture at the same time. There is a strong belief in the role of technology to meet this challenge: "New technology gives the use of all sizes better opportunities to utilize the resources that are on the farm. " (Meld. St. 11, 2016-17: 10). New technology requires innovation. The role of technology proposed above is one of providing opportunities for farmers and their production.

Wright and Nyberg (2015) argue that the construction of risk and opportunity within a capitalist framework are not able to address the complexities and uncertainty of climate and environmental changes, leading corporate interests to engage in processes of creative self-destruction. Given that corporate interests lobby and influence public policy in many ways (see e.g., Dryzek, 2022, Fouilleux et al, 2017), the same strategies are often argued for by governments as well. We can see how the policy argues that public and private interests are largely overlapping:

> Public and private actors are largely facing the same knowledge challenges in areas such as food security, food safety, better resource utilization and increased value creation and employment in the agricultural and food industries. (Meld. St 9, 2011-12: 282)

Wright and Nyberg (2015) point to the political consequences of adopting the risk and opportunity binary that capitalist economic thought operates with. The goal to increase value creation also forms part of the backdrop for the importance of innovation in the food sector. Like competitiveness and productivity goals, increased value-production is represented as foundational to the viability of Norwegian food production. Innovation is given the task to harness the opportunities for increased value-production: "Through innovation and adaption, there are opportunities for increased value creation based on agricultural resources and new knowledge." (Meld. St. 9, 2011-12:12). As Fraser (2014) points out, appropriation of the spheres of social reproduction, ecology and politics is necessary for the reproduction of capitalist value accumulation. Like Moore (2015) she draws attention to the limits of capital accumulation in the 21st century. In the text corpus by contrast, innovation is seen as a mechanism and strategy available to exploit opportunities for value production. A central concern in this regard is the way innovation within the bounds of market-orientation seriously limits the possibilities and experimentation that could lead to transformation.

In transformation literature terms, I suggest that the goals of the system, such as economic growth and expansion, are inscribed into the practices of innovation. There are reasons to believe that this, in the worst instance, could seriously harm food security. As Meadows (1999) suggests:

> Insistence on a single culture shuts down learning. Cuts back resilience. Any system, biological, economic, or social, that gets so encrusted that it cannot self-evolve, a system that systematically scorns experimentation and wipes out the raw material of innovation, is doomed over the long term

> on this highly variable planet. The intervention point here is obvious, but unpopular. Encouraging variability and experimentation and diversity means "losing control." (Meadows, 1999: 15).

It is not so much the innovation itself that is problematic, but rather the network of relationships that it is assembled in, and what the overarching intent of this organization is. On this point, the policy plays a central role in managing and facilitating relationships and allocating resources. Economic growth is highly prioritized as an organizing principle of our economic capacities in an expanded sense, laying claim to the work/energy (Moore, 2015) that is wielded by a given community or society. This work/energy could be used for other ends.

5.2.1 Value and innovation

One of the goals in examining ontology is to say something about what and how something is valued in a given problem representation. Ontology goes deep into the meaning making that the policy engages in. The food security discourse is fundamentally about how food is produced, distributed, and consumed, and about what kind of guiding forces that accompanies this endeavor. We have already seen that value creation is of major importance in the policy, and that innovation is a strategy to reach this goal. From a world-ecological perspective we can explore how this dynamic is an expression of the way capital ascribes value.

As we have seen, emphasis is put on the prospect of feeding 9 billion people in 2050, the international development of markets, as well as threats posed by environmental and climatic changes. The green transition framing puts additional emphasis on the importance of sustainable, competitive and profit generating value chains. Innovation, as I have argued, plays a defining role in this movement towards sustainable and cost-effective agricultural value chains in the policy. The policy argues that:

> A high level of knowledge and innovation capacity is necessary to achieve the objectives of agricultural and food policy. Globally and nationally, there is a need to develop new knowledge about agronomy to improve food security. Research and research-based innovation is also one of the most important instruments for increasing competitiveness and value creation. (Meld. St. 9, 2011-12:26)

Bettering food security globally and nationally and increased competition and value creation all gets tied to the production and application of new knowledge in the construction of the problem.

> Knowledge is increasingly included as an input factor in the goods and services offered by the sector. A continuous supply of knowledge is not least necessary to realize potential opportunities within a future sustainable bioeconomy. This requires interdisciplinarity in research and cooperation between industries to achieve sustainable solutions. (Meld. St. 9, 2011-12: 280)

Knowledge that is readily applicable in commercial agricultural production is highly valued in the policy. As the above quote suggests, the policy sees knowledge as an increasingly important input, on par with fuel, fertilizer, pesticides, etc. The Ministry of Agriculture and Food is itself one of the largest funders of food research in the country (Meld. St. 9, 2011-12: 280).

The way capitalism values nature has consequences for the way states and markets engage with food security. Moore (2015: 54) describes value under capitalism:

> The history of capitalism flows through islands of commodity production, developing within oceans of unpaid work/energy. These movements of appropriation produce the necessary conditions for the endless accumulation of capital (value-in-motion). In other words: Value does not work unless most *work* is not valued.

According to Moore (2015) value under capitalism is expressed as labor productivity in commodity production. Value that is not directly tied to these relations are not *valued* in the market, but it is still essential for the process of capitalism. Food being a necessity for life occupies a particularly important territory for the process of capitalism's success. Capital accumulation is possible partly because cheap food is available. The process of capitalism is in this view dependent on cheapening food through the process Moore (2015) describes above. This needs to be critically examined considering the implications ecosystem deterioration and climate change have on food production and access to food in the 21st century. Innovation cannot be seen as neutral application of knowledge and technology – rather it should be seen in light of the historical social relations of power that shape the economic capacities of a society.

5.3 A new green revolution?

The way agricultural development and history is represented in the policy plays a significant role in the entangled problem representations of food security and innovation. The green revolution and industrialization of agriculture are important touchstones in the representation of successful agricultural development in the last century in the text corpus, and beyond. The historical representation lays the foundation for the imagined futures of agricultural development, and this

is what I turn attention to in this section. Patel (2013) argues that to sell a new green revolution, international policy circles and private actors must tell the story of a successful 'original' green revolution. He shows how what has been a "decades-long complex of discourse, technology, state, power, class politics, national and international relations, private investments, cultural intervention, education and ecological change" (Patel, 2013:2) gets reduced to simpler, more convenient versions of the story about agricultural development.

With a long durée analysis, Patel (2013) shows that many of the characteristics of the green revolution were set in place long before the 1940s. By 1920, global grain markets were controlled by a few corporations, fertilizers were produced in the U.S. since the first world war using the Haber-Bosch process. Agricultural research and innovation were funded through the US government decades before the 1940s. Patel (2013) furthermore points out that philanthropy on a large scale had been established around the turn of the 20th century. The Rockefeller Foundation was already in 1906 involved with philanthropic projects, including the fight against the unruly nature of the boll weevil in the southern US.

The policy presents innovations that lead to economic growth as a leading force driving development:

> In line with the Government's white paper on innovation policy, a broad understanding of innovation systems is based on the assumption that includes all framework conditions, structures and institutions that are of significant importance for generating profitable innovations. This means that the work on innovation includes many policy areas; regulations, public support schemes, research and educational institutions, market conditions, etc." (Meld. St. 9, 2011-12: 287).

Development, innovation, and increased welfare are tightly coupled in the policy. Innovations are represented as the frontier of human development, but what falls out of view is the role innovations historically have played in driving ecological changes on a large scale. Since innovations are inherently situated in power relations, they should be understood from a point of view that takes power into account. Patel (2013) points to what he terms the long green revolution and tries to understand the historical formations of institutions and infrastructure that has enabled the spread of industrial agriculture across the world.

Patel (2013) argues that three claims about the 'original' green revolution have been particularly important in the construction of a successful green revolution between 1940 and 1970. First, Patel

(2013) points to the claim of scale neutrality, where small as well as large farmers embraced the green revolution technology. Secondly, scientific improvement in plant science since the beginning of the green revolution has been tailored to poorer, marginalized farmers. And lastly, that small holders saw their own self-interest in the green revolution project through higher yields which in turn benefited them materially. This argument has according to Patel (2013) been a central frame in small-agricultures potential to drive economic growth. The latter claim is familiar from the earlier sections, where I showed how both the policy and institutions that are intertextually and historically linked, proclaim small holder agriculture as drivers of economic growth in the global south. Patel (2013) points out that these claims both obscures debate about the call for a new green revolution and shows that historically and in current debates that the reconstruction of the green revolution is a discursive battlefield.

The policy positions the agricultural sector as a key contributor in the green transition and the emerging 'bioeconomy'. The green transition is a term used nationally and internationally to describe the necessity for decarbonization and a shift towards sustainability of current global and national economies (see e.g. Asdal et al, 2021). In this regard agriculture plays a special role given its production of food, fiber and other biomass for societal benefit. The sector is seen through the lens of potential 'green' value-creation:

> The potential for increased value creation based on agricultural resources is huge. Agriculture must contribute to the green transition Norway are going through. The policy is intended to facilitate cost-effective and sustainable food production, and the Government has given priority to measures to strengthen competitiveness throughout the value chain. Increased value creation shall be ensured through competitive raw material production and the food industry, as well as through profitable utilization of the farm's total resources. (Meld. St. 11, 2016-17:9)

Competitive raw material production and food industry signifies the importance of cheap food in the policy. The emphasis on competition and increased value creation signifies the importance of innovating and exploiting value-frontiers of Norwegian food production in order to be able to continue and expand food production.

From a world-ecological perspective, we can see this return to productivism in the policy in a larger historical context. The focus on green adjustment in the quote above is illustrative of the conception of change that the text corpus operates with. As Abson et al (2017) point out, policies

that focus on lower points of leverage alone – such as effectivization – lead to incremental change, not transformation. Even though at some points the policy argues that large changes are needed, this is not followed up in the conception of change that is presented. There is no discussion of how relations of value-production, growth and effectivization might themselves be key drivers environmental and climate issues in their current formations. Instead, it is assumed that this specific conception of development is key to the future well-being of the population, both nationally and internationally.

In a separate project I did with Thea Sandes and Hege Westskog, we carried out a narrative analysis of national food policy proposals from the last national election cycle (Fjetland, Sandnes & Westskog, 2023). We looked at party programs from all major parties as well as policy programs from the Farmers union and the Smallholders Unions. The main finding was that the dominant narrative in Norwegian food policy, what we called the 'innovate industry' narrative, favors a technology and innovation-based approach to addressing deep issues with agricultural organization. Climate-smart agriculture (CSA) is an important part of this narrative. Though it is not always the case, CSA generally requires capital-intensive investments and inputs to production, reinforcing the structural disadvantages that smaller-scale farmers are subject to in the market (see e.g. Wiggins, 2010). CSA builds on three pillars according to FAO (2013): 1. higher productivity and income in a sustainable way, 2. higher resiliency against climate change, and 3. work to reduce climate-gas emissions. The Norwegian Farmers Union goes so far as to explicitly call for a revolution in production (Fjetland, Sandnes & Westskog, 2023; Norges Bondelag, 2020:10). Furthermore, technology plays a vital role in how the sector problematizes environmental and climate issues:

> The development and phasing in of new technology will play a significant role in reducing greenhouse gas emissions from agriculture. (Norges Bondelag, 2021:30)
>
> Innovative solutions, such as precision agriculture, that can contribute to climate- and environmentally friendly production methods, can also contribute to good agronomy and increased value creation in agriculture. (Norsk Bondelag, Norsk Bonde- og småbrukarlag & Regjeringen 2019: 2).

The above quotes illustrate how innovation and development inform the food security discourse. To stay in business, farms must keep up with higher demands of production. This could threaten

another central goal in Norwegian agriculture, namely agriculture across the country (Meld. St. 9, 2011-12; Meld. St. 11, 2016-17). NIBIO (Knutsen, 2021) finds that farms are increasingly dependent on income outside the farm to supplement income, illustrating the pressure food-producers are currently under. Because of the structural disadvantage small farmers have, they more often start developing alternative businesses on the farm. This is a long-standing strategy in Norwegian food policy (see e.g. Regjeringen, 2013; Meld. St. 31, 2014-15).

This narrative is not total, however. The small-holders union offers an alternative view, largely based on agroecological principles (Fjetland, Sandnes & Westskog, 2023). We call this the eternity narrative, and it offers a critical view of the direction that Norwegian food policy and food infrastructure is going in. Though not as prominent as the innovative industry narrative, it illustrates that there are alternative visions for food in the current political landscape. This alternative vision has not reached the white papers at hand, but there are elements of a multifunctional view on food production that is quite prominent.

5.4 Conclusion

There is a continuity that can be traced from the seeds of the green revolution in the early 20th century up until the problematization of food security and hunger in the text corpus. Technological innovation is not only important to the problematization in the texts, but central to how viability of the food sector is imagined in terms of a range of issues, including food supply, securing jobs, sustainability, competition, and value-creation. Despite the range of issues innovation is tasked with solving, there are significant bounds put on innovation to ensure profitability and increased food production. In the text corpus, this is not seen as a contradiction, given the tight connection between capitalist economic development on the one hand and human welfare and prosperity on the other. This is why I suggest that the policy occupies a standpoint that is positioned with calls for a new green revolution that is tasked to solve the mosaic of issues facing contemporary food production, distribution, and consumption.

The connection between capitalism, imperial pursuits and development puts the food security framework into a different perspective than what the text corpus itself presents to us. At the beginning of this chapter, I argued that power and hegemony has been connected to food systems under capitalist development historically. Innovation and agricultural revolutions have been important elements of establishing power in several ways. The green revolution is an interesting

example of this when it comes to the rise of American hegemony in the global food market around the second world war (McMichael, 2013). It is evident that innovation in the text corpus refers to new elements in the production process that leads to increased efficiency and/or increased profit. This puts bounds on development and knowledge production. To take it a step further, as the transformation literature might suggest, this could be limiting the potential for transformational innovation. Innovation and innovative research can and should go beyond capitalist value-production and increased efficiency within the same food systems. The structural issues of food security rarely come to the forefront, and this is both a security and humanitarian issue on a rapidly changing planet.

The internal logic of the food security discourse is dependent on a success-story about agricultural development, particularly as it attains to the scientific and technological advances that are associated with the green revolution. The vision for the future is also seen through this lens. Successful agricultural development in the future gets tied back to the successful story of the green revolution. Furthermore, there is an assumption that similar developments will ensure both sustainable food production and enough food in the future. It is certain that new technology and knowledge will contribute to food production techniques and securing food supply in the future. What is contestable with the above problematization has more to do with the underlying social relationships that capitalism is based on, both recognized and unrecognized. This tension is evident in the food security debates on the international stage, particularly within financial and developmental institutions such as the IMF, World Bank, the UN and the WTO, who play integral roles in organizing the global economy. Competing interests, power and resources is central to food policy and production, and vested interests have been documented to have more power and influence in the policy making processes compared to civil society groups and farmers unions.

The naturalization of hunger is underscored by the technical and productivist solutions that are presented in the text corpus. Viewing hunger as a problem shaped by population growth and underdevelopment makes the obvious solution technical fixes within established food systems. Understanding hunger from a relational view of capitalism complicates this vision for the future. The terms surrounding development are discursively connected to the project of capitalism (Moore, 2015). Economic development has come into use in the wake of pushback and challenges to both colonial and capitalist projects in the 20th century. Truman's inaugural speech explicitly

opposes ‘the old’ mode of imperialism and offers a new set of relations based on developmental aid and support. The idea that development based on the blueprint of industrial nations trajectories is value neutral, however, should be opposed. It carries with it powerful ideas about what it means to be a modern society and has far-reaching implications for how societies engage with food security in a climate-insecure future. Furthermore, it unnecessarily narrows the possible ways of responding to the issue of hunger. Given that other ways of knowing outside of science-capital-state relations have valuable contributions to how we will secure food supply in the future, it is concerning that the text corpus pays little attention to it.

6. Concluding discussion

> "How did we find ourselves stuck in just one form of social reality, and how did relations based ultimately on violence and domination come to be normalized within it?"
>
> David Graeber & David Wengrow (2021: 519)

Will the road to food security be paved with cheap food in the political imaginary of the text corpus? In this thesis I have argued that the answer is yes. The emerging ontology from policy's standpoint is that capitalist food production is the only realistic alternative to food security, nationally and internationally. Capitalist expansion is entangled with representations of development, scientific improvements, and welfare improvements. A central assumption in my thesis has been that the way policy represents issues has implications for how they are addressed (Bacchi, 2009). Situating the text corpus in a political history where capitalist development, and the way it is represented, are central to understanding food security. The food policy does not engage critically with this history and constructs a narrative of development that leaves out central aspects.

Population growth is at the forefront of the food security discourse and as such, food is seen as an increasingly scarce commodity on a global scale. This frames the problematization, and the seemingly obvious solution becomes ramping up food production. I connect the scarcity framing to common conceptions of the Anthropocene. There is an interdiscursive overlap, and this view runs the risk of framing the human population as a unified mass, and furthermore responsible for climatic and environmental changes. This obscures the relations of power that shape current food systems, and furthermore obscures alternative explanations of the core causes of hunger and food insecurity. The technocratic solutions to hunger and food insecurity that emerge from this way of seeing the issue fail to address the way capitalism organizes social relations. The current failure to meet the SDG Goal 2: *Zero Hunger* is connected to this framing and is unequipped to engage deep leverage points for change. Failing to connect current foods systems to political and economic histories is thus a serious threat to food security, currently and in the future.

Despite discursive shift away from imperial and colonial relations, I have argued that the development discourses reproduce characteristics of imperialism (Doyle, 1986) and colonialism (Banerjee, 2003). I have looked at how the narrative of agricultural development informs the food security discourse in the text corpus. The conceptions of population and development reproduce a certain way of understanding the relations between humans and nature, as well as obscures alternative ways of addressing the issue. When economic growth and expansion is the central goal, this signals that we have not fundamentally moved away from colonial relations of extraction. In the future, Norwegian food policy should engage with this legacy explicitly. A fruitful starting point could be an increased focus on indigenous and traditional knowledge, and it is encouraging that recent policy (Regjeringen, 2023) mentions this as a path forward. Sami traditions and knowledge, as mentioned in Chapter 3, have been marginalized in the representation of food security in the text corpus. This marginalization should be a topic for further study, as it has the potential to showcase already existing alternative ways of knowing. As Abson et al (2017) points out, knowledge that has the power to transcend current systems are powerful levers for change.

To contextualize the analysis, I have drawn on the transformation literature (Meadows, 1999; Abson et al, 2017) and a relational understanding of capitalism (Marx, 2013; Moore, 2015; Fraser, 2014). A central contribution from the transformation literature is the idea of leverage points. I distinguish between shallow leverage points and deep leverage points and argue that the deep leverage points are essential because of their systematic transformative potential (Meadows, 1999; Abson et al, 2017). This has given me a framework to grasp what kind of decisions making is going on in Norwegian agricultural policy. Furthermore, it lets me suggest possible consequences of the problematization of food security in the text corpus. I have combined this with an expanded understanding of capitalism. Often capitalism is defined as an economic system, however in this project I understand capitalism as a way of organizing social relations (Marx, 2013) and as a way of organizing nature (Moore, 2015). Distinguishing the project of capitalism from capitalism as a historical process has allowed me to examine understandings of capitalist economy and development as they relate to food security in the text corpus.

I have approached the documents from the Ministry of Agriculture and Food as a central arena for meaning-making when it comes to food security. The aim has been to contribute to knowledge about the discursive and social effects that follows the problematization of food security, and to

show how the food security discourse has come into prominence in national agricultural policy. The definition of food security from the World Food Summit (1996) is influential in the Norwegian food sector, both dictating the Food Law[13] and underpinning agricultural policy. In short, it is a central framework for the way food production, distribution and consumption is practiced. As such, it is imperative to examine the way food security is conceptualized through the assumptions, central arguments, key concepts, and genealogy that builds and shapes the discourse in the text corpus at hand. My goal has been to contribute to this work.

6.1 Productivism and the direction of food systems

By having a one-sided focus on how food security can be achieved within current food systems, we lose sight of another central question: are current food systems oriented towards ensuring food security for all in the first place? If, as I have argued, current food systems are entrenched in historical formations of power and hegemony that perpetuate hunger, inequality and as such, food insecurity, then deep leverage points such as the intent of the system must be addressed. According to Abson et al (2017:32) the intent of a system is "the emergent direction to which a system of interest is oriented." From a transformation literature point of view (Meadows, 1999; Abson et al, 2017) a productivist agenda will not lead to changes in the direction of a system. A productivist agenda could secure a larger volume of food, but it is not given that this is the root-cause of food insecurity. The text corpus, despite stating that large changes are needed to achieve food security, does not open for a discussion about the orientation of current food systems and its role in perpetuating issues of hunger and food insecurity. Consequently, a much-needed discussion about how intention and orientation could be changed is absent from the problematization of food security in the text corpus.

In attempting to explain this absence, I have argued that there is a capitalist ontology that shapes the meaning-making the text corpus engages in. Capitalism is never named but taken for granted in the policy. I call for increased attention to the role that capitalist organizations play in shaping food production, distribution, and consumption in the face of ecological deterioration and climate change. Economic organization shapes the relationships that societies are engaged in. Not only relationships between humans and institutions, but also the way that economic systems flow

[13] Matloven

through nature more broadly. This must be faced explicitly by policy, research and the food sector at large to access deep leverage points for transformation.

As Abson et al (2017) point out, human activities are often path-dependent and heavily influenced by previous practices and previous knowledge. Knowledge is often institutional. I have focused on the continuity across the period between 2008 to 2023 in representing food security, thus implicitly arguing that institutional knowledge in the Ministry of Agriculture and Food is strong. This is not necessarily a bad thing. Stability in institutions is important for the actors who are involved with it, and rapid changes could lead to undesirable outcomes. However, knowledge has the potential to influence systems on all levels: parameters, feedback, design and intent (Abson et al, 2017). Currently, knowledge production is mobilized primarily with the intent to increase cost-effective and sustainable food production, and economic growth is a central measure of success in this regard. The potential knowledge production and application has for change at deeper leverage points is thus not realized. The Ministry of Agriculture and Food have a responsibility to examine the knowledge practices in light of this, and to fund research and innovation that transcend the growth imperative.

I have also argued that there are deeper continuities from a historical perspective. The role of agricultural revolutions in capitalist development has been central since capitalisms conception. The green revolution in the 20th century still has its reverberations in the problematization of food security – shaping the way we think about progress and development in the sector. Current focus on profitable innovations, where the main goal is cost-effective food production, should be seen in light of earlier historical developments. The increased focus on productivism after the food crisis in 2008 can be traced back to the green revolution, and even argued to be a continuation of it (Patel, 2013). The problematization of food security emphasizes increasing food production. By using the analytical framework of leverage points (Meadows, 1999; Abson et al, 2017), it is evident that a focus on production emphasizes shallow intervention points in the food system. This emphasis shapes the way food security and hunger is understood in the text corpus.

The issue of hunger should be understood from a relational perspective on capitalism. From this vantage point we can see continuity in the different eras of capitalist development. The collective energy that goes into capital accumulation extends beyond what capital can account for in economic terms. From this perspective, I have argued that despite technological development and

knowledge production in the agricultural sector, the core tenets of capitalism have largely stayed intact. That is to say, the direction and orientation of the system have not been fundamentally changed. The four characteristics of capitalist organization of economic capacities are not challenged, and thus alternative ways of organizing societies are marginalized. Furthermore, without a critical perspective on the system of capitalism, the root causes of hunger will not be addressed.

The emerging solution in the text corpus is the perpetuation and expansion of what I have called cheap food. Cheap food highlights the way capitalism, historically and currently, is dependent on the cheapening of production processes in order to maintain growth and expansion (Moore, 2015). The importance of cheap food under capitalism according to Moore (2015) can be found in its direct impact on the cost of living, and thus the cost of labor. Questioning existing ways of knowing in policy is central to addressing the issue of food security and challenging the capitalist ontology that underlies the problematization.

6.2 The value of food

Another central aim has been to contribute to current understandings of how food is valued in the food security discourse. The policy is fundamentally about how food is produced, distributed, and consumed. Capitalist value creation is of major importance in the policy and innovation is a strategy to reach this goal. From a world-ecological perspective I have explored how this dynamic is an expression of the way capital ascribes value. I have argued that the worldview informing the problematization of food security is capitalist in nature. There is a central tension between the goals to reach food security on the one hand and the failure to meet these goals on the other. One consequence of seeing food through a capitalist ontology is the division between economy and nature. The relationship between agricultural land and humans is cast through exploitation for the sake of economic growth. The food sector is at several points described as non-viable if it is not able to keep up growth, efficiency, and value creation, signaling the primacy that is given to capital over fundamental human needs.

It might seem counter-intuitive to argue that to reach food security, we need to move away from efficiency and growth. This would be a big shift in the policy, given the importance these concepts have to the political imaginary. The concepts are used to give meaning to and address a range of the intersection of food security, climate action, environmental protection, and economic growth.

However, Meadows (1999) points out that solutions that seem obvious often fail to engage deep leverage points, and that complex issues require what can seem like anti-intuitive solutions. Complex systems are, as I have pointed out, resilient and path dependent. Transformational change will be blocked by the deeper leverage points relating to the design and intent. Efficiency as a central goal seems like a good strategy at first glance, but crucially does not address the design and intent of current food systems. Furthermore, the kind of efficiency that is described is attached to increasing production without critical examination of why some experience food scarcity. Food surplus and lack of distribution shaped the food crisis in 2008, but policy debates since have largely failed to engage these dimensions of food security (Fouilleux et al, 2017).

The idea of 'losing control' (Meadows, 1999), i.e., opening for alternative ways of organizing our economic capacities, is crucial to address the issue of hunger in the 21st century. Engaging critically with the way non-marketable goods, such as cultural landscapes and food security at a societal level is seen in the policy should be examined by the Ministry of Agriculture and Food. Currently, commons are seen as possible only through a market- and growth-driven food sector. The unwillingness to discuss alternative ways of organizing food systems is concerning considering the current and future state of commons, nationally and internationally. Even when the text corpus argues that transformational change is needed, there is a lack of imagination on how this could be done. Calls for efficiency, innovation and technocratic fixes to the issues facing current food systems will fall short without accompanying visions for transformational change.

A central assumption in this thesis is the idea that the way we conceptualize problems has significant implications for societal outcomes. The meaning-making the text corpus engages in is dependent on conceptualizing capitalist development as a success story. Furthermore, capitalist development carries with it deep narratives suggesting that it is necessary for progress and human prosperity. When capitalism is understood as a historical process driven by the appropriation and exploitation of work/energy of the web of life, we see that the role of innovation and knowledge production is not neutral. The focus on innovation as a central input to cost-effective food production points to a continuity from earlier agricultural revolutions up until today. As Patel (2013) points out that the green revolution was not expressions of a natural or evolutionary pathway of development, but results of a

> decades-long complex of discourse, technology, state, power, class politics, national and international relations, private investments, cultural intervention, education and ecological change (Patel, 2013:2)

When the policy describes agricultural development in the 20th century, it gets reduced to a simpler, more convenient version of the story. Development becomes divorced from the complex relations it is dependent on in the text corpus. This shapes the way food is valued in the text corpus, and thus has consequences for the way hunger and food security is addressed. Current data on the state of food security is alarming. Food security has been deteriorating since 2015, exasperated by the covid-19 pandemic, climate change and war (UN, 2023a) and food security is already being impacted by climate change (IPCC, 2019) and ecosystem deterioration (IPBES, 2019). A failure to address root causes will thus continue to have serious consequences for the future of food security.

6.3 Food sovereignty as an alternative

Before concluding, I want to briefly come back to food sovereignty (La Via Campesina, 1996), which is considered the most established alternative to food security. After the exploration of important elements in the food security discourse, particularly the role of population growth, development and innovation as key concepts, it becomes clear that the food sovereignty discourse provides an alternative vision of understanding the issue of hunger. The food sovereignty' movement's historical exclusion from high-level political debates on food security is one explanation for why it never enters the national food policy at hand. Instead, the line of "steady and global integration" (Schanbacher, 2010:5) is followed. This can be traced to organizations that have proposed and enacted this line of policy, such as IFAD, FAO, WTO, IMF and the World Bank. Importantly, the framing puts primacy on economic development, rather than access to food. The food sovereignty movement, led by La Via Campesina, is critical to this way of addressing hunger and calls for a complete restructuring of global food systems, including contemporary trade agreements and the power structures related to them. In the national discursive field on food and agricultural policy – the only major actor who argues for food sovereignty in Norway is the Norwegian Small Holders Union (Fjetland, Sandnes & Westskog, 2023). The position of the union is evidently marginalized, however. Food sovereignty is not considered a 'real' alternative, given its absence in white papers and strategies published by the Ministry of Agriculture and Food.

Food security and food sovereignty are both discourses that seek to address access to food. Where food security is intrinsically part of a technocratic and neoliberal conception of development, food sovereignty has emerged from civil society and NGOs, and often aligns with Marxist understandings of political economy according to Jarosz (2014). She finds that it is central to recognize the differing political histories that the two concepts have emerged from, and furthermore she argues that resisting set definitions of both are important. Both concepts are dynamic and change with political and geographical context. As such, it is important to understand food security from the standpoint of Norwegian national policy, and in this thesis, I have contributed to this work.

Food sovereignty and food security have often been conceived as oppositional (Jarosz, 2014). This is still the case according to the author, but there have been movements to challenge this conception. A notable example can be found in The International Assessment of Agricultural Knowledge, Science and Technology for Development (IAASTD) report (2009), where food security and food sovereignty are seen as equally important and even complimentary. More than 400 scientists and policy makers have contributed to the assessment. Among contributors are actors like the World Bank and FAO. The resulting report favors low input, small-scale agriculture and argues that food sovereignty is preferable to industrialized agriculture. Jarosz (2014) argues that the reason that food security and food sovereignty is seen as complimentary in this report can be found in the diversity of contributors to the report, suggesting that a diversity of perspectives and paths are important going forward in the food sector.

Despite the efforts resulting in this report, Jarosz (2014) points out that critics of the report reproduced the perceived tension between the two discourses. In particular, the legitimacy of the report was called into question by opposing 'real' science and social science. Food security was connected to the former and food sovereignty to the latter by critics. The persistent role given to biotechnology, innovation, and development in the problematization of food security, as well as the absence of food sovereignty suggests a reproduction of these ideas in the national food policy. Challenging the perceived opposing nature of the two should be done in future food policy to explore potentially important measures for future food production. This should be done in light of a deeper analysis of the historical formations that have made the development of current food systems possible, also in a Norwegian context.

6.4 Conclusion

At first glance, the food security framework seems to be fundamentally about addressing hunger. I have argued that the problematization of food security tells a different story. The main concerns are centered around population growth, development, and innovation. This focus fails to consider deep rooted organization of economic capacities, and how this influences the way food is conceptualized in the food security framework. Hunger and malnutrition, in this view, first and foremost seen as lack of participation in commodity production and global food markets. Access to food is conceived through further development of current economic structures.

It is crucial to have a critical perspective on the root causes of hunger and malnutrition, particularly as they relate to current modes of economic and sustainable development. This could be done in several ways. In Chapter 4, I discussed the key concept of population growth and its interdiscursivity with popular conceptions of the Anthropocene. Popular conceptions often emphasize the role of humans as a unified whole in debates about climate and environmental changes (Moore, 2015). We should be critical to representations like these because they obscure power relations on many levels. They fail to grasp differences within countries as well as across borders – and suggest that 'everyone' plays similar roles in environmental destruction and greenhouse gas emissions. When the text corpus suggests that population growth is one of the main drivers of resource scarcity, it actively obscures other important factors related to the orientation of the food system.

In the future, I recommend that national food policy adopts a critical view of the way population growth, innovation and development have been used to define the problem of hunger. The green revolution is connected to all these key concepts in the text corpus. With Patel (2013) I have argued for the need to look beyond the post-war period to understand why the policy emphasizes innovation and development strictly in terms of competitiveness, effectivization and economic growth. This emphasis should not be seen as a natural step in societal development, but rather as a specific, historical formation shaped by capitalist social relations.

On a concluding note, I suggest that adopting new ways of understanding the Anthropocene beyond its popular representations could be an important step. Scholars like Davis and Todd (2017) have shown how we can sensitize the concept. An important step is to date the beginning of the Anthropocene in a way that reflects colonial and capitalist expansion. They suggest 1610, and

emphasize the transformative potential the Anthropocene could have as a political tool when it highlights the role of dispossession, colonization and appropriation under capitalist expansions historically and currently. They argue that:

> to use a date that coincides with colonialism (…) allows us to understand the current state of ecological crisis as inherently invested in a specific ideology defined by proto-capitalist logics based on extraction and accumulation through dispossession – logics that continue to shape the world we live in and that have produced our current era. (Davis & Todd, 2017: 764)

This view is more sensitive to power relations that have been central to the development of capitalism. Confronting the role of extraction and accumulation through dispossession within contemporary food systems would put into focus the way our economic capacities on societal and global scales have been rooted in on-going violence and domination over human and more than human natures.

Lastly, I would like to call on Deleuze's (1994, in Bacchi 2009: xvi) proposition that we need to reclaim our right to problems. Reclaiming our right to problems on multiple levels – local, national, and global – is necessary to address the issue of hunger and malnutrition in a transformative way. Doing this could release the potential for arriving at innovative ways of organizing our economic and creative capacities beyond profit and growth incentives. Centering human need and building a sensitivity and understanding of our roles as active agents in the web of life from a policy perspective could have the potential to revolutionize our food systems for the better. The interconnectedness of current food systems should teach us that we are already deeply connected to peoples and natures across the globe. We have a responsibility to act on the deep transformational potential of this interconnectedness, in order reverse trends in ecosystem deterioration, increasing hunger and malnutrition and increasing inequalities.

Wordcount: 33 666

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