Thesis report:

DISCOURSES ON NATURE INCLUSIVE AGRICULTURE POLICY

AND THE CONSEQUENCES OF THESE DISCOURSES ON THIS POLICY IMPLICATION IN THE NETHERLANDS

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Executive summary

In 2014, the Dutch government decided to introduce the concept of 'nature inclusive agriculture' in Dutch policy. Nature inclusive agriculture is the aim for a positive reciprocal relationship between agricultural practise and natural capital, meaning that both nature and agriculture support each other's' processes. Implementation of nature inclusive agriculture policy requires support from many stakeholders involved with agriculture, nature or both. People's 'discourses' (concepts and ideas through which people give meaning to phenomena) are known to be fundamental for the creation and implementation of policies. However, little is known about the discourses on nature inclusive agriculture and consequently the future success of this concept. Therefore, the aim of this analysis is to identify which discourses can be found for nature inclusive agriculture and how they influence policy implication. The main research question is: *What consequences do different discourses on nature inclusive agriculture have on implication of nature inclusive agriculture policy in the Netherlands?* Consequences of nature inclusive agriculture are defined as policy claims that discourses adhere to and the power of these claims. To answer this question, the different discourses are identified and their interaction, structuration and institutionalisation are observed. This is done through a discourse analysis executed with semi-structured interviews with 20 stakeholders that have an important (in)direct relationship with agriculture and/or nature (like farmers, policy makers and nature managers) and desk research of 8 policy documents related to these stakeholders. The interviews were coded and Toulmin's structural model of argument was used as a basis in which four discourses were identified: (1) The environmental eco-modernist discourse aims to combat climate change and soil and water quality degradation. The consequent policy claims focus on circular agriculture and technical solutions. The national government and some farmers adhere most to this discourse. (2) The natural eco-modernist discourse aims to counter biodiversity loss and landscape degradation. The consequent policy claims focus on extensification and decreased production. Citizens, the provinces and nature (management) organisations adhere most to this discourse. (3) The traditional pragmatist discourse values feeding the world and sufficient farmer revenue. The consequent policy claims focus on maintaining production, better revenues and more flexibility for farmers. Conventional farmers and the retail and finance stakeholder group adhere most to this discourse. (4) The win-win discourse beliefs in mutual benefits between the previously mentioned discourses. The consequent policy claims focus on investments in knowledge, research and education. Some organic farmers and provinces adhere most to this discourse. All of the respondents adhered to some extent to each of the discourses and understood that there were different visions on nature inclusive agriculture, its definition and its policy claims and agreed that the process of nature inclusive agriculture policy creation and implementation was insufficient and vague. Communication, contribution and cooperation of all stakeholders was necessary for policy to become a success. The most striking conflict points between respondents were policy claims for feeding the world versus policy claims protecting the environment and between endorsing climate and environment versus nature and landscape. Opposed to these trade-offs was a belief in a system of mutual benefits. Finally, a highly debated topic was whether funding would and should come from market or state and to what extent. When considering discourse structuration and institutionalisation, it becomes evident that the consequences, in terms of policy claims, of these discourses are the ones that stakeholders have discourse affinity for, but that this is not sufficient to solve above mentioned trade-offs. Nevertheless, it is recommended to follow the policy claims that have affinity and create a space to discuss the points of conflict.

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1. Introduction

There hasn't been a time when food markets worldwide were as well-supplied as they are now (FAO Trade and Markets Division, 2014). Production is rising and world hunger has decreased in the last decades (FAO, 2010). However, this all happens at the cost of fierce global competition. To keep prices low, farmers are constantly required to innovate, intensify and upscale (Sunding and Zilberman, 2001; Sanderson et al., 2013; CBS, 2017). Increased agricultural production has led to soil eutrophication and nutrient leakage which can have negative consequences for the environment (Wereld Natuur Fonds, 2020). It is for example one of the causes of the disastrous declines in biodiversity and specifically insect species richness (Biesmeijer et al. 2006; Wereld Natuur Fonds, 2020; CBS, 2020, 1). It seems like the agricultural sector is therefore stuck having to choose a lesser evil: either intensify with negative consequences for the environment, or increase product prices. Research has shown that a debate between these trade-offs is polarising and that it falls under a general dichotomy between nature and agriculture (Aarts et al., 2015). Questions like 'can nature be facilitated at the expense of agriculture or the other way around?' are not uncommon in the debate around this dichotomy (Aarts et al., 2015). Farmers and nature conservers have been debating these questions, together with matters on land use and ownership rights for decades (Koomen et al., 2008), but the discussions seemed to ignite in the past year. In the Netherlands, Extinction Rebellion occupied The Hague to advocate biodiversity protection targeting among others, the 'industrial' agricultural sector (Shiva, V., 2019). The Dutch 'Farmers' Defence Force' also leads organised protests (Hart van Nederland, 2019) because of the nitrogen measures that are meant as environmental protection measures but supposedly threaten farmer autonomy and livelihoods (Editors Boerenbusiness, 2019).

Nature Inclusive Agriculture

Nonetheless, according to Koomen et al. (2008), there has also been a growing convergence in thinking about natural and agricultural values in the Netherlands. Agricultural intensification is known to reduce biodiversity and the amount and quality of ecosystem services (Braat and ten Brink, 2008; Wereld Natuur Fonds, 2020). These ecosystem services (like air and soil quality and water regulation) in their turn directly influence the quality of agricultural production. Sometimes, the agricultural sector is completely dependent on ecosystem services, like pollination (Power, 2010). Moreover, extensively managed grasslands belong to the most species-rich habitat types and are thus an important element of nature conservation (Wilson, 2012). Nature and agriculture thus need each other too. Nature inclusive agriculture is a concept that embodies this convergence between natural and agricultural values. Nature inclusive agriculture is defined by van Doorn et al. (2016) as the aim for a positive reciprocal relationship between agricultural practice and natural capital. Food production is supported by natural processes and agriculture cares for the continuation of natural processes and ensures less impact on these processes (Van Doorn et al., 2016). Nature inclusive agriculture thus offers a solution in the shape of a win-win from which both above mentioned stakeholder groups can benefit.

The Dutch government also visualises nature inclusive agriculture (in Dutch: natuurinclusieve landbouw) as an integral solution to the previously mentioned discussion (Van Dam, 2017; Rijksoverheid, 2019, 1; Ministerie van Landbouw, Natuur en Voedselkwaliteit, 2019). This concept was introduced to the public in the national nature vision of the ministry of economic affairs in 2014 (Ministerie van Economische Zaken, 2014) and can be found in letters to parliament, the national environmental vision and the vision on agriculture (Van Dam, 2017; Rijksoverheid, 2019, 1; Ministerie

van Landbouw, Natuur en Voedselkwaliteit, 2019). Many of the Dutch provinces apply nature inclusive agriculture policy too, as the provinces are specifically responsible for, for example, Dutch spatial planning and monitoring environmental law compliance (ProDemos, n.d.). A healthy agrarian sector and biodiversity restoration are therefore important for provincial policy. The provinces of Drenthe, Friesland and Groningen signed the green deal of the state and invest 10 million in a targeted approach to develop instruments and procedures that will make nature inclusive agriculture more financially attractive (Provincie Drenthe, 2019). The province of Brabant created an individual approach towards nature inclusive livestock agriculture (Provincie Brabant, 2019). The province of Noord Holland goes even further by stating that the ambition is that all development projects should be nature inclusive, also all ground-based agriculture for which a specific programme is set up (Provincie Noord Holland, 2018). Nature inclusive agriculture has also been implemented in multiple bottom-up initiatives. Research institutes and grassroots initiatives by farmers and nature conservationists are piloting different ideas and some of them are starting to see positive results, both economically and environmentally (Polman et al., 2019).

Problem statement

The question is whether these efforts indicate that nature inclusive agriculture policy is adopted and accepted by everyone. If above mentioned efforts are used as an indication, it can be believed that many of the Dutch are now working with nature inclusive agriculture. Nevertheless, according to Bouma et al. (2019) most arable farmers still work with conventional agriculture (46%), meaning no nature inclusive elements in their fields, while many others only adopt a small nature inclusive border around their fields (40%). It is important to note that nature inclusive agriculture policy has only been introduced a few years ago, which means that it might take time for nature inclusive agriculture to become something commonplace, but this is something yet unknown.

Whether nature inclusive agriculture policy will be adopted by different stakeholders depends on the way they use language, concepts and ideas to understand nature inclusive agriculture, which is also known as a discourse (Jørgensen and Philips, 2002). A discourse is the 'argumentative reality' behind a discussion which indicates how people give meaning to phenomena (Hajer and Versteeg, 2005). For example, if you think nature protection cannot go at the expense of agricultural production, you give another meaning to the world than if you think agricultural production cannot go at the expense of nature protection. These statements adhere to different discourses which, if they are dominant, decide whether and how nature inclusive agriculture will be implemented. Above mentioned statements might adhere to discourses which are in conflict, meaning it is not always easy to successfully implement widely supported policy. Sometimes, however, discourses show commonalities also known as 'discourse affinity' which can make it easier for policy to adjust to the claims of the stakeholders. These discourses therefore lead to the advocacy of a certain policy claim. For example, if a stakeholder believes that the environment is under severe threat because of agriculture, it might lead to the stakeholder advocating for the policy claim that the use of manure or pesticides should be limited. If the discourses that support this policy claim are the most powerful, they lead to policy implication. This power is often measured through the amount and type of stakeholders that adhere to a discourse (discourse structuration) and whether this discourse is used in policy or institutions (discourse institutionalisation). Discourses thus have consequences in the shape of policy claims they support dependent on what power they have that decide whether and how nature inclusive agriculture policy is implemented.

Research objective and research questions

The main goal of this analysis is therefore to fill the knowledge gap on the discourses on nature inclusive agriculture and the consequences of these discourses in terms of policy claims. To be more specific: This analysis looks at (1) the discourses, specifically the way nature inclusive agriculture policy is perceived, what policy claims are linked to these perceptions and what kind of stakeholders adopt these discourses, (2) on what policy claims these discourses show affinity and conflict and (3) which policy claims are most powerful in terms of discourse structuration and institutionalisation. These three elements will paint a complete picture on the discursive structure behind nature inclusive agriculture policy and its consequences. One research questions with three sub-questions is formulated below. The first sub-question is focused on the content of discourses and their policy claims, while the second and third sub-question are focused on process and how these discourses lead to policy implication:

What consequences do discourses on nature inclusive agriculture have on implication of nature inclusive agriculture policy in the Netherlands?

1. What discourses can be identified on nature inclusive agriculture and which stakeholders adhere to these discourses?
2. Which discourses show discursive affinity and which discourses are conflicting on what topics?
3. Which policy claims are most powerful in terms of discourse structuration and institutionalisation?

Another objective is to compose and test expected findings of these questions based on analyses of similar cases. Finally, based on the results, a list of recommendations for policy makers is composed based on the conclusion to improve the policy making process and ensure successful implication of nature inclusive agriculture policy.

Relevance

Answering these research questions might explain why nature inclusive agriculture policy is not yet widely implemented and whether it will be able to in the future. In order to do so, one should move away from a fixed problem framing. In history, environmental issues were often analysed through a realist perspective in which the problem is taken for granted (Hajer, 2005). However, this perspective would mean that for example the 'environmental' reality is held back by rhetoric, thus losing insight in the political process (Hajer,, 2005). Analysing this rhetoric or in this case discourses, on the other hand, gives more insight in this political process and puts this environmental discussion in a novel light of different people offering different solutions in the shape of policy claims to the issues they identify. This type of analysis can be used as a guide for making nature inclusive agriculture policy in the future because it offers a clear overview of the policy claims and their power and interaction. Consequently, policy can be adjusted correctly but also properly communicated to different stakeholder to ensure them of the effectiveness of nature inclusive agriculture policy. This could be beneficial for policy support and consequentially policy implication. Moreover, if stakeholders, through this analysis develop an understanding towards the perspective of someone that adheres to a different discourse, it could stimulate a more productive discussion.

The knowledge gap on how nature inclusive agriculture is perceived (discourses) and what this means for policy implication touches the subject of many other sustainable policy initiatives in which progress seems to be stagnating. For example, it turned out to be very challenging for climate adaptation to integrate it into daily routines of policy domains (Uittenbroek et al., 2013). Hajer (2005; 2006) noticed a similar phenomenon in the British debate on 'acid rain' policy, where broad public support was gathered to transform policy to prevent acid rain and yet, there was a long term of policy inaction. Another example is the concept of sustainable development. Dryzek (2013) goes as far as saying that concepts like sustainable development that advocate a potential for economic growth and environmental protection hide a discussion that should be held publicly. What these topics have in common, aside from the fact that they are issues of stagnating sustainable development, is that they were all analysed through the lens of discourse analysis. All these examples seem to show a pattern of a dichotomous debate with coherent discourses on nature and society/economy (Aarts et al., 2015) and an integral solution which does not seem to become broadly implemented. This analysis will therefore exist of a section of expected findings or discourses that are based on literature from above mentioned cases. The analysis can then test whether the discourses identified in those analyses are also in place in the case of nature inclusive agriculture. If a link between these discourses are made, the results can be added to the existing knowledge on discourses for sustainable development subjects, which seem to exist of a pattern. More research on the discourses on sustainable development topics can thus contribute to filling a larger knowledge gap on sustainable development policy implication, which can contribute to society by adjusting sustainable development policies and possibly making them more successful.

Reading guide

This report consists of six chapters, the introduction being the first. The following (second) chapter explains the theoretical lens of discourse analysis and Toulmin's structural model of argument, which is the methodological tool used for discourse analysis. Chapter three describes the methods that were applied for executing this research. Chapter four presents the results, in the order of the sub-questions for this research. Chapter five discusses the results that were found and the theories and methods that were used and the final chapter provides the conclusion and a list of recommendations.

2. Theoretical framework

This research will be executed with the aid of two theoretical tools: the first is discourse analysis, which explains through what perspective data is analysed while the second is a methodological framework through which discourse analysis can be executed, called Toulmin's structural model of argument. Even though the second tool is based on argument theory rather than discourse analysis, the two can be combined by taking the Toulmin model to a deeper abstraction level of discourses rather than arguments. Together, they form the basis for answering the main research question.

2.1 discourse analysis

Discourse is defined by Hajer and Versteeg and Jørgensen and Philips as:

> *"... as an ensemble of ideas, concepts and categories through which meaning is given to social and physical phenomena, and which is produced and reproduced through an identifiable set of practices." (Hajer and Versteeg, 2005, p. 175)*

> *"A particular way of talking about and understanding (aspects of) the world (Jørgensen and Phillips, 2002, p.7)"*

Discourse analysis is a framework that aims to identify the way different meanings are given to the same phenomena, or in this case the phenomenon of nature inclusive agriculture policy. The way someone talks about the world says something about the way they understand the world (Jørgensen and Philips, 2002). It should therefore be noted that discourses are not the same as discussions, but rather the perceptions and ideas behind that discussion (Hajer, 2005). For example, if you think nature protection cannot go at the expense of agricultural production, you give another meaning to the world than if you think agricultural production cannot go at the expense of nature protection. These statements adhere to different discourses which are adopted by people that have different perceptions and ideas. Discourse analysis can thus be viewed from a constructivist epistemology: There is not one true world, but there are many different ones shaped by perceptions of an individual (Murphy, 1997). These worlds can be understood through language (Hajer and Versteeg, 2005). It is therefore important that a discourse analysis is not executed with a 'realist' idea of a single issue and solution but rather the idea that there are multiple. Discourses are not only an interpretation of our surroundings, but they also shape our surroundings using language thus acting as a self-fulfilling prophecy and leading to social and/or political change (Hajer, 2005). This is done through policy claims that stakeholders make. Policy claims are the actions that should be undertaken based on the discourses that stakeholders adhere to. How this works depends on the power of each discourse, which will be explained in the next section.

Power through affinity and conflict

A main elements of discourses, according Foucauldian analysis is power.

> *"Discourse transmits and produces power; it reinforces it, but also undermines and exposes it, renders it fragile and makes it possible to thwart" (Foucault, 1978: 101)*

In this case discourse power is defined as the extent to which discourses and their policy claims are dominant. This dominance is important because a dominant discourse, as was explained above, has consequences for policy and society (Jørgensen and Philips, 2002). Different discourses with different

policy claims can compete for this power. Power is therefore key as a means, but also as a goal (e.g. if a discourse becomes more powerful, it might get access to media, which is a means for becoming even more powerful). According to Hajer (2005), power is measured in two ways: Broad social acceptance (*Discourse structuration*) and implementation in institutions and organisational practices (*discourse institutionalisation*). These are the two requirements for a discourse to become hegemonic and to have consequences and thus for policy claims to become a reality. These concepts will therefore be used in the third sub-question by measuring how many (powerful) stakeholders adhere to certain discourses and which discourses can be found in the institution of national and provincial policy.

Two tools that are often (un)consciously used by discourses to attain power are affinity and/or conflict. According to Feizi (2018), discourse affinity can be defined as a connection between two different discourses through similarities in perceptions and/or policy claims. Some discourses naturally show affinity toward each other while others are known to consciously form coalitions and change their narrative accordingly as a tool to become hegemonic. The second strategy is a strong dichotomy between two discourses, which can benefits both discourses. Hajer (2005) stated that a dichotomous relationship is sometimes created while two discourses are not mutually exclusive to make it seem like there are only two choices in a discussion thus excluding any alternative perception. The concepts of affinity and dichotomy will be used to answer the second sub-question of this analysis. Affinity is analysed by identifying shared elements of a narrative (shared policy claims and arguments) and conflict by the seeming creation of a choice or trade-off between two elements.

Critical Discourse Analysis

Two main categories of discourse analysis can be identified. The first one is focused on language and what language is used for while the second one is argumentative and usually links to broader issues in society (Sharp and Richardson, 2001). This analysis will fit the latter because the aim is to link language and discourse to the broader debate on policy and its consequent (lack of) action. More specifically, this analysis will be categorised as *critical discourse analysis*. Rather than critical discourse analysis being a strict set of academic practices and methods, it is known for being more problem oriented, connected and engaged (van Dijk, 2001). A critical discourse analyst is not solely objective but also dares to place him/herself within the debate, thus giving purpose to the analysis. Moreover, this type of analysis aims to 'expose' discursive practice, rather than just analyse it. Bringing a discursive structure and the power of these discourses to light means that the analysis not only has analytical but also societal purposes (Van Dijk, 2001). Critical discourse analysis usually focuses on unequal power relations, thereby aiming to contribute to social change and equality (Jørgensen and Philips, 2002). Multiple discourse analyses by Hajer (Hajer, 2004; Hajer, 2005; Hajer, 2006; Hajer and Versteeg, 2005) have been focused on these societal elements of discourse analysis. The approach that Hajer uses fits the goal of finding different discourses on nature inclusive agriculture policy and their consequences and will therefore be used as a central guide throughout this research.

Critical discourse analysis, according to Fairclough (2003) is executed on both the micro level of text and conversation and the macro level of power and context. Because critical discourse analysis is focused on analysing linguistic and discursive patterns, not only on an individual level but also by analysing patterns and nuances between and among these individuals, discourses will not be identified on a personal level but rather on an overarching level. This will be done by looking at statements not only linked to a stakeholder but also linked to other stakeholders and their statements. By looking at

discourses this way, it could be the case that stakeholders adhere to multiple different discourses. This perspective will also ensure that social relationships and communities are taken into account rather than only personal values and perceptions.

Relevance

To understand why discourse analysis is an interesting perspective for the concept of nature inclusive agriculture, it is important to realise how nature is defined. Nature is a manmade construct whose definition changes through cultures and over time. Think about the 'western' notion of separating 'us' from nature, while a commonly known indigenous explanation integrally links humans and nature as one (Latour, 1991; Blaser, 2009). The previously mentioned constructivist epistemology of multiple 'truths' tells us how these definitions arise through not only facts and science but also values and politics. It explains how many different stakeholders are involved in the creation of a definition (Latour, 2004). The construct of nature inclusive agriculture is, although much more recent, also a manmade construct. Its definition thus depends on many actors and many values and perceptions. Discourses shape possibilities and limitations, therefore influencing the process of policy creation, execution and eventually results.

To find and show the discourses on nature inclusive agriculture in a structural way, a methodological framework needs to be applied. Section 3.2 elaborates on the methodological tool for the analysis of sub-question one.

2.2 Toulmin's structural model of argument

This model is, as the title says, a structural display of an argument which is used to explain how a claim is made and what information and policies back that argument. It is known as a useful tool to break down arguments into understandable segments (Toulmin, 1958; Stranieri et al., 2001). This understandability is crucial for the 'exposing' element of critical discourse analysis. Toulmin's structural model of argument has different variations (Stranieri et al., 2001) but the one used here is especially focused on policy and policy claims, which are essential for identifying the consequences of nature inclusive agriculture policy. This model is used to answer sub question one and to display the different discourses and policy claims. First, the model in general is explained followed by the relevance of this model for critical discourse analysis.

The model

Toulmin's structural model of argument serves as a layout for any kind of argument, whatever the content (Stranieri et al., 2001) (see figure 1). It always consists of six elements: (policy) relevant information, rebuttal, warrant, backing, qualifier and (policy) claims. Arguments start with observations, or policy relevant information. Warrants (The logic and assumptions that you couple to your evidence) and rebuttals (A counterargument) give meaning to this information and is further backed by backings (Support for the warrant or rebuttal in the shape of additional evidence). This way, a web of different levels of argumentation is created. These elements combined are the qualifier (the certainty of your arguments) for a certain policy claim to become legitimised. The policy claim is essentially the statement that, if most powerful, is adopted in policy and acted upon (Stranieri et al., 2001; Newman & Marshall, 1991). For example, if the policy relevant information is that a lot of chemical pesticides are used and the warrant is that pesticides are harmful to the environment, then the policy claim could be to decrease the amount of pesticides used.

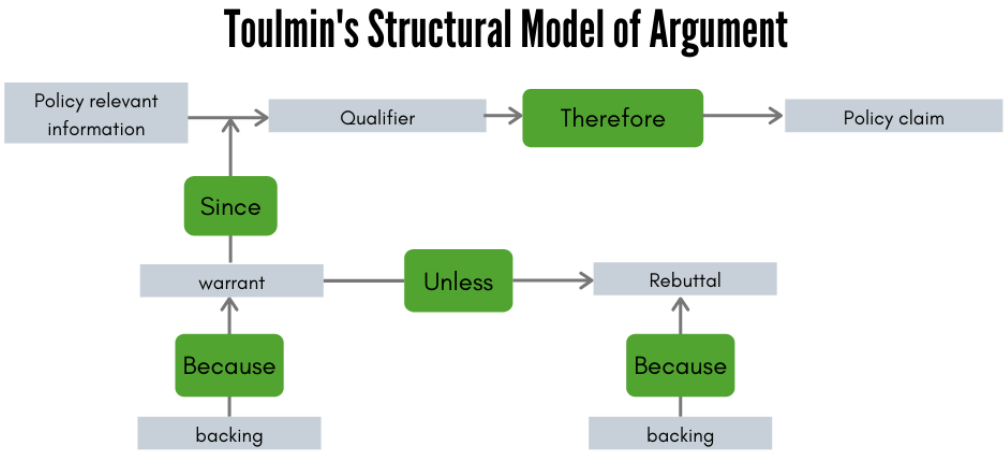

Figure 1: Toulmin's structural model of argument inspired by Van Herten & Runhaar (2013)

Relevance

The main advantage of this framework is its structural display (Newman & Marshall, 1991), which is shown in figure 2. This display is easily understandable for different stakeholders, thus facilitating the 'exposure' of the discourses and policy claims, which is key for critical discourse analysis. In order to find what the consequences are of discourses in terms of policy claims Toulmin's model is a useful tool as it displays these claims in a structural way. Van Herten and Runhaar (2013) used this model for discourse analysis on Dutch eel management policy by using the similarities between argument and discourse theory. Namely, discourse analysis is focused on a discussion (Hajer, 2005) and Toulmin's model is too (Stranieri et al., 2001). Whilst the two theories (discourse and argument) are often used on a different abstraction level, meaning the discussion and the discourses that induce these discussions, they can be combined. Toulmin's model can be taken to a higher abstraction level when not only arguments are included but also assumptions, values and other elements that support a discussion. Similarity in policy claims from different discourses can indicate discourse affinity, which means that these discourses display mutual understanding (Hajer, 2006). Moreover, conflict in these policy claims can be exposed more easily. Nevertheless, while discourse affinity and discourse conflict are some of the means for discourses to gain power, Toulmin's model is not a tool that is used for measurement of power itself, which means this will be analysed separately, with at its basis the discourses and models.

2.3 Expected Findings

A few hypotheses can already be distilled that will be tested in this analysis. These hypotheses are structured according to the research questions. The three sub-questions are discussed after which the main question is discussed with aid of the aforementioned answers and additional theory.

What discourses can be identified on nature inclusive agriculture and which stakeholders adhere to these discourses?

From literature on nature inclusive agriculture and discourse analysis, three major discourses can be identified. The expected Toulmin structural model of argument for each discourse is displayed in appendix 3.

The first discourse that is found in literature is the eco-modernist discourse (Hajer, 2005). Hajer noted that the eco-modernist discourse mainly stressed the social and political urgency of environmental issues. Stakeholders that adhere to the eco-modernist discourse strive for policy reform towards sustainability (Hajer, 2005). They believe in the 'precautionary principle' in which one shouldn't wait for completion of scientific proof if an issue seems to be urgent. Other major claims of this discourse are limits to growth, 'steady-state economy' and balance of nature (Dunlap and van Liere, 1978; Kerschner, 2010). Researchers also refer to the discourse behind this environmentalist movement as 'environmental justice' and the 'new environmental paradigm' (Taylor, 2000). Hajer identified this discourse in the Dutch and English 'acid rain' debate and the discussion on BSE, or 'mad cow' disease (2005). For the topic of nature inclusive agriculture, it is assumed the same discourse can be applied. This would mean that this discourse advocates agriculture to not focus on (economic) growth but rather on a stable natural and environmental system. This would mean that production would have to decrease, just like the amount of (chemical) inputs. In the Netherlands, there is an increased awareness for sustainability, as for example the Dutch environmental vision envisions the transition towards a sustainable and circular economy (Ministerie van Landbouw, Natuur en Voedselkwaliteit, 2019). Especially the nature conservation stakeholder group is expected to conceptualise the world through this discourse. For example, protest group Extinction Rebellion argues that the agricultural sector is a main contributor to environmental degradation and that policy can contribute to decrease this impact (Shiva, V., 2019). The structural model of this discourse would thus look like the second figure in appendix 3.

The second discourse identified by Hajer (2005) is the traditional pragmatist discourse. Traditional pragmatism sees no need for sustainable policy, as environmental degradation is a problem in itself and not related to human practice or policy. People that adhere to this discourse frame people that advocate policy transformation towards sustainability as 'scaremongers', defend the advanced status of current policy and do not want to change policy without complete scientific proof. One of the main drivers of this discourse is the 'growth paradigm' that focuses on economic growth and capitalism (Asara et al., 2015). Hajer also identified this discourse in the Dutch and English 'acid rain' debate and the discussion on BSE, or 'mad cow' disease (2005). Yet again, this discourse is also expected to be found in the field of nature inclusive agriculture. The nitrogen protests, for example, were focused on the argument that farmers are not main contributors to nitrogen emission, and change should be sought elsewhere. On a higher abstraction level, the agricultural sector is still aiming for (economic) growth, despite of the emissions of for example nitrogen they cause. Nature inclusive agriculture is, among others about the use of less chemical inputs and the deduction of emission of for example nitrogen. Moreover, the nitrogen protest advocates argued for autonomy on their business model, as they felt restricted by regulations which they didn't even believe fixed the coherent issue. It is expected that the stakeholder groups of farmers and retail and finance will adhere to this discourse most. The structural model of this discourse would, according to above mentioned information look like the first figure in appendix 3.

Finally, a third discourse is expected to be found for the stakeholders and policy concerning nature inclusive agriculture. Nature inclusive agriculture in itself could be perceived as a win-win discourse in which both the arguments of the traditional pragmatist and eco-modernist discourse are considered and mutual benefits between the two are promised. This specific type of discourse is sometimes referred to as a sustainable development paradigm (Asara et al., 2015). The introduction presented

nature inclusive agriculture as a system of mutual benefits. These benefits arise when ecosystem services are strengthened which in their turn strengthen the agricultural land quality and benefits production (Ministerie van Economische Zaken, 2014), making it an example of a win-win discourse. Because of these mutual benefits, agricultural transformation is not needed, as the eco-modernist discourse argues. Moreover, less chemical inputs are needed for agricultural fields to produce the same amount of products as is opposed to the traditional pragmatist. The win-win discourse is famed for its potential for broad public support in terms of citizens and other stakeholders because of its ability to appeal to other stakeholders (Chaigneau, 2016). This is important, as we identified that discourse structuration was key for the power of a discourse. Moreover, it is assumed that government officials consciously use the broad interpretation of this concept to create support because this also happened in Chaigneau's (2016) analysis on the win-win discourse in marine protected area policies. The structural model of this discourse would thus look like the third figure in appendix 3. Win-win discourses can be very powerful in their ability to create public support but can also consist of internal discord, thus leading to negative effects in attitude and compliance along the way (Chaigneau 2016). Chambers (2018) also recognised in her study on conservation and development projects in the Peruvian Amazon that win-win discourses carried unrealistic expectations and thus limited project success.

Which discourses show discursive affinity and which discourses are conflicting on what topics?

The traditional pragmatist and eco-modernist discourse, according to Hajer (2005), have a conflictuous relationship. While they are not fully mutually exclusive, they behave this way because a conflict was an important tool identified in the theoretic framework known to make a one or two discourses more hegemonic. These discourses are expected to mostly use different topics to argument their claim (like farmer livelihoods and biodiversity decline). However, one thing these discourses fundamentally disagree on is the use of scientific evidence (Hajer, 2005). The traditional pragmatist discourse, as explained before, wants to wait until evidence is saturated while the eco-modernists discourse rather applies the precautionary principle. Moreover, there is an expected difference in the urgency of agricultural transformation between these discourses. Eco-modernists are expected to think urgency for policy implementation is high, where traditional pragmatists think it is low (Hajer, 2005). Finally, the traditional pragmatist discourse are expected to value autonomy of the farmer and sufficient farmer revenue where the eco-modernist discourse would rather see structural change, and advocate for it at government level (Editors Boerenbusiness; 2019; Shiva, V., 2019).

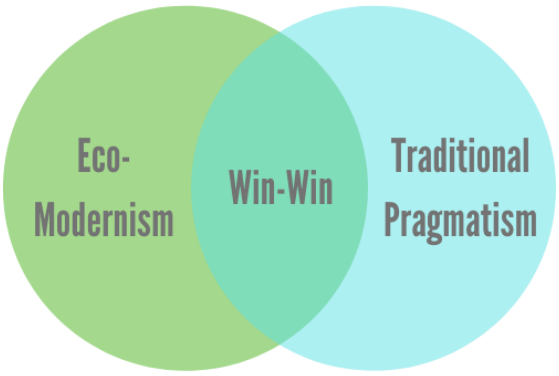

Figure 2: Venn Diagram of the expected discourses

The win-win discourse is expected to have the ability to show affinity with both aforementioned dichotomous discourses. It sides with the eco-modernist discourse on the need for strengthened ecosystem services but also with the traditional pragmatist discourse about the autonomy of farmers and the fact that transformation should be beneficial for these farmers. However, literature stated

that a win-win discourse can consist of internal discord. As can be seen in the Venn diagram in figure 2, the win-win discourse finds itself only communicating subjects on which the eco-modernist and traditional pragmatist discourse agree, or do not disagree. It shows however, the expectation that this discourse leaves out a large section of ideas and conceptualisations about which the two discourses do not agree. Think about aforementioned disagreements on who should be responsible, the urgency of agricultural transformation and the role of science (precautionary or not).

Which policy claims are most powerful in terms of discourse structuration and institutionalisation?

The previous sections predicted which discourses and policy claims are expected to be found for nature inclusive agriculture policy and how these discourses interact in terms of affinity and conflict. In order to answer the main question and identify the consequences, the term of power needs to be incorporated. Namely, which discourses and policy claims are most dominantly present and which policy claims can thus be assumed to have an effect. Power is identified through the concepts of discourse structuration and discourse institutionalisation, or by which stakeholders each discourse is identified and which of the discourses is used in policy, regulations or other institutions.

It is expected that the agricultural lobby is more powerful than the nature conservation lobby because they simply have more money and influence (Bednaříková & Jílková, 2012). In terms of discourse institutionalisation, it is therefore expected that a compromise between the discourses can be found. This is based on the discourse analysis on the European climate and energy package 2030 and the influence of the agricultural lobby on it which found that essentially, this policy was a compromise between the identified discourses for green economy and competition (van Hoof, 2017). Nevertheless, the win-win discourse is expected to be most dominantly present in nature inclusive agriculture policy. This discourse has the ability to build bridges between the two previously mentioned discourses. Moreover, the win-win discourse is often consciously used by policy makers to create public support (Chaigneau, 2016).

What consequences do different discourses on nature inclusive agriculture have on implication of nature inclusive agriculture policy in the Netherlands?

To synthesize, it is assumed that three discourses lead the debate on nature inclusive agriculture policy, similar to other sustainable development topics. These discourses are the eco-modernist discourse that advocates for nature and sustainability in the economy and on the agricultural land, the traditional pragmatists who advocate for global food safety and fair treatment of farmers and the win-win discourse whose role is to build bridges between the previous two using the promise of mutual benefits. As the latter is used for nature inclusive agriculture policy and carries the function of building bridges between the eco-modernist and traditional pragmatist discourse, it is assumed to be the dominant discourse. The win-win discourse is also assumed to be dominant because of its strong discourse institutionalisation as explained by Chaigneau (2016). Therefore, dominant policy claims in terms of institutionalisation are to ensure cooperation between nature and agriculture and invest in research and education. However, the win-win discourse carries the risk of consisting of internal inconsistencies, which might explain the current immobility of nature inclusive through a lack of discourse structuration. The win-win discourse believes that it will turn out to be economically and environmentally beneficial to practice nature inclusive agriculture out of personal incentive. However, if the discourse is so far unable to deliver these promises, as biodiversity rates are still declining and many farmers are still dissatisfied with their situation in terms of freedom and finance (Editors

Boerenbusiness, 2019), thus leading to negative effects in attitudes and compliance as Chaigneau (2016) and Chambers (2018) explained. This has already happened before in Chaigneau's research on marine protected areas in which the use of this discourse had a counterproductive effect on public support or discourse institutionalisation.

Based on the theoretic framework and expected findings, a method was created to identify discourses for nature inclusive agriculture policy and what policy claims and consequences these discourses have. The following chapter will focus on this methodology.

3. Research Methodology

This research is interpretative in nature as it tries to interpret data and identify patterns. As mentioned before, discourses will not be identified at stakeholder level but at an overarching level. The object of analysis is the discursive structure underlying the discussion on nature inclusive agriculture. A central guide throughout the method is the ten iterative steps of discourse analysis by Hajer (2006). Iterative means going back and forth between elements of an analysis in order to adjust the analysis and achieve the best possible results. An iterative process is crucial for identifying the sampling group and ensuring that all discourses are included (Hajer, 2006). This research is not a literal duplicate of Hajer's method but rather uses some of its key features. Due to feasibility reasons, a full analysis of all ten steps of Hajer's discourse analysis is unfortunately not possible. Therefore it is decided to not analyse (1) sites of argumentation, (2) identify key incidents, (3) practices in particular cases of argumentation and (4) a second visit to key actors. These elements of analysis were left out because the process of choosing key incidents and then analysing them and a second visit to key informants did not fit in the timeframe of this analysis. This leaves six of the ten iterative steps of Hajer's discourse analysis which are also explained in the rest of the method:

1. Desk research; a general survey of documents and positions.
2. Helicopter interviews; interviews are chosen because they have an overview of the field.
3. Document analysis; used for structuring concepts, ideas and categorisations and in this case used for data triangulation of the interviews.
4. Interviews with key players; these are central actors in the political process to understand interpretations of events.
5. Analyse for positioning effects; How do different stakeholders and stakeholder groups position themselves?
6. Interpretation; finding a discursive structure from reality.

The following sections will therefore go into how the desk research took place, what choices were made in terms of scope and sampling, how the interviews were executed and finally how these interviews were coded, grouped and finally analysed to come to the answers of the research questions.

3.1 Desk research and helicopter interview

The importance of the situation (cultural and historical context) is paramount in accounting a discourse (Hajer and Versteeg, 2005). Therefore, before any research was executed, a field exploration was conducted to identify this context. This exploration is based on the first section of the 10 iterative steps of discourse analysis by Hajer (2004). The first step was a desk study on scientific articles, news articles and policy documents (peer reviewed articles and grey literature). The used search machines are Google (Google gives the most results of a search engine. While its downside is that many articles are not reviewed, it is ideal to explore which stakeholders are involved and what topics are addressed. It is a starting point to forward to newspaper articles, initiatives and critics), and Google Scholar and WUR Library (for scientific articles on theoretic hypotheses behind nature inclusive agriculture discourses). Both English and Dutch articles were used and analysis departed from the term nature inclusive agriculture (or natuur(-)inclusieve landbouw), after which snowball searching was applied for relevant information. Moreover, a helicopter interview with one key informant (another researcher

on the field) on the subject was held which was focused on the current debate on nature inclusive agriculture policy. The outcomes of this exploration are:

- a stakeholder list (See appendix 1);
- a dataset of all national policy documents related to nature inclusive agriculture, all policy document related to nature inclusive agriculture from Brabant, Drenthe and Gelderland and some policy documents related to the stakeholders from 2018 onwards (See appendix 2)[1];
- and an interview guide (See appendix 4).

3.2 Scope

This study was conducted between January and July 2020. Nature inclusive agriculture is used in multiple levels: nationally, provincially and at farm level. Each of these levels are interesting and include stakeholders that are relevant for nature inclusive agriculture. This consequently means that the sampling frame (the 'list' of stakeholders that are eligible for interviews) is large and the amount of stakeholders to interview and documents to study can be endless. The following steps were taken to keep the scope of this research manageable:

Firstly, three provinces were chosen as cases: The provinces of Noord Brabant, Drenthe and Gelderland. These provinces were chosen because they adopted nature inclusive agriculture policy in a unique way. The province of Drenthe has joined the national green deal on nature inclusive agriculture (Provincie Drenthe, 2019). The province of Brabant seems to be focused on facilitating the individual farmer and removing their obstacles through for example coaching (Provincie Brabant, 2019) and the province of Gelderland works with a cooperative with a large number of stakeholders who created an action plan on nature inclusive agriculture (GNMF, 2019). Moreover, the focus of the interviews and document was, where possible, limited to dairy agriculture, because it is the largest agricultural sector in the Netherlands in both area size and number of companies (CBS, 2020, 2). This means that nature inclusive agriculture measures are focused on for example herb-rich grasslands, outdoor grazing time and mowing time.

Secondly, due to feasibility, the number of stakeholders that are interviewed is 20, to give a proper image of the discursive structure whilst keeping to time management of conducting a study in half a year. The stakeholders that are chosen with coherent reasoning are displayed appendix 1. The stakeholder groups that were identified as the most relevant are: Citizen (representation), National Government, Environmental/nature (management) organisations, provinces and the retail and finance sector. As can be seen, these stakeholder groups represent the three levels of field, province and national which are analysed and all have an influence on land with the destination of agriculture, nature or both. The minimum of sources (documents and stakeholders) for each stakeholder group were set to be 3, in order to have a clear image of each stakeholder group whilst keeping some flexibility for choosing specific stakeholders as respondents and keeping the sampling more feasible and flexible.

Finally, the documents that were studied were limited to documents from 2018 onwards in order to identify only the recent discourses, as discourses are known to change over time (Thirolf, 2013). Moreover, a selection of the documents was done based on whether they were mentioned in the

[1] Note that this dataset was adjusted by the interview responses and the mentions of specific documents.

interviews, to ensure the relevance of these documents. A list was composed of 2 national policy documents, 4 provincial policy documents and 4 policy documents from other stakeholders. This list, including relevance of each document can be found in appendix 2.

3.3 Sampling

As explained before, a list of stakeholders and their relevance was composed (appendix 1). Note that the process is iterative, which means that this list was being changed during the process of research. It is assumed that the discourses identified in the expected findings are all-encompassing and can be found in these stakeholder groups. Eventually, a total of 20 interviews were held with respondents from the stakeholder groups of the previous section. Due to the absence of a sampling frame (a list of all possible respondents from which you could draw a random sample), random sampling is not possible. Therefore, a method of non-random sampling was applied. The interviewees were selected through snowball sampling starting with personal contacts and asking them for additional contacts from the stakeholder groups. Again, the final list of actors and the coherent relevance of these actors are displayed in appendix 1. In order to keep the interview list diverse and prevent bias, it was ensured through the interview guide that there were different levels of self-assumed knowledge.

Desk research provides data triangulation for the interviews. This is necessary because interview data can have a certain focus or bias because of the set-up. By comparing this data content wise to data from another source, this kind of bias can be prevented. Moreover, if the documents give different results than the interview transcripts, it is interesting to find out why that is the case. The first set of documents is a set of national and provincial policy documents which were found in the field study. The second set of documents exists of officially published documents from the stakeholders that were interviewed (with the exception of the national and provincial government). These documents can be found in appendix 2 and serve as a means of data triangulation. The documents were chosen by the fact that they were identified in the field exploration, mentioned in the interviews and because they were published in 2018 or later. The documents were collected and used for analysis in the same way as the interviews transcripts.

3.4 Semi structured interviews

In preparation of the interviews, an interview guide (see appendix 4) was composed to serve as a guideline for all interviews. The questions were semi-structured and open-ended. According to Krauss et al. (2009), the interview guide aids in consistency, but also in the link between the research problem, questions, literature and the sought data. The guide was tested once to find out if the questions were formulated clearly and correctly and whether they contributed to answering the research question. With the exception of some minor changes, it turned out that the interview guide was of sufficient quality, but also understandable for people that had little knowledge on nature inclusive agriculture policy. Note that the guide was slightly revised throughout the interviews. The interview guide started with general questions about respondent's relation to nature inclusive agriculture and self-assessed knowledge on the topic (to ensure diversity in the interview group). These questions were meant to ensure diversity within the interview respondents, but were also an easy start for an interviews. After these questions, the respondents were eased into questions about nature inclusive agriculture. These questions are all open-ended with the intention to let the interviewee address themes on the topic and express their attitude towards these themes.

The open ended questions were used to identify discourses, by following the structure of Toulmin's structural model of argument, the structure upon which an argument is made. These questions started with the definition of nature inclusive agriculture and what problem respondents assumed it would solve and what they thought of that. This gave an indication as to what values and ideas the respondent linked to nature inclusive agriculture and which of these values were linked to their own. These mentioned topics and values gave an indication to the policy relevant information, as shown in Toulmin's structural model of argument (See chapter 2.2). A specific question about the differences in definitions also gave an indication as to how the views of the stakeholders correlated to views from other stakeholders with other perspectives. By using follow-up questions about why these topics were important to the interview respondents, warrants rebuttals and backings could be extracted.

The following section of questions focussed on what the stakeholders now noticed about nature inclusive agriculture. Partially, these were concrete measures that were taken on the farmland and partially these were the efforts of policy (national and provincial), markets and other stakeholders. This question was mostly used to analyse discourse structuration and which stakeholders were thought to be powerful and why. This would aid the analysis on which discourses and policy claims would be dominant. Stakeholders could elaborate on what they thought worked and didn't work. This gave an indication for what stakeholders thought was going well and what was not. Follow-up questions asking why stakeholders thought something went well or why not gave an indication of their core beliefs (See chapter 2.2), or the qualifiers (in the shape of warrants, rebuttals and backings) that explain why stakeholders believe certain measures or policy claims work or not. These questions led up to the question what the conditions were of successful nature inclusive agriculture policy implementation. By already making the respondent think about which elements of nature inclusive agriculture they found important or relevant in the previous questions, it was easier for the respondent to link policy claims to these elements. These conditions were the policy claims that the stakeholders made for successful implementation of nature inclusive agriculture policy.

Finally, three statements (see Appendix 4: interview guide) were given to the stakeholders that were linked to the discourses that were identified in the expected findings to test which of these discourses the stakeholders would support and why. This section was also used to test whether the discourses of the expected findings were present in the discussions on nature inclusive agriculture.

A total of 20 interviews of 30-45 minutes duration were held in the period between March and June 2020. Due to COVID 19, all interviews were either through phone or skype conversations (only two interviews were in person). The main language of the interviews was Dutch. The interviews were recorded with a recording application on a mobile phone, when informed consent was given. These interview recordings were then transcribed. The rough result of this transcription process are 20 transcribed interview documents (in Dutch).

3.5 Coding and analysis

To analyse the content of the interviews, the coding programme ATLAS.ti was used (Guide: Friese, 2019). This programme allows for collecting documents and creating, applying, grouping and editing a coding scheme. A deductive basis of Toulmin and the expected findings was present before the process of coding. The sections below explain what knowledge was used before the process of coding and

which rules were applied during coding. These are the basis upon which the coding process and code grouping process were executed.

Inductive/deductive coding

At the beginning of the analysis, a coding scheme was created to apply to the collected data and the idea was to execute deductive coding (coding with a fixed coding scheme[2] on literature or data collected before the analysis). However, the coding scheme turned out to ill fit the data that was collected as for example some different and unexpected answers were given during the interviews and discussions were much less about concrete measures and much more about the process of policy making than expected. This led to the decision to create a coding scheme based on the data collected. Nevertheless, it would not be possible to call this coding process inductive (coding without any perquisite knowledge on the subject, purely based on the collected data) either as I as a researcher already informed myself. This combination between inductive and deductive coding is rather unconventional and used very little in research, but it was the best way to make the data more meaningful and more fitting to the answers given by the respondents.

The most important deductive element of the coding process was Toulmin's structural model of argument. The codes would have to follow this structure in order to eventually be able to fill in this model. This is why the coding scheme would be structured to the different elements of this model. This meant that data would have to be split up in policy relevant information, warrants, rebuttals and backings and policy claims. This would be a central structure throughout the coding process and the results. Other deductive elements, or elements of knowledge that were acquired before the process of coding were the discourses identified in the expected findings and the other expected findings. These discourses were explicitly tested through the final set of statements that represented them. These deductive elements influence the coding process which has the advantage of the expected findings being tested but the disadvantage of this information influencing the coding process.

Coding rules

Before the coding process started, a few rules were applied that are necessary for a structured and reproduceable process of creating this coding scheme:

- The language used in the coding scheme is English.
- Just like the coding analysis of DeCuir-Gunby et al. (2011), this coding approach will not be in segments of sentences or chapters but in segments of meaning. One segment of text may be coded for multiple codes and segments of text may also be left uncoded.
- The coding scheme should be as detailed as possible but should not approach 300 codes, as it will then become too descriptive and too difficult to extract general themes. Friese (2020) used a rule of thumb of a first round of 100 codes. This rule of thumb will be followed throughout the coding process.
- A code can fit into multiple code groups. For example, a code that states that there is a divide between nature and agriculture can fit into multiple discourses.

[2] The complete set of codes with coherent code groups and explanations

Coding process

Note that the process of coding was iterative, meaning that it was key to move back and forth between steps, which was explained to be key by Hajer's 10 steps for doing discourse analysis (2006). With the deductive elements and rules mentioned above in mind, the first step was to create as many codes as possible by reading text and coding each statement that is being made. I started coding 2 transcripts with different kinds of answers (one from a terrain managing organisation and one from a farmer representative) fully.

After having coded 2 documents the first saturation point was reached at 131 code. A first selection round consisted of combining similar codes. The following step was for each new transcript to use as many existing codes as possible and to add onto these with new codes(the categorisation above and the structure of the interview guide in relation to Toulmin's model facilitated an easy search codes). Each time a new code emerged, previous documents were re-read. After each document the coding scheme was analysed and overlapping codes were removed. After 5 transcripts selection not only meant filtering overlapping codes but also combining specific codes into more general codes (for example, a code about soil quality and a code about water quality were combined into a code about environmental quality) and removing irrelevant codes (For example a code about pixel farming which is very intensive small-scale farming) because they were too far off the topic and irrelevant for the research questions. The process of coding, developing codes and revising the codebook continued until all raw data was coded. At the end, codes which were only used once were removed. Finally, there were a total of 97 codes.

Code grouping

As explained before, analysis was not focused on an individual level but on an overarching level. This means that an easy way of discourse identification would be to group aforementioned codes into discourses, separate from the respondents that were the source of these codes. This is a rather unconventional method, but it is based on the assumption that discourses are not just based on the people they adhere to but also to the broader context and social relations of these discourses (Fairclough, 2003). It is also based on the fact that responses existed of internal inconsistencies and stakeholders adhering to multiple, sometimes contradicting values.

The grouping of codes happened during and after the selection phases of the codes. Before the codes were categorised into discourses, they were categorised according to the structure of Toulmin's structural model of argument and the topics identified in the previous section. The structure of Toulmin's structural model of argument exists of (1) policy relevant information, (2) warrants rebuttals and backings and (3) policy claims. These three sections of the model were used as code groups to start identifying which codes would be used together in the models of Toulmin. When each code was labelled with one of these three elements it was up to me to create the Toulmin models by combining the codes into groups that would later become the discourses.

In order to identify these discourses, the three statements at the end of the interview guide were checked first. These statements were based on the three discourses of the expected findings and served as a check whether these discourses were validated by the interview respondents. It turned out that the interview respondents validated these statements quite well. When they personally did not agree with one of the statements, they recognised them from the public debate. One addition from respondents for the second statement (which was the traditional pragmatist statement) was an

environmental and global perspective. Some respondents were able to explain through an environmental argumentation lens why production in the Netherlands is important for global emissions. This inconsistency would be taken into account in the identification of discourses. A new coding group was created with a new, yet to be determined discourse.

After the analysis of the statements, the codes were grouped by looking at which codes fit well together and which codes indicated a contradiction or distinction. For example, a code about the policy relevant information of the threats of climate change went well together with the backing that we are dependent on the global cycle and should therefore focus on that. Usually, A division was easily made based on the topics that respondents mentioned either positively or negatively and their coherent reasoning and policy claims. Nonetheless, coupling codes was not always as straightforward, because a code that indicates that 'policy is vague' is not easily coupled to codes about the content of this policy. If a code was not easily fit with any other codes, it was assumed that it could fit in multiple discourses. In these instances, the types of respondents and the other codes close to these codes were used as an indication where the codes could fit. All in all, this code grouping process was an iterative puzzle of checking the expected findings through the three statements, combining codes and finding the best combinations. This is not a very structural approach to code grouping, especially as it is dependent on the assumptions of the researcher, but it is the best option within feasibility.

Discourses, stakeholders and power

With the raw data coded and categorised, the three discourses from the expected findings were validated and a fourth was identified. Each discourse, through the process of coding and code grouping is represented by Toulmin's structural model of argument. This model and the codes that it exists of are the main elements of this analysis. First of all, the adherence to a certain discourse by interview respondents and policy documents can now be measured by counting the codes that adhere to each discourse and analysing which stakeholder uses which of these codes (as a share of the total amount of codes used in the transcript or document). The second point of analysis is focused on affinity and conflict, which are used as a tool for gaining power in a discourse. If codes from Toulmin's structural models overlap, there is a case of affinity. Where these codes differ, there is disagreement and sometimes even conflict. Finally, an analysis on what the interview respondents thought about the power of certain stakeholders and the adherence of these stakeholders to certain discourses and policy claims are analysed. The concepts of discourse structuration (which and how many stakeholders adhere to a discourse) and discourse institutionalisation (whether discourses can be found in policy, regulations or other institutions) are used to analyse the power of the discourses and their policy claims. The interview guide had a specific question on the current situation of nature inclusive agriculture in which the respondents could elaborate on their perceptions of other stakeholders and their influence which contributed to discourse structuration.

All this information is used to answer the question what the consequences are, in terms of policy claims, of discourses on nature inclusive agriculture for the implication of nature inclusive agriculture policy. The next section will elaborate on the results of the three sub-questions, followed by a discussion on these results after which a conclusion is distilled, together with workable recommendations.

4. Results

The following chapter displays the results of the interviews, documents and coding scheme in the structure of the sub-questions of this analysis. First the discourses are identified, followed by the identification of affinity and conflicts between these discourses and finally these discourses are analysed for discourse structuration and institutionalisation. All this data will aid the process of identifying what the consequences of discourses are for nature inclusive agriculture implementation.

4.1 What discourses can be identified on nature inclusive agriculture and which stakeholders adhere to these discourses?

As was mentioned before, discourse identification is a process of categorisation and grouping of coded statements from the interviews. Below, you will find the four different identified discourses displayed in Toulmin's structural model of argument as explained in chapter 2.2. The model consists of six elements: policy relevant information, rebuttal, warrant, backing, qualifier and policy claims. The beginning of the chart indicates the policy relevant information. Then, with the backing of the warrants and rebuttals of each discourse, a list of policy claims is created. After the explanation of each Toulmin model, the final section explains which stakeholders adhered to which discourses most. The final section will show the results of the data triangulation between the interview respondents and the policy documents.

The environmental eco-modernist discourse

The first discourse that was identified was the environmental eco-modernist discourse. All elements of the environmental eco-modernist discourse can be found in the Toulmin structural model of argument in figure 7 and are also elaborated below. The figure is split up in policy relevant information (the square in the top left of the figure) and policy claims (the square in the top right of the figure). Everything below are the warrants, rebuttals and backings that support these policy claims. As there are many policy claims and warrants, rebuttals and backings and to keep the overview, a division was made into three sections: the first one is focused on content of nature inclusive agriculture and what it should entail, the second is about policy and the third is about money and funding. This division is not based on any theoretical data but solely on the answers of the interviews, the content of policy documents and the topics that were mentioned most.

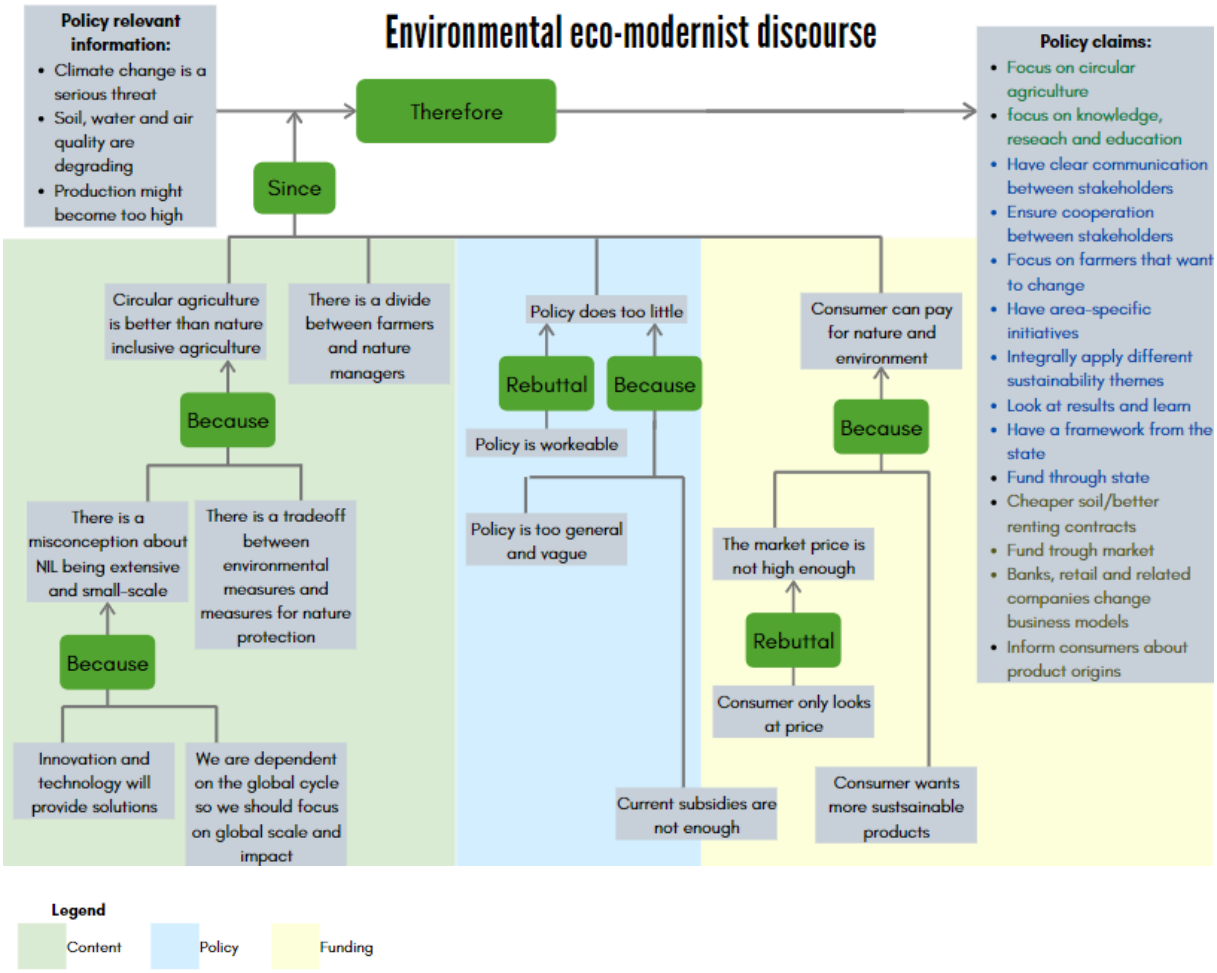

Figure 3: Toulmin's structural model of argument for the environmental eco-modernist

Policy relevant information

First and foremost, the environmental eco-modernist discourse puts its focus on the threat of environmental degradation and climate change and the fact that agricultural production contributes to that. Therefore, the main goal of people that adhere to this discourse is to improve environmental quality and combat climate change. This relevant information was also key for the respondents in defining nature inclusive agriculture. Although other elements were mentioned too, climate and environment were the most important elements of futureproof agriculture. This lead to the definition being mostly similar to a definition for circular agriculture with a focus on environmental quality and emissions, and often even a preference for the concept circular agriculture as it better encompassed the policy relevant information. Respondents finally agreed that there were many different definitions or nuances in the definition of nature inclusive agriculture.

Warrants, rebuttals and backings

The first section of the warrants, rebuttals and backings is about what nature inclusive agriculture should look like. The most striking is the fact that circular agriculture is believed to be a better concept than nature inclusive agriculture according to people that adhere to the environmental eco-modernist discourse. An explicit difference is sometimes made between the two, especially in the sense that nature inclusive agriculture is focused too much on extensification and nature protection. However, if

production decreases in the Netherlands, it will increase elsewhere thus leaving perhaps a larger environmental impact. This means that people that adhere to this discourse recognise a trade-off between (local) measures for nature protection and (global) measures for environmental protection and value the latter more.

In terms of policy (the second section), the respondents that adhered to this discourse believe that policy is not doing enough and that it is usually too general and vague. The rebuttal was that some respondents did believe that policy was workable. Many respondents believed that current subsidies for nature inclusive agriculture are also not high enough, just like the market prices for agricultural products, moving us to the third section of warrants, rebuttals and backings: funding. Many respondents believed that farmers didn't receive proper financial compensation for their products. However, it was debated whether consumers would be willing to pay added value for their products, as respondents did see a trend of increased consumption of organic products but also believed that Dutch consumers only looked at prices.

Policy claims

There is quite a diverse list of policy claims from different abstraction levels and these claims are not always as literally derived from the warrants, rebuttals and backings. This is because it is a list of claims literally reproduced from the respondents. This discourse prefers technical and innovative solutions for agriculture, especially in the shape of circular agriculture. Moreover knowledge, research and education are key elements for the future of agriculture and environment. But innovation is not the only way to change agriculture for the better. Coherent policy is necessary to apply and test circular agriculture and make it a success. This requires a framework from the state but also area-specific initiatives, as circumstances are very location-dependent. Moreover, stakeholders should communicate, cooperate and contribute to the same cause. These three terms will be mentioned more often in this analysis as they were often explicitly mentioned. Communication focuses on communication from policy makers towards stakeholders about their decisions but also among stakeholders on their differing visions and ideas to facilitate discussions. These same stakeholders should then also contribute to each other's goals and cooperate rather than only work within their stakeholder group. Rather than work against each other, stakeholders with differing visions should focus on cooperation. All sustainability themes should be addressed integrally and policy should be reflexive and learn from past efforts. Finally, farmers should be supported financially through better soil prices and renting agreements, subsidies from the state, better support from banks, retail and other financial partners. A way of facilitating this is by informing consumers about product origins.

Stakeholder (groups)

An elaborate list of the stakeholders and the discourses they adhered to can be found in appendix 6. There were six data sources that adhered most to this discourse. The vision on agriculture and food by the national government, the planet proof report and one of the policy documents from the province of Brabant are the policy documents that adhered most to the environmental eco-modernist discourse. The National vision and planet proof report focus highly on circular agriculture.

> *"We have to prevent that our soil, water and nutrients are exhausted and the temperature on earth becomes unacceptably high. Circular agriculture is an inescapable and closing answer to that." (Ministerie van Landbouw, Natuur en Voedselkwaliteit, 2019)*

In terms of interview respondents, a natural farmer representative, a national park, a province and a stakeholder from the retail & finance sector adhered most to the environmental eco-modernist discourse. This is a very diverse set of stakeholders that do not belong to certain specific stakeholder groups. Although the stakeholder groups of the National government, nature (conservation) organisations and retail & finance show a high occurrence of the environmental eco-modernist discourse, it was not the discourse they adhered most to. Note again that stakeholders adhered to multiple discourses.

> *"We agreed that we can only safeguard the future of our food supply if we make the transition towards circular agriculture. We have to prevent that we exhaust soil, water and nutrients and that temperatures on earth become unacceptably high." (national government)*
>
> *"A good earning potential for companies is combined with a minimal effect on environmental quality of soil, air and water. This also gives a necessary positive contribution on the improvement of biodiversity." (National government)*
>
> *"…and I think that there is a prejudice that nature inclusive agriculture is extensive and small-scale. That doesn't have to be that way but it how farmers interpret it." (nature (conservation) organisation)*

The natural eco-modernist discourse

The second discourse identified is the natural eco-modernist discourse. All elements of the natural eco-modernist discourse can be found in the Toulmin structural model of argument in figure 8 and are also elaborated below. The figure is again split up in policy relevant information (the square in the top left of the figure) and policy claims (the square in the top right of the figure). Everything below are the warrants, rebuttals and backings that support these policy claims. These and the claims are divided in three sections based on the types of answers of the respondents: content, policy and funding.

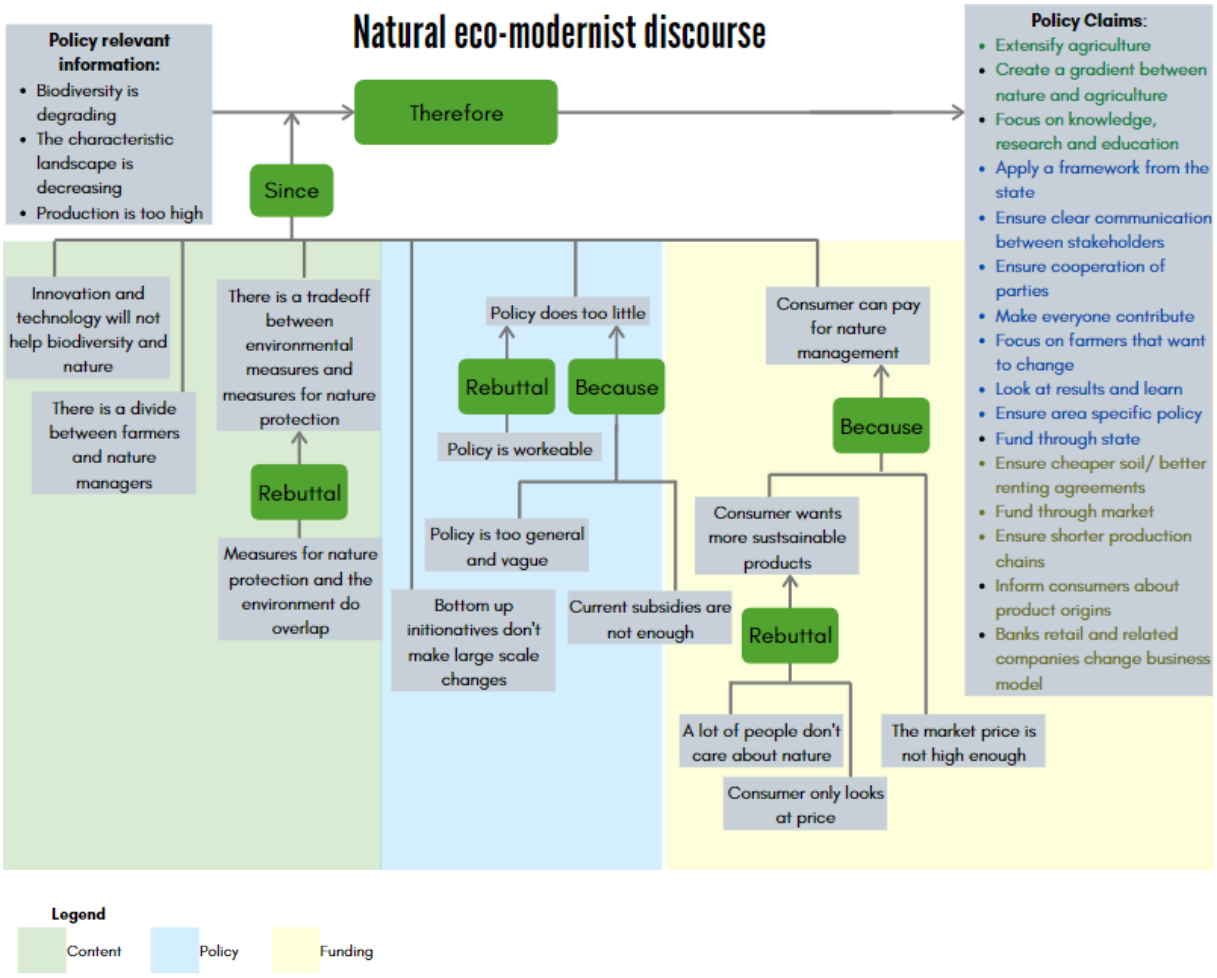

Figure 4: Toulmin's structural model of argument for the natural eco-modernist discourse

Policy relevant information

The natural eco-modernist discourse sees biodiversity loss and degradation of natural areas and rural landscapes as urgent topics that could be solved by nature inclusive agriculture. It is similar to the previous discourse in the sense that people that adhere to this discourse value the environment around them, but focus on biodiversity, nature and landscape. The respondents that adhere to this discourse believe that agricultural production is too high, causing biodiversity loss and landscape degradation. This relevant information was also key for the respondents in defining nature inclusive agriculture. Although other elements were mentioned too, biodiversity, nature and landscape conservation were the most important. This led to the definition being mostly about 'taking a step back' in agriculture and taking care of nature, biodiversity and landscape. Respondents finally agreed that there were many different definitions or nuances in the definition of nature inclusive agriculture (just like the environmental eco-modernist discourse).

Warrants, rebuttals and backings

The first section, the content of nature inclusive agriculture, is focused on the extensification of agriculture. Again, stakeholders that adhere to the natural eco-modernist discourse believe that there is a trade-off between for example global climate measures and local nature protection measures.

However, some respondents adhering to this discourse also see similarities, especially for concrete measures. Nonetheless, the major element for nature protection is not innovation or technology but extensification. The fact that the Netherlands produces and exports so much is nonsense according to this discourse because it harms the environment here and leads to high emissions due to for example transport. It would be better to export Dutch knowledge on efficient food production and to start producing less here, more sustainably (This information is not in Toulmin's model but serves as an additional explanation to these codes). Finally, respondents also believed that there was divide between farmers and nature managers which was worrying.

In terms of policy almost all the same codes emerged as for the environmental eco-modernist discourse. Policy was doing too little, it was vague and unworkable. Sometimes respondents did see the efforts that policy put in. The only addition is that this discourse believes more in top-down interventions than the environmental eco-modernists as respondents that adhered to this discourse believed that bottom-up initiatives didn't make large-scale changes. The warrants and rebuttals in the section on funding were also very similar to the environmental eco-modernist discourse. There is an internal discussion whether consumers are willing to pay for the added value of agricultural production that takes into account the natural environment. A new rebuttal is the fact that respondents thought that a lot of people didn't really care about nature, which would make them less likely to pay for more expensive products.

Policy claims

In terms of content, respondents strongly believed that agriculture needs to take a step back and extensify. While some respondents believed that nature inclusive agriculture should be applied everywhere, many came with the notion of a gradient between intensive agricultural lands and protected areas. The policy claims on the process of policy making and implementation are very similar to the ones for the environmental eco-modernist discourse. Respondents pleaded for proper communication, contribution and cooperation. They also wanted area-specific initiatives, a focus on knowledge and research and a reflexive policy process. Finally, in terms of funding, state and market need to contribute, just like the financial partners of farmers also through cheaper soil or better renting agreements. Respondents also believed, just like the previous discourse, in informing consumers better about product origins. The claim that differs from the previous discourse states that production chains can be shortened as a means for higher profits.

Stakeholder (groups)

An elaborate list of the stakeholders and the discourses they adhered to can be found in appendix 6. There were twelve sources that adhered most to this discourse, which is double the amount of the previous discourse. In terms of policy documents the environmental vision of the national government, two provincial policy documents and the 10 steps plan of an environmental cooperative adhered most to this discourse. This is because they were highly focused on nature (and landscape) protection measures rather than environmental or climate measures. However, environmental and climate issues are addressed often too because according to this discourse, there might be cases where environmental and nature measures overlap.

> *"Our current agriculture and food system is no longer tenable. Not only the nitrogen crisis, also the challenge in the field of climate, biodiversity, soil-, water- and air quality, soil subsidence*

and the attractiveness of our landscape ask for a long-term solution. These challenges are strongly coherent." (Kening fan 'e Greide et al., 2020)

The interview respondents that adhered most to this discourse were the two citizens and the citizen initiative, an organic farmer, the national government, three environmental organisations and a province. The stakeholder groups that adhered to the natural eco-modernist discourse most were therefore citizens, the national government, nature (management) organisations and the provinces.

"but now you see a lot of different flowers and yes I find that a pretty landscape." (Citizen)

"We cycle a lot in the area and you can see that the grassland looks different" (Citizen)

"Well it may be clear that it is actually a bizarre thing that our small Netherlands has a production of a humongous amount of products, whethet it be vegetables, fruits or meat, that is truly bizarre." (nature (conservation) organisation)

The traditional pragmatist discourse

The third discourse identified in the analysis is the traditional pragmatist discourse. All elements of the traditional pragmatist discourse can be found in the Toulmin structural model of argument in figure 9 and are elaborated below. The figure is again split up in policy relevant information (the square in the top left of the figure) and policy claims (the square in the top right of the figure). Everything below are the warrants, rebuttals and backings that support these policy claims. These and the claims are divided in three sections based on the types of answers of the respondents: content, policy and funding.

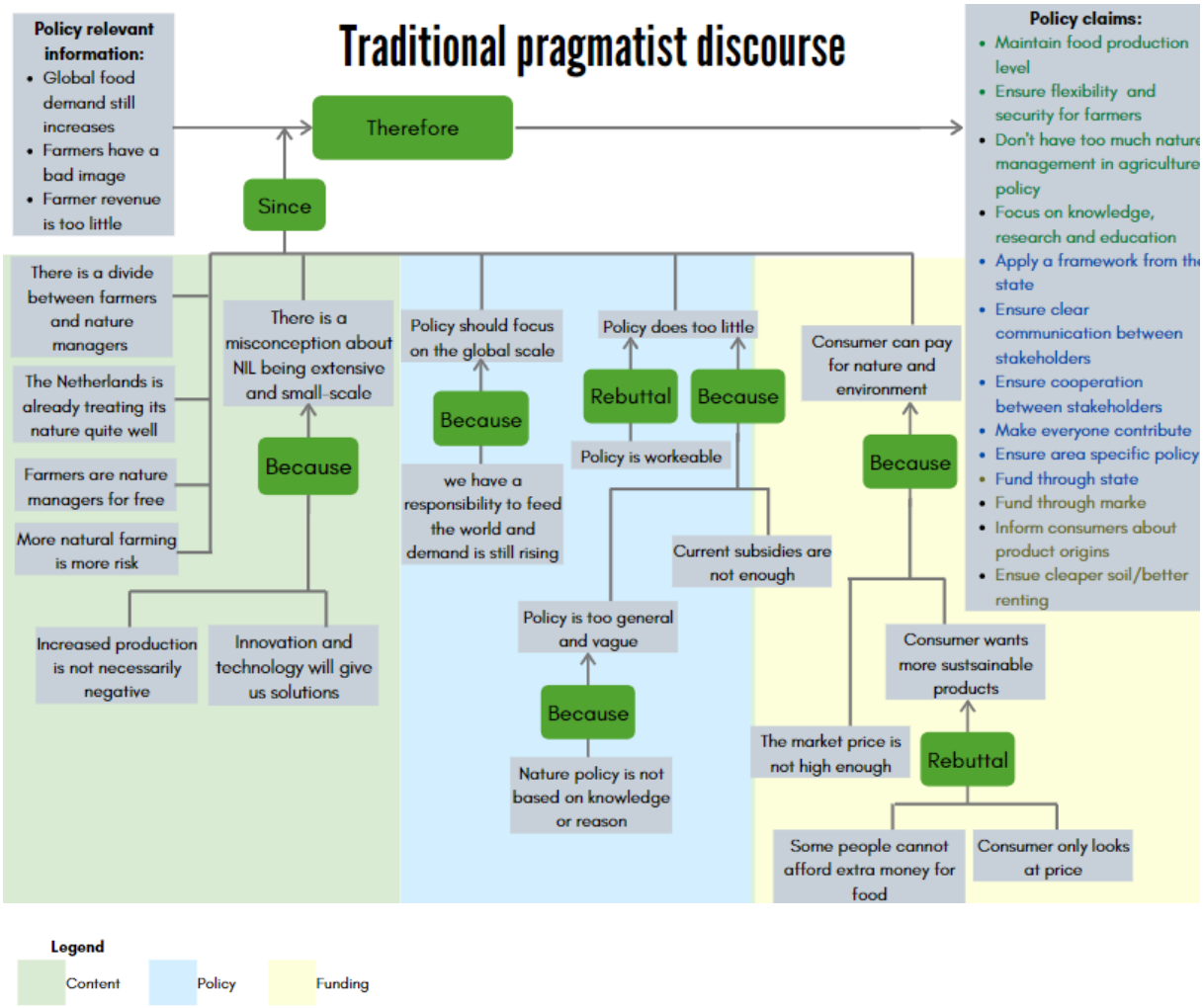

Figure 5: Toulmin's structural model of argument for the traditional pragmatist discourse

Policy relevant information

Note that the environmental issues are often recognised and that many traditional pragmatists see sustainability as an essential for continuing the agricultural sector for both producer, consumer and everything in between. Nonetheless, the latter is the essential part of this discourse. Respondents that adhered to the traditional pragmatists discourse believe that growing global food demand is a major responsibility for the Dutch agricultural sector. Therefore, they acknowledge the importance of farmers, which is not always recognised by policy in terms of regulations and revenue being insufficient. This relevant information was also important for the respondents when they defined nature inclusive agriculture. Although other elements were mentioned too, farmer status, revenue and agricultural production were most important. This lead to the definition being mostly about farmers improving their image and receiving better compensation for their efforts. Some respondents even stated that all forms of agriculture are 'nature inclusive'. Respondents finally agreed, same as the previous two discourses that there were many different definitions or nuances in the definition of nature inclusive agriculture.

Warrants, rebuttals and backings

First, this discourse would rather not extensify but keeps faith in innovative and technological progress in which production is kept high so that global demand is still met. It is believed that if the Netherlands

starts producing less, it will lead to problems elsewhere where production will increase in a less efficient manner, thus harming the environment. Moreover, high production does not necessarily harm the environment, which is already being treated quite well. A lower production through lower inputs does harm the farmer through e.g. more risks in production. Finally, this discourse also recognise a divide between farmers and nature managers.

In terms of policy, respondents that adhered to this discourse, just like the previous two, believed that policy was doing too little and that it was too general and/or vague, with as a rebuttal that respondents did believe that nature inclusive agriculture policy was workable. An additional statement was that respondents believed that policy was focussed on nature too much, while this policy is not based on knowledge or reason but rather the aesthetic value of nature. Moreover, respondents believed that policy needed to focus more on the global scale of agricultural production as the Netherlands has a responsibility to feed the world and this would be done less efficiently and more harmful elsewhere.

For the section of funding, respondents again debated and wondered whether consumers would be willing to pay for added value of products, although in this case all products that originated from the Netherlands were high quality products. Respondents also wondered whether consumers would be able to pay extra for products, as some live in poverty.

Policy claims

First of all, respondents that adhere to the traditional pragmatist discourse want to maintain the Dutch production level to meet global food demand. Other claims focus on more flexibility for farmers, like freedom to make choices for their own business and more long-term security. Policies or agreements should be set for the long run so that farmers can make proper investments. Again, a focus on knowledge, research and education is needed, but this time for futureproof and efficient agriculture. Finally, the traditional pragmatist discourse claims that too much nature management can be harmful on the global scale, so it pleas for not too much nature management on agricultural fields.

The other policy claims are quite similar to the previous discourses and again focus on communication, contribution and cooperation. This discourse also wants area-specific policy and a framework from the state, although this framework should not stand in the way of farmer flexibility. In terms of funding, state and market should financially support farmers and better soil renting and price agreements should be made. Finally, although the goal is not necessarily for it to induce more sustainability, stakeholders that endorse this discourse also want to inform consumers about product origins. Informing consumers would in this case mean more respect for the farmers and the production efforts that go into consumption goods.

Stakeholder (groups)

An elaborate list of the stakeholders and the discourses they adhered to can be found in appendix 6. There were six sources that adhered most to this discourse which is equal to the environmental eco-modernist discourse. One of them was a provincial policy document called the ‘agenda boer burger

biodiversiteit'. Note that this document had a high occurrence of the traditional pragmatist discourse while it also noted the importance of biodiversity recovery and environmental quality.

> *"The agricultural sector itself and the society ask for a further socialisation of agriculture. The importance of an economically viable agriculture is beyond dispute." (Partners Groenmanifest Drenthe, 2019)*

The interview respondents that adhered to this discourse most were the regular farmers, the farmer representation organisation and two stakeholders from retail & finance. The stakeholder groups of farmers and retail & farmers therefore adhered most to the traditional pragmatist discourse.

> *"See that depends on how you label nature inclusive. You can say a goatwool socks figure lats his grassland go its way and doesn't do anything with it and sometimes lets cows graze but I don't mow or use artificial manure." (farmer)*

> *"Suddenly we can see that farmers always provided a free service and now you want more of them so farmers in the surrounding say they want to, as long as it doesnt'cos money and maybe even earns some money." (Retail & finance)*

> *"More production gets shifted to other parts of the world, for example to the middle east. And you know what that means? With a disproportionate impact on environment and climate and also indirectly on biodiversity, for example because these companies get their feed from South Africa, with all social problems and cutting of rainforest etcetera.." (Retail & finance)*

> *"We hear that a lot of farmers want to give their own interpretation to nature inclusive agriculture, in a way that fits their company." (Province)*

The win-win discourse

The final discourse identified in this analysis is the win-win discourse. All elements of the win-win discourse can be found in the Toulmin structural model of argument in figure 10 and are elaborated below. The figure is again split up in policy relevant information (the square in the top left of the figure) and policy claims (the square in the top right of the figure). Everything below are the warrants, rebuttals and backings that support these policy claims. These and the claims are divided in three sections based on the types of answers of the respondents: content, policy and funding.

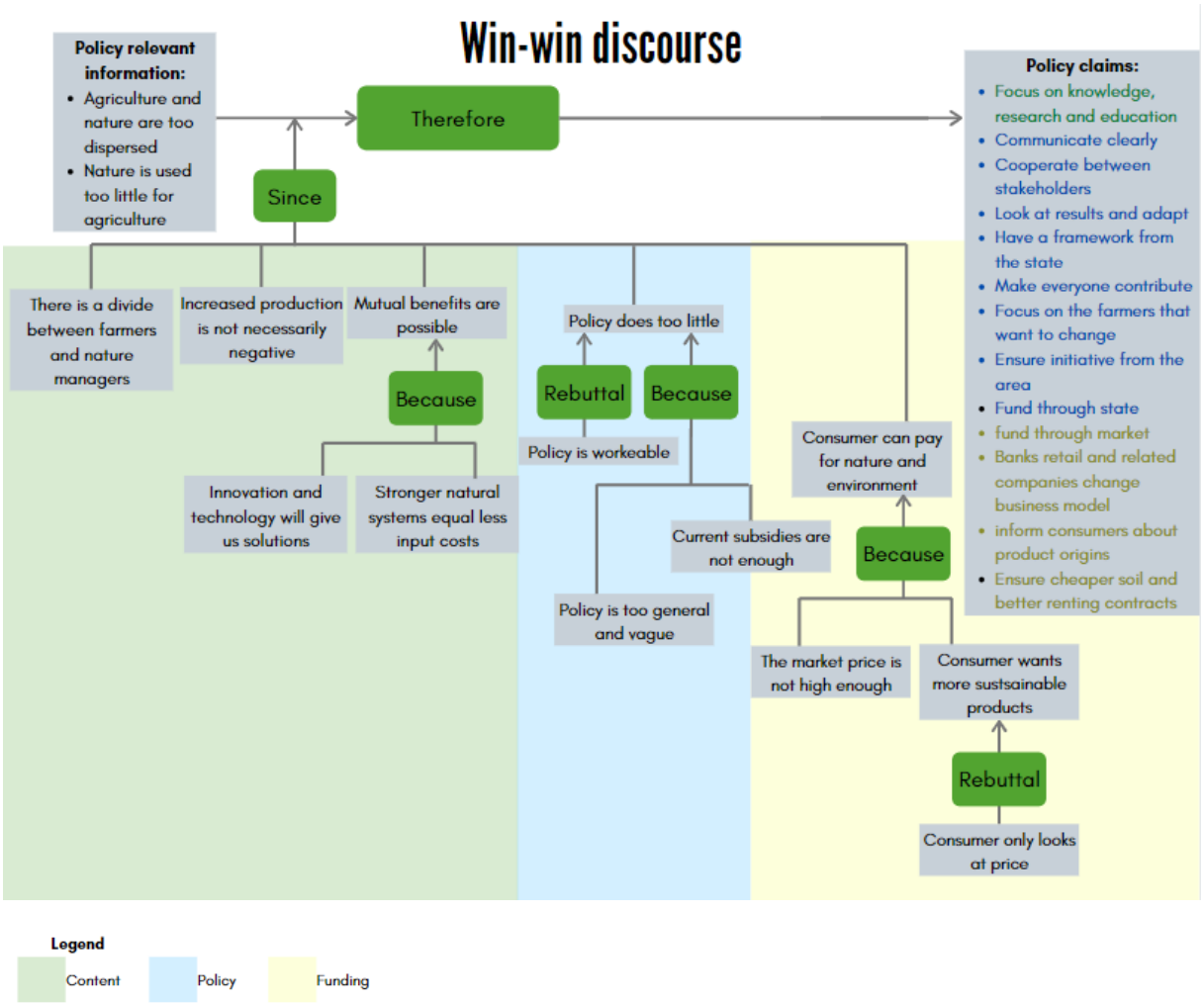

Figure 6: Toulmin's structural model of argument for the win-win discourse

Policy relevant information

This discourse exists on the grounds of mutual benefits and cooperation. It is therefore believed that nature and agriculture are too dispersed and that nature is used too little for agricultural purposes and the other way around. This relevant information was also key for the respondents in defining nature inclusive agriculture. Although other elements were mentioned too, these were the most important. This lead to the definition being mostly about mutual benefits and the cooperation between nature managers and farmers. Respondents finally agreed, just like for all the other discourses, there were many different definitions or nuances in the definition of nature inclusive agriculture.

Warrants, rebuttals and backings

In terms of content, again a divide between farmers and nature managers is recognised. Respondents that adhered to this discourses took elements from the previous discourses and combined them in a belief system based on mutual benefits. Increased production doesn't have to be negative. Innovation and technology can provide integral solutions and a stronger natural system is profitable for farmers because agricultural land is more resilient and requires less input costs. The possibilities of mutual benefits are shown through smart combinations between arable and cattle farming, through new technologies and innovations and through efficient use of resources like manure and water. The

sections on policy and funding are exactly the same as the environmental eco-modernist discourse and contain many similar elements to the natural eco-modernist and traditional pragmatist discourse. Namely, this discourse discusses whether policy is workable or too vague and whether consumers will pay for added value of products that are produced with extra regard for nature and environment.

Policy claims

The most important policy claim for this discourse is the focus on knowledge, education and research as these elements will convince stakeholders of the mutual benefits of nature inclusive agriculture for both nature and agriculture. This will create incentive for all parties to invest. In terms of policy, many claims return. These include communication, contribution and cooperation of all stakeholders, initiative from the area, a framework from the state and a focus on farmers that are already interested in changing their business model. In terms of funding, market and state should provide compensation for added value products and financial partners of farmers should also fund and provide flexibility. This money is necessary for the investments in knowledge, education and research which are necessary for a transition. Finally, consumers should be informed about product origins with the underlying goal to improve the relationship between consumers, farmer and nature conservers.

Stakeholder (groups)

Although each stakeholder adhered slightly to the win-win discourse, it was adhered to the least by many of these stakeholder. Only one organic farmer adhered to the win-win discourse most because he saw the financial benefits of nature inclusive agriculture, especially in the future. While many respondents thought it necessary for nature and agriculture to cooperate more, the existence of mutual benefits was often received with a critical edge, especially when it came to the financial profitability of nature inclusive agriculture.

> *"What's really fun and special about this project is that I am at a table with agriculture and nature and that the project is supported by both." (Province)*

> *"I think on the long-term, so really long term, that if you can stimulate more natural enemies around your company that you, especially with plagues and diseases that you can gain a lot. Plus the fact that in terms of water systems but certainly soil, that your soil retains more water and organic compound. Your soil becomes more resilient and your products become more resilient and I see that as an absolute profit." (farmer)*

Data triangulation

The reason that both stakeholder interviews and document analysis were executed was to find whether these sources would lead to the same results and if not, where the differences would lie and why. The figure below (figure 18) indicates the average difference in discourse adoption between stakeholders and documents that were analysed. This is done by a code occurrence in percentage per discourse. The documents and transcript have a certain absolute amount of codes which belong to one (or more) of the four above mentioned discourses. The share of codes belonging to each discourse compared to the absolute amount of codes is expressed as a percentage share.

Overall, there is no large difference between interview transcripts and policy documents. One thing that stands out is that the documents have a higher adoption rate of the natural eco-modernist discourse than the stakeholders. This is partially explained by an outlier document of the province Brabant (Provincie Brabant, 2019) that had an exceptionally high occurrence of the natural eco-

modernist discourse (see appendix 6), but there were more documents with a high occurrence of this discourse, like the 10 steps plan of a cooperative of nature (conservation) organisations. This is partially explained by the explicit focus of these documents on the natural aspect of nature inclusive agriculture, which does not necessarily mean that these documents 'adhered more' to a certain discourse but that the focus was just more on these kinds of measures.

The other discourses are quite similar in occurrence, which could mean that interview respondents were on average similarly divided over the discourses as the documents. This would mean that people say the same things as they write and that there is no high interview bias. Moreover, It would mean that there is quite an equal division between the discourses both between and within stakeholder groups.

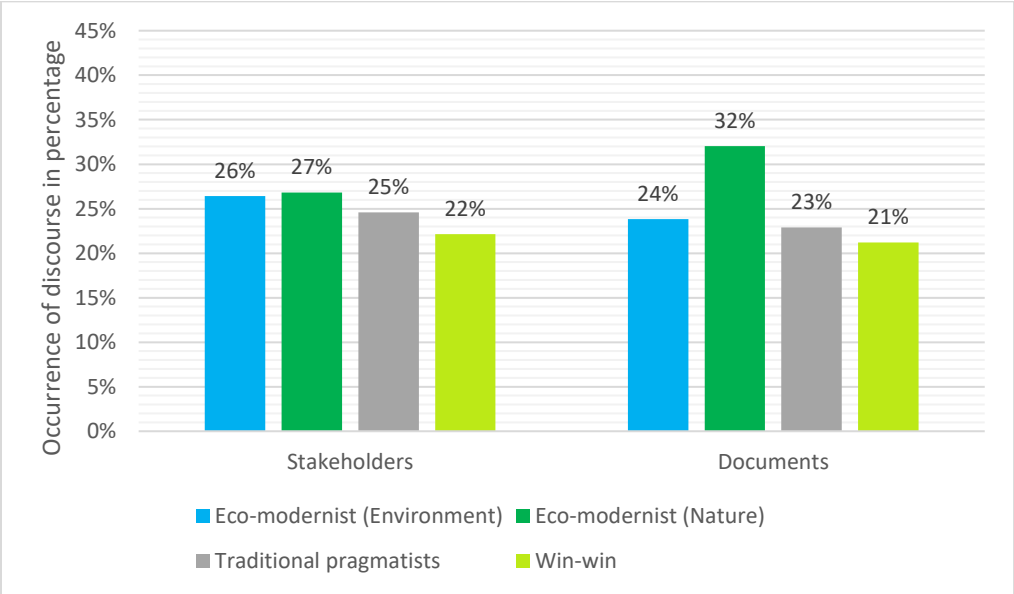

Figure 7: Discourse occurrence in percentages for interview transcripts and documents

4.2 Which discourses show discursive affinity and which discourses are conflicting and on what topics?

This section displays cases where different discourses show discursive affinity and are conflicting. As was explained in chapter 2.1 on discourse analysis, discourse affinity is a shared argument or claim between different discourses to strengthen this argument or claim. Conflict arises between discourses, sometimes also as a strategy to strengthen these discourses. Affinity and conflict are two strategies that can influence the power of a discourse and a policy claim. If there is affinity on a policy claim between all of the aforementioned discourses, that policy claim will automatically be the most powerful, with or without discourse structuration and institutionalisation.

Note that people often think in a more complex manner than critical discourse analysis can display, among others because not all of the context can be analysed (Breeze, 2011). The discourses are a means to structure a debate, but this debate has many nuances which are explained below. Sometimes affinity and conflict arose neatly between the analysed discourses, but sometimes it arose within these discourses. It has even occurred that within an interview conversation, answers given were conflicting themselves. This can lead to confusion because it might not always be clear which stakeholder or

stakeholder group thinks what and why. In this section, the results will only be stated in terms of which discourses and policy claims show affinity and conflict.

Affinity

As was explained in chapter 2.1 on discourse analysis, discourse affinity is a shared argument or claim between different discourses which strengthens this argument or claim. Discourse affinity was identified by comparing the Toulmin models of argument to see which codes were shared.

Policy relevant information

None of the discourse share specific policy relevant information as can be seen in Toulmin's models of chapter 4.1, although it must be said that none of the respondents mentioned that they were against any of these goals either, except for the fact that some stakeholders found nature policy to be unnecessary. This can also be seen in the fact that all data sources adhere to some point to all of the discourses. Many interview respondents understood that sustainability was necessary for the continuation of agricultural practices and many also understood that in order to extensify agriculture, there needed to be a stable and sufficient source of revenue for farmers. The question was not whether all these goals were justified but more whether these goals could exist next to each other and if not, which goal would have priority, but this will be elaborated on in the section of conflict.

> *"I don't say it (nature inclusive agriculture) is unrealistic, so I am not against meadow bird management or herb-rich grassland, absolutely not." (retail & finance stakeholder)*

A major element of policy relevant information was the definition of nature inclusive agriculture. All interview respondents noticed that there are many different definitions to be found of nature inclusive agriculture. This is confusing for many of the stakeholders.

> *"Yes, I really find it hard to say because I don't know what nature inclusive agriculture is." (Retail & finance stakeholder)*

> *"Look we have to become circular and nature inclusive, that is fine but the first policy maker that comes to me and explains what that means still has to come to me." (Regular farmer)*

> *"Yes you know now I can only guess the definition. I can get some kind of image in my head but I have never seen it while I have asked for it often." (farmer representation)*

Another shared belief is that every stakeholder chooses a version of a definition that fits their interests best. The interview respondents thought that in general, everyone considers the same elements (sustainability, nature and economy) when they think of nature inclusive agriculture, but that the focus differs. This difference will again be elaborated on in the section 'conflict'.

Warrants, rebuttals and backings

Almost all respondents all recognise a divide between nature and agriculture, although many said that this difference was decreasing too and that farmers and nature conservers came together more often. What many of the interviewees from all the different discourses also saw was that the amount of subsidies and/or the market price for products was not sufficient and that nature inclusive agriculture policy was often general or vague. This can all be seen in the Toulmin structural models of argument for each of the discourses.

Policy claims

The conditions that were shared most often for successfully implementing nature inclusive agriculture policy are communication, contribution and cooperation of all stakeholders. What these efforts should be invested in can differ, but usually include investments in knowledge, research and education, better land prices and renting contracts and subsidies to serve as a reward for farmers (although what the reward should be for is sometimes contested). Finally, some stakeholders, especially those that adhere to the traditional pragmatist discourse, believe that policy effort is put too much in effort itself and not results while the process of policy making should be reflexive.

Conflict

As was explained in chapter 2.1, conflict arises between discourses, sometimes also as a strategy to strengthen these discourses. As can be seen below, many conflicts exist of two dichotomous elements. As was mentioned in the theoretical framework, this makes people believe that there are two options in the discussion, making them more likely to choose one of the two than an alternative. It is not always as easy to identify conflict between stakeholders or discourses due to the nuances in the interview responses. Again, the downside of structuring this debate is hiding these nuances. It is therefore important to realise that these nuances exist before continuing through the different conflicts in discourses on nature inclusive agriculture.

Policy relevant information

As was said before and can be seen in the Toulmin models of argument, the policy relevant information differs per discourse. Even though the previous section indicated that hardly any respondent was explicitly against any of the policy relevant information given by the other respondents, the question is which of these points of policy relevant information have priority. Each discourse prioritizes differently: As mentioned in the Toulmin models, the environmental eco-modernist discourse focuses on the issues of climate change and environmental degradation; the natural eco-modernist discourse focuses on the issues of biodiversity loss and landscape degradation; the traditional pragmatist discourse focuses on food safety, farmer revenue and flexibility for farmers; and the win-win discourse focuses on the relationship between nature and agriculture and the use of nature for agriculture and the use of agriculture for nature.

There is also a difference in the definition that the stakeholders give nature inclusive agriculture, based on the policy relevant information of the identified discourses (See the Toulmin models). The most extreme perception, usually adopted by farmer (representation), retail & finance and stakeholders that adhere to the traditional pragmatist discourse was that each type of agriculture was nature inclusive. Some of these respondents were offended by the fact that this term indicated that there was nature exclusive agriculture too. Other stakeholders defined nature inclusive agriculture as a ‘type of circular agriculture’, with extra attention to nature, landscape and/or biodiversity. Respondents that adhered to the natural eco-modernist discourse, especially citizens and nature and environmental organisations, defined nature inclusive agriculture as ‘taking a step back’ in agriculture, away from intensification. These types of definitions, as would be expected, reflect the different discourses identified in the previous section. Finally some respondents identified nature inclusive agriculture as a new term for an old phenomenon, similar to multifunctional agriculture or agri-environmental management.

Saving the environment versus feeding the world

The largest difference between the stakeholders was a fundamental disagreement in priority between natural and environmental eco-modernist and traditional pragmatist discourse. Whereas respondents that adhered to both eco-modernist discourses wanted to protect and restore the environment, the traditional pragmatist sees the need to produce (for the world) as a priority. Which problem is bigger or more urgent differs between these discourses, even though all respondents understood both goals. The difference in perspective is mostly based on the scale in which each discourse views the world. The traditional pragmatist discourse identify the key role that the Netherlands plays in food production on which many people depend. Decreasing this production has a large impact on food availability.

> *"The demand fo dairy, altough there are some changes, but it is growing each year and quite a lot." (Retail & finance)*

Respondents that adhere to the natural and environmental eco-modernist discourse wonder why it is the responsibility for the Netherlands to produce for the world in the first place, especially if that leads to degraded environmental quality and biodiversity loss. Moreover, agriculture is dependent on the environment, nature and biodiversity, so if these are under threat, agricultural production will suffer too. These discourses therefore prefer globally spreading our knowledge on efficient agriculture with an additional side effect of smaller cycles and fewer transportation costs and emmissions for products. Finally, for the future of soil use, agriculture might not be the most profitable destination.

> *"There are many places in the world where production can be done more efficiently than in the Netherlands, and wage is expensive here and increasing in costs and you see for example in the pig industry that we can't even compete in the global market anymore because the population is so expensive. So I assume that we will be overtaken. So for me we certainly have a responsibility to spread our knowledge and skill but we certainly don't have to produce for the world." (Nature (management) organisation)*

Of course the environment is also important to stakeholders that adhere to the traditional pragmatists discourse because it is the key source of agricultural production and financial benefit. However, these stakeholders believe that farmers are already nature managers, that they have knowledge on how to work the land and that nature is already treated well enough. Some farmers questioned whether they were not compensated for this type nature manangement equally to terrain management organisations (organisations that manage large natural areas). Some (not all) respondents from the stakeholder groups of farmers, farmer representation and retail and finance even accuse Dutch nature policy of being based based on a 'pretty landscape' rather than any kinds of facts or reasons.

> *"I think that very simply said it [nature policy] is just very badly thought through and especially focussed on images, and possibly also focussed on just political considerations, so what do people like, no substansive considerations or intrinsic considerations." (Retail & finance stakeholder)*

The natural and environmental eco-modernist discourses, especially nature (management) organisations in their turn accuses the traditional pragmatists of calling each type of agriculture nature inclusive, which is not the case and which is can be harmful for the environment and consequently agricultural practice.

"Nature management is a profession just like agriculture is a profession and I appreciate that a lot. Sometimes it is being underestimated by the agricultural sector what terrain magagers do for nature magement. 'we can do dat too, and we can do it cheaper'. And practice learns that over multiple years, farmers cannot do it better. It even becomes more expensive." (Nature (management) organisation)

Nature and landscape versus climate and environment

Naturally there is a difference in priority between the natural and environmental eco-modernist discourse for climate change and environmental quality or nature and landscape. This is also reflected in the fact that the environmental eco-modernist discourse prefers the concept of circular agriculture while the natural eco-modernist discourse prefers a concept focused more on nature and landscape. Both topics are recognised as important and urgent but within these discourses, one was more so than the other. Some stakeholders, like the provinces, do not see this problem because the measures for these topics overlap. Others, like some farmers and the retail and finance stakeholders believed that there is a trade-off between the two.

"…and then I rather continue to the measures so what kind of measures people from water and climate or from agriculture are thinking about. It is better to make it a s concrete as possible because eventually we all want the same measures" (Policy maker)

The identification of a trade-off between nature and environment is reflected in the policy claims of the two discourses. The natural eco-modernist discourse is mainly focused on decreased production and extensivation. For the interview respondents extensivation always meant less input into the agricultural system and often also meant less output in the form of total agricultural production.

"It is partially extensification. You cannot keep intensifying in the agricultural sector. You have to go back. So certainly extensifying." (Nature (management) organisation)

The environmental eco-modernist discourse focuses less extemely on production and more on technical solutions to improve for example soil and water quality. Stakeholders that adhere to this discourse wonder whether it is production itself or practices coupled to production that are harmful to the environment often leading to the conclusion that the latter is a better place to solve environmental issues.

"Is extensification the answer to these problems? That is quite a hard one. I always first look, if you say agriculture has a negative impact on nature and environment and specie richness etcetera what the cause is of adjusting this impact? [...] Yes I really believe in the application of technologies and techniques with which you can counter the negative phenomena." (Policy maker)

Mutual benefits

The win-win discourse is based on the principle of mutual benefits. While hardly any respondent denied that there might be cases in which mutual benefits can arise, the extent to which mutual benefits can be created and whether these situations are applicable to the majority of farmers differs. Moreover, the mentions of trade-offs stand right across the ones of mutual benefits. The most extreme version of a win-win is one in which total production increases while nature and the environment are protected and climate change is mitigated. Examples of such win-wins are smart combinations

between arable and cattle farming, new technologies and innovations and efficient use of resources like manure and water. If production can increase while protecting nature, landscape, climate and environment, then theoretically no extra money is needed to support farmers. Hardly any stakeholder were this extreme. They recognised that many farmers are now in a financially difficult situation which cannot be fixed solely with the promise of mutual benefits. Nevertheless, the organic farmers and the natural farmer representation believed that their way of farming can be more financially profitable than conventional agriculture. Moreover, they believed it would take time for nature inclusive agriculture to become profitable as for example the soil needs time to restore which is why there is still a lack of research on how profitable nature inclusive agriculture measures can actually be. With the interests of above mentioned stakeholders being both the environment and the agricultural business, it is their job to advocate for a more sustainable way of farming.

> *"That there is insight in what you need and what you do in the company, how it works with the cycle, what influence it has on the environment and how that is translated to your emission. There is still a lot possible there because you have much more insight in how to close these cycles and what kind of effects it has on nature and landscapes you have and what the possibilities are. Certainly." (Farmer representation)*

> *"To say that if you do more nature and the production increases, yes then there would be more innovative things needed to reach that. That wont go that easy and we can't say what's possible in the future." (Regular farmer)*

Whereas the state initiated nature inclusive agriculture as an integral solution to economic and ecological issues, insinuating this stakeholder to be a supporter of the win-win discourse, many interview respondents from the stakeholder groups of province and state and policy documens in this analysis reasoned differently. Nature inclusive agriculture was now framed more as a necessity than a tool for creating mutual benefits.

> *"It needs to go differently: We need to go from constant costprice reduction to constant reduction in the use of nutrients by efficiently using our cycles." (Ministerie van Landbouw, Natuur en Voedselkwaliteit, 2019)*

Often, mutual benefits were defined as cooperations between nature and agriculture which required additional funding. The natural eco-modernist discourse for example recognised the value of pollinators, or the recreational value of an attractive landscape but didn't immediately couple direct finacial benefit to these values. Either the state or markets would have to come with additional funding to realise economic benefits for these kind of vaues.

> *"So I am of the opinion that nature inclusive agriculture will use nature better and that will also give economical benefits. But the production that you will design in a different way should also be taken up by a market which gives added value for that." (Retail & finance)*

While stakeholders like policy makers and organic farmers see the potential of mutual benefits, many stakeholders both adhering to the natural eco-modernist discourse and traditional pragmatist discourse are also critical about the extent to which these mutual benefits can arise. Some respondents saw examples of success, but couldn't see those examples being applicable for the whole of the agricultural sector in the Netherlands. Moreover, stakeholders like terrain management organisations

wonder whether it should be a goal to still increase production as can be seen in the Toulmin model for the natural eco-modernist discourse.

> *"Well agriculture in the Netherlands is already quite productive so I think that, I wonder whether that needs to be a goal, to see if production can increase with nature. Secondly I wonder if that is even possible." (Nature (management) organisation)*

> "*I almost find it a discrepancy. Yes I don't belief in it to be fair. A higher agricultural production coupled to a high quality of your biodiversity." (Policy maker)*

Policy and markets

It was difficult for respondents to identify who should pay for nature inclusive agriculture: The market or the state. Some believed that both had an equal share, some preferred one over the others and others believed that state funding was only used for transition periods, or in this case the transition towards nature inclusive agriculture. This point of conflict differed within and between discourses, as can be seen in the large overlap of codes in the Toulmin structural models of argument for the discourses in the sections of policy and funding.

First, many stakeholders were unsure and disagreeing about the role of consumers and whether they would be willing to invest in nature inclusive agriculture and whether they would be able to afford spending extra money on food. Many retail and finance stakeholders believed that a large group of consumers are in a financially difficult situation and that a few extra cents spent on consumer goods would already be too much. Many farmers and farmer representation stakeholders saw a slight increase in consumption of sustainable products, but feared that the majority of consumers were still focused on product prices rather than product origins and quality. Other stakeholders like policy makers did identify an increase in sustainable consumption and an increase in the curiosity of consumers for product origins as a sign that consumer behaviour is changing.

> *"The Dutch are cheap buyers. So in supermarkets we quickly choose the cheapest. Look at our horticulture products, the best and cleanest products, best paprika's and cucumbers are produced with the least chemicals in the world, but that goes for 80-90% abroad and then we get ourselves chemically sprayed mess from outside…" (Farmer representation)*

> *"I often hear that if you add a few cents on a product that you can apply certain biodiversity measures but that means increadiby much for Dutch households in practice." (Retail & finance)*

In terms of policy, some stakeholders thought national and provincial policy to be quite workable while others, often farmers and nature (management) organisations disagreed. Many stakeholders identified the need for both, a top-down framework from the state and an area-specific approach or initiative from the area. Some stakeholders like provincial politicians and nature (management) organisations stated that a gradient should be applied between natural areas and agricultural land with a decreasing amount of nature-inclusiveness while others, like farmers, preferred to see nature inclusive agriculture measures possible everywhere.

> *"Well you need a gradient in the landscape, so not a hard division. So you need a transition from dark green nature to light green nature and from nature to agriculture. So you need a gradient in which places with intensive agriculture are further away from nature. And in the*

transition zone you need extensive agriculture that takes into account the carrying capacity." (Nature (management) organisation)

"And I find it very unfortunate that there are many things that you can do, but only in certain areas while in other areas there is also a need for it." (Regular farmer)

4.3 Which policy claims are most powerful in terms of discourse structuration and institutionalisation?

The previous two sections explained which discourses were found and on what topics these discourses found affinity and conflict. Power is a central concept in critical discourse analysis for identifying which consequences above mentioned discourses have on nature inclusive agriculture policy implication. As was mentioned in the theoretical framework, power can be achieved by tools such as affinity and conflict, but it is measured through discourse structuration and discourse institutionalisation (Hajer, 2005). Discourse structuration is the adoption of a discourse by the amount and power of stakeholders that adhere to a discourse and discourse institutionalization is the adoption of a discourse in policy.

Discourse structuration

In this section, the power of each stakeholder or stakeholder group is analysed by looking at the interview responses based on other stakeholders. After that, the power of the coherent policy claims is analysed.

Power of stakeholders

As stated in the theoretical framework, power is not just a goal, but also a means. Power is not just the amount of times a discourse is mentioned or the amount of people that back each discourse but also the influence that these stakeholders have. For example, the farmer has a direct influence on what happens to his land. All efforts are initially to influence the farmer's decisions.

"For me it's mostly about how quickly you can bring the farmer to move to do it. And I have the feeling that it helps if you give the farmer financial incentive to get to it." (Policy maker)

Yet, farmers mentioned that they were dependent on the market (prices), the policy that was made and the banks and feed sellers that influence where their money comes from and goes to. These actors are therefore powerful in the sense that they influence the farmer's decision and therefore indirectly what happens on the land.

"I can tell the supermarket I have very good milk with no artificial manure in my grass and I kept all meaodowbirds and mouses. Then the supermarket will say 'that's nice '. Well then I want 20 cents per litre extra for my milk. Then the store says 'you can get the same milk price for it because if you don't deliver, then Germany will, or France or who knows where." (Farmer)

Markets, banks and companies related to the agricultural lands are in their turn also dependent on the government and the policy that they make. As was seen before, the national and provincial government mostly adapted the natural eco-modernist discourse, while there was some internal variation between the natural and environmental eco-modernist discourse. While the governmental views will be discussed in more detail in the section on discourse structuration, policy makers themselves are also important stakeholders as their personal visions are also translated in policy.

In their turn, governments and policies are dependent on the community that they represent. These include all aforementioned stakeholders but one in particular: Citizens. While especially little is known about this stakeholder group, their influence is perhaps the largest on policy makers, not only as voters but also for example as supporter for environmental organisations and perhaps most importantly, as consumers.

> *"People want to hear about nature policy because nature looks good. So yeah, then you adapt your policy to it, shorty and simply said." (Retail and finance)*

The role of consumer might be one of the most important roles but it is also one of the most controversial. In this case, the citizens that were interviewed had a high occurrence of the natural eco-modernist discourse, but many of the other stakeholders were sceptical about whether the same consumers would choose for sustainable products. Do they want to pay for added value and can they even afford it? Is this scepticism grounded or not?

> *"We can't say that we will all become organic and deliver organic milk because there is no market for it." (Farmer)*

In contrast to citizens, organisations are dependent on their lobbying power. Environmental organisations but also agricultural organisations constantly want to influence policies to favour them. Usually, lobbying power is decided financially, which would mean that the finance and retail sector and the farmer representation have quite some lobbying power. Nonetheless, environmental organisations, according to the interviews use their power of public support as a tool to convey their message and according to some quite effectively.

To synthesize, there is a complex web of power and interdependencies, but most of the stakeholders agreed that market and policy perhaps play the most important role in the implication of nature inclusive agriculture policy. This is mostly because of the financial power of these stakeholders over consumption choices. Money is of course a powerful tool, but so is representation in policy, and this is also where citizens play an important role.

Power of policy claims

There is not one dominant discourse, just like there is not a specific stakeholder group which is the most powerful in nature inclusive agriculture policy implication. However, there were a few points that all discourses and stakeholders agreed on. These points can be found in chapter 4.2 but will be summed up here briefly. Although the respondents didn't strongly disagree on the content of nature inclusive agriculture policy, each had different content-wise priorities. Note that most affinity arose on the topic of the policy implication and creation process rather than the content of nature inclusive agriculture policy. This is difficult because there cannot be action without a clear and widely supported content-wise idea. The first point of affinity is the necessity of proper communication, contribution and cooperation. The second point was for policy to become more result than effort-based. Finally, farmers deserve more financial compensation, although whether this compensation should come from market or state and on which kinds of measures this compensation should focus on was still debated among stakeholders.

A dominant policy claim does not have to be endorsed by all stakeholders. The most influential stakeholders were citizens, market and policy. The latter will be discussed in the next section, but this

makes the stakeholder groups of citizens and the retail and finance sector the most influential. Where the citizens in this analysis predominantly adhered to the natural eco-modernist discourse, it is expected that this stakeholder values natural areas and an aesthetic landscape. With their role as consumers, they have the opportunity to pay for the added value of these services, but too few respondents were interviewed and the stakeholder group is too large and diverse to say if they will.

The second stakeholder group, retail and finance, is believed to mostly adhere to the traditional pragmatist discourse. Although the importance of nature and environment is certainly high, so is farmer revenue and maintaining high production. Therefore, this stakeholder group values the policy claims that rely on technical and innovative solutions and the focus on the global scale of production and emission. Note that this is in some ways contradicting to the stakeholder group of citizens.

Discourse institutionalisation

The second way to measure power of a discourse is through institutionalisation, or the extent to which discourses or policy claims are translated into policy, nationally and provincially. As was seen before, the national and provincial government mostly adhered to the natural eco-modernist discourse, while there was some internal variation between the dominance of the natural and environmental eco-modernist discourse.

National policy claims

Nationally, the future of agriculture is mostly envisioned through the concept of circular agriculture. Circular agriculture, according to the state had many varieties, of which some are focused on nature protection and restoration. The state is divided on whether nature inclusive agriculture measures include extensification or technical solutions, which is reflected in the adherence to both the natural and environmental eco-modernist discourse.

For the environmental vision, the adherence to the natural eco-modernist discourse is larger which is reflected in policy claims for a liveable and characteristic rural area (Rijksoverheid, 2019). This document denotes overlap between measures for the environment and nature protection and a liveable rural area and a choice between technical solutions and extensification isn't made. The vision on agriculture, on the other hand, reasons more from a need to combat climate change and improve environmental quality (Ministerie van landbouw, natuur en voedselkwaliteit, 2019). It is also more focused on technical solutions and on a type of agriculture which is 'futureproof'. This does not mean production should increase any further (a little less production might be a favourable), but rather that production focuses on quality over quantity of goods, including the additional qualitative values of nature and environment.

For now concrete policy measures mostly focus on knowledge, research and education. The interview respondent saw examples where nature inclusive agriculture worked and explained that these best practices should be tested for effectiveness and then applied in conventional agriculture. Subsidies are meant to serve as a motivation for transition towards both 'circular' and 'extensive' agriculture, meaning that it cannot be a structural system of dependence for farmers. At some point, the market should naturally move to the higher quality and added services of nature inclusive agriculture products.

Provincial policy claims

The provinces are also divided on whether the content of nature inclusive agriculture means extensification or rather technical solutions, which is reflected in the high adherence of this

stakeholder group to both the environmental and natural eco-modernist discourse (see also appendix 6). Usually, provincial policy does not recognise trade-offs between measures for nature and landscape and measures for climate and environmental quality (although some interview respondents did), but rather an overlap in these measures. It should be noted that even though technical solutions can be found for a more sustainable type of agriculture, many doubted whether agricultural production would be the future destination for the majority of the Dutch landscape. With a landscape that becomes more and more pressured (living, industry, nature, etc.), primary production is no longer the number one financial beneficiary. Many therefore believed in a different destination for some of the agricultural land in the future (See appendix 6: provinces).

All of the analysed provinces have a high focus on stakeholder involvement and thus communication, contribution and cooperation between stakeholders. This can be seen in the 'actieplan natuurinclusieve landbouw' from the province of Gelderland (GNMF, 2019) and the 'agenda boer burger biodiversiteit' from the province of Drenthe (Partners Groenmanifest Drenthe, 2019), which were created partially through the province but by a large group of stakeholders which is involved in either nature or agriculture or both. The province of Noord Brabant aimed to direct itself to the individual farmers and to discuss for each a fitting nature inclusive agriculture strategy and funding system (Provincie Brabant, 2019). Another important element of provincial policy is a focus on funding and the agricultural business. Many worked or aimed to work with a reward system for farmers, to make it attractive for farmers to transition their business model to a more sustainable one. However, it should be noted that this reward system was often a motivator for transition and was not completely beneficial on its own but rather in combination with other financial compensation measures from e.g. the market (like certification schemes).

Synthesis

To summarise the above mentioned results, four discourses were found: (1) The environmental eco-modernist discourse aims to combat climate change and soil and water quality degradation. The consequent policy claims focus on circular agriculture and technical solutions. The national government and some farmers adhere most to this discourse. (2) The natural eco-modernist discourse aims to counter biodiversity loss and landscape degradation. The consequent policy claims focus on extensification and decreased production. Citizens, the provinces and nature (management) organisations adhere most to this discourse. (3) The traditional pragmatist discourse that values feeding the world and sufficient farmer revenue. The consequent policy claims focus on maintaining production, better revenues and more flexibility for farmers. Conventional farmers and the retail and financial sector adhere most to this discourse. (4) The win-win discourse beliefs in mutual benefits between the previously mentioned discourses. The consequent policy claims focus on investments in knowledge, research and education. Some organic farmers and provinces adhere most to this discourse.

All of the respondents adhered to some extent to each of the discourses and understood that there were different visions on nature inclusive agriculture, its definition and goals and agreed that the process of nature inclusive agriculture policy creation and implementation was insufficient. Communication, contribution and cooperation of all stakeholders is necessary for policy to become a success. The most striking conflict points between respondents were focused on the trade-offs on policy claims for feeding the world and protecting the environment and between endorsing climate change and the environment or nature and landscape. Opposed to these trade-offs was a belief in a system of mutual benefits, which was also debated. The final highly debated topic was whether funding would and should come from market or state and to what extent.

When considering discourse structuration (the amount and power of stakeholders that adhere to a discourse) and institutionalisation (the presence of discourses in policy), it becomes evident that citizens, markets and policy have an especially dominant role, which means that their policy claims have more influence on policy implication. Dominant policy claims for citizens were mostly focused on nature and landscape maintenance while the stakeholder group of retail and finance was mostly focused on meeting global food demands and ensuring sufficient revenue for farmers. This means that the dominant policy claims for nature inclusive agriculture policy in terms of structuration are in conflict. In terms of discourse institutionalisation, or which policy claims were found in national and provincial policy, both mostly adhered to the environmental eco-modernist and natural eco-modernist discourse. There was hardly a mention of a trade-off between the measures for climate and environment and measures for nature and landscape. The most interesting outcome of the last section is the difference between structuration where a conflict between nature and economy is evident and institutionalisation where it is not.

5. Discussion

This chapter discusses the results that were found in the previous section. Through discourse analysis, the use of Toulmin's structural model of argument, interviews and a document study, the presence of discourses, discourse affinity and conflict and discourse structuration and institutionalisation could be measured. In order to answer the main question 'What consequences do discourses on nature inclusive agriculture have on implication of nature inclusive agriculture policy in the Netherlands?', these results need to be discussed thoroughly. This chapter starts with comparing the results with the expected findings and related literature. Secondly, the theories and methods used are discussed. Finally, recommendations for future research are made.

5.1 Reflection on the results

In this section, the results are analysed critically with the help of the expected findings and literature from comparative research. The chapter is structured by the research questions as identified in chapter 1.

What discourses can be identified on nature inclusive agriculture and which stakeholders adhere to these discourses?

A discourse was identified as the 'argumentative reality' behind a discussion which indicates how people give meaning to phenomena (Hajer and Versteeg, 2005). If a discourse is dominant, it decides whether and how nature inclusive agriculture will be implemented. This section explains which discourses were found and which stakeholders adhered to these discourses and compares these findings to the expected findings and literature.

The expected findings were based on research by Hajer (2005) and Chaigneau (2016) and stated that three discourses were most likely to be found in the discussion about nature inclusive agriculture: The eco-modernist discourse which focuses on policy transformation towards a sustainable future, the traditional pragmatist discourse which focuses on food safety and farmer revenue and the win-win discourse that advocates a scenario of mutual benefits between these two (See chapter 3.2 hypotheses).

The analysis indicated that the eco-modernist discourse actually existed of two discourses: an environmental eco-modernist and a natural eco-modernist discourse. These results were based on three statements in the semi-structured interviews. Each statement represented a discourse from the expected findings upon which respondents could react. In these reactions, a difference was made between the global environmental scale and the local nature and landscape scale. Interview respondents often explicitly mentioned the existence of a trade-off between environmental and nature protection measures. The traditional pragmatist discourse and the win-win discourse were identified similarly to the expected findings and the analysis of Hajer (2005). However, the traditional pragmatist discourse sometimes identified need for sustainability, not as a goal but as a means for the continuation of food safety and farmer enterprises. This was a novel addition to the expected findings.

It should be noted that discourses are expressed differently per person. None of these discourses are all-encompassing or mutually exclusive. Toulmin's structural model of argument is a simplified version of reality which helps us understand the world around us. Hajer (2005) himself insinuated that there

were multiple 'sub-discourses' carrying the same storyline as the 'traditional pragmatist' or 'eco-modernist' discourse with different details.

Additional literature showed a similar phenomenon. Chambers (2018) identified multiple types of win-win discourses in her study on sustainable development projects in the Peruvian Amazon: Protection, community and incentive-based discourses. Even though the situational context of this study is very different, it could indicate that the discourses identified in this analysis are actually 'discourse groups' of multiple smaller discourses.

The second part of this research question focused on which stakeholders adhered to the discourses that were found. The expected findings indicated that stakeholder groups of retail and finance and farmers would adhere to the traditional pragmatist discourse most because of the economic context they work in. Nature (conservation) organisations would adhere most to the eco-modernist discourse and policy makers were expected to adhere most to the win-win discourse (See chapter 3.2).

For this study, all participants partially adhered to each discourse. The nature (management) organisations, government bodies and citizens adhered most to the natural eco-modernist discourse, and second-most to the environmental eco-modernist discourse. However, the expected result was that the win-win discourse would be dominantly present in the government bodies because of its ability to build bridges. Chaigneau (2016) explains that this discourse is used to induce support because it promises different people adhering to different discourses a beneficial situation. However, he also states that this discourse sometimes induces the opposite effect when it is not able to deliver this beneficial situation (yet). It could perhaps be the case that the national government turned away from the promise of mutual benefits because of this. As the results showed, hardly any stakeholder believed in mutual benefits, or they only believed it partially. The retail and finance stakeholder group and farmers adhered to the traditional pragmatist discourse most. This is in accordance with the expected findings as stated above.

Which discourses show discursive affinity which discourses are conflicting and on what topics?

Sometimes, discourses show commonalities also known as 'discourse affinity' which can make it easier for policy to adjust to the claims of the stakeholders. Other times, conflicts between discourses can create a seeming 'dichotomy', creating the assumption of two choices, also making each discourse more powerful. This section analyses the results, expected findings and literature on discourse affinity and conflict for above mentioned discourses.

The expected findings explained a dichotomous relationship between the eco-modernist and traditional pragmatist discourse (Hajer, 2005). Points of conflict were expected to be the role of science (the precautionary principle or the need for full proof), the role of policy (does policy have to play a part in nature conservation?) and the priority of policy claims (protecting the environment or providing food safety and farmer revenue). The win-win discourse was expected to have discourse affinity with both the eco-modernist and the traditional pragmatist discourse, because of its ability to focus on mutual benefits rather than trade-offs (Chaigneau, 2016).

In the results, both internally and between the identified discourses affinity and conflicts arose. In accordance to the expected findings, there was more conflict than affinity. Many stakeholders identified trade-offs in nature inclusive agriculture policy. Similar to the expected findings which were based off of Hajer's analysis on discourses in the topic of acid rain (2005), the results showed a

substantial difference between the traditional pragmatist and the (natural and environmental) eco-modernist discourse in the aim of feeding the world versus saving it from environmental degradation, biodiversity loss, etc..

The traditional dichotomy between sustainable development and economic growth is one that many researchers argue to be false (Rajeswar, 2001; Boyd, 2004). Munier (2006) even goes as far as to state that an equilibrium between nature protection measures and economic measures is optimal for both. Even more so, a recent publication of the Dutch 'Planbureau' and a Dutch bank called 'de Nederlandse Bank' published a report about the interdependency between biodiversity and finance and how environmental degradation has a billions of euros impact on the economy (van Toor et al., 2020). This analysis didn't find a dichotomy between nature and the economy but rather a situation in which the economy is dependent on nature.

Whereas the trade-off and dichotomy between environment and economy or consumption is being analysed quite often (Hajer, 2005; Munier, 2006; Den Butter & Verbruggen, 1994; Kågeson, 2012), research on possible trade-offs between climate and nature remains an untouched field. Climate versus nature was the second dichotomy that was mentioned surprisingly often. The main example of such a trade-off was the notion that if agricultural production would decrease in the Netherlands, it would increase somewhere else, in a much less efficient way and more harmful to the environment there and eventually also here.

A conflict between and within the discourses arose on the topic of funding through state and market. While some believe one or the other to be responsible for financial compensation of farmers others assume only one or the other to be able to. This can be related to a centuries-old discussion between free markets and state regulations (Landreth & Colander, 2002) and to the more current pressing matter whether the capitalist system will be able to adapt their free markets towards sustainability, or whether a new system is required (Martin, 2016; Lovins & Lovins, 2001; Blühdorn, 2017). Just like the respondents, researchers are still not agreeing what the best strategy would be. As it turns out, the interview respondents found this topic important and relevant to be discussed.

The idea of mutual benefits between nature, environment and economy, which was assumed in the expected findings, can be debated. While many interviewees supported the idea of a system of mutual benefits, many were also very critical towards this vision or believed it to be impossible or impractical. Each interviewee recognised some or more nuances or trade-offs that this discourse didn't incorporate. Chaigneau (2016) recognised the same when he discovered that for marine protected areas, the notion of mutual benefits also had a negative effect on support for these areas once the stakeholders did not see benefits or results themselves.

Looking back at the expected findings, the main elements of conflict were not the role of science or the urgency of policy transformation. Moreover, there was not only conflict between the eco-modernist and traditional pragmatist discourse, but also within these discourses. While the expected findings indicated that such differences were key, they were not found back in the analysis.

Affinity between discourses arose when the respondents did not talk about the content of nature inclusive agriculture policy, but rather the process of policy making, implementation and funding. The specific policy claims that all discourses shared a similar opinion on were clear communication, contribution and cooperation of all stakeholders. Clearer communication on the differing definitions

would streamline communication between the different stakeholders. Other affinity claims are a focus on knowledge, research and education and a reflexive and result-based policy process, rather than effort based. Finally, farmers need a higher financial compensation for their products, especially if these contribute to environmental and societal quality. This could be done by informing the consumer about product origins so that they make more aware consumption choices. It was not expected that so many policy claims would focus on the process of policy making so much compared to the content of this policy. Moreover, affinity on the process is a good means for cooperation between stakeholders, but it is not very useful if there is a lot of conflict on the content of nature inclusive agriculture policy.

Which policy claims are most powerful in terms of discourse structuration and institutionalisation?

When discourses are the most powerful, they lead to the advocacy of coherent policy claims. Policy claims are statements that discourses make based on their observation and argumentation on what policy should look like. Through the use of policy claims and their power, consequences of discourses can be identified. Power is often measured through the amount and type of stakeholders that adhere to a discourse (discourse structuration) and whether this discourse is used in policy or institutions (discourse institutionalisation). Discourses thus have consequences in the shape of policy claims they adhere to dependent on how much power they have that decide whether and how nature inclusive agriculture policy is implemented.

The hypothesis explained that the agricultural lobby is an influential and powerful one. However, a discourse analysis on European agricultural policy identified the presence of many different discourses in this policy and noted that this policy was a compromise (van Hoof, 2017). Nevertheless, the win-win discourse was expected to be most dominantly present in nature inclusive agriculture policy. This discourse has the ability to build bridges between the two previously mentioned discourses. Moreover, the win-win discourse is often consciously used by policy makers to create public support (Chaigneau, 2016).

First of all, the policy claims that through discourse affinity were found in all four discourses are dominant. These are mostly policy and funding related claims. As mentioned in the previous section, these claims are: better communication, contribution and cooperation of all stakeholders involved with nature and/or agriculture, a focus on knowledge, research and education and a reflexive and result-based policy process, rather than effort based. It was not expected that so many policy process related claims would be used and used often by many stakeholders. However, it can again be questioned whether these points of affinity are useful, especially if there is still disagreement on the content of nature inclusive agriculture policy.

From the interviews, the market, policy makers and citizens were derived as the most influential stakeholders with most impact on policy implication. While citizens that were interviewed mostly supported the natural eco-modernist discourse, the sample group was too small to state if the majority of citizens (which is a large and diverse group) would also support this discourse. Nevertheless, it can be said that the retail and finance stakeholder group mostly adheres to the traditional pragmatist discourse, which was expected in chapter 2.3. While it can be said that this sector does recognise sustainability as an important matter, the focus on a global scale of production and efficiency provides incentive to maintain production. It thus cannot be said with certainty which discourse with coherent policy claims is dominant. Based on the results, the assumption would be that the natural eco-

modernist and traditional pragmatist discourse and their policy claims on agricultural intensification and extensification are both the most powerful.

In terms of discourse structuration (to what extent discourses and policy claims can be found back in institutions and policy), the province and the state adhered most to the environmental and natural eco-modernist discourse with policy claims supporting both nature and the environment. Therefore, the win-win discourse is not the dominant discourse for policy, which was assumed in the expected findings. Although Chaigneau (2016) and Chambers (2018) saw the potential for broad support and the conscious use in policy of his discourse, they also warned for the potential threat of losing credibility. This could be the reason why the government does not adhere to this discourse but rather to the environmental and natural eco-modernist discourse, stressing the urgency to change the systems we now use. Moreover, rather than seeing a trade-off between environment and climate or nature and landscape, governments noted that measures for these two rather overlap.

5.2 Reflection on analytical framework

In this section, the theories and methods that were used will be analysed critically. The theories were critical discourse analysis and Toulmin's structural model of argument. After discussing these theories, reliability and validity of this analysis are discussed.

Critical discourse analysis

Discourse analysis is a broadly used theoretic framework for identifying argumentative realities behind discussions (Hajer, 2005; Chaigneau, 2016; Chambers, 2018). This framework was chosen because it uses the constructivist perspective, or the assumption of multiple realities based on background and context of the subject (see chapter 2.1). One of the advantages of discourse analysis, according to Van Herten and Runhaar (2013) is that identifying discourses can serve as a beginning for a new type of shared discussion which can decrease conflict because of increased understanding. As within these interviews alone, many assumptions were made about fellow stakeholders, this can also be the case for nature inclusive agriculture policy.

A critical voice for discourse analysis, specifically critical discourse analysis is Ruth Breeze (2011) who sums up the criticisms around critical discourse analysis. She notes that researchers are often too critical, the term critical is hardly ever defined (she doesn't attempt to define critical herself) and that the tone of critical discourse analysis is often too negative (this type of analysis is hardly used on positive changes in society). Most importantly, the researcher often consciously takes a political stance and is a member of, rather than an objective view on the discussion. This can influence the way analysis is done, especially how data is interpreted and what results will come out. Breeze (2011) also identified that critical discourse analysis hardly ever had a set theoretical background and that researchers often use a mix of theories and concepts to make critical discourse analysis workable. These theories and concepts are not always compatible, and not always properly clarified, which makes it hard for the reader to be critical. I also had difficulty with finding a theoretical background for critical discourse analysis, but I hope to have contributed to a workable theoretical background with the use of Toulmin's structural model of argument, which I will come back to later. In terms of taking a political stance which influences analysis, I tried to understand the multiple political stances during the interview phase and the analysis afterwards. As I identified myself most in the natural eco-modernist discourse, this

realisation made it easier to consciously try to understand the other discourses. Finally, I did not attempt to define critical, aside from my interpretation of critical discourse analysis.

Many discourse analyses also look at grammar and linguistic features, as discourse analysis usually has the ability to identify what linguistic styles are used by which stakeholders or discourses (Fairclough, 1992). Due to feasibility and time, this was unfortunately not possible, although I did find stylistic elements used by specific stakeholders multiple times about nature inclusive agriculture, like 'old wine in new sacs', 'can nature not become agriculture inclusive' and 'does this mean that there is also nature exclusive agriculture?'. Linguistic style is known to be an important element of persuasion (Johnstone 1989), and it would be interesting for future research to couple this to the content of the texts.

To conclude, critical discourse with its criticisms, was a useful theory for this analysis because it provided a perspective of multiple truths while providing the opportunity for a political stance. Moreover, this type of analysis provides the opportunity to contribute to societal change, which makes it more valuable than regular discourse analysis.

Toulmin's structural model of argument

The methodological tool used to express discourses was Toulmin's structural model of argument. This model is a structural way to identify and display discourses. The model was chosen because of this structural display and because van Herten and Runhaar (2013) already applied this model to discourse analysis because arguments, if taken to a higher abstraction level can become similar to discourses. While the advantage of using Toulmin's argument theory is its clarity and user-friendliness, the disadvantage is that the strong simplification might hide the nuances of the story, thereby questioning its measurement validity. Nonetheless, simplification is necessary to come to generalisable conclusions and perhaps nuances can be explored in further research.

Newman and Marshall (1991) critically analysed Toulmin's structural model of argument and came to the conclusion that elements necessary for this scheme frequently do not show up in a discourse and that it is sometimes ambiguous how to classify a statement. They also wondered whether this structure is applicable to so many different situations and contexts. This was something I also experienced because the Toulmin models were based on codes of respondents' answers which didn't always led up to a correct and fitting story. Sometimes, the connections between for example warrants and policy claims were hard to find. Therefore, Toulmin's models in this analysis sometimes included seemingly separate elements.

Moreover, the connection between critical discourse analysis and the argument theory which is used by Toulmin's model can be debated. Generally, argument theory is used on a different abstraction level as discourse analysis as discourses are the argumentative reality behind a discussion or an argument. Toulmin's model will thus have to be taken to a higher abstraction level. It could be questioned whether this was done successfully, because what is essentially the difference between an argument and a discourse? For this analysis, arguments, ideas and assumptions were used in Toulmin's model. As van Herten and Runhaar (2013) also identified the similarities between arguments and discourses and because the policy claims were an essential addition for analysing consequences (as mentioned before, policy claims are statements on what policy should look like based on arguments and assumptions. If policy claims are the most powerful, they will be implemented and thus have consequences), Toulmin's model is still considered to be the best alternative.

Reliability and measurement validity

Reliability is the amount and range of random error that can occur in an analysis. Measurement validity is the possibility for systematic error in the analysis (Kumar, 2014). Both of these elements are essential for a correct display of results but should also be discussed critically.

In this study, reliability is ensured by using reliable research tools such as a recording device, interview transcription from the recording and coding with a coding programme (ATLAS.ti). To ensure high reliability for the interviews, the questions are formulated as unambiguously as possible and the interview has a set-up that begins structurally with the help of an interview guide. Moreover, the interview guide was tested before use. Nonetheless, interviewing humans always comes with an expected random error because of changed behaviour caused by the interview. For example, someone can give more politically correct responses because they might feel like they are being judged (Kumar, 2014). Because many of the interviews were via the telephone, this error is expected to be smaller because it creates a seeming larger distance between interviewee and interviewer.

One of the most important points of debate in this paper is the influence of the topic towards the interview responses. As the topic is 'nature inclusive agriculture', the words itself indicate different themes: agriculture, nature and inclusiveness. There is a probability that these themes occurred more due to this topic. For example, if a stakeholder was asked what the definition was, they were very likely to mention something about nature, because nature was already part of the term. This could also explain why the natural eco-modernist discourse was dominantly present in for example citizens. Another important topic to discuss is a personal agenda in the answers given (Kumar, 2014). Different stakeholders want different things to happen, and the responses they give will have to contribute to their goals.

Moreover, the semi-structured set-up of the interview can also negatively influence reliability because some of the questions, especially follow-up questions, will change per interview. Having one interviewer increases consistency and thus internal validity but it can also cause a standardised bias as my personal discourse can influence the interview outcome. Another form of standardised bias could be the translation bias. Because the language of the interviews is Dutch and the language of the report is English, some points may have been lost in translation.

Finally, the method of inductive coding with deductive elements as explained in chapter 3.5 is very uncommon. This decision was made because an earlier created coding scheme was insufficiently representative of the interview responses. Of course the deductive elements can harm the measurement validity of this analysis because it influences the perceptions of me as a researcher. However, this decision was made because the results would be more meaningful and representative of the interview responses this way.

The overall judgement is that many efforts have been made to ensure reliability and measurement validity in this analysis and in the possible timeframe. However, some major issues can be identified, of which the most important one might be that the concept of nature inclusive agriculture in itself contains research bias. As it is hard to analyse discourses on nature inclusive agriculture policy without the mention of nature inclusive agriculture and because this analysis is the first of its kind, this issue will need to be accepted, but also considered in the conclusion.

External validity

This section explores to what extent results are generalisable for the target group beyond the sampling frame, which is called external validity (Kumar, 2014). The external validity is influenced by measurement validity and reliability, but also by internal validity, or whether the conclusion fits the research question and how valid this conclusion is (Kumar, 2014). Source triangulation of the documents and the interviews increases internal validity, which in its turn increases external validity. The results showed that both the interviews and the documents generated similar results. Source triangulation is a commonly used tool to ensure validity.

Nevertheless, the sampling strategies used for both the interview respondents and documents have a low external validity, as they are not random and the interview group is thus not a random representation of society. Snowball sampling has the additional risk of selection bias, just like the willingness to participate in the study for all the respondents. Moreover, using four different sampling categories and thus having a small sample size per stakeholder group also decreases the representativeness of the results for each stakeholder group. However, narrowing the stakeholder group was not possible because I wouldn't be able to answer the main question that way. Finally, the upcoming trend of 'circular agriculture' and other relatable terms like organic agriculture, multifunctional agriculture and extensive agriculture can harm the validity of this research as they are not clearly delimited and used haphazardly by many stakeholders in different ways. This could make the analysis less valid as respondent's interpretations and uses of these concepts differed.

By having a diverse sampling group that includes multiple different stakeholder groups, it is ensured that the results can be better extrapolated to the Dutch society. This is important, because it fits the research goal. However, only provinces with existing nature inclusive agriculture policy were chosen for analysis. This can give a diffused image about provinces in general because some provinces have no nature inclusive agriculture policy at all. Moreover, situational factors might influence external validity such as the time of the interviews. Spring is the time that people venture outside and it could be possible that during springtime, appreciation for nature is increased.

A key example of the situation during this research being different than usual was the COVID-19 pandemic which probably influenced the outcome of this research. Firstly, the pandemic was mentioned in the majority of the interviews and coupled to the topic at hand. For example, many respondents stated that the pandemic hid the discussion on nature inclusive agriculture, but also that it showed just the importance of sustainability. Other stakeholders explained the importance of the Netherlands being able to produce for itself. Therefore, it is assumed that this pandemic influenced the answers that were given.

To conclude, while many efforts have been made to ensure reliability and validity, some major question marks can be placed upon the validity of this research. However, it should be noted that this analysis being the first of its kind on this topic, its purpose is mostly to build theory which can then be proven or changed in future research.

5.4 Future research

Analysing discourses on nature inclusive agriculture policy is important both scientifically and societally because it might explain why nature inclusive agriculture policy is not yet widely implemented and whether it will be able to in the future. In history, environmental issues were often analysed through a realist perspective in which the problem is taken for granted (Hajer, 2005). However, this perspective would mean that for example the 'environmental' reality is held back by rhetoric, thus losing insight in the political process (Hajer,, 2005). Analysing this rhetoric or in this case discourses, on the other hand, gives more insight in this political process and puts this environmental discussion in a novel light of different people offering different solutions in the shape of policy claims to the issues they identify.

As this research was the first broad exploration of discourses in the field of nature inclusive agriculture, it is highly advised that further research is done. First of all, the independent replication of research can either confirm the theory built in this analysis or debunk it. Multiple perspectives on the same topic will be able to decrease the intervention of personal experiences of a single researcher in the selection process. Moreover, it has been noted that citizens are the most interesting group as they have a large influence on policy and consumption, while the least is known about this stakeholder group (Frantzeskaki et al. 2016). As was mentioned before, especially the stakeholder groups of citizens was considered to be too small. Therefore, a study solely focused on citizen discourses (possibly focused on their role as consumers) can be an interesting addition to knowledge on nature inclusive agriculture policy and more broadly sustainable development policy.

Secondly, the mention of some topics that were not relevant enough for the scope of this research but are relevant for the topic of nature inclusive agriculture can be interesting for future research. For example, the common agriculture policy and its revision were often mentioned as an important element of nature inclusive agriculture policy in the interviews and while the topic was outside the scope of this research, it is interesting to compare national and European policy and the discourses that can be found in both. For example, are discourses, policy claims and consequences on that level similar or different and why? Another interesting topic is the relation between circular agriculture (agriculture that uses as little inputs as possible and tries to re-use nutrients as much as possible) and nature inclusive agriculture. No respondent was completely sure how the two related to each other and some of the respondents mentioned that they preferred circular agriculture over nature inclusive agriculture. Moreover, this research was focused on dairy agriculture while there are many other types of agriculture which might be interesting to compare, like arable farming or a more specific type of agriculture. A few respondents also mentioned the role of age in the nature inclusive agriculture discussion and how there is a trend of a taboo among farmers about nature inclusive agriculture which is occurring less and less. It would be interesting to analyse how perspectives change over time and to test whether the presence of the eco-modernist discourse increased in history.

Finally, the role of the win-win discourse in building bridges between other discourses is a topic which is very interesting for future research. It can still be debated whether strategic use of win-win discourses can be done successfully for broad discourse support and whether and how many stakeholders believe in the presence of a win-win. This is interesting because as we identified, the win-win discourse is sometimes used strategically to gather support, but that wouldn't be necessary if it wouldn't work.

6. Conclusion and Recommendations

Based on the results and the discussion, some conclusions and recommendations can be distilled. Again the order of the research questions is used. First, the discourses are identified, together with the stakeholders that adhere to these discourses. Second, discourse affinity and conflicts are identified and third, discourse structuration and institutionalisation are measured after which a general conclusion can be given on what the consequences are of discourses on nature inclusive agriculture policy on policy implication. The conclusions finally lead to four recommendations for policy makers which can help nature inclusive agriculture policy become more successful.

What discourses can be identified on nature inclusive agriculture and which stakeholders adhere to these discourses?

This study aimed to explore what different discourses could be found in the topic of nature inclusive agriculture in order to understand how these discourses influence nature inclusive agriculture policy implication. This analysis identified four different discourses: The environmental eco-modernist discourse advocates action against climate change and environmental degradation. The natural eco-modernist discourse advocates biodiversity recovery and restoration of the (natural) landscape. The traditional pragmatist aims to produce for the world and ensure sufficient revenue, flexibility and an improved image for farmers. Finally, the win-win discourse advocates that mutual benefits are possible between the other discourses and that one doesn't have to go at the expense of the other. Interesting is that all stakeholders adhered to some point to each discourse, which indicates a nuance which is not always present in the public debate. While the retail and finance sector adhered more to the traditional pragmatist discourse the eco-modernist, and especially the natural eco-modernist discourse occurred in the stakeholder group of nature (management) organisations, national and provincial government and citizens. The win-win discourse had quite a low occurrence in the majority of these stakeholder groups compared to the other discourses.

Which discourses show discursive affinity which discourses are conflicting and on what topics?

Each discourse had its personal nuances and there were similarities and differences between discourses (affinity and conflict). The most striking similarities were focussed on the process of policy making. Success would only be achieved through communication, contribution and cooperation. Moreover, stakeholders agreed on an increased financial compensation for farmers (although what for specifically was debated), result based policy and a focus on knowledge, research and education. Finally, an improved conscience of product origins towards consumers was a broadly shared policy claim. However, even with so many points of affinity, stakeholders might disagree on the content of nature inclusive agriculture policy. The most striking conflicts were focused on the trade-offs between feeding the world and protecting the environment and between climate change and environment and nature and landscape. Secondly, the presence of a situation of mutual benefits between any of these trade-offs was debated. Finally, a highly debated topic was whether funding would and should come from market or state and to what extent.

Which policy claims are most powerful in terms of discourse structuration and institutionalisation?

The policy claims that had discourse affinity were identified as dominant policy claims. Moreover, dominant stakeholders were citizens, market and policy makers. The policy claims that they supported came from different discourses, however, and it is very questionable whether the stakeholder group

of citizens is representative of the whole. Nevertheless, markets are still very focused on production, reasoned from a global perspective in which we efficiently provide for the world. Policy on the other hand adheres most to the natural and environmental eco-modernist discourse and sees measures for nature and environment as overlapping.

What consequences do discourses on nature inclusive agriculture have on implication of nature inclusive agriculture policy in the Netherlands?

As was mentioned before, consequences are interpreted as the most powerful policy claims. Content-wise, there seem to be some major conflicts between policy claims concerning trade-offs for nature inclusive agriculture policy. The largest trade-offs exist between policy claims advocating the economy and food safety, nature and landscape or environment and climate. In terms of discourse structuration, policy claims for the economy and for nature were the most dominant while being in conflict. Another point of conflict is whether and in what ways mutual benefits are realistic. If they are not, additional funding is needed for successful nature inclusive agriculture implication, but is this the responsibility of market or state? An improved process of communication, contribution and cooperation are shared policy claims of the majority of stakeholders which could lift nature inclusive agriculture towards success if institutionalised into policy. According to the results, policy also needs to become more result than effort-based and consumers need to be better informed about product origins. It can be questioned whether these process related policy claims are sufficient to successfully implement nature inclusive agriculture policy despite of the conflicts. Above mentioned trade-offs could very well cause a stand-still of nature inclusive agriculture policy implication, especially when they are not being discussed thoroughly in policy.

Recommendations

While nature inclusive agriculture policy is at the beginning of its implementation phase, discourse analysis can give an indication on how policy implication will occur. As the conclusion indicated, nature inclusive agriculture policy is not just a story of mutual benefits, but also one of trade-offs. This makes the process of policy making more complex as different discourses fight for dominance, rather than being able to share it. What I understood from the respondents was that a focus on mutual benefits is not always realistic, but that a focus on mutual understanding is. The respondents saw that successful nature inclusive agriculture management was based on a good relation between policy makers and other stakeholders from different backgrounds, together with fruitful discussions on the future of agriculture, nature and environment. Recommendations for policy makers based on the stakeholder's policy claims are:

- Facilitate discussions and communicate choices: Policy will always exist of the choice between certain trade-offs. For example, not all farmers can be saved but not all agriculture can be extensified. Not all stakeholders will be pleased. This is why policy makers should realistically communicate what choices they had and which choice they made and why. It is also important that whenever a choice is made, stakeholders from different backgrounds are involved in the discussion, preferably together so that they understand where other stakeholders come from too. This might decrease negative attitudes towards policy choices.
- Focus on knowledge, research and education: If situations of mutual benefits between nature and agriculture are feasible, they should be well-grounded in the scientific world and this knowledge should be properly dispersed to all stakeholders that are involved with agriculture.

Even though many respondents were also sceptical about this focus, it is the only way to scientifically identify trade-offs and situations of mutual benefits.

- Ensure or facilitate area-specific policy: As was seen in the provinces, cooperation in the area is an essential element for stakeholder support and change. Moreover, each region is profoundly different in terms of culture, type of agriculture environment and economic situation. By adjusting policy measures to theses specific circumstances, it can become more concrete. Moreover, stakeholders can be more involved, which increases policy support. However, it should be noted that this does not imply only local action. On the contrary, the state can facilitate the creation of such policy.
- Inform consumers about product origins: Whether consumers only look at product prices or become more aware of the impact of their consumer products, it is never a bad idea to stimulate such awareness by showing consumers which products for example originate from the Netherlands or what type of sustainability or nature inclusive measures were taken.

As this analysis is the first of its kind the first steps were made to build theory on the consequences of discourses on nature inclusive agriculture policy. However, it is highly recommended to pursue future research on similar topics to contribute to theory-building on the consequences of discourses on nature inclusive agriculture policy.

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Appendices

Appendix 1: stakeholder list

Stakeholder	Stakeholder group	Relevance
Citizen (x2)	Citizen (initiative)	Citizens are consumers of agricultural products but also a large group of voters thus having a Large influence on policy. In this case, citizens with no experience or knowledge in the field of nature inclusive agriculture are targeted because their opinion is especially unknown.
Citizen initiative	Citizen (initiative)	A way for citizens to express themselves is through joining a citizen's initiative in which they either work voluntarily for something or represent something or someone as a lobby organization. This group of stakeholders exists of citizens that are involved with the topic of nature inclusive agriculture while not having a formal role.
Dairy farmer (x3)	Farmer (representation)	Farmers have a direct influence on (Nature inclusive) agriculture. Dairy farmers are the most common type of farmers in the Netherlands (CBS, 2020, 2). Many dairy farmers keep a conventional farming method while few are adopting nature inclusive agriculture.
Arable farmer	Farmer (representation)	CBL is an organization of which the majority of supermarkets are a member. They are a lobby organization for retail and a platform for inspiration and sharing knowledge. The retail is an essential actor for food pricing and consumption.
Farmer representation organization (x2)	Farmer (representation)	This is an organisation in the sector of agriculture and/or horticulture that represents the needs of these sectors. They are legitimised through membership of farmers and represent them on local, provincial and national scale in policy but also facilitate cooperation and knowledge-sharing. Some organisations are more focused on regular farmers while others represent organic or sustainable farmers.
National Government	National government	This stakeholder creates policy on nature inclusive agriculture on a national scale. This ministry is specifically responsible for nature and agriculture and is therefore the key stakeholder group of the national government for nature inclusive agriculture policy.
Terrain Management Organisations (x3)	Environmental/nature (management) organisation	This stakeholder manages large acres of land. They manage nature but also agricultural land which is then rented by farmers. They often lobby at or cooperate with

		the state and organize activities focused on education and research.
Environmental organisation	Environmental/nature (management) organisation	This stakeholder advocates for climate measures at different levels (globally to locally) by lobbying, discussing and organizing activities.
Province of Noord Brabant	Province	This stakeholder creates policy on nature inclusive agriculture on a provincial scale. Noord Brabant specifically has an individual-farmer-based approach towards nature inclusive agriculture in which they try to take away any barriers for individual farmers that want to transition their business model towards nature inclusiveness.
Province of Drenthe	Province	This stakeholder creates policy on nature inclusive agriculture on a provincial scale. Drenthe is one of the provinces that signed the green deal with the state on nature inclusive agriculture. Therefore, their approach is joint with the state.
Province of Gelderland	Province	This stakeholder creates policy on nature inclusive agriculture on a provincial scale. By creating an action plan with all relevant stakeholders in the province, they choose an integrated approach.
Retail (x2)	Retail and finance sector	The retail sector is responsible for the product chain. They range from buying the primary product (in this case dairy) from farmers to processing, transporting and finally selling to the end-consumer. This group therefore entails processing and transporting companies, food brands and supermarket chains. This sector will ensure a reasonable profit and is known for its strong lobby at the state. Farmers are often dependent on the prices that retail gives them.
Banks	Retail and finance sector	Farmers are financially reliable on banks for their loans and investments. Banks usually want a stable and large profit on these loans which means partially, farmers rely on their criteria.

Appendix 2: Dataset Dutch national policy documents and stakeholder documents

All documents below are composed by national government bodies including the central government, the ministeries and the parliament. Documents have been searched from 2018 onwards. These documents are shown with the responsible region and reasoning for its relevance:

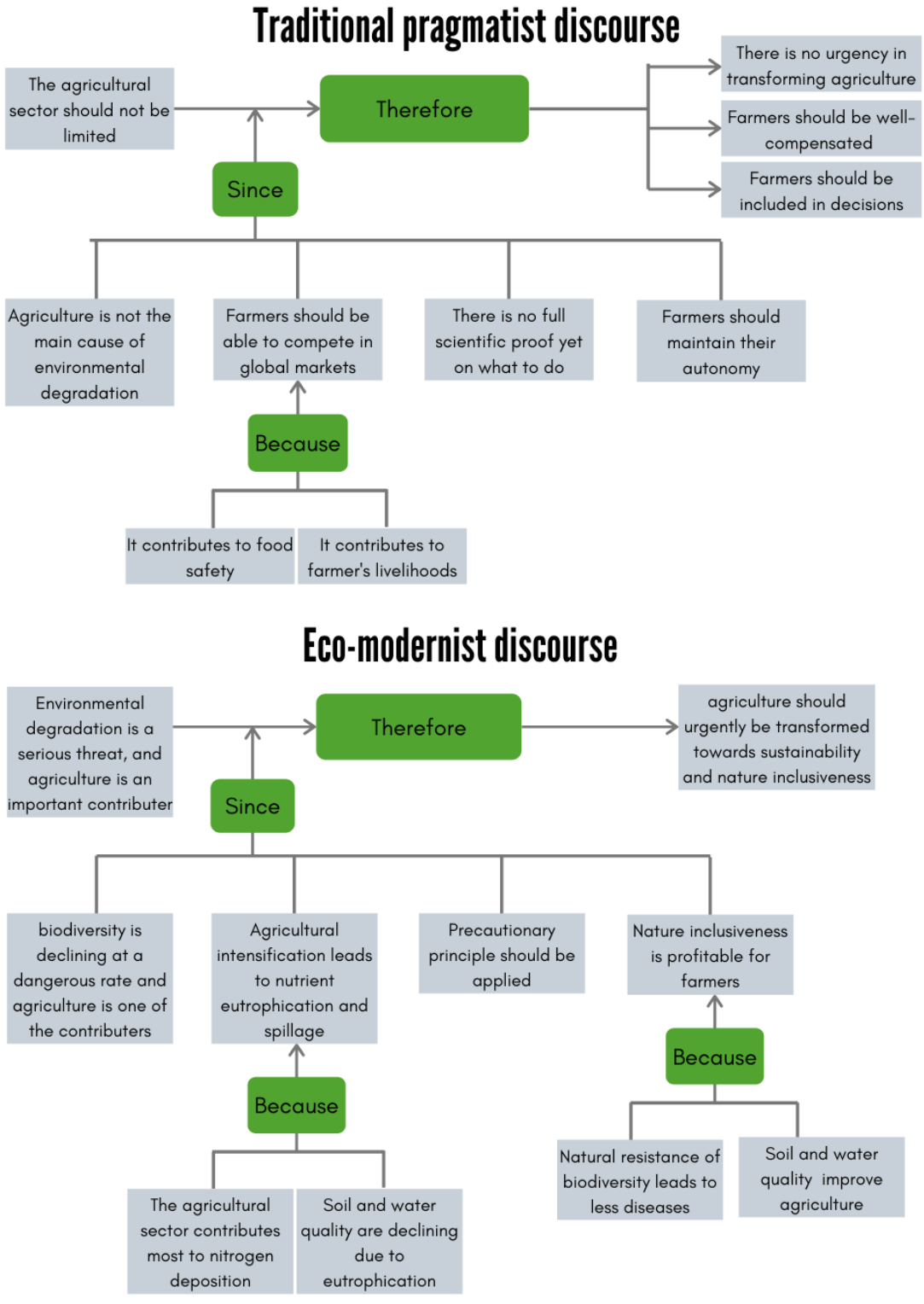
Region	Document name	Relevance
National	Ontwerp Nationale Omgevingsvisie	The national environmental vision will be created to ensure a 'dot on the horizon' for everything that has to do with environmental planning. Sustainability and a livable rural area are key points in the pre-version of this vision.
National	Visie Landbouw Natuur en Voedsel: Waardevol en verbonden	The minister of agriculture has proposed a vision on the future of agriculture, nature and food. She puts high importance on circular agriculture and also mentions nature inclusive agriculture as a key element.
Drenthe	Agenda Boer Burger Biodiversiteit	This document is a cooperation of agriculture and nature organisations to work towards nature inclusive agriculture. This document was officially presented to the province as a plan for the future of agriculture which stimulates all different stakeholders in the fields of nature and agriculture.
Gelderland	Actiepland Natuurinclusieve Landbouw	The province of Gelderland has decided to listen to their stakeholders on the future of nature inclusive agriculture, which is why these stakeholders together wrote an action plan on nature inclusive agriculture. The province values the cooperative and ensures it to be a central part of their own policy, which is why it is included.
Noord Brabant	Inspiratiegids Groene Regelingen (2020)	This document is targeted towards farmers to show them which types of subsidies to apply for if they want to include sustainable agriculture in their organization.
Noord Brabant	Infographic Natuurinclusieve Landbouw	This document is also targeted to farmers and acts as a short inspirational document

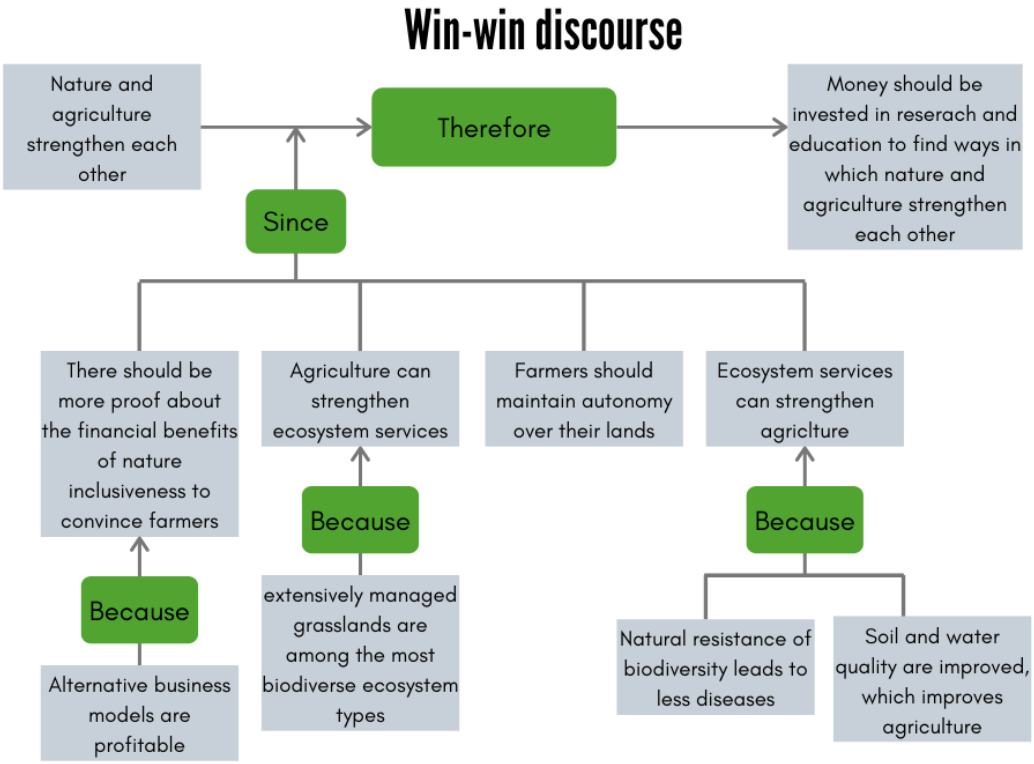
		with feasible steps towards nature inclusive agriculture.

Below are documents on initiatives mentioned in the interviews that were officially published in 2018 or afterwards. These documents serve as data triangulation for the interviews and show different perspectives (from corporate to activist) on nature inclusive agriculture:

Stakeholders	Document name	Relevance
Friesland Campina, SMK	Jaarverslag SMK (only section PlanetProof) (2019)	PlanetProof is a label which can show the consumer which products are produced more sustainably. It is a way for the market to play in to nature inclusive agriculture and other types of sustainable agriculture. As no vision behind PlanetProof can be found as an officially published document. The yearly report is analysed and coded instead.
A cooperation between farmer organisations, companies, knowledge institutes and nature and environmental organisations	Deltaplan Biodiversiteitsherstel (2018)	This plan was created with the intention of different parties from different backgrounds to cooperate to create viable economic opportunities while stopping and restoring biodiversity loss.
WNF, Rabobank, Friesland Campina	Biodiversiteitsmonitor Rabobank (2018)	This monitor was created with the idea to make it easier for corporations to change to a more sustainable business model by making some of the visions and ambitions more measurable.
Cooperative of nature and environmental organisations	Natuurmonumenten 10 Stappen (2020)	This document was created to tell the government how to change into a more sustainable country.

Appendix 3: Expected discourses




Win-win discourse
Nature and agriculture strengthen each other
Therefore
Money should be invested in reserach and education to find ways in which nature and agriculture strengthen each other
Since
There should be more proof about the financial benefits of nature inclusiveness to convince farmers
Agriculture can strengthen ecosystem services
Farmers should maintain autonomy over their lands
Ecosystem services can strengthen agriclture
Because
Because
Because
Alternative business models are profitable
extensively managed grasslands are among the most biodiverse ecosystem types
Natural resistance of biodiversity leads to less diseases
Soil and water quality are improved, which improves agriculture

Appendix 4: Interview guide

**deze interview guide moet als volgt worden gebruikt: de alinea's hieronder zijn stukken tekst die worden voorgedragen aan de geïnterviewde. De vragen met een getal zijn vragen die gesteld moeten worden. De vragen met een letter zijn 'probe' vragen die gesteld kunnen worden wanneer het antwoord van de voorgenoemde vraag niet als voldoende wordt geacht of niet aansluit op de kennis die gezocht wordt. Naast vragen worden tijdens het interview de herhaling, vertel me meer en stilte probe gebruikt voor meer informatie. Ook staat er per sectie vragen aangegeven hoeveel tijd er aan besteed wordt. Bij vraag 8 wordt afhankelijk van de interviewer een andere of nog niet gehoorde discourse voorgelegd. Dit is ofwel de traditional pragmatist, de eco-modernist of de win-win.*

Bedankt voor het deelnemen aan dit onderzoek! Ik ben een masterstudent van Wageningen Universiteit die onderzoek doet naar wat mensen vinden en denken van natuur inclusieve landbouw, en wil dit vergelijken met het beleid van de overheid. Het gaat er dus niet om of u expert bent op dit gebied. Ik wil juist graag weten wat u bijvoorbeeld ook niet weet over het onderwerp, of wat er onduidelijk is. Uw verhaal draagt bij aan de kennis achter de totstandkoming van nationaal en provinciaal beleid. Het interview duurt ongeveer 45 minuten. Als u tijdens het interview besluit te stoppen mag u dat ten aller tijden aangeven.

Is het goed als dit interview wordt opgenomen? Dit draagt namelijk bij aan een zo objectief mogelijke interpretatie. Dit interview is anoniem: uw persoonlijke gegevens worden niet gedeeld en alleen gebruikt door mij voor dit onderzoek. *(1-2 minuten)*

...Nu begin ik het interview. Als eerste een paar algemene vragen *(1-2 minuten)*:

1. Hoe bent u betrokken bij natuur inclusieve landbouw?
2. In hoeverre heeft u kennis in het gebied van natuurinclusieve landbouw op een schaal van 1 tot 5 waarbij 1 het minst is en 5 het meest?
    a. Kunt u in één zin beschrijven in welk vakgebied die kennis ligt?

Dan gaan we nu over op de inhoudelijke vragen van het interview. De vragen zijn redelijk breed, zodat ze voor verschillende groepen toepasbaar zijn, maar dat neemt niet weg dat ik ook vooral benieuwd ben naar tastbare voorbeelden of ervaringen. *(30-40 minuten, 5 minuten per vraag):*

3. Wat denkt u dat natuur inclusievelandbouw betekent?
    a. Wat houdt natuurinclusieve landbouw voor u in?
        i. Zit daar een verschil in?
        ii. En is dat erg?
    b. Wat zijn de kerneigenschappen van dit concept?
    c. Wat vindt u van deze term?
4. Welk probleem denkt u dat natuurinclusieve landbouw bedoelt op te lossen?
    a. Hoe denkt u dat dit probleem tot stand is gekomen?
    b. Hoe urgent is dit probleem?
5. Wat denkt/ziet u dat er nu gedaan wordt met natuurinclusieve landbouw?
    a. Wat merkt u persoonlijk van dit beleid?
    b. Wat zijn volgens u concrete maatregelen die bij natuurinclusieve landbouw komen kijken?

        i. Wat zijn typische maatregelen waar je aan denkt?
    c. Wie is er op dit moment bezig met natuur inclusieve landbouw?
        i. En wie niet?
    d. Hoe vind u dat er nu wordt omgegaan met natuurinclusieve landbouw?
        i. Gaat het goed/slecht? Hoe goed/slecht gaat het? Waarom?
6. Wat zijn volgens u de randvoorwaarden voor natuurinclusieve landbouw om goed te werken?
    a. Wat hebben de boeren nodig om natuurinclusieve landbouw te kunnen bewerkstelligen?
    b. Wat heeft de natuur op en rond het boerenland nodig?
    c. Wie zou verantwoordelijk moeten zijn voor ..?
        i. ...Het instellen van deze randvoorwaarden?
        ii. ...Het uitvoeren van deze randvoorwaarden?
        iii. ...Het controleren van deze randvoorwaarden?
    d. Denkt u dat deze randvoorwaarden nu gehaald worden? Waarom wel/niet?
7. Sommige mensen denken ..., wat vindt u daarvan?
    a. ... Dat de landbouw getransformeerd moet worden door het impact wat het heeft op het ecosysteem, de biodiversiteit en de natuur.
    b. ... Dat de productie van de landbouw nog steeds moet toenemen vanwege de voedselbeschikbaarheid en/of de levensstandaard van de boer.
    c. ... Dat natuur en landbouw elkaar kunnen versterken en een win-win kunnen creëren. Je kan én meer produceren én de natuur beschermen.

Dat was de laatste vraag. Heeft u nog iets toe te voegen?

Mocht u interesse hebben kan ik het eindproduct met u delen. Bedankt voor uw tijd. Mocht u nog vragen hebben later kunt u die altijd stellen.

Appendix 5: Codebook

The Excel sheet of the codebook, including the code groups can be requested by contacting Lisanne.kruiswijk@wur.nl.

Appendix 6: Discourse occurrence per stakeholder (group)

This question will be answered in three levels. First, the discourse occurrence within a stakeholder group are compared and analysed. Second, the stakeholder groups are compared among each other. Finally the different discourses are compared on their own level and the element of power is added to the analysis. Note that each stakeholder adheres to all of the discourses at least a little.

Citizen (initiative)

The figure below (Figure 11) depicts the occurrence of discourses for each data source in the stakeholder group of citizen (initiative). The occurrence of codes per discourse is depicted in terms of percentage share of the total amount of codes, as each code is grouped in one (or more) of the discourses. The figures are quite different which could mean that citizens all have different priorities and argumentations. The one thing that all three stakeholders have in common is a higher occurrence of the nature discourse. Nature was valued highly because of among others its recreational value. Note that many more citizens would have to be interviewed in order to say something substantial about this stakeholder group.

> *"but now you see a lot of different flowers and yes I find that a pretty landscape."*
>
> *"We cycle a lot in the area and you can see that the grassland looks different"*

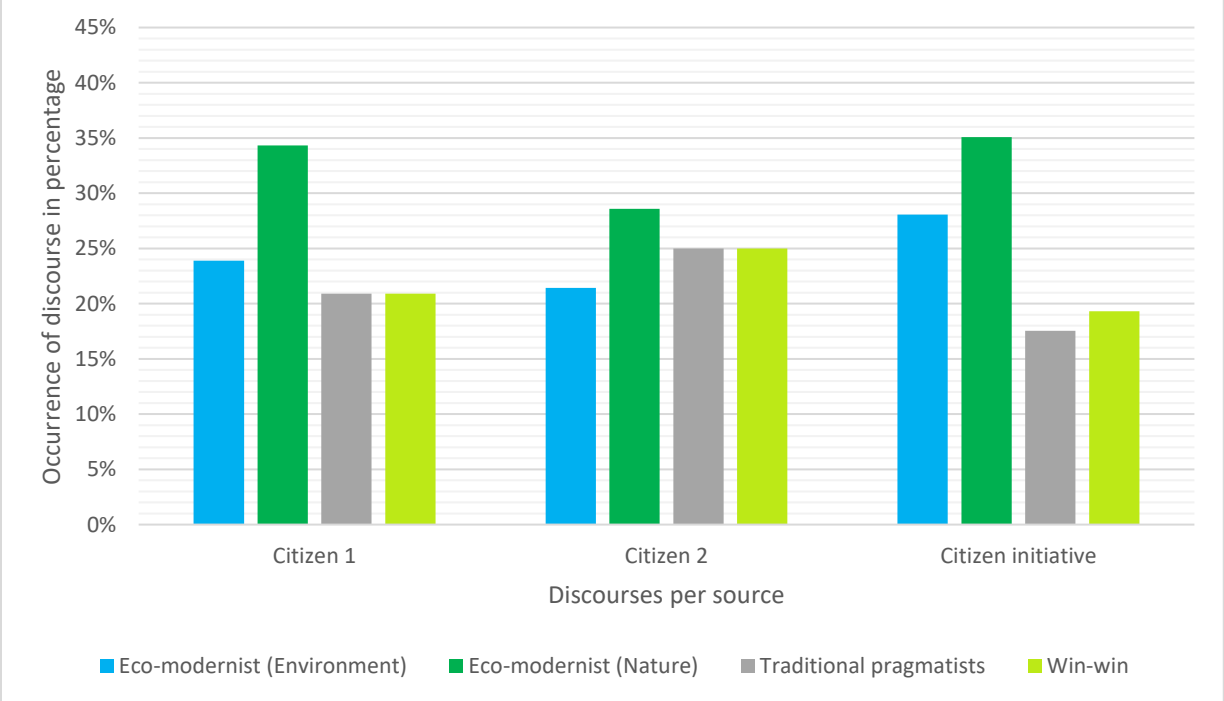


Figure 1: Discourse occurrence in percentages for the stakeholder group of citizen (representation)

Farmer (representation)

The figure below (Figure 12) depicts the occurrence of discourses for each data source in the stakeholder group of farmer (representation). It can immediately be noted that the regular farmer and regular farmer representation carry a high occurrence of the traditional pragmatist discourse. The organic farmers and the natural farmer representation have a more equally divided occurrence of the discourses. The organic farmer representation has a higher occurrence of the win-win discourse,

probably because he sees some benefits in his own enterprise. There is therefore quite a difference between organic and regular farmers, mostly about the fact that regular farmers in this case believe that regular agriculture is already quite nature inclusive and that organic farmers believe that farmers should take more care of the environment that they use.

> *"I think on the long-term, so really long term, that if you can stimulate more natural enemies around your company that you, especially with plagues and diseases that you can gain a lot. Plus the fact that in terms of water systems but certainly soil, that your soil retains more water and organic compound. Your soil becomes more resilient and your products become more resilient and I see that as an absolute profit."*

> *"See that depends on how you label nature inclusive. You can say a goatwool socks figure lats his grassland go its way and doesn't do anything with it and sometimes lets cows graze but I don't mow or use artificial manure."*

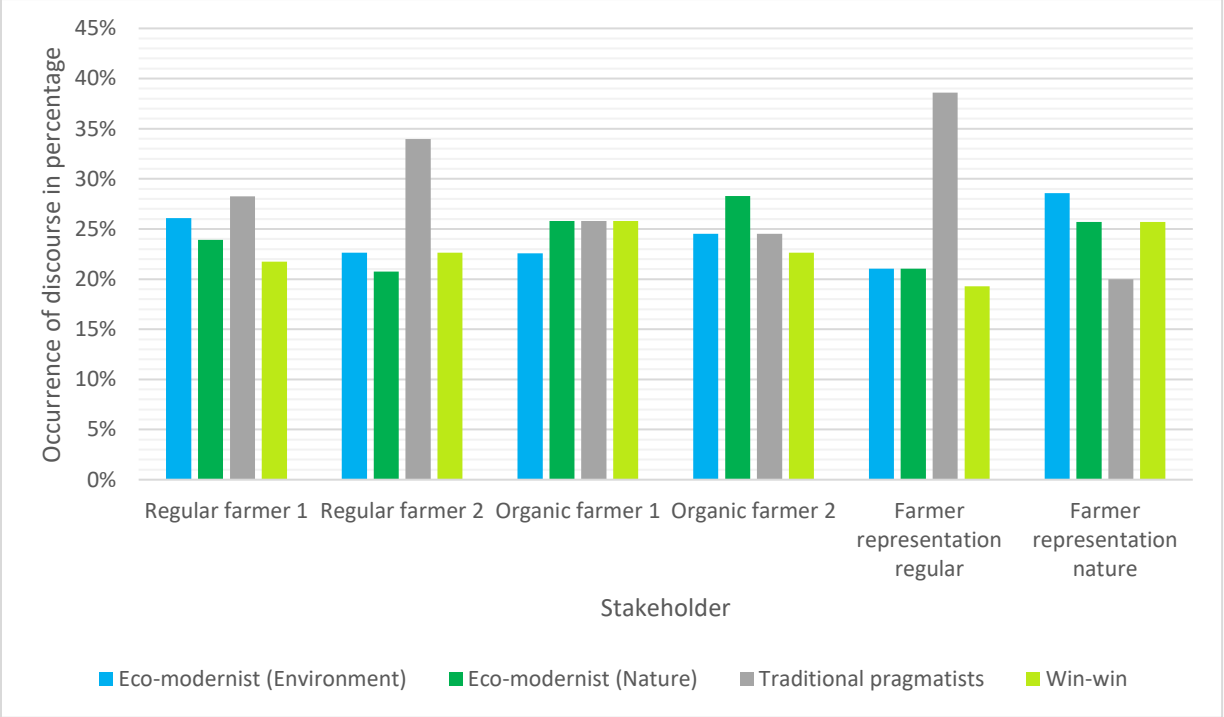


Figure 5: Discourse occurrence in percentages for the stakeholder group of farmer (representation)

National Government

The figure below (Figure 13) depicts the occurrence of discourses for each data source in the stakeholder group of the national government. The win-win discourse occurs least in all sources, followed by the traditional pragmatist discourse. The vision on agriculture has a high occurrence of the environmental eco-modernist discourse, which could be explained by the fact that this document is more focused on circular agriculture. The vision on the environment is more nature-focused because the rural area is an important topic. However, also in this vision, circular agriculture plays an important role. Note that the national government does not mention a trade-off between nature and environment, there is just a shift in priority on one or the other.

"We agreed that we can only safeguard the future of our food supply if we make the transition towards circular agriculture. We have to prevent that we exhaust soil, water and nutrients and that temperatures on earth become unacceptably high."

"A good earning potential for companies is combined with a minimal effect on environmental quality of soil, air and water. This also gives a necessary positive contribution on the improvement of biodiversity."

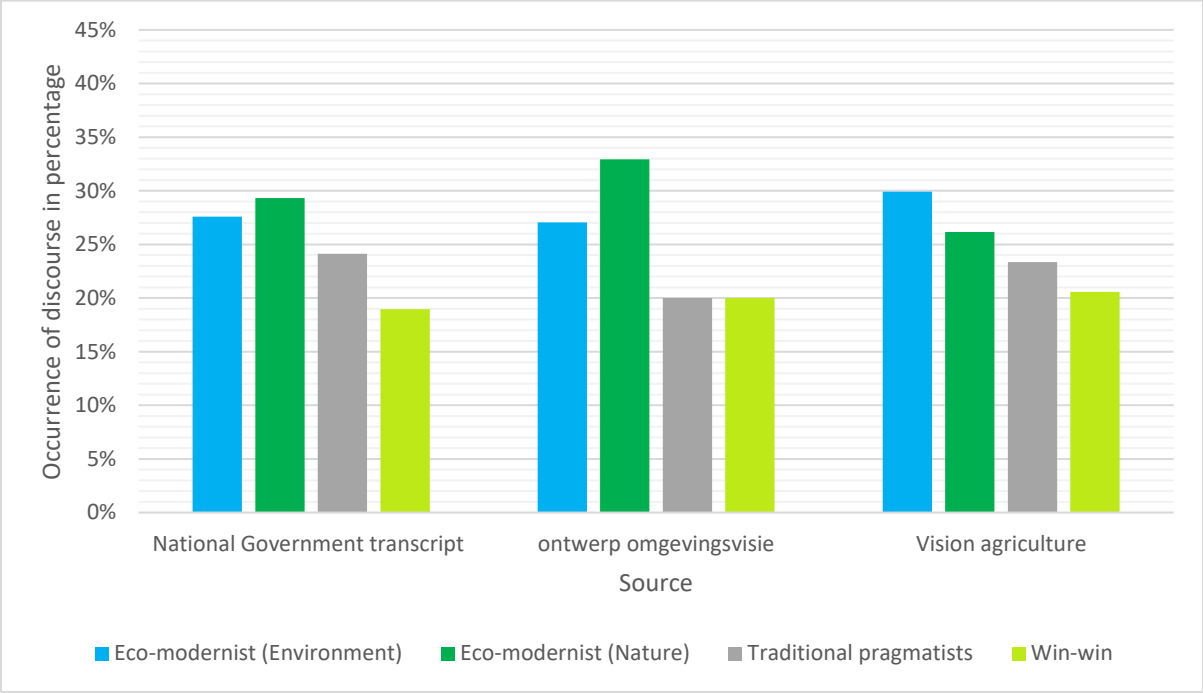


Figure 6: Discourse occurrence in percentages for the stakeholder group of the national government

Environmental/nature (management) organisations

The figure below (Figure 14) depicts the occurrence of discourses for each data source in the stakeholder group of environmental/nature (management) organisations. All of these show a high occurrence of both the natural and the environmental eco-modernist discourse. Interesting is that the national park is the only one that is most focused on the environment, but more parks would have to be analysed in order to find out if this is structural. For the rest, these results are quite dispersed. Some of these organisations believe agriculture should extensify all aspects of their enterprise while others believe in going back to a circular system, which doesn't have to mean that the farmer needs to extensify. However, all these stakeholders agreed that further increase in production is harmful and that by sharing our knowledge about agricultural efficiency, environmental harm can be mitigated, also globally.

"…and I think that there is a prejudice that nature inclusive agriculture is extensive and small-scale. That doesn't have to be that way but it how farmers interpret it."

"Well it may be clear that it is actually a bizarre thing that our small Netherlands has a production of a humongous amount of products, whethet it be vegetables, fruits or meat, that is truly bizarre."

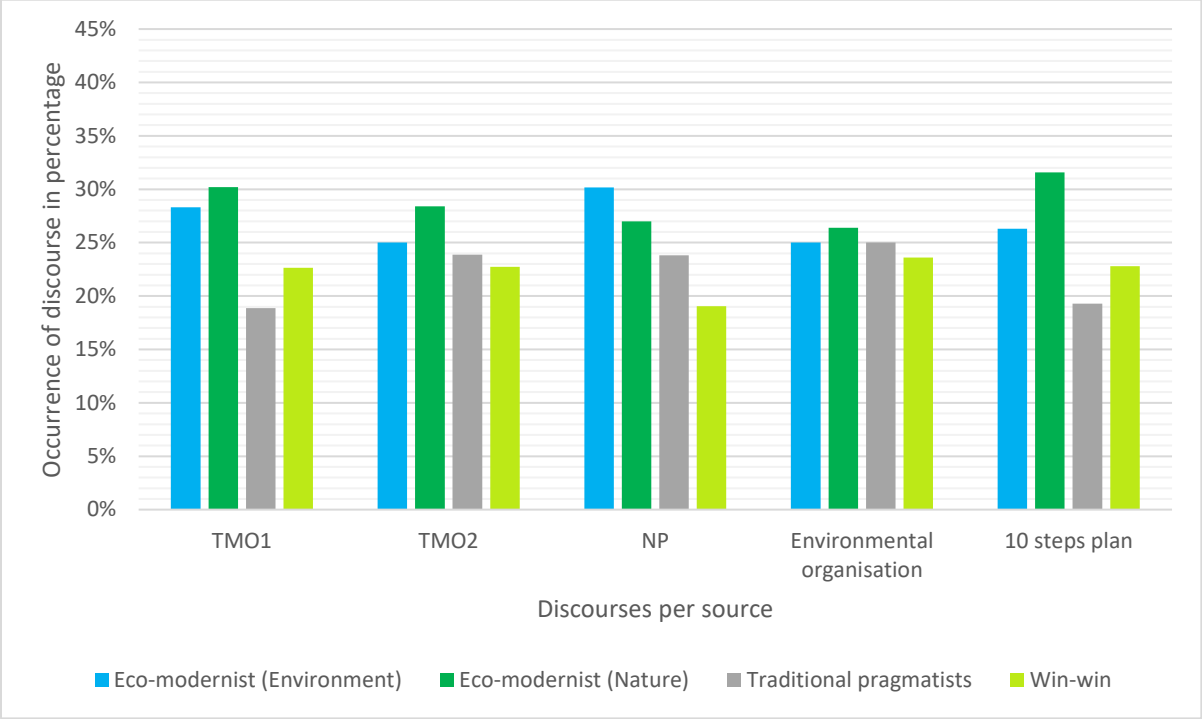


Figure 7: Discourse occurrence in percentages for the stakeholder group of nature/environmental organisations[3]

Provinces

The figure below (Figure 15) depicts the occurrence of discourses for each data source in the stakeholder group of provinces. The first thing that stands out is the outlier in the inspiration guide of the province of Brabant. This is explained by the fact that it is a file that depicts which regulations and subsidies are in place to implement nature on farms. The province of Gelderland also has a relatively high focus on the nature eco-modernist discourse whilst the 'agenda boer burger biodiversiteit' document of Drenthe shows a high occurrence of the traditional pragmatist discourse. This could be explained by the fact that this province has a high focus on financial rewards for farmers in their vision. All provinces believed in an area-specific approach which involved all stakeholders, and many believed this to be the key to success for nature inclusive agriculture. Note that the provinces had a particularly optimistic approach which was more focused on successes than failures or complaints. All provinces explicitly mentioned economic feasibility, although in other ways and mentioned both nature and environment as important aspects of nature inclusive agriculture without the mention of a trade-off.

> *"What's really fun and special about this project is that I am at a table with agriculture and nature and that the project is supported by both."*
>
> *"We hear that a lot of farmers want to give their own interpretation to nature inclusive agriculture, in a way that fits their company."*

[3] TMO = terrain managing organisation and NP = National Park

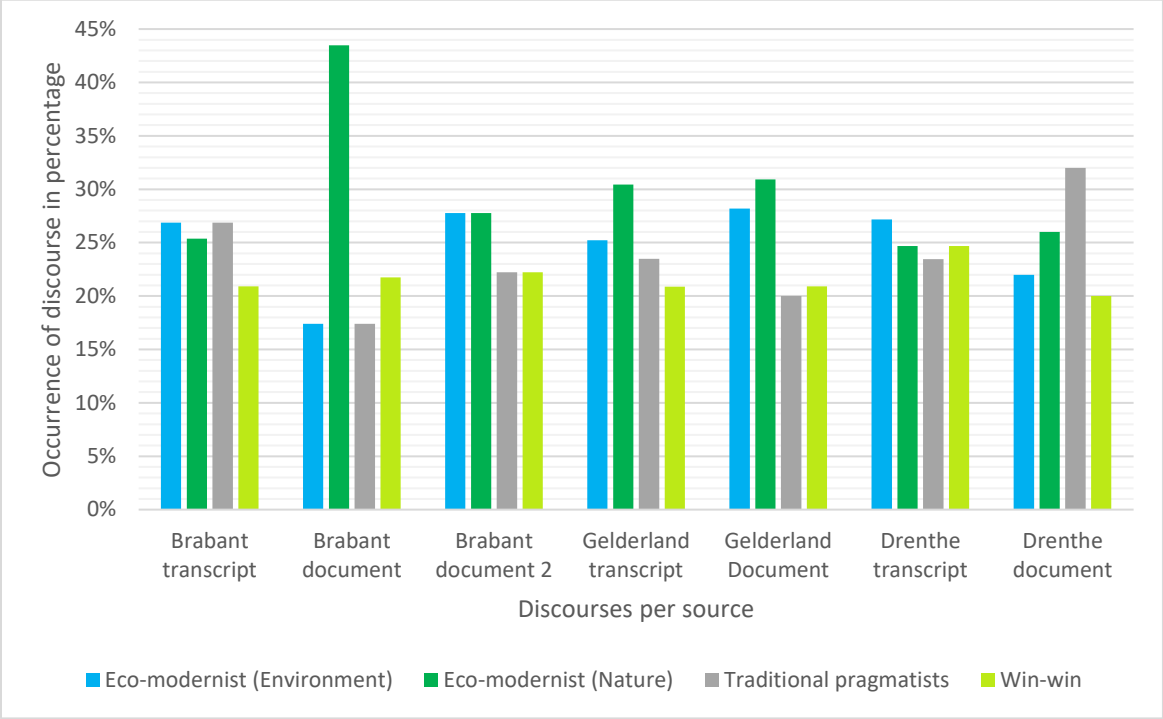


Figure 8: Discourse occurrence in percentages for the stakeholder group of provinces

Retail and finance sector

The figure below (Figure 16) depicts the occurrence of discourses for each data source in the stakeholder group of retail and the financial sector. Interestingly enough, all the stakeholders that were interviewed showed a high occurrence of the traditional pragmatist discourse, followed by the environmental eco-modernist discourse. Many of the retail stakeholders framed their perspective on a global scale, in which they were worried about the environment but rather the effects that decreased production would have elsewhere. The planet proof report has the highest occurrence of the environmental eco-modernist discourse. This could be explained by the fact that these stakeholders often preferred the term circular agriculture over nature inclusive agriculture and often recognised a trade-off between the two.

> *"Suddenly we can see that farmers always provided a free service and now you want more of them so farmers in the surrounding say they want to, as long as it doesnt'cos money and maybe even earns some money."*

> *"More production gets shifted to other parts of the world, for example to the middle east. And you know what that means? With a disproportionate impact on environment and climate and also indirectly on biodiversity, for example because these companies get their feed from South Africa, with all social problems and cutting of rainforest etcetera.."*

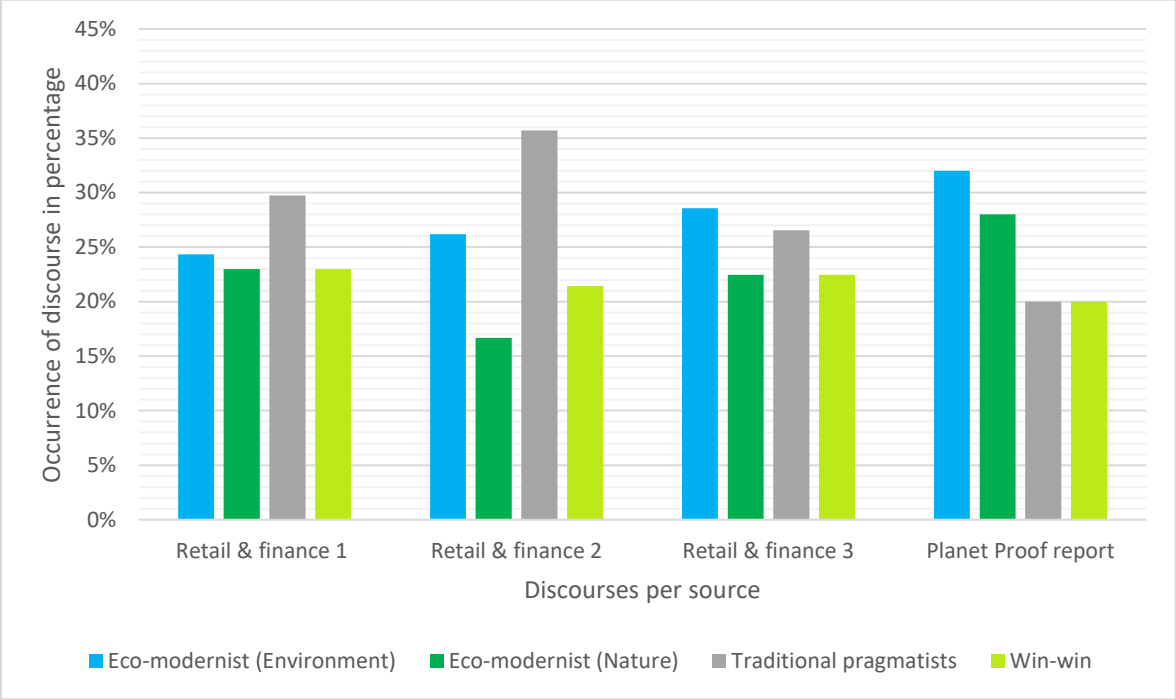


Figure 9: Discourse occurrence in percentages for the stakeholder group of retail and finance

Between stakeholder groups

The figure below (Figure 17) depicts the occurrence of discourses for each stakeholder group[4] that was discussed in the previous section. The highest occurrence of the traditional pragmatist was in the retail & finance stakeholder group and the farmer (representation) stakeholder group. These stakeholder groups often mentioned the importance (and current lacking) of a business model.

> *"I am of the opinion that nature inclusive agriculture will use nature better which will give economical benefits. But this would mean that you desing production in another way and that will have to be taken up by the market which also gives added value."*

The highest occurring of the natural eco-modernist discourse were the citizens, national and provincial government, nature managers and the cooperative between stakeholders. All of these also had a high occurrence of the environmental eco-modernist discourse.

[4] The stakeholder group 'cooperative' was a rest group in which different stakeholder groups cooperated to compose a document. This is why it didn't fit in any of the other stakeholder groups.

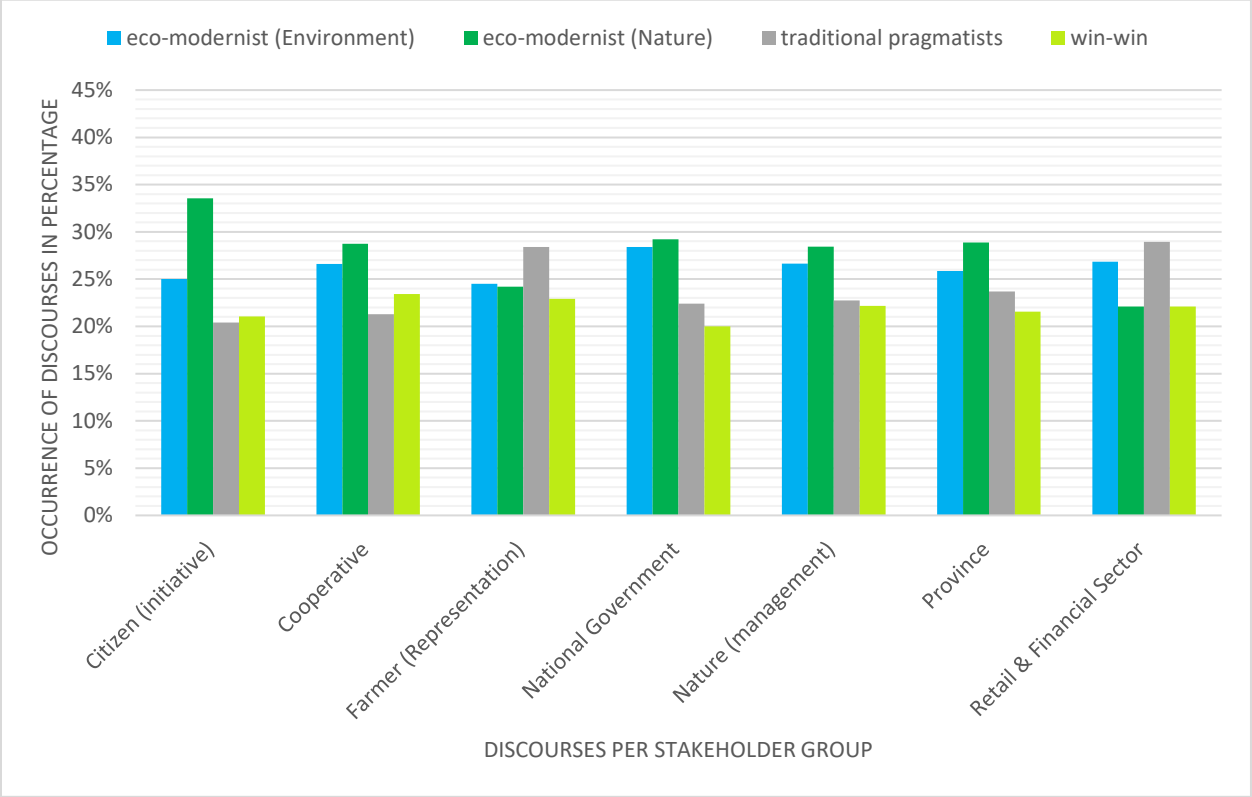


Figure 10: Discourse occurrence in percentages between the aforementioned stakeholder groups

General discourse occurrence

This section views the occurrence of the discourses beyond the stakeholder groups. The figure below (Figure 19) depicts the occurrence of codes for each discourse that was identified. The highest code occurrence was the eco-modernist (nature) expected findings. The second most occurring code group is the eco-modernist (environment) discourse following the traditional pragmatist discourse and finally the win-win discourse with only an occurrence of 391. Overall, there is quite a well-spread occurrence of each discourse and it is not the case that one discourse is occurring much more then another.

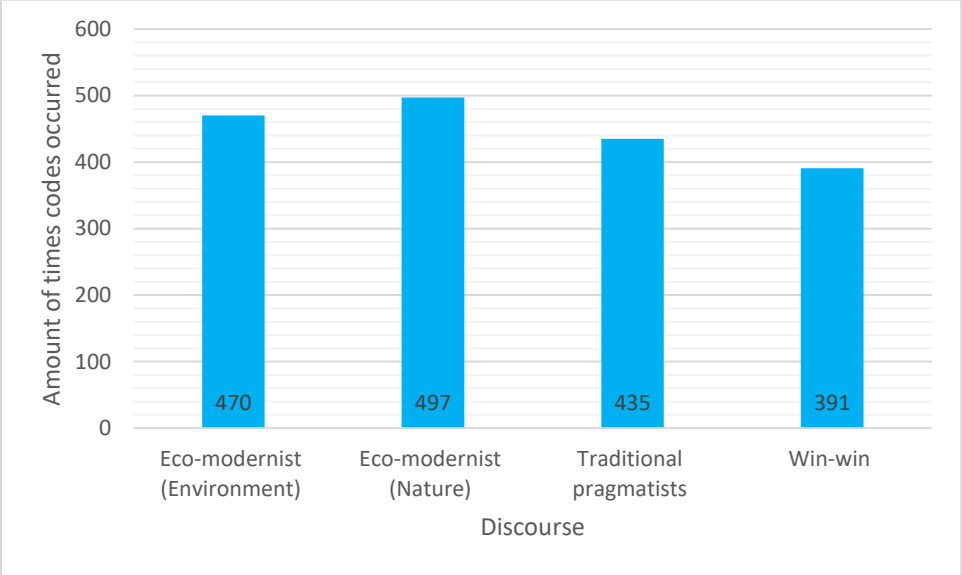


Figure 8: Absolute occurrence of codes per discourse