



Socio-economic and Demographical Aspects of Multifunctional Agricultural Policies in Norway and the EU

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Executive summary

The European agricultural sector has for a long time been declining. The downturn has contributed to depopulation in several rural communities and has in some cases led to a loss of infrastructure and services. This tendency is a challenge to Norway and the EU's rural development objectives. As a response to the decline, some consider agricultural policies capable of contributing to socio-economic equity and demographical stability. The objective of this thesis is to study what multifunctional agricultural policies can add to the attainment of socio-economic and demographical objectives in Norway and the EU, and under which circumstances agricultural policies are suited for targeting economic sustainability and stable settlement in rural areas.

First, I discuss the concept of *multifunctionality* and draw some conclusions on what the concept implies from a socio-economic and demographical perspective. I use the *theory of public goods* and discuss some of the most influential interpretations of the concept. I further draw on *classic economic* and *welfare theory* when I describe the Norwegian agricultural policies and the EU's Common Agricultural Policy (CAP) and discuss what functions they have for rural communities. In order to investigate the functions of the agricultural policies, I study their embeddedness in the rural economy and in broader socio-economic and demographical policy objectives. By carrying out a set of interviews among stakeholders in the County of Hordaland (Norway) and the Province of Zeeland (the Netherlands, EU), I have obtained empirical indications on the effect of multifunctional support schemes. Finally I make some recommendations on how multifunctional agricultural policies can contribute to rural development and at the same time comply with the *WTO Agreement on Agriculture*.

Based on the empirical research, I draw the conclusion that multifunctional agricultural policies can contribute directly to the profitability of individual holdings and hence also strengthen the agriculture's related economy. Although the policies' effect on settlement cannot easily be determined, it seems that agricultural policies can help preventing rapid structural changes and major depopulation in rural areas in Norway and the EU.

1. Introduction

Throughout the last 10-15 years there has been emerging a new consciousness about agriculture's multiple functions and non-commodity aspects. Both Norway and the EU are committed to the *WTO Agreement on Agriculture* which extends international free trade to the agricultural sector. To comply with the Agreement, the widespread use of production support will have to be scaled down and eventually come to an end. The free trade agreement and the new focus on agriculture's multifunctional character have together led to a call for new agricultural policies with alternative support mechanisms. The response to the needs for new policies has so far been *multifunctional agricultural policies*. Multifunctional agricultural policies are seen as instruments that are capable of internalizing the multiple functions of agriculture.

Although the environmental aspects of agricultural activity are of crucial importance both to the stakeholders and the society as a whole, I argue that the debate about multifunctional agricultural policies is somewhat tendentious and has so far been excessively focused on the environmental externalities of agriculture. The result is that important socio-economic and demographical impacts of agricultural policies have been left somewhat in the background. In this research project I am therefore focusing on these aspects.

Since Norway is one of the few European countries that are a part of the common market without being covered by the EU's Common Agricultural Policy (CAP), I consider it useful to compare Norway and the EU's approaches to multifunctional agricultural policy.

1.1 Research objectives

This research project is a comparative study of the socio-economic and demographical aspects of multifunctional agricultural policies in Norway and the EU. Inspired by the new focus on non-commodity aspects and externalities of agricultural production, I look into what functions the Norwegian agricultural policies and the EU's Common Agricultural Policy (CAP) have in rural communities. The main objective is to

investigate how suited multifunctional agricultural policies are for attaining socio-economic and demographical policy goals. In practice this means examining the agricultural policies' embeddedness in the rural economy, and studying how multifunctional agricultural policies fit into broader socio-economic and demographical policy objectives. With this thesis I also intend to study under which circumstances agricultural policies generate greater benefits than other sector policies targeting rural economy and settlement.

The concept of *multifunctionality* does still remain relatively ambiguous and contested both by various stakeholders and by the academia. One of the purposes of this thesis is therefore to conceptualize multifunctionality and clarify what the concept means from a socio-economic and demographical perspective. In order to get empirical indications on the effect of multifunctional support schemes, I conduct a perception analysis in form of interviews among a number of stakeholders in the County of Hordaland (Norway) and the Province of Zeeland (the Netherlands, EU). Finally, I outline a few policy recommendations based on my findings and explain how Norway and the EU's multifunctional agricultural policies should be adapted to comply with the *WTO Agreement on Agriculture*.

With this thesis I hope to draw some attention towards agricultural policies' effect on socio-economic equity and demographical stability, which have tended to be somewhat overlooked by previous research on multifunctionality.

1.2 Research questions

Based on the research objectives outlined in the previous chapter, I have set up one central research question with four sub-questions to approach the socio-economic and demographical aspects of multifunctional agricultural policies. The research questions address the policies both in general terms and with a specific assessment of the support schemes that are in use in Norway and the EU. My central research question is:

What can multifunctional agricultural policies add to the attainment of socio-economic and demographical objectives in Norway and the EU?

The research sub-questions are the following:

1. *What can be understood by multifunctional agricultural policies and how embedded are these policies in broader socio economic and demographical policy objectives?*
2. *What is sustainability in the context of multifunctional agriculture?*
3. *To what extent are multifunctional agricultural policies suited for attaining socio-economic and demographical objectives?*
4. *What are the stakeholders' own perception of multifunctional agriculture with regards to socio-economic and demographical sustainability?*

1.3 Problem analysis

In most parts of Norway and the EU member countries, there has been a considerable decline in the agriculture and massive structural changes in the rural economy. As a consequence, many rural communities have experienced a certain depopulation which in some cases has led to the loss of services and infrastructure.

The purpose of agricultural subsidies is to compensate the farming sector for what is often termed the *farm income problem*. The farm income problem stems from the fact that resources employed in agriculture often are fixed and cannot easily be reallocated. As a consequence there can easily emerge an oversupply of inputs, especially labour, which results in low relative returns (Kay, 1998). As the agricultural production is getting more and more productive and intensive, the supply is increasing. Because agricultural products have relatively inelastic demand and supply curves (Ragan and Lipsey, 2005), the demand and supply does not respond proportionally to the price drop. This affects the profitability of the sector in a negative way and farmers are thus forced to respond to the declining revenues by further increasing the productivity. In the short run it is possible to increase employment in the agricultural primary production by increasing production. However, in the long run, the enhanced productivity will lead to a steadily declining employment in the sector (EC, 2000). This is a vicious circle since farmers are forced to further accelerate the productivity to compensate from losses caused by increasing outputs. The constant pressure on the agricultural sector is also captured by Engel's law (in Prestegaard, 2004b) which claims that when the productivity of the farming sector increases and there is a growth in other sectors of the economy, there will be a relative shift in demand away from agricultural products towards other goods. According

to the law, labour will as a consequence flee the agriculture in favour of the expanding industries. This tendency has clearly been seen in all Western countries, where the share of a households income that is spent on food has been steadily declining, at least since Second World War.

As a consequence of the income problem in the agriculture, Norway, the EU and several others have created a set of policies designed to compensate farmers for unsustainable income levels. The objective behind the support schemes is to improve the socio-economic conditions of individual farmers and entire rural communities and thus prevent drastic depopulation of the countryside.

One of the greatest challenges to the agricultural sector in Norway and some of the EU member states is low land productivity. In mountainous or excessively dry or wet areas only small or scattered spots of the land are arable. This is a severe challenge that affects efficiency and profit making. Other problems pressuring the economic viability of rural areas are low population density and high transport costs due to spread settlements. This leads to high unit production costs which threaten the current employment levels in the sector.

Both in the in Norway and the EU the fear of dramatic escalation of rural unemployment and mass migration to the cities if subsidies were cut has contributed to the legitimacy of expensive agricultural policies. In many rural communities in Norway and the EU, the agricultural sector is still accounting for most of the local employment. Many rural communities are however threatened by the down scaling in the sector which has lead to major social and demographical changes. With a lower agricultural activity it is expected that rural communities will not only loose important sources of revenue, but that the decline will also have ramification for other sectors of the rural economy that depend on or are complementary to the agriculture. Examples of related industries are e.g. certain types of manufacturing, retailing and service providing enterprises and can in some cases even comprise parts of the tourist sector. A minimum population level is necessary in order to maintain basic infrastructure and services. In other words, a continuous negative development for employment and population in the rural areas may be a vicious, self-enforcing tendency.

1.4 Methodology

The first part of the thesis is the theoretical framework. First, I use the *theory of public goods* and the concept of *joint production* to define multifunctionality. Further, I also introduce *neo-classic economic* and *welfare theory* to conceptualize sustainability in the context of multifunctional agricultural policies. In addition to these theories, I draw on the European Commission and the OECD's definitions of multifunctional agriculture as well as other relevant theories to discuss what *multifunctionality* implies. I analyze the two organizations' definitions and end up presenting my own conceptualization of multifunctionality based on the analysis.

The second part of the thesis is a generic presentation of multifunctional agricultural policies their effect and implications. In the third and final part I study specific agricultural policies in use in Norway and the EU and analyze the functions that policies have in rural communities. I use parliamentary communications (Norway), communications from the European Commission (EU) and other official sources to study the policies and their underlying objectives. In order to estimate the importance of policies for the rural economy, I use various socio-economic indicators drawn from the literature on agricultural policies and rural development. To identify the functions of the multifunctional agricultural policies, I study their embeddedness in the economic structures in rural areas and how the policies fit in with broader socio-economic and demographical objectives. Once again I draw on Norwegian parliamentary communications and communications from the European Commission.

I have selected the County of Hordaland (Norway) and the Province of Zeeland (the Netherlands) to study the impacts that Norwegian agricultural policies and the Common Agricultural Policy (CAP) have on socio-economic and demographical sustainability. Although Zeeland is a sub-national administrative entity in the Netherlands, I remind that the province has been selected in order to study the impacts of EU policies, and not national support schemes. The focus is therefore on EU policies' multifunctionality. As a consequence, I compare aspects of the CAP with the objectives of the EU's regional policies. To obtain empirical indications on the effect of

multifunctional support schemes, I have collected data through interviews in selected areas in Hordaland and the Province of Zeeland. The interviews are semi-structured and composed by open-ended questions, in order to produce qualitative data. The findings from the interviews have however also been used to form some general conclusions. The respondents in the interviews are farmers, representatives from farmers' unions and local authorities from a number of municipalities in Hordaland and Zeeland:

- Hordaland: The Municipalities of Fjell, Jondal, Kvam, Sund and Vaksdal.
- Zeeland: The Municipalities of Borsele, Hulst, Schouwen-Duiveland, Sluis, Tholen and Veere.¹

Based on the research outlined above, I draw some conclusions on the contribution of multifunctional agricultural policies to the attainment of socio-economic and demographical objectives. Finally I end up making a set of policy recommendations based on my findings.

¹ For more details about the empirical research, see Annex 1.

2. Theoretical Framework

In this chapter I discuss various interpretations of multifunctionality and provide a conceptualization of the term, based on the *theory of public goods*. I further apply *classic economic* and *welfare theory* to discuss under which conditions multifunctional agricultural policies can be considered sustainable with regards to socio-economic and demographical effects.

2.1 The theory of public goods

The *theory of public goods* is essential for the understanding of multifunctional agricultural policies. In this sub-chapter I give a brief introduction to the theory, which was introduced by P.A. Samuelson in 1954. As mentioned, one of the main reasons why the concept of multifunctionality appeared, was an increasing need to reduce negative externalities of agricultural policies and internalize externalities from the agriculture in the policies targeting the sector. Externalities are, according to Prestegaard (2004b, p. 3) “*unintended impacts of other agents’ production or consumption possibilities that are unaccounted for in existing prices or payment schemes*”. For a multifunctional policy to be effective, it is necessary that positive and negative externalities are internalized (Lehtonen et al., 2005). Internalizing positive externalities in agricultural policies may sound fairly simple. The internalization is however often hindered by the gap that exists between *private* and *public goods*.

Public goods are in principle non-tradable goods that are considered valuable by the society, according to the *theory of public goods* (Samuelson, 1954). *Private goods* on the other hand, are commodities that can be priced and traded (ibid). An example of a public goods that are produced by agriculture is e.g. a genuine culture landscape for recreational use etc. The reason why the culture landscape is relatively non-tradable is because it is *undepletable* and *non-excludable*. According to the theory of public goods, *undepletablility* and *non-excludability* are both essential characteristics of public goods (ibid). *Undepletablility* means that the consumption of the good by one person does not infringe upon another person’s possibilities to consume the same good. *Non-excludability* on the other hand, means that once the good has been provided, it is almost impossible to

limit other people's consumption of the same good. This leads to a *free rider problem*. Because public goods cannot easily be prized and traded, there will often be a market failure. Neo-classic economic theory prescribes public intervention in cases of market failure.

Public goods and positive externalities that are produced by agricultural activities depend on private factors of production (Lindland, 1998). Sometimes the public goods and externalities are joint by-products of the food production and do therefore not imply any extra costs for the provider. When the public goods are not automatically produced along with the food and fibers, there must be subsidies in order to give incentives for providing the public goods. This is because a rational actor will always opt for profit generating commodities rather than competing, non-tradable public goods. In the absence of government subsidies, the production of public goods will therefore lie below the optimum level, according to classic economic theory (Prestegaard, 2004b). This is a market failure. When politicians and bureaucrats do not value people's appreciation of public goods, there is thus a risk that the public goods might not be produced at desirable rates.

2.2 Conceptualization of multifunctional agricultural policies

As mentioned initially, multifunctionality is a relatively new concept which first emerged in the mid-90s. The interest in multifunctional agricultural policies was partly caused by the urgency of taking action against overproduction, overspending and an escalation of negative externalities from agricultural production, such as e.g. pollution, endangered animal health etc. Another important factor that stimulated the search for alternatives to the current agricultural policies was the Uruguay Round of the WTO negotiations. The Uruguay round was expected to lead to the abolishment of many of the policy instruments currently employed in the agricultural sector. In this sub-chapter I discuss the various interpretations of the multifunctionality and provide a conceptualization suited for the perspective of this research project.

There are several different interpretations of what multifunctionality is. Arguably, the two most important definitions of multifunctionality are the ones of the OECD and the European Commission. The OECD has opted for a restrictive definition, whereas the

Commission uses a more exhaustive one. I will look at both and discuss a few other view points related to multifunctionality. Typical for most definitions of multifunctionality is that agricultural production, in addition to food and fibers, also produces *non-commodities*, output that cannot be traded.

The OECD's definition of multifunctional agriculture

In its working definition of multifunctionality, the OECD (2001, p.7) states that *multifunctional agriculture* implies that there are:

“Multiple commodity and non-commodity outputs that are jointly produced by agriculture, and the fact that some of the non-commodity outputs exhibit the characteristics of externalities and public goods, with the result that the markets for these goods do not exist or function poorly”.

According to the OECD's definition, multifunctional agricultural policies can thus be seen as policies that seek to link production of commodities and non-commodities in order to internalize the positive by-products of agriculture. The organization does however consider it problematic to include rural employment as a part of the multifunctionality concept. The reason is that employment is considered an input, not an output (ibid). Anderson (2002) also comes to the conclusion that employment and rural viability cannot be associated with the multifunctionality concept, but argues that the reason is that these outputs do not entirely qualify as public goods.

Both the OECD's and Anderson's reasons for excluding employment and rural viability from the multifunctionality concept seem to be somewhat imprecise. I will comment on the OECD definition first. As far as I can see, there is a fundamental difference between labour and employment. Labour is the human factor of production, whereas employment, according to the Merriam-Webster dictionary (2006), is the “state of being employed”. In practice this implies that employment is a product of the use of labour. Consequently, labour is an input and employment a non-commodity output deriving from the production process. As far as Anderson's argumentation is concerned, I argue that multifunctionality does not require that by-products of agricultural activities are public goods. As long as the agricultural production leads to some sort of positive

externalities, it can be defined as multifunctional. In many cases the externalities are indeed tradable commodities such as e.g. cultivated land which can be fenced and used for recreation for a fee. The reason why there may be a need for subsidies for the provision of these externalities can e.g. be that it is not desirable to charge users or that the externalities do not guarantee the provider sufficient revenues to give him incentives to produce them.

The European Commission's definition of multifunctional agriculture

In its definition the European Commission (1999a, p.1) lists up a number of prerequisites that it believes characterize multifunctional agriculture:

“To ensure safe and high quality goods, protect the environment, save finite resources, preserve rural landscapes and contribute to the socio-economic development of rural areas including the generation of employment opportunities”.

The Commission further stresses that agriculture provides goods and services which are inseparably connected to the land, the agricultural production and certain other agricultural outputs (ibid). It is also emphasised that it is the sector as a whole that is multifunctional, not only the agricultural primary production (ibid). The Commission's definition corresponds with many of the models that have been used by European researchers to describe multifunctional agriculture (see e.g. Aruvuori & Kola, 2004; Romstad et al., 2000 etc). Most of these models consider multifunctional agriculture the sum of agricultural production and its impacts on environmental protection, bio-diversity, landscape protection, animal welfare, food safety, food security, maintenance of heritage and culture, and last but not least, socio-economic viability and employment in rural areas. Although the OECD does not consider rural viability a public good, it acknowledges that it may be considered a “site specific externality of agricultural production” (OECD, 2001, p. 8) and maintains that agricultural policies may slow down the migration from rural to urban areas. Ollikainen and Lankoski (2005) do also use a broad definition of public goods which includes rural viability and measure the viability through agricultural activities' direct and indirect employment effects.

Comparison of the various definitions

Both the OECD and the European Commission's define multifunctionality as a joint, i.e. interdependent, production of commodity and non-commodity outputs where some of the non-commodities are externalities or public goods. In practice this means that an increase or decrease in the output of the commodities has a direct impact on the output levels of the non-commodities (OECD, 2001). Romstad et al. (2000) terms this *technical jointness*, which implies that the production of one good will automatically lead to production of another good. It is however important to note that that technical jointness does not necessarily have to be pure. Normally the by-products are not produced at the same ratio as the commodities (Samuelson, 1954). This is usually the case for most fixed, allocable factors of production, such as farmland and self-employed labour (Aruvuori & Kora, 2004; OECD, 2001). In addition to pure jointness in production, the OECD (2003) includes only market failure and outputs that qualify as public goods in its conceptualization.

The Commission on the other hand, uses a more inclusive definition. It states that "agriculture is multifunctional because it is not limited to the sole function of producing food and fiber" (EC, 1999 a, p.1). The Commission's definition seems to incorporate all land-linked externalities produced by agricultural activities, implying that also food security and socio-economic development of rural areas are covered. The Commission does also acknowledge that externalities of multifunctional agriculture can be private goods or commodities, which means that multifunctionality not necessarily requires public goods. Another crucial aspect of the Commission's definition which distinguishes it from the OECD's, is that it is not only the primary production that is considered multifunctional, but the sector as a whole. This implies that also the processing of the commodities has multiple purposes. Although neither the OECD nor the Commission explicitly mention that multifunctionality requires that the externalities are positive, I argue that this is an essential feature of multifunctional agriculture. As the word *functional* indicates, it is necessary that the by-products are assets. The term *multifunctionality* does in other words refer to the purposes of the agricultural activity or policy and does not cover unintentional outcomes.

Conceptualization of multifunctional agriculture

I have found that the Commission's definition is the most accurate and sufficiently exhaustive one and will therefore base the empirical part of this study on this definition. In practice this means that agriculture is multifunctional when it generates inseparable, positive externalities through agricultural production. The externalities will most often take the form of public goods, but can also be private goods or commodities. I also see it as important that the whole agricultural sector can be considered multifunctional and not only the primary production. I find it unproblematic that the Commission includes policies that also cover other agricultural activities than just the primary production, but I acknowledge that only in marginal cases do agricultural policies target post-harvesting or non-production activities alone and I have therefore chosen not to focus on these cases.

In this thesis I have defined *multifunctional agricultural policy* as policies that target not only the primary production of agricultural commodities but also certain externalities of the production. Although some experts go as far as arguing that agricultural production is multifunctional as such and that there is therefore no need to design special policies targeting multifunctionality (see Aruvuori & Kola, 2004), there is generally a broad agreement that there must be developed special support mechanisms for the positive externalities of agriculture in order to give incentives to farmers to invest in such assets.

Conceptualization of multifunctional agricultural policies

Finally I discuss and explain what agricultural policies can be considered multifunctional from a socio-economic and demographical perspective. Multifunctional agricultural policies target socio-economic and demographical objectives through indirect action. Typically, these policies seek to maximize the output of positive externalities from agricultural production, such as e.g. jobs or markets for auxiliary industries, or they seek to increase the profitability of the agricultural sector through subsidies in order to preserve rural settlement. These are services or by-products of agricultural production which may be provided at rates below the optimum level for welfare maximizing, unless

there exists some sort of government support schemes.

2.3 Conceptualization of sustainability in the context of multifunctional agricultural policy

In this sub-chapter, I discuss what sustainability means in the context of multifunctional agricultural policies. According to Aruvuori and Kola (2004), there are close relations between multifunctionality and sustainable agriculture. However, because of the many different externalities and by-products that multifunctional agricultural policies target, it is challenging to find appropriate indicators for assessing their sustainability. As is the case for all kinds of policies, the appropriateness of the indicators depends on what objectives the policy has been set up to attain. The most common parameters for sustainability in the context of multifunctional agricultural policies are sustainability with regards to

- Financial objectives and profitability
- Ecological and environmental objectives
- Objectives related to historical and cultural heritage
- Social, socio-economic objectives and demographical objectives.

As mentioned, this thesis focuses on the socio-economic and demographical aspects of multifunctional agricultural policies. Before discussing my conceptualization of *sustainability*, I see it as necessary to briefly clarify the term. Sustainability is the noun derived from the adjective *sustainable* which means “to be able to continue over a period of time” (Cambridge Advanced Learner's Dictionary, 2006). The term gained its momentum when the *World Commission on Environment and Development* (WCED) also known as the *Brundtland Commission*, used it as one of the main concepts in the report “*Our Common Future*” in 1987. The report has later on had an enormous influence on the use of the term. It states that a sustainable development is a development that “meets the needs of the present without compromising the ability of future generations to meet their own needs” (UN, 2002, p.1).

Employment, settlement and sustainability

Employment is one of the fundamental pillars of the socio-economic state of rural communities. There is a wide agreement that the socio-economic conditions and demographical tendencies are strongly correlated. The European Commission (2000) maintains that agricultural production must account for at least 50% of the local labour force to have a decisive impact on socio-economic development in a certain jurisdiction. It is however evident that agriculture may employ a much smaller share of the workforce and still have a major impact on the local economy. Depending on how many alternative jobs there are available within a plausible radius from the community in question, a sustainable agricultural policy in this regard is one that limits short term and prevents long term unemployment resulting from people leaving the agricultural sector. This conceptualization is in line with central objectives that underpin Norway and the EU's agricultural and rural policies (see FT, 2004a; EU, 2006a). As the Commission (2000, p.4) emphasises, where a substantial proportion of the labour force is involved in agriculture, "any policy which leads to a swift and artificial reduction in employment could have disastrous consequences for the labour-force and dependants, leading to social and political instability". This may also occur in areas where the agricultural sector is relatively compatible, even in global terms. A sustainable policy should thus work as a cushion against fluctuations and instability in the agricultural sector.

Very often agriculture is one of the main pillars of the rural economy and it is therefore important to keep sustainable employment levels in the sector in order to maintain a minimum of services like e.g. health care, education and infrastructure and prevent depopulation. To define what sustainable employment levels in the agricultural sector are is not an easy task. In principle it is not even a necessary objective per se to keep the employment in the agricultural sector as high as possible. The EU Council has e.g. made diversification a fundamental objective for its new policies targeting rural development and wants a reduction of employment in the agriculture to increase the revenues of the most competitive actors that stay in the sector (EC, 2005). Nevertheless, when it comes to ensuring a sound socio-economic and demographical development in remote, rural areas with few other employment opportunities, it is acknowledged both by the Norwegian government and the EU authorities that policies should seek to maintain

the current employment levels in the agriculture (LMD, 2004; EC, 1999a). Although it is important to provide policies that target social cohesion and economic development in rural and urban areas both for economic and ethical reasons, the Commission (2000, p. 5) maintains that prevention of depopulation does not necessarily have to be a “*legitimate priority*” for regional development policies. It seems that the Commission thus supports the view that depopulation in few cases may increase the viability of a rural community because the pressure from unemployment and restricted resources can be somewhat alleviated.

In this study consider sustainable all multifunctional agricultural policies that contribute to the creation and/or preservation of a sufficient amount of jobs with acceptable payment. It is however important to keep in mind that rural viability depends on other industries than agricultural primary production as well. Not only are the non-agricultural industries important in this regard, but also industries that are complementary to agriculture, known as the *related economy* (Aruvuori & Kola, 2004; EC, 2000).

Internalization of positive externalities of agriculture

Another important aspect is how suited the agricultural policies are for internalising the positive externalities of agricultural production. First of all it is essential that there must be a balance between the subsidies for the public good and the price of the private good, in order for multifunctional agricultural policies to be rational and legitimate. The externalities of agriculture can have different scopes. In some cases it is necessary that a policy has more or less the same impacts on the socio-economic and demographical development of rural communities in all localities in a given territory. In such cases it is crucial that the multifunctional policies stimulate the same externalities more or less regardless the location of their beneficiaries. A policy may however also have a local scope. If only a restricted area benefits from the socio-economic and demographical impacts of the agricultural policies, the effect can be classified as *local public goods* (OECD, 2001, p. 17). Since differentiated agricultural policies can be just as legitimate and effective as “universal” ones, I consider policies that are capable of only producing local public goods as sustainable in principle, as long as they conform to the other parameters indicated in this chapter.

Effectiveness and efficiency

The sustainability of the policies does also depend on a relatively high effectiveness, relatively low transaction costs and a high ability to internalize externalities compared to alternative policy options². Although the agricultural sector's contribution to the national economy is declining both in Norway and in the EU, it has by no means lost its role as a central pillar in regional development. However, it cannot be taken for granted that agricultural policies will always be the most appropriate instruments for pursuing socio-economic and demographical objectives. The multifunctional agricultural policies should therefore yield positive effects that are superior to other types of non-agricultural support schemes.

Summary

Employment is the most important pillar in the socio-economic state of rural communities. The sustainability of agricultural policies with regards to rural employment, relies on their ability to limit short term and prevent long term unemployment. I consider agricultural policies that contribute to the creation and/or preservation of a sufficient amount of jobs with acceptable payment as sustainable. There are however also agricultural policies that are designed to stimulate diversification and down scaling in the agriculture to increase profitability. Sustainable agricultural policies should stimulate growth or contribute to status quo in the related economy as well. Agricultural policies' effectiveness and ability to internalize positive by-products of farming have also an important impact on their sustainability. Finally, I see the scope of the policies as less important than their effects. Policies that only produce local public goods can therefore be perfectly sustainable.

² For a further discussion on this topic, see chapter 3.2.2 and 4.3.

3. Use of multifunctional agricultural policies

In this chapter I make a generic presentation of multifunctional agricultural policies and their implications. The multifunctionality concept has a significant impact on the role of the stakeholders and the other way around. I have therefore conducted a stakeholder analysis to study these effects. I further make a theoretical account on the use of multifunctional policy instruments in the agriculture based on welfare economic analysis. At last I study the costs and benefits of multifunctional agricultural policies in terms of their effect on rural economy and demographics. I then compare them to other policies targeting rural areas.

3.1 Stakeholders and their role in the policy making

In this sub-chapter I present the function of the various stakeholders in the making of agricultural policies and summarize what their stands and objectives are.

The term *stakeholder* does, according to the Cambridge Advanced Learner's Dictionary (2006), refer to “*a person such as an employee, customer or citizen who is involved with an organization, society, etc. and therefore has responsibilities towards it and an interest in its success*”. The stakeholder concept is used by normative *stakeholder theory* to identify the actors which should be entitled to have a say in given issues that concern an organization or company that they are associated with (Heath & Norman, 2004).

For the purpose of this thesis however, I define all actors that are directly or indirectly affected by the social, economic and demographical impacts of agricultural policies as stakeholders. I have opted for this conceptualization because the purpose of this stakeholder analysis is to identify the actors that are significantly affected by the agricultural policies, investigate how they influence the policy making and compare the functions that they prescribe for the policies.

According to *governance theory* the success of a policy in terms of goal attainment is partly determined by its legitimacy (Pierre & Peters, 2000). Consequently it is important that there is a certain convergence between the objectives of those making the policy and those being affected by it (ibid). I therefore also compare the different

stakeholders' perception of what functions the agricultural policies should have.

Farmers are among the main stakeholders in the context of multifunctional agricultural policies. It is important to keep in mind however that agricultural activity does not only affect the farmers themselves. Multifunctionality implies that there is an enhanced consciousness about the needs and interests of other stakeholders that are affected by agriculture as well.

Farmers' unions and other relevant interest organizations in Norway

In Norway, almost all professional and semi-professional farmers are organized in one of the two farmers' unions, *Norges Bondelag (Norwegian Farmers' Union)* for larger units, and *Norges Bonde- og Småbrukarlag (NBS) (Norwegian Farmers' and Smallholders' Union)* for smaller units. Both organizations have county-based local branches, but there is only one, uniform agenda. *Bondelaget* claims that an “*income level in the agriculture that is competitive compared to other professions, is decisive for recruitment, food production and generation of other public goods such as viable rural communities, safe food and a nice culture landscape*” (Bondelaget, 2005, p.7). This means that the organization sees a connection between income levels in the agriculture and rural viability. *NBS* also considers it as one of its main objectives to contribute to the development of an agricultural sector that will, among others, “*serve as a base for safe and high quality local societies*” (NBS, 2006). The organization has therefore put forwards the following goal for agricultural policy with regards to rural development: “*To maintain settlement in rural areas, local culture, local resources and nature*”.

Norsk Landbrukssamvirke (the Federation of Norwegian Agricultural Co-operatives) is the umbrella organization of the Norwegian agricultural co-operatives. It is owned by 50,000 farmers throughout the country and is engaged in food processing, sales of raw materials from farming and forestry as well as insurance, financial services, livestock breeding and purchasing equipment (Norsk Landbrukssamvirke, 2006). The Landbrukssamvirke does not interact with the national authorities on a regular and formal basis, but is one of the main actors in the agricultural sector and has therefore a considerable influence on the government in certain issues. Because Norway is not a member of the common market of agricultural goods, Norwegian farmers are not enrolled

in the European umbrella organizations for farmers.

European farmers' unions and other European interest organizations

European farmers are represented by the umbrella organization COPA-COGECA in negotiations concerning agriculture in the EU. In the first years after the founding of the European Community there were no significant farmers' organizations at the European level. Since the financial transfers to the agriculture already accounted for the greatest expenditure over the community budget, the European Commission initialized the process that led to the founding of two separate European farmers' unions, *COPA (Comité des Organisations Professionnelles Agricoles)* and *COGECA (Comité Generale pour la Cooperation Agricole)*, in order to facilitate interaction with the farmers. The two unions did later on merge to create COPA-COGECA, an organization which theoretically represents all the farmers in the European Community (COPA-COGECA, 2005).

The two major farmers' unions in Norway are represented in an institutionalized, quasi-corporatist negotiation framework which contributes to the making of the national agricultural policies and the annual *Agricultural Agreement*. The farmers' unions in the EU on the other hand can certainly be considered as influential, but are not involved in any fixed, institutionalized interaction with the major EU bodies. COPA-COGECA does only sporadically interact directly with the Council and *indirect representation*, where constituent organizations approach the national ministries, is therefore more important as a strategy to influence the Council's agenda (COPA-COGECA, 2006; Thomson, 2006). COPA-COGECA's interaction with the Commission seems more frequent. According to the organization itself (COPA-COGECA, 2006), it does regularly meet with the Commissioner for Agriculture and Rural Development to address the development of the CAP, market tendencies, and the *annual farm price review*. However, the meetings tend to have an ad hoc character and the organization does therefore to a great extent rely on lobbying to influence the decision making in agricultural matters. In addition to its interaction with the EU institutions, COPA-COGECA and its constituent organizations do also seek to strengthen their cooperation with other socio-economic and civil society organizations that are directly and indirectly related to the agricultural sector (ibid).

As far as the multifunctionality of agricultural policies is concerned, COPA-COGECA (2005, p. 3) states that the agricultural policies must “*enable each and every farmer to carry out his or her multifunctional role*”. This means that they must enable farmers to “*control and therefore to integrate their production factors - land, labour, technology, knowledge and finance, in a way that fulfils agriculture’s economic, ecological, rural and social functions*” (ibid). COPA-COGECA does in other words acknowledge that agricultural policies may have a multifunctional role.

Farmers in Zeeland are represented by *Zuidelijke Land- en Tuinbouworganisatie* (ZLTO) (the Southern Organization for Agriculture and Horticulture) which is a part of the *Land- en Tuinbouw Organisatie Nederland* (LTO) (the Dutch Organisation for Agriculture and Horticulture), an umbrella organization of regional farmers’ unions and sector organizations. ZLTO’s main objectives are to improve the social and economic position of farmers. The organization does not focus on rural viability per se and considers rural viability “*an important side-effect*” of the organization’s work (Pijnenburg (ZLTO), 2006)³. ZLTO’s position is however that “*a viable agriculture creates rural viability*” (ibid).

Other important interest organizations in the EU are the European agro-industrial unions. The most powerful ones are CIAA, which is the major organization representing European agro-industries, and COCERAL, which represents the enterprises trading in cereals and oilseeds (Thomson, 1996). Also FEFAC (the union of animal feed manufacturers) and EFMA (the union of fertilizer manufacturers) have a certain influence on EU policies (ibid). The main objectives of these organizations is to maintain the size of the European agro-food sector and ensure high levels of output from the primary sector of the European agriculture (see e.g. CIAA, 2006; FEFAC, 2003). Nevertheless, the agro-industrial unions do also lobby for lower input prices and do sometimes even favor cheaper external imports (ibid). These objectives are clearly conflicting with the interests of the farmers’ unions which seek to maximize the farmers’ socio-economic welfare. According to Thomson (1996), the influence of the agro-industrial unions has so far not been particularly significant however.

³ According to A. Pijnenburg, consultant ZLTO. Letter correspondence, 12.05.06.

Non-agricultural actors' and their involvement in the decision making

There are also geographically bound groups both in Norway and in the EU that have interests in how agricultural policies that contribute to the attainment of socio-economic and demographical objectives. The geographically bound groups are not exclusively dealing with agricultural matters and are so numerous and diverse that it is impossible to list them all here, due to the limited format and scope of the thesis. I will therefore only mention one of them in particular, the *Vrienden van het Platteland* (Friends of the Countryside) which has an important role in the improvement of economic viability and promotion of cooperation between farmers and other stakeholders in rural areas in Zeeland and the Southern Netherlands. The organization is backed by the ZLTO, but does also involve several other organizations with interests in a sustainable development in the countryside. In Hordaland there are few geographically bound organizations that have a cross-sectoral approach to rural development. Some of the few examples of this type of organized interests are the so called *bygdelag*. Bygdelag are community-based organizations that coordinate and support economic initiatives in their community and promote local interests externally. Many smaller communities in Hordaland have a local bygdelag.

As we have seen, many of the interest organizations that are mentioned in this sub-chapter claim that there is a link between farmers' income levels and rural viability. If this link exists, does that mean that all inhabitants in rural areas should get stakeholder status when it comes to the making of multifunctional agricultural policies that target the socio-economic and demographical development in these areas? Although there seems to be an almost unanimous agreement among the farmers' unions that agricultural support mechanisms have an important impact on the rural economy also beyond the agricultural sector, it is important to remember that the mission of the farmers' unions is to promote the economic interests of their members. It is therefore not surprising that these organizations legitimize transfers to the agricultural sector by arguing that the subsidies strengthen the rural economy as a whole. One must however be careful to conclude that there is a general agreement among all stakeholders when it comes to the correlation between incomes in the agriculture and rural viability. Although my research has not been able to identify any contrasting views on the effect of agricultural policies on the

rural economy, there may very well be actors that would disagree with the perspective of the farmers' unions.

If multifunctional agricultural policies and rural viability are indeed interlinked however, it seems plausible to also acknowledge the interest of actors that are not directly associated with the agriculture, as long as the policies have an impact on this group as well. Today there is no institutionalized participation from any societal group representing non-agricultural concerns of rural communities in the negotiations on agricultural policies, neither in Norway nor in the EU. These actors can thus only affect the agenda in this policy field through lobbying, even though the EU's *European Economic and Social Committee* in some cases may serve as a forum for their type of interests (Kay, 1996).

Institutions and actors responsible for the agricultural policies in Norway

In Norway it is the National Parliament represented by the *Ministry of Agriculture and Food* that has the superior jurisdiction over agricultural matters. The policies are thus made by the Ministry with mandate from the Parliament. The Stoltenberg government⁴ emphasizes that the agriculture “*will have a key role in the attainment of the objectives for settlement and value generation*” in the rural areas (Heggem (LMD), 2006). It seems thus that at least rhetorically the government and the farmers' unions' positions are converging.

The implementation of agricultural policies in Norway is neutrally monitored and assisted by *Norsk Landbruksforvaltning* (the Agricultural Authority) and the County Governors. The County Governors have been delegated several instruments that can contribute to the adaptation of national policies to local limitations and opportunities (Rogstad (red.), 2004), such as e.g. the responsibility for providing strategies for economic development within the agriculture and its ancillary industries. Nevertheless, neither the Governors nor the Landbruksforvaltning are particularly important as stakeholders since they mostly function as nothing but conveyors for policy originating elsewhere. The same also applies to the municipalities which have a relatively limited jurisdiction over agricultural matters and do therefore have a marginal role in this regard.

⁴ In office since the fall 2005.

Municipalities do however administer certain policies, and do regularly produce agricultural plans for their territory in conformity with national guidelines. Although there has undoubtedly been a certain decentralization of the agricultural administration, the municipalities are not particularly influential in other issues than those related to landscape maintenance and planning of the territory.

Institutions and actors responsible for agricultural policies in the EU

In the EU it is the Commission that is the initiator of agricultural policy. According to the Commission (1999, p.2), the agriculture and the off-farm activities can “*contribute to a balanced territorial development by maintaining the viability of rural areas*”. Further, the Commission argues that “*a healthy agricultural sector is necessary to support a sound rural society and economy and, increasingly, farmers produce a whole range of goods in addition to basic agricultural commodities*”. As we have seen, the Commission states that the agriculture and its auxiliary industries are necessary to preserve the rural communities and their economic fundament.

The Agricultural Council is the institution where the national positions on agricultural policies are addressed. Since the Council is composed by representatives from all the EU member countries, it is impossible to synthesize all the different positions on agricultural policies role with regards to rural viability that the Council has fronted. Although the Council certainly can come to unanimous agreements on policy issues, this does not necessarily mean that the councilors represent converging national interests.

In addition to the Commission and the Council, there is also the *Special Committee on Agriculture*. The Committee does not have any formal votes but can make proposal and plays more or less the same role as the COREPER does in other policy fields (Kay, 1998). It collects and analyses relevant data and prepares stands for the Council. Because the Committee has an advisory function and is subordinate to the Council, I do not consider it as an independent stakeholder in this context.

The agricultural policy making in the EU is Europeanized. This means that most of the decision making in this policy field has been transferred from the national to the supranational level. The responsibility for the implementation of the policies rests on national governments however, which means that the member states in practice still have

the power to influence the agricultural policies e.g. through their selection of policy instruments. After the introduction of the CAP's reformed Pillar 2, the member states have further increased their influence on agricultural policies through the *co-financing* of rural development programs which enhances the national governments' power to determine how the funds are to be spent. Also *modulation*⁵ has increased the member states' influence on agricultural policies since it enables them to decide what funds to transfer to rural development programs and determine how these programs are to be designed (UK Parliament, 2005). Although most of the agricultural support schemes are under the jurisdiction of the EU institutions, the national governments can beyond doubt be considered as important stakeholders and partners in the making of agricultural policies.

The EU institutions are often characterized as highly elitist. There are however several formal and informal institutions and forums where private interests interact with the policy makers. The *comitology committees* are one example of such interaction. According to Weiler and Kocjan (2003, p. 3) comitology committees are "*concerned with the control, by the Member States and the European Parliament, of the implementation by the Commission of EU legislation*". Comitology committees do often involve private, non-governmental parties such as e.g. farmers' unions. COPA-COGECA's interests are e.g. regularly represented formally and informally in expert groups concerned with technical and political aspects of agriculture (COPA-COGECA, 2006; Thomson, 1996). Also the Council's working groups may often involve some input from interest organizations. The implementation of the EU's agricultural policies on a local level is often based on hearings where all major stakeholders are invited to give their feedback. This is also the case in Norway where the implementation of policies originating from the central government often is adjusted in accordance with the local branch of NBS or Bondelaget.

Summary

In this sub-chapter I have outlined the role of the various stakeholders in the formulation of multifunctional agricultural policies. The reason why I have carried out a

⁵ See chapter 4.2.

stakeholder analysis is to identify the actors that are affected by and involved in the making of agricultural policies and study how they influence the decision making. Another purpose behind this analysis is to study how key stakeholders' interests affect the multifunctionality concept.

Both the Norwegian and the EU authorities involve selected stakeholders in various governance frameworks to open up for external input. In Norway the interaction between the government and the farmers' unions has a corporatist-like character, whereas the interaction between the EU institutions and the European farmers' unions seems to be less institutionalized. Another difference is that the interest organizations that are openly invited to contribute to the policy making in the EU tend to vary more from case to case than they do in Norway.

It seems that at least rhetorically the farmers' interest organizations covered by this study agree that agricultural policies can be multifunctional when the support mechanisms contribute to sustainable income levels for farmers. There does also seem to be a general view among the farmers' unions that agricultural policies can have an impact on rural communities as a whole, although ZLTO to a lesser extent emphasizes this relationship. The positions of the legislators and the interest organizations that are covered by this study do also seem to converge, both in Norway and in the EU. Nevertheless, it cannot be concluded that this automatically enhances the credibility of associating certain socio-economic and demographical externalities with the agricultural policies. The fact that interest organizations and legislators tend to accept this linkage can however be assumed to influence the use of agricultural policies and the priorities that are made in decisions concerning the agriculture.

3.2 Costs and benefits of multifunctional policy instruments

In this sub-chapter I look into various theories on multifunctional agricultural policies and their effect on the rural economy and demographics. Then I discuss the effect of multifunctional agricultural policies compared to other policies targeting rural areas, and end up suggesting a model for estimating the effect of multifunctional agricultural policies.

3.2.1 Theories on the effectiveness of multifunctional agricultural policies

The OECD (2001) claims that supporting commodity production with the aim of achieving non-commodity targets may have sub-optimal impacts on other non-commodity outputs. The organization argues that targeting the non-commodity outputs directly results both in greater non-commodity benefits and smaller trade-offs with other economic or social concerns. There are however also good reasons for targeting rural viability through multifunctional agricultural policies. I will now discuss some of them.

Why are multifunctional agricultural policies being used?

In many cases there is a technical jointness between public and private goods (see chapter 2.1). This means that it is practically impossible to produce one good without producing another one at the same time, and it is therefore not rational to construct separate payment schemes for each of these goods separately (Romstad et al., 2000). There may however also be cost saving advantages from the use of multifunctional policies, since multiple objectives can be pursued with the same policy instruments and single financial transfers. It can therefore be assumed that multifunctional policies in many cases also can reduce transaction costs.

Incentives

It is crucial that multifunctional agricultural policies give the right incentives to the providers of the public goods or positive externalities that the policies are targeting. If the production does not generate profits that exceed the farmers' reservation profit, they will switch to other types of production or shut down (Romstad et al., 2000).

According to Romstad et al. (2000), there are unavoidable trade-offs between precision and transaction costs. Less precise policy instruments may be cost saving. General policies may also have negative consequences on the provision of the public goods however, in cases where providers do not get compensated properly for their services and therefore lose their incentives to keep producing a desirable good. It is therefore rational to maximize the precision of a policy within the limits of what can be considered as feasible transaction costs.

Household-based agricultural production may often maximize utility instead of profit since the farm is both a production and a consumption unit (ibid), and it is therefore important that the utility of an allocation exceeds the reservation utility in these cases. Obviously household farming does not have any significant impact on the socio-economic state of a community. It does however affect the settlement, since farming is bound to the land. The utility logic may often be a hurdle to agricultural policies that normally only provide economical incentives. The fact that some farmers follow local norms that do not conform to the common notion of profit can also be an impediment to the use of economical incentives in agricultural policies.

Another aspect that influences the effectiveness of a multifunctional agricultural policy is whether the production of the public and the private goods is joint, complementary or competing.

- In the context of multifunctional agriculture there is *complementarity* if the provision of a commodity affects the quality of the input to a public good. One example of this is e.g. when the agricultural production methods affect the maintenance of rural settlement in a given area. Small scale processing of meat is for instance the economical basis of some smaller communities in Hordaland, Norway. As long as the supply of such products is relatively low compared to lower priced, conventional products, the economical fundament of the small scale industry persists. However, if the output from the small scale producers increases and prices either fall or the demand remains inelastic, the incomes in the sector may be reduced.
- When private and public goods are *competing*, the provision of the public good limits the production of the private one, or vice versa. Very often there is an economic trade off between public and private goods. To use settlement as an example again, low-intensive agriculture provides more jobs than industrial or conventional agricultural production. However, due to increased labor costs, it is usually more cost-efficient for a farmer to prioritize efficiency rather than e.g. social or ethical goals related to settlement.

Both in the case of complementary and competing goods, it is important that the policy design takes these aspects into account and provide the rights incentives for the farmers to produce the desired amount of public goods and services.

According to the OECD, any public good or positive externality that is produced by farming should be made subject to a test where the following aspects are verified:

1. That there is jointness between the commodity and the non-commodity.
2. That the provision of the good/externality is affected by market failure.
3. That there are no other alternative measures that do not involve government intervention.

Source: OECD, 2001, p.19.

If the conclusion is affirmative, this means that *“the most efficient interventions will be defined by the nature of the jointness that exists on the supply side and by the different public good characteristics of the non-commodity outputs on the demand side”* (ibid).

Multifunctional agricultural policies and rural settlement

Romstad et al. (2000) argue that the selection of policy measures must be made according to what type of rural settlement is being pursued and how important the marginal effect of the agricultural production is considered for the local settlement. One crucial question in this regard is whether a changing demographical pattern necessarily is negative and has to be prevented. Romstad et al. (2000) remind that the issue is whether it is the rural settlement itself that is to be targeted by the policy, or is it rather the benefits associated with it. Another relevant topic is whether one wants centralized or spread rural settlement (ibid, p. 71). Some people prefer the countryside because of its lack of pollution or noise and its low crime rates. Whether they are willing to commute to enjoy these goods depends on distance to the work place. In rural communities that are located near urban areas, it may be more effective to have policies that primarily stimulate part-time farming, as long as infrastructure and transport facilities are sufficient and there are enough jobs in the adjacent urban communities (ibid). As mentioned, part time farming does not need to be of crucial socio-economic importance to have a stabilizing effect on

settlement, since it is land-bound.

The next step is to ask whether depopulation is an indicator of flawed policies. First of all this depends on whether it is an objective to keep current population levels in the rural community in question. In some cases internal migration from rural to urban areas may be both natural and desirable. As discussed in chapter 2.2, declining employment in the farming sector is not a problem per se. The impacts of the decline depend on the size of the sector and how many and what types of alternative jobs there are available. However, one problem related to reallocation of labour from the agriculture to other sectors is that people employed in the farming sector may have skills which are not easily adaptable to other types of work.

In many communities outside the areas where commuting to urban centres is possible, it may be important to reduce rural-urban migration and to therefore prevent rapid structural change in the agriculture. In the last decades, employment in the agricultural sector has been steadily declining due to the mechanization and intensification of the production. There are however marginal exceptions from this trend in some of the new EU member countries. After the breakdown of the communist regimes of Central and Eastern Europe, some of the countries that had the quickest economic development also experienced increasing relative employment rates in the agricultural sector (EC, 2000). This trend was probably a result of the declining number of jobs in the industry following the liberalization of the economy. As a consequence, some were forced to move back to rural areas to gain economic security. However, this phenomenon proved to be temporary and has not been found in other economies in Europe than the transitional ones (ibid). Hence, it appears that the agriculture normally does not have the capacity to accommodate labour that has been released from other sectors. In rural areas where the unemployment is unsustainably high, agricultural policies should therefore concentrate on keeping and stabilizing the current employment rates in the agriculture in these communities.

Multifunctional agricultural policies and employment

The agricultural sector may in many cases be a more stable source of employment than other sectors since the means of production are less mobile and the farming itself

often is based on identity, traditions and lifestyle (Romstad et al., 2000). Both in Norway and in the EU, culture, social aspects and property right are all important factors that reduce the flight from the economically vulnerable agriculture. Also sunk costs and low education may pose obstacles to people that might otherwise want to leave the agricultural sector to find jobs elsewhere. The sum of the mentioned hurdles may preclude classic rational choice models' ability to predict under what conditions it is rational to leave the farming sector. Agriculture is thus less affected by changes in business cycles than other industries and may therefore according to Blekesaume (in Romstad et al., 2000) experience employment trends that diverge from other sectors.

According to the Commission (2000), the availability of labour and labour costs can have an influence on what type of farming is best suited for a given area. In rural areas where the labour costs are low and unemployment high, it is desirable to increase the employment in the agricultural sector to the maximum of what is economically sustainable. In such areas it is important that the authorities make policies that stimulate a type of agricultural production that requires higher inputs of human labour, such as e.g. biological farming. It is evident that the value of marginal employment opportunities may be higher in remote areas (Prestegaard, 2004b). This legitimizes low intensity agriculture in these places. This type of agricultural planning should however to some extent respond to consumers' demand in order to be sustainable.

Summary

In this sub-chapter I have discussed some theories on how multifunctional agricultural policies should be designed to be effective. In order for the policies to yield desirable effects, I have concluded that they must have unequivocal targets and as much precision as possible within the limits of feasible transaction costs. To be effective, agricultural policies must also provide the right incentives. Appropriate incentives should be sensitive to possible trade-offs between complementary and competing goods, and do not always have to be of an economical character. Since part time and household farming may have important effects on rural settlement, there should be policies that cover these activities as well. It is important to keep in mind that although financial transfers are the main components of agricultural policies, there will normally also be non-financial

measures in a policy package. These ought to be taken into consideration when the effectiveness of a policy is being assessed.

Multifunctional agricultural policies should be designed according to the type of rural settlement that they targeted. It must also be acknowledged whether it is the settlement per se or its benefits that is the main objective. Since agriculture cannot accommodate a great amount of labor from other sectors, multifunctional agricultural policies cannot be the only remedy for unemployment in rural areas. Nevertheless it is important that agricultural policies stimulate the type of farming that is best suited with regards to availability of labor and labor costs.

3.2.2 The effect of multifunctional agricultural policies compared to other policies targeting rural areas

Although farming often accounts for a significant percentage of the employment and the value generation in rural communities, agricultural policies are not always the instruments that are best suited for stimulating rural development. In this sub-chapter I discuss in what cases multifunctional agricultural policies can be assumed to be effective and under what circumstances there ought to be a substitution from agricultural subsidies to other sectoral support schemes.

Cross-sectoral approaches to rural development

One important aspect of agricultural policies is their effects on the related economy. Romstad et al. (2000, p. 99) remind that “*when comparing the costs of job creation, one must [...] correct the analysis for the whole range of different functions and values that are attached to the different industries*”. I will just briefly provide an example. The decline in agricultural activity has led to an increase in problems such as spreading of forests or overgrowth, which in many places threatens to destroy the traditional culture landscape. This may in turn imply that not only valuable cultural heritage and identity are being lost, but also that some of the landscape’s alternative uses are infringed upon. Inaccessibility may e.g. hinder recreational use, and from an esthetic point of view, an overgrown landscape may be perceived as less attractive to tourists. These indirect impacts caused by insufficient support mechanisms in the agriculture may

have implications for the local economy, far beyond the farming sector.

The European Commission (2000, p. 7) argues that in areas where farm employment accounts for a small portion of the workforce, *“a broader approach to rural development and the role of farming in the process, including policies to diversify income sources, may be needed”*. Further the Commission states that *“efforts to maintain or increase employment in areas suffering from structural disadvantages, such as remoteness and difficulty of terrain, where there may be little alternative activity to agriculture, should inevitably focus on the farm sector. However, in rural areas where a diverse rural economy exists, employment and other rural development initiatives should examine all the alternatives to assess the most appropriate and durable options”*.

Agricultural support schemes are normally embedded in broader objectives or policies targeting e.g. financial, social or socio-economic development and may appear in cross-sectoral policy packages. As we have seen, multifunctional agricultural policies will therefore often have implications for other sectors than just the agriculture.

A socio-economic indicator that measures this spill over effect is the so called *employment multipliers*. Employment multipliers estimate the indirect job creation that results from the direct provision of marginal jobs in a given sector. An employment multiplier does thus give indications about the ratio between input and output in terms of job creation in the agriculture (Romstad et al., 2000). Due to the diverse character of the various EU countries' economies, it is impossible to create an employment multiplier for all the EU countries together. For individual countries however, there can be made estimates of the indirect employment effect of new jobs generate.

It is important to keep in mind that the effect of multipliers varies in different regions according to their structural properties. According to Romstad et al. (2000) the greatest effects can be found in areas where the agricultural production is higher the national average. A weaker effect can be found when a great share of the output from the agriculture is processed elsewhere, e.g. in urban areas. I will come back to the agriculture's impacts on the related economy. For now it is enough to acknowledge that the indirect effect of job creation can be quite significant (see figure 1).

Figure 1: Employment multipliers for the Norwegian and the Dutch agricultural sectors.

	Norway (including Hordaland)	The Netherlands (including Zeeland)
Employment multiplier for the agriculture (<u>excluding</u> the processing industry that bases its production on imported raw material)	1.35	N/A
Employment multiplier for the agriculture (<u>including</u> the processing industry that bases its production on imported raw material)	1.58	4.70 ⁶

Sources: Norway: Johansen and Onsager, in Romstad et al., 2000. *Multifunctional Agriculture: Implications for Policy Design*. Department of Economics and Social Sciences, Report No. 21. Ås: NLH. Page 67.

The Netherlands: Oude Wansink and Maks, 1997. *On the Construction of Regional IO Tables*, Oude Wansink, M. J. and Maks, J. A. H., 1997. *On the Construction of Regional IO Tables*. European Regional Science Association, Rome, Italy, August 1997. Page 21.

As mentioned, multifunctional agricultural policies do not necessarily have to be directed exclusively towards on-farm production. Also ancillary industries and other off-farm activities can often be among the beneficiaries of multifunctional agricultural policies (Aruvuori & Kola, 2004; EC, 2000). This is because the primary production is economically and technologically dependent on the ancillary industries and vice versa. Although many of the enterprises associated with the ancillary industries are not located in rural areas, they have an indispensable function as complements to the primary production and do therefore have a significant importance for the employment and the economy in the countryside (EC, 2000). If incomes from the agricultural production fall below the reservation limit, not only the sector itself may be affected, but also the ancillary industries (Romstad et al., 2000). This may have ramifications for entire communities. This inter-sectoral dependence leads Aruvuori and Kola (2004) to conclude that instead of sector policies, broader policies are better suited for rural development.

Multifunctional agricultural policies and allocative efficiency

Another important aspect related to the appropriateness of agricultural policies is *opportunity cost*. From a rural viability-perspective, an agricultural policy has the greatest value to individuals and to the society as a whole if socio-economic and social welfare

⁶ Much of the processing industries in Zeeland and the rest of the Netherlands base some of their production on imported raw material. I have therefore not provided any separate multiplier for the processing industries that only employ domestic input.

are being maximized by that particular allocation. This is what neo-classic welfare theory terms *Pareto-improving* allocations. The issue is in other words whether a policy should stimulate to the use of available land resources and labour in agricultural production or rather in other sectors. Welfare theory stresses that if the *net benefit* from keeping one person active in the agricultural production exceeds the benefit from having this person in a full- or part-time job in another sector or being unemployed, it is desirable (at least from a social and socio-economic perspective) to provide policies that induce marginal farmers to stay in the sector. If Pareto-optimality is unattainable, there can be a Pareto-improvement as long as the winners from a certain allocation compensate the losers (Prestegaard, 2004b). However, it is difficult to identify common preferences for a whole community, and it is therefore often impossible to agree on what is welfare-optimality.

Brunstad et al. (1995) propose *cost per capita for providing infrastructure* as a measure for the effect of policies targeting rural areas. Underlying the concept there is an assumption that a complete removal of basic services and infrastructure in a certain area is not sound from an ethical point of view. From this perspective, the costs related to maintenance of infrastructure divided per capita should be compared to a policy's marginal effect on the population. The results of the analysis give indications on what scope subsidies ought to have and how much funding they should provide. However, the important question in this context is whether it is the farming sector specifically or the whole community that should receive subsidies to maintain the population rates. Again this depends on the size of the agricultural sector in the region and its general importance for the local economy.

Summary

In this sub-chapter I have discussed what conditions determine if multifunctional agricultural policies or other sector policies are best suited to support rural viability. First of all it is important that an estimation of allocative efficiency must be based on an assessment of the various functions and values of the different industries. The different economic sectors are often highly interdependent in rural communities and may all yield an indispensable contribution to the local economy and settlement. This means that there is often a need for broad policies or at least cross-sectoral coordination of policy

objectives. Opportunity cost is also important in this regard and can contribute to the assessment of whether a policy is welfare-improving or not.

3.2.3 Model for estimating the effects of multifunctional agricultural policies

For this thesis I have made the first steps to create a model for estimating the utility, effectiveness and efficiency of multifunctional agricultural policies for attainment of socio-economic and demographical objectives. The thesis covers all the components of the model, but has an emphasis on the appropriateness of multifunctional agricultural policies with regards to the objectives they have been set up to attain. As opposed to economic sector models that only describe the economy sector-wise, this model seeks to include the cross-sectoral links between the primary production and the ancillary or complementary industries.

Indirect variables	Intervening variable	Direct variable⁷
1. The importance of the agricultural sector for the rural economy (chapter 4.1).	1. The importance of non-agricultural support schemes for regional development (chapter 3.2.2 and 4.3).	2. Multifunctional agricultural policies utility, effectiveness and efficiency in the attainment of socio-economic and demographical objectives in Norway and the EU.
2. The appropriateness of the multifunctional agricultural policies with regards to the externalities they target (chapter 3.2.1, 4.2 and 4.3).		

Before I start operationalizing the variables, I see it as necessary to clarify what the terms *rural area* and *rural development* refer to. According to the Commission (2000, p.4), *rural areas* ought to be defined in terms of maximum population density, with somewhere between 150 and 500 inhabitants per square kilometre, depending on how the agglomerates are structured and spread. The OECD on the other hand uses more restrictive figures and defines rural areas as territories inhabited by less than 100 inhabitants per square kilometre (ibid). Although the OECD's definition may be suited

⁷The dependent variable is what is being investigated by the central research question.

for Norway where settlements tend to be concentrated in clusters which account for a small share of the total territory of a given jurisdiction, it is not exhaustive enough to cover all the areas of the EU that are usually considered as rural. In this research I have therefore opted for the Commission's flexible and structure-dependent definition.

I have conceptualized *rural areas* in Norway as territories with a population density of less than 100 inhabitants per km². For the EU the picture is more mixed, but since my empirical research has been carried out in the Zeeland, I have opted for some estimates that suit the province's demographic patterns. Generally, Zeeland can be said to have a more evenly distributed population than Hordaland. In Zeeland the population density is 209 inhabitants per km² (NFIA, 2006). These figures are among the lowest in the country. From a structural point of view, the province can generally be seen as rural, with the exceptions of Vlissingen, Middelburg, Goes and Terneuzen (see e.g. Province of Zeeland, 2005). In this study I have therefore defined *rural areas* in Zeeland as territories with a population density of less than 200 inhabitants per km².

As far as rural policies are concerned, the Commission describes rural development as action that assures "*a progressive improvement in economic security of people in rural areas*" (EC, 2000, p.4). Rural development policies are thus policies that have corresponding objectives.

I will first comment on the individual variables. Then I identify a set of indicators for each one of them. Please note that because of the limited format of this thesis and availability of relevant data from Hordaland and Zeeland, it has been impossible to test all components of the model.

The indirect variables

The first independent variable is the importance that the agricultural sector has for the rural economy. The agriculture's impact on socio-economic conditions is dependent on the economical importance of the sector, and on its contribution to employment in the sector and in the *related economy*⁸.

1. The first indicator that demonstrates the economic importance of agriculture, is the share of the total value generated in rural communities that is accounted

⁸ The related economy consists of "*ancillary and service industries, generating economic activity in supply and distribution chains as well as processing industries*" (EC, 2000, p. 5) that acquire their inputs from to agricultural primary production.

for by agricultural production. Because of a lack of such data, I have not been able to provide any figures on the value added to the rural economy by the agriculture however.

2. The second indicator is the share that the net returns from the agricultural production constitute of a household's income. Since funds that are spent on agricultural subsidies decoupled from the production can be reallocated to other non-agricultural support schemes, there is no need to include such decoupled transfers in the indicator which has been designed to reveal the importance of the agriculture for the rural economy. I have chosen not to include production linked subsidies either, in order to simplify the model.
3. The third indicator that I propose is the share of the total labor force in a given community that is employed in the agricultural primary production.
4. The fourth indicator is the alternative employment opportunities outside the agricultural sector that are available in a given community. This indicator contributes to the forming of a complete picture of the importance of the agriculture. There are however several difficulties related to reallocation of measures of production from the agriculture, such as labor (due to lack of skills which may prevent ex-farmers from seeking employment in other sectors) or capital (due sunken costs etc).
5. The fifth and last indicator is the economic impacts that agriculture has on the *related economy*, i.e. the degree of interdependence that exists between the agriculture and other sectors.

The second independent variable that I have identified is the appropriateness of the multifunctional agricultural policies with regards to the by-products or externalities of agricultural production that they target. There are basically two indicators which demonstrate the impact of the agricultural policies on externalities.

1. The first indicator measures the effectiveness of a policy. The indicator is the agricultural policies' ability to stimulate production of positive externalities and reduce negative ones. Positive externalities in the context of socio-economic and demographical sustainability refer to socio-economic growth

and maintenance of desirable demographical patterns in strategic areas (see chapter 2.2). Negative externalities on the other hand would in this case be e.g. decreasing income and/or depopulation in strategic areas resulting from flawed policies.

2. The second indicator measures the multifunctional agricultural policies' ability to internalize externalities. A universally applicable operationalization is difficult to come up with, but it is clear that an indicator should measure whether if the policy gives incentives to providers of agricultural commodities to maintain or increase the production of targeted externalities, i.e. socio-economic growth and/or preservation of desirable demographical patterns in strategic areas.

The intervening variable

The importance of non-agricultural support schemes for regional development is an important intervening variable that affects the utility of multifunctional agricultural policies. I have found two indicators that can be used for measuring the importance of the non-agricultural support schemes.

1. The first indicator is the share of total regional assistance that is canalized through non-agricultural support schemes.
2. The effectiveness of non-agricultural support schemes as compared to the effectiveness of agricultural policies in regional development is the second indicator. Because objectives vary from policy to policy, effectiveness refers to successfulness of goal attainment (Pollitt & Bouckaert, 2004).

Summary

In this sub-chapter I have suggested a model for estimating the utility, effectiveness and efficiency of multifunctional agricultural policies for the attainment of socio-economic and demographical objectives. The model consists of the following variables and indicators:

Indirect variables	Intervening variable	Direct variable
<p>1. The importance of the agricultural sector for the rural economy</p> <p>1.1 The share of the total value generated in rural communities which is accounted for by agricultural primary production</p> <p>1.2 The share that the agricultural production constitutes of a household's income, minus production linked and decoupled subsidies.</p> <p>1.3 The share of the total labor force in a rural community that is employed in the agricultural primary production.</p> <p>1.4 Alternative, non-agricultural employment opportunities</p> <p>1.5 The economic impacts that agriculture has on the <i>related economy</i></p>	<p>1. The importance of non-agricultural support schemes for regional development</p> <p>1.1 The share of the total regional assistance that is canalized through non-agricultural support schemes</p> <p>1.2 The effectiveness of non-agricultural support schemes as compared to the effectiveness of agricultural policies in regional development</p>	<p>1. Multifunctional agricultural policies utility, effectiveness and efficiency in the attainment of socio-economic and demographical objectives in Norway and the EU.</p>
<p>2. The appropriateness of the multifunctional agricultural policies in terms of the externalities they target</p> <p>2.1 Multifunctional agricultural policies' ability to stimulate generation of positive socio-economic and demographical externalities⁹ and reduce negative ones¹⁰.</p>		

⁹ Socio-economic growth and/or maintenance of desirable demographical patterns in strategic areas.

¹⁰ Declining rural economy and/or depopulation in strategic areas resulting from flawed policies.

2.2 Multifunctional agricultural policies' ability to stimulate providers of agricultural commodities to maintain or increase the production of targeted externalities		
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The main purpose of the model is to help the analysis of data in this thesis. Due to the scope of this research project, it is not possible to test all the components of the model however. This is possibly something that could be taken up in future research. In this thesis the model's primary function is to guide the data selection and to help identifying the importance of certain variables for the successful attainment of socio-economic and demographical policy objectives. To be a more reliable tool however, the model would need scientific testing.

4. Comparison of the Norwegian agricultural policies and the EU's CAP

This chapter compares Norway and the EU's agricultural policies from a socio-economic and demographical perspective. I first give an overview of the agriculture and rural economy in Norway and the EU and in two selected regions, Hordaland and Zeeland. I then present the major features and principles of Norway and the EU's agricultural support regimes and discuss to what extent they are embedded in broader socio-economic and demographical objectives. Eventually, I analyze and discuss the findings from my interviews in Hordaland and Zeeland concerning the effects of multifunctional agricultural policies.

4.1 General characteristics of Norwegian and European agriculture and rural areas

In this sub-chapter I present the key characteristics of the agriculture and the rural economy in Norway and the EU, with an emphasis on Hordaland and Zeeland. I do this in order to give a better understanding of the circumstances that the multifunctional agricultural policies have been designed for and to cast light on how these affect the policy making.

Agriculture in Norway

In Norway the dominant types of production is cattle and pig hold (Rogstad (red.), 2005). Although cattle and pig hold are not as widespread in Hordaland as in the rest of the country, these types of production are together with sheep hold and horticulture the most important ones in the region. Most of the horticulture in Western Norway and the country in general is located in Hordaland. In Norway the agricultural sector struggles with high production costs and severe limitations to its productivity posed by topological and climate related factors. Norwegian farms, especially in Hordaland and the rest of Western Norway, are often small entities built on relatively hilly land. Consequently, the land resources cannot always be exploited mechanically in the most efficient way and the production is therefore labor intensive.

Only 2.7% of the national territory of Norway is cultivated (Rogstad (red.),

2005), and there is a cold climate with a short growing season which reduces the size of the crops. In Hordaland, erosion is a constant threat due to large amounts of precipitation and the proximity to the ocean. The cold climate in Norway does however result in certain positive effects as well. It does for instance limit the scope of problems such as plant epidemics and bugs. Besides, the quantities of precipitation and the long days in the growing season are also favorable to the fertility of the crops (ibid). In the last years it has been more common for farmers, especially among the cattle and sheep holders, to join forces in cooperative cooperative holdings (ibid) in order to mitigate the negative impact of the mentioned restrictions to the production.

Agriculture in the EU

The EU has gone from being a net importer of agricultural products to becoming a net exporter, and is today the second biggest exporter of agricultural commodities. The most important products are cereals, dairy products, cattle, pigs, and sheep (EC, 2004b). The EU territory is so diverse that no general characteristics can be identified. About the Zeeland however it can be said that from a topographical point of view, the province has a generally more accessible and more easily exploitable territory than Norway and Hordaland. A greater share of Zeeland's territory is therefore arable. This facilitates a more efficient production of agricultural goods. In Zeeland 34% of the territory is cultivated (Province of Zeeland, 2002), which is considerably more than the rest of the Netherlands.

Figure 2: Dominant type of production (in order of importance)

Norway	EU	Hordaland	Zeeland
Cattle- (including milk) and pig hold	Cereals, cattle- (including milk), pig-, and sheep hold	Cattle- (including milk), sheep- and pig hold and horticulture	Cattle hold (including milk) greenhouse farming, arable farming and horticulture.

Sources

Norway: Rogstad (red.), 2005.
 EU: European Commission, 2005c
 Hordaland: Knutsen & Sværen, 2004.
 Zeeland: Centraal Bureau voor de Statistiek (CBS), 2006a.

Not only is the ground in Zeeland and the Netherlands generally more fertile than in Hordaland and Norway, another major difference is the size of the farms. The Dutch

farm units are the largest in Europe in economical terms. Between 1999 and 2003 they increased from ca 90 to ca 95 European Size Unit (ESU)¹¹ (Eurostat, 2005b). Also in Zeeland the farms are considerably larger than their counterparts in Hordaland. However, if one measures the farm acreage instead, farms in e.g. Slovakia and Czech Republic are considerably larger than in the Netherlands. They are respectively 680% and 580% larger than the average Dutch farm (ibid).

Socio-economic importance of agriculture in Norway and the EU

From an economic point of view, the Norwegian agriculture is relatively marginal. Nevertheless, with regards to employment and socio-economic sustainability, farming is more important than its contribution to the GNP would suggest, especially in rural areas. Depending on what criteria is being used to define agricultural primary production, the sector accounts for somewhere between 1.5% (FT, 2004a) and 3% of the total number of jobs in Norway (SSB, 2006). If one includes the agro-industries as well, employment in the sector is 6% (FT, 2004a)¹². These figures do not cover the agriculture and agro-industries' secondary-suppliers, however. In Norway, the labor costs are significantly above the European average. This is one of the reasons why between 1987 and 1997 the number of people employed in the Norwegian agricultural sector fell by 20%. Although the decline is diminishing, the relative employment rates in the agriculture are still dropping. Approximately 16% of the rural population in Norway works in the agriculture, whereas only 2% in urban and semi-urban areas do (Blekesaune in Romstad et al, 2000). This proves that the importance of agriculture varies significantly from place to place.

In the EU there are 8.5 million annual labor units (ALUs) in the agricultural sector (Eurostat, 2005b). The accession of the CEE countries increased the number of farmers by 4 million (Fischler, 2004), and the relative employment rates for the agricultural sector has as a consequence risen to 8.3% of the total number of jobs in the EU (EC, 2005c). Nevertheless, it is noteworthy that the employment in the agriculture in the individual member states is declining. It is only the accession of the CEE countries

¹¹ One *European Size Units* (ESU) equals 1200 Euro of *standard gross margin* (SGM). SGM is based on the acreage or size of livestock and a regional coefficient and indicate the economic size of a farm (Eurostats, 2005b).

¹² See figure 3.

that has made the percentage go up.

In Zeeland 6% of the total labor force is employed in the farming sector (Province of Zeeland, 2005). This is considerably more than in Hordaland (see figure 3). It is important to keep in mind however that 50% of the Hordaland's population lives and works in the City of Bergen and that the percentage of farm employment in rural areas is therefore considerably higher (see appendix 2).

Figure 3: Relative employment in the agricultural and food sector¹³

Norway	EU	Hordaland	Zeeland
Ca 6%	8.3%	1.6%	6%

Sources

Norway: Statens Forvaltningstjeneste, 2004a.
EU: European Commission, 2005c.
Hordaland: SBB, 2006.
Zeeland: Provincie Zeeland, 2002.

Part time farming is very common in Norway. 16% of the rural population is employed in the agriculture, but only about 80% of these are full-time farmers (Blekesaune in Romstad et al., 2000). Most of the country's agricultural production is carried out by the owner of the land or his/her family (Rogstad (red.), 2004). Also in the EU a significant part of the rural work force is engaged only in part-time farming. Eurostat (2005b) estimates that somewhere between 2.1 and 4.3 million EU farmers work full-time in the agriculture, depending on how one defines full- and part-time. The rest, i.e. between 4.2 and 6.4 million work part time. As far as the size of the farms is concerned, 41% of the EU farms make use of 1 or less *annual labor units (ALUs)*, 33% use one to two, and 19% use two or more. This indicates that the average European farm size provides full time work to approximately one person.

Settlement and demographical trends

Both in Norway and in the EU the population in rural areas has been declining for decades. Approximately 375.000 people live in Zeeland (2001). Hordaland has a slightly larger population with about 450.000 inhabitants. The two regions do thus have more or

¹³ Percentage of total number of jobs.

less the same population. In Hordaland there has been a net decline in population in the inland municipalities, which are the ones that are most dependent on agriculture. Only in the coastal areas and in the city of Bergen there has been an increase (SSB, 2006b). Until the mid-60s, Zeeland suffered from depopulation (Province of Zeeland, 2005). However from 1965, there has been a population growth due to an expanding port industry. The only exception to this trend was in the years between '83 and '90 when there was a global economical decline.

In the rural parts of Hordaland employment is declining. Although the county only has a 3.5% unemployment and has experienced a net 1.8% increase in employment since 2001 (Hordaland Fylkeskommune, 2005), it is important to notice that it is basically the City of Bergen that skews the figures upwards. Only seven of 33 *rural* municipalities¹⁴ in the county had a job surplus or balance between supply of labor and demand (ibid). Also the unemployment rates in Zeeland have been recently increasing (ca 6% percent in 2005) after a long period of low unemployment from the mid-'90 (Province Zeeland, 2005; Eurostat, 2006a).

One of the Norwegian agricultural policies that deeply affect rural settlement is the *bo-* and *driveplikt* which require buyers of farms to live on the property and engage in some sort of on-site agricultural production. Also in certain areas of the EU there are similar conditions posed on buyers of agricultural land. In Zeeland, there are no special requirements related to the farming activity in case of a turn-over, but there is a regulation that settles that residence houses and farms cannot be converted into second homes or leisure homes. These limitations are set in order to prevent deterioration of the living environment caused by a decrease in the permanent population.

Profitability of the agriculture

A farmer's *operating profit* is the surplus that remains when all expenses are subtracted from the income that is earned from the agricultural production. According to Knutsen and Sværen (2004), the operating profit in Norway reached a positive peak in 2002, but has been steadily declining ever since. This is due to an increase in costs which by far has outweighed the improved profits that higher market prices had generated. It is

¹⁴ See definition in chapter 3.2.3.

noteworthy that the figures from Western Norway (including Hordaland), are significantly lower than the national average. Although, farm households' net incomes recently have been more stable (ibid), Hordaland is still below the average for Western Norway. This is due to the small size of the individual farm units and the fact that some of the production in Hordaland is different than in other parts of the country. Hordaland has e.g. less milk production and pig hold and more sheep hold than the rest of the country. In the period between 1994 and 2003 the operating profit declined more for the larger farms in Norway than for the smaller holdings. The operating profit from non-farming activities seems to be rising after a down turn in 2001. In Western Norway it is primarily non-food products, transport and tourism that accounted for the greatest farming related value generation (ibid).

The producer prices for agricultural goods give certain indications about the profitability of agricultural production. Although there are important support mechanisms for farmers, the profitability remains the primary incentive for the producers to stay in the sector. Producer price indexes are therefore important indicators with regards to the economic viability of the farming sector. The producer price index for the Norwegian agriculture has been steadily increasing since 2000 (SSB, 2005), whereas the corresponding figures for the EU have been more volatile and have been slightly negative in the last years with a -2.5% decrease between 2003 and 2004 (Eurostat, 2005). The increasing prices in Norway can be seen in association with a growing interest for quality food (Rogstad (red.), 2004). However, a deregulation of the Norwegian import regimes and an increasing internationalization of the domestic food markets may in the long run pressure the prices to fall again.

Both interest rates and trends in the labor market do also affect the economic viability of agricultural production. The exchange rate of the Norwegian currency has in the last years been strong, leading to high interest rates. This has had negative consequences for both for the competitiveness of national products in the domestic markets and for the agricultural goods that are exported. Inside the Euro-area there are no differences in interest rates, and the other European countries' exchange- and interest rates are strongly linked to the Euro. It is mostly when it comes to trade in agricultural goods to a third country that different interest rates may have a significant impact.

Norwegian export of agricultural products is marginal, but the exchange rates have an impact on the national markets' due to the lack of self-sufficiency and the country's massive import. The import of fabricated and semi-fabricated products is e.g. currently increasing. This has an impact both on the ancillary industries and the primary production (Rogstad (red.), 2004).

When it comes to the economic foundation for investments, it is evident that farmers' willingness to invest in physical capital depends both on profitability or support mechanisms and on labor costs. As long as the labor costs are high, farmers are more inclined to invest in production enhancing technology. Norway has in general a high income level and many farmers have therefore in the last years switched to more efficient production methods. Nevertheless, according to Rogstad ((red), 2005), the Norwegian agriculture has still a great potential to further improve its technological efficiency. For the EU the picture is more mixed. In the ten new member states salaries are considerably lower than in the original fifteen states. The Netherlands has e.g. some of the highest labor costs in Europe, but has also some of the highest economic returns per hour (Eurostat, 2005b). One of the main reasons for this is the country's highly technological production with a large greenhouse sector and large farm units.

Summary

In this sub-chapter we have seen how the conditions for agricultural production and commercial activity in rural areas differ a lot in Norway and the EU. The differences can be assumed to have significant impacts on the effectiveness of an agricultural policy in a given area. Due to topological and climate-related limitations, the Norwegian farms are generally much smaller in average and less efficient than in most other European countries. Both in Norway and in the EU the agriculture seems to have a crucial importance to the rural economy. It is therefore interesting to notice that both in Norway and in the EU the employment in the agriculture and the rural population have been declining over the last decades. After the accession of the 10 new member states, agriculture has become more decisive for the socio-economic welfare in the countryside with a higher percentage of the population in rural areas being farmers. This has a great importance for the further reforms of the Common Agricultural Policy, which in a few

years will be extended to the CEE countries without any discrimination. To summarize, we have seen that various geographical, economical and legal conditions may all have a significant impact on the agriculture and rural viability. This must be taken into account when agricultural policies are made.

4.2 Multifunctional agricultural policies in Norway and the EU

In this sub-chapter I present general and specific features of multifunctional agricultural policies in use in Norway and the EU. In line with my definition of multifunctional policies as “policies that target not only the primary production of agricultural commodities, but also certain by-products or externalities of this production”¹⁵, I will primarily focus on production related policies. I first give a brief account on the general characteristics of the Norwegian agricultural policies and the EU’s Common Agricultural Policy (CAP) however.

Basic features and principles of Norwegian agricultural policies

Norway has primarily two main groups of policies: *Protective support*, which is primarily composed by tariff barriers, and *budgetary support*, which basically is composed by direct transfers over the national budget. Norwegian agricultural policies have since 1992 taken a new course and have recently been more focused of efficiency, competitiveness, entrepreneurship and compliance with the *WTO Agreement on Agriculture*. The current rules underlying the production subsidy regime in Norway are based on binding guidelines promulgated in the *Stortingsmelding* (Parliamentary Communication) number 19 (1999-2000)¹⁶, “*On Norwegian Agriculture and food production*”, and later in the annual agricultural agreement between the government and the farmers (SLF, 2005). *Stortingsmelding 19* (1999) is based on *St. Mld 8* (1992) and has as its main objective to create a robust agriculture that can resist major changes such as less subsidies and more competition (LMD, 1999).

The *St. Mld. 8* led to major reforms of the previous agricultural policies. From 1975 the principle that farmers’ incomes were to be raised to the same level as incomes in

¹⁵ See chapter 4.1, p.14.

¹⁶ A *Stortingsmelding* (St. Mld.) is a parliamentary communication where the government in office communicates to the Parliament what policy objectives it will pursue in a given period of time. St.mld. are usually paid a great deal of attention to and are normally acknowledged as the official guidelines for the further work in the parliamentary committees.

other sectors, had been pursued by all the successive governments (Rogstad (red), 2005). With the *St. Mld. 8* in place however, this objective was abolished and substituted by a clause that opened up for the *possibility* to raise the incomes of farmers to the national average without being committed to do this (ibid). The Norwegian agricultural policies had been (and to a certain extent still are) subject to massive critique based on allegations that the subsidies were not only too expensive, but also stimulated farmers to run their production in an inefficient way. As a consequence, *St. Mld. 8* settled that the productivity had to be improved and that the costs reduced. These principles were basically upheld by the *St. Mld. 19* (1999) which considers the farmers as independent entrepreneurs with responsibility for own revenues and income (LMD, 1999). Much of the power to determine the farmers' income levels was transferred from the government and parliament to the consumers, a development that has also taken place in the EU. According to Rogstad (red), 2005, p.16), the *St. Mld. 19* is generally based on a *land to table*-thinking. This means that the whole supply and consumption chain of agricultural products must be seen as a whole. The *St. Mld.* therefore calls for both the *producer costs* and *purchasing prices*¹⁷ to be reduced in order to make the Norwegian agricultural products more competitive with EU prices. Another important objective that affects the socio-economic conditions in the farming sector is that a greater share of the farmers' income in the future must come from the agricultural production (ibid). Both the *St. Mld. 8* and the *St. Mld. 19* focus on the multifunctionality of agriculture, among others with regards to rural viability¹⁸ (ibid; LMD, 1999).

Basic features and principles of the CAP

The CAP has from the very birth of the European Community been one of its main components and has benefited from the largest transfers over the Community budget (EC, 2004). It has beyond doubt contributed to the massive growth and improved competitiveness that the European agriculture experienced after the Second World War and has helped reducing the depopulation in the European countryside. However, already in the Seventies and Eighties it became clear that the CAP was too costly to be

¹⁷ Producer costs are the expenses that the producers carry to produce a certain amount of goods. Purchasing prices are the costs that the consumers pay for a given product.

¹⁸ The *St. Mld. 19* operationalizes *rural viability* as "stable rural settlement" (LMD, 1999).

economically sustainable. Most subsequent reforms have therefore aimed at reducing the costs of the CAP. The most profound CAP reform so far, the so called *Mac Sharry-reforms* (1992), did however fail to cut costs. Instead the reforms contributed to a slight increase in funds transferred to the agriculture (UK Parliament, 2005), due to expensive compensation programs that were set up to make up for the cut in target prices and for the obligatory set-aside of land.

Like its Norwegian equivalents, also the CAP comprises both *protective* and *budgetary support*. The basic objectives of the CAP are codified in the *Treaty of Rome* (1957), article 39, which are still binding principles for the further development of agricultural policies in Europe. The objectives are the following:

1. *To increase agricultural productivity by promoting technical progress and by ensuring the rational development of agricultural production and the optimum utilization of the factors of production, in particular labour;*
2. *thus to ensure a fair standard of living for the agricultural community, in particular by increasing individual earnings of persons engaged in agriculture;*
3. *to stabilize markets;*
4. *to ensure the availability of supplies; and*
5. *to ensure that supplies reach consumers at reasonable prices.*

(EU, 1997, p.190)

In the context of rural viability it is obviously the second objective that is the most important. I will come back to this in chapter 4.3. To help implementing these basic objectives, there was developed a pillar structure that the CAP rested upon until 1993-96 reforms. The original three pillars were designed with an emphasis on the market and granted free movement of agricultural goods within the Community, *community preference*¹⁹ and *financial cohesion* which redistributed funds among the member countries, regions and individual farms (Kay, 1998). The reformed CAP has a completely

¹⁹ The *Community preference* implied that the farmers of the Community were protected from the competition of cheaper imported products and got subsidized by import tariffs.

different character, partly due to the enlargement to the East and partly as an adaptation to the requirements of the *WTO Agreement on Agriculture*. The pillars have been reduced from five to two and there is more focus on rural development and less market intervention:

- Pillar 1: Market support measures and direct subsidies to EU producers
- Pillar 2: Rural development programs

Source: UK Parliament, 2005.

The transformation was initiated in 1992 by the so called *Mac Sharry-reforms* and followed up both in 1996 and in 1999, when the *Agenda 2000* was introduced. The *Mac Sharry-reforms* led to the most drastic changes that the CAP had ever been subject to. The support prices that used to be the fundament of the CAP were dramatically cut and compensations were introduced to reduce negative impacts on the farm economy. There was also established a set of agro-environmental measures.

The 1997 reforms did for the first time explicitly acknowledge the concept of multifunctionality as the fundamental principle of the CAP, by introducing the so called *European Model of Agriculture* which internalizes the concerns for the externalities of agricultural production. One of the effects of *Agenda 2000*-reforms was that the community market prices for agricultural goods were further reduced. The cuts were made in order to make the European agriculture more competitive as the regime of import protection would have to be gradually dismantled to comply with the WTO requirements. Farmers were compensated through direct payments, and the framework for this new type of subsidies was turned into the reformed first pillar of the CAP. The new second pillar was set up to target rural development.

In 2003 the *single farm payments* (SFPs) were introduced in the EU. SFPs are paid to individual farms according to their acreage or size of livestock and are decoupled from the production. SFPs are made conditional on compliance with certain environmental and animal welfare standards, a principle known as *cross-compliance*. The 2003 reform marked the beginning of the use of *modulation*, which is a transfer of funds from market support and direct payments (Pillar 1) to additional rural development schemes (Pillar 2)

(UK Parliament, 2005). Compulsory modulation is being applied in each Member State from 2005. From 2006 the compulsory modulation in the EU-15 countries is set at 4% with an increase of 5% from 2007 until 2012. Beyond the obligatory modulation, member states and regions can implement "voluntary" modulation schemes of up to 20% to fund special rural development programs (ibid).

Import protection

I will now move on to the specific agricultural policies in use in Norway and the EU. I only comment on the policies that are assumed to have a significant impact on the socio-economic and demographical viability of rural communities. Although both the Norwegian and the EU market for agricultural goods have been relatively deregulated the last years to comply with the *WTO Agreement on Agriculture*, various types of market regulation still remain among the most significant policy instruments both in Norway and in the EU. Both have a support regime for the agriculture which is based on *import protection*, i.e. tariffs that guarantee the farmers higher prices for their products than the world market prices.

Due to Norway's restrictive import regime, producer prices and purchasing prices have been higher here than in the other European countries. The import regime has so far protected the Norwegian goods from major competition. This is however bound to change as Norway now dismantles more and more of its import tariffs. *Stortingmelding 19* releases the *landbruksamvirker* (the agricultural cooperatives) from their responsibility to act in conformity with political objectives for the agriculture, and grant them more autonomy to increase their competitiveness (Rogstad (red), 2005). Following the *Landbruksamvirke*-reform, the agricultural cooperatives modified their quota systems and lowered the purchasing prices to fight over-production, over-capacity and declining demands for certain agricultural products (ibid).

Market regulation

Both Norway and the EU have a *target price*-system which covers most agricultural goods, although the EU is gradually abolishing these schemes and is replacing them with direct budgetary support. The *target prices* are products of the

import regime and market intervention which allow producers to earn fixed prices for certain products (Rogstad (red), 2005). In Norway action is taken to bring the prices back again to the targeted level if the market prices exceed the target prices by more than 10% two weeks in a row. In the EU, the target prices are “enacted” through intervention prices and adjustments of import tariffs. The Norwegian government has currently a policy to reduce the gap between domestic target prices and the price level in the EU. In practice however the target prices have not been reduced at all, rather the opposite (see LMD, 2006). For certain products, such as grain and oil seeds, the government used to have a *purchase duty* when an intervention price was reached. This regime has recently been abolished however. The dairy industry is today the most regulated sector in Norwegian agriculture. The country practices a system of percentage quotas. Since 1996 it has been possible to purchase and sell quotas to increase the efficiency of the sector, where 50% of the quotas can be purchased in the private market and 50% can only be sold to the government (LMD, 2006). The result of this new arrangement was that the over-production of milk was reduced significantly.

The internal market price in the EU is set below the world prices. For further price control, there is a set of *threshold prizes*, i.e. minimum prices for import (Kay, 1998). The *threshold prices* are set below the *target prices* in order to cover e.g. transport costs (ibid). The *variable import levy* (VIL) which used to make up for the difference between the threshold price and the lowest offer from the exporters, are all currently being “*tarifficated*” and will soon be gone. The last regulated price is the intervention price, a price floor at which all agricultural produce is guaranteed to be purchased by the EU member countries’ governments. As we have seen, Norway has already abolished its intervention prices.

The CAP used to be regularly criticized for having a productivity bias since the price support regime tended to give incentives for producing excess output. The surpluses from the production pushed down the market prices and it was the consumers and the taxpayers that had to make up the difference between the low market prices and the artificially high target prices²⁰. To reduce these negative impacts of the policies, the Mac Sharry-reforms introduced cuts in support prices and opened up for direct budgetary

²⁰ This phenomenon is termed *deadweight loss* in the classic welfare economic literature.

support. The CAP is today moving more and more towards decoupled support. Norway on the other hand has been more conservative and has retained price subsidies on most agricultural products. Today it is the price subsidies, the decoupled subsidies²¹ and the investment subsidies that are the most important support mechanisms for farmers in Norway.

Tax relief and other support schemes

The profitability of the farming is not only affected by market prices and subsidies, but in some cases also the tax regime. From 2002 tax relief has been used as a part of the agricultural support mechanisms in Norway. Farmers are granted a fixed, flat tax reduction on their income which is supplemented by a percentage-based tax relief calculated according to their revenues from the agriculture (Rogstad (red), 2005). This type of support is not restricted by the WTO and will probably be more important in the future. In the *Agricultural Agreement* of 2006 the tax relief to farmers was maximal tax reduction was set to NOK 141.000 (LMD, 2006), i.e. €17.600, based on a priority system where the farms that are most dependent on the market prices benefit the most (Hjørnegård, 2006). According to the Norwegian Minister of Agriculture, Terje Riis-Johansen, the tax relief system is supposed to give the greatest relieves to the smallest holdings (BT, 17th May 2006). This objective seems somewhat hard to attain in practice however. Until today's date, the EU countries have still not introduced any tax relieves for their farmers. This may however change in the future as the enforcement of the *WTO Agreement on Agriculture* is getting stricter.

Apart from market regulation, direct farm support, price subsidies and tax relieves, there are also a few other important agricultural policies that affect the socio-economic conditions of farmers in the EU. One of them is the extra-transfers to the so called *Less Favored Areas* (LFAs). Until 2010 mountainous areas, intermediate LFAs (i.e. areas that are defined as backward according to socio-economic criteria), and areas with special handicaps (such as e.g. wetlands) will benefit from an increased maximum level of support (EC, 2005).

Norway has recently introduced subsidies to farmers that switch to biological

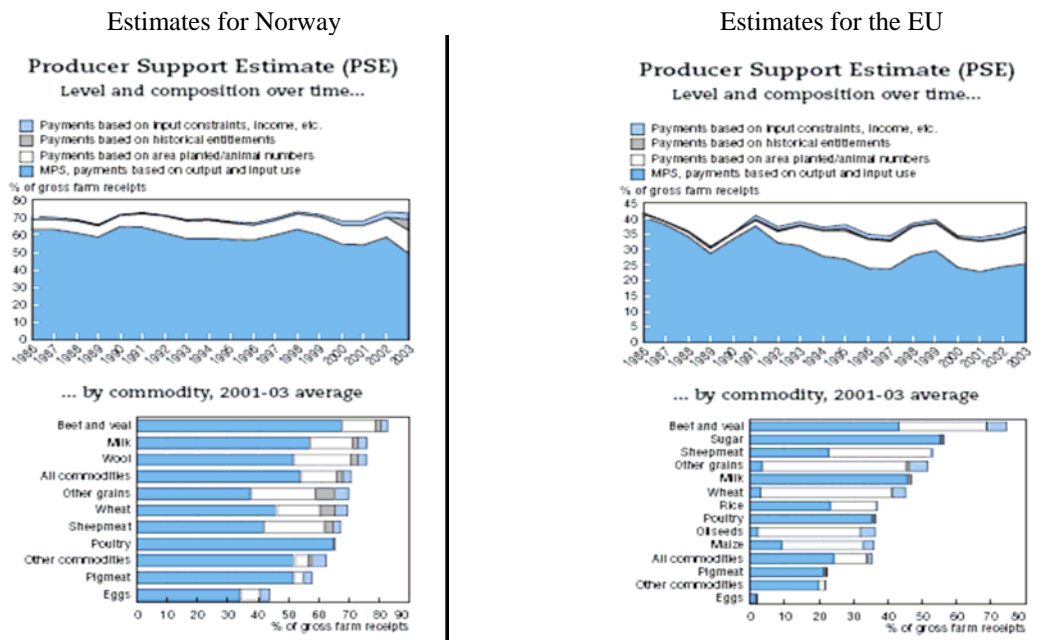
²¹ The additional production subsidies are decoupled from the production and calculated according to the size of the livestock or the acreage of the farms.

production. The program is expected to have important positive impacts on the profitability of the farms that opt for biological production, especially for the sheep holders (LMD, 2006). However, so far there have been surprisingly few that have made the adjustments to get recognized as biological holdings. Also in the EU there have been projects that seek to stimulate to more biological production. It is e.g. assumed that some holdings, especially the CEE countries, would benefit from biological, rather than conventional production.

Revenues and subsidies

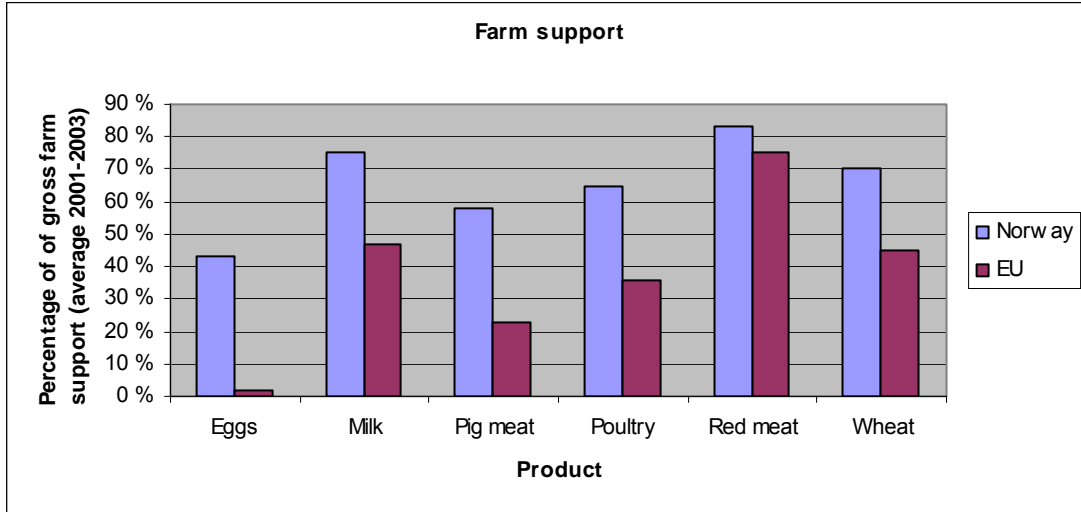
Figure 4 and 5 indicate the level and composition of agricultural subsidies in Norway and the EU, and the percentage of the *gross farm receipts* which are accounted for by subsidies. The figures are quoted from the OECD's most recent estimates of the relative importance of various types of agricultural subsidies (OECD, 2004).

Figure 4: The relative importance of the various types of agricultural subsidies in use in Norway and the EU:



Source: OECD, 2004, p. 48 & 62. *Agricultural Policies 2004: At a Glance*. Paris: OECD.

Figure 5: Agricultural subsidies according product



Source: OECD, 2004, p. 48 & 62. *Agricultural Policies 2004: At a Glance*. Paris: OECD.

As we can see from the gross farm receipt chart, the Norwegian average from the period between 1986 and 2003 lies approximately at 70%, compared to less than 40% for the EU-15 countries. For all subsidised agricultural goods that are produced and sold in Norway, subsidies make up 45-85%²² of the financial returns (see figure 4). This means that the importance of the agricultural subsidies is quite significant for all Norwegian holdings, at least in the short run. This is a finding that is also supported by Vårdal, who estimates the importance of Norwegian agricultural subsidies for the production and for the employment in the sector by means of the JORDMOD-model (Vårdal, 2003). In the model all current subsidies are removed. Vårdal's findings indicate that in a scenario where all support schemes are abolished, the agricultural production in Norway would drop to a level slightly above zero. It is however important to keep in mind that the model does only consider the current structures in the agriculture and does not take into account the adjustments that the farmers would make if all subsidies were abolished.

In the EU on the other hand, subsidies make up from 75% to less than 5%²³ of the gross farm receipt (see figure 4). Although these figures certainly vary more than in

²² Approximately 85% of the financial returns on beef and veal is accounted for by agricultural subsidies. Ca 45% of the financial returns on eggs derive from subsidies (OECD, 2004, p.62).

²³ 75% of the financial returns on beef and veal is accounted for by agricultural subsidies, whereas less than 5% of the financial returns on eggs is (OECD, 2004, p. 48).

Norway, also in the EU the production of the most supported goods (i.e. red meat, sugar, sheep and grain) relies heavily on the subsidies. Consequently, it would have considerable impacts on the incomes of farmers if there were made major reductions of the subsidies.

Summary

It is evident that Norway and the EU have two fundamentally different agricultural subsidy regimes. Just like the EU, Norway has also got two major types of agricultural policies, protective and budgetary support mechanisms. As opposed to the CAP however, the Norwegian regime is more stuck with the old production-bound price subsidies in addition to the less important decoupled support. In the last years it has therefore been the largest holdings that have benefited most from the Norwegian subsidy regimes. This is also the case for the EU, although the shift to more decoupled support mechanisms has increased the transfers to some of the medium-sized farms. Both Norway and the EU have retained some of their old measures for market regulation, although the general trend for both is a shift towards deregulation of the markets for agricultural goods.

Figure 6: Types of agricultural support schemes

	Norway	EU
Support mechanisms		
Production-bound price subsidies	√	(√)
Decoupled budgetary support	√	√
Production-bound support/target prices	√	√
-Intervention prices	X	√
-Import tariffs	√	√
Geographically differentiated subsidies	√	(√) ²⁴
Tax relieves for farmers	√	X
Investment subsidies	√	(√)

²⁴ The EU's geographically differentiated support schemes, the *LFA*-subsidies, will be phased out by 2010.

After just marginal adjustments through the first 35 years of its existence, the CAP has today changed from being predominantly based on price support to providing financial support that is increasingly decoupled from the production. The CAP has in other words moved away from its productivist bias and has deregulated a great share of its import protection schemes. Also the interventionist CAP that used to guarantee fixed prices has been moderated. It is evident that this type of deregulation of agricultural markets and the shift from production-bound support to decoupled subsidies will have significant impacts on the socio-economic conditions of the farmers. I will however come back to this issue in chapter 4.3 and 4.4.

4.3 Multifunctional agricultural policies' embeddedness in broader economic, social and demographical policy objectives

In this sub-chapter I study the embeddedness of agricultural policies in broader socio-economic and demographical policy objectives in Norway and the EU. I use *Stortingsmeldinger*²⁵ and communications from the European Commission to see how multifunctional agricultural policies contribute to the attainment of rural development objectives. I will first look into Norway and the EU's general policy objectives for rural development, and then discuss how the functions of the agricultural policies fit in with these objectives.

General objectives and features of Norway's rural development policies

The Norwegian regional development policies have since the 1970s been characterized by continuity and dominance of two basic objectives:

- Maintaining the major patterns of settlement
- Equal living conditions all over the country

Source: FT, 2004a, p.20.

In practice these two goals imply that the government is committed to ensuring

²⁵ See chapter 1.3, p. 7.

equal welfare and development all over the country. This is done by assisting the development of robust and independent economies in all regions and by strengthening the relations between urban and rural areas (FT, 2004a; FT, 2004b). The two objectives are interrelated since an incoherent development may reduce the welfare both in the areas that are being depopulated and in those that are under pressure due to an increasing population (FT, 2004a). It is important to note however that in spite of considerable efforts to prevent depopulation in the Norwegian countryside, this objective has never been attained. Except for the small towns that are located in rural areas²⁶ and the communities within commuting distance from the major cities, the population in the countryside is steadily declining (FT, 2004b). The objective of preserving local settlement was initially meant to be targeted at the municipal level, but was later on extended and does today have a regional scope (ibid). The regional approach is also reflected in the recent years funding of rural development programs which have resulted in a shift from municipal programs to regional ones. The regional focus does certainly also have consequences for how the decline in the farming sector is being approached. The policies have a larger scope today and do not necessarily prescribe major intervention if only some communities in a region experience a downturn in the farming sector.

The most important development instruments in the agricultural sector are the *BU-measures* (the Rural Development-measures) which provide support for investments that improve the profitability of farm-related activities or increases the value of the physical capital of the farms (IN, 2006). There are however also various other national and regional development funds that also target the agriculture. When it comes to regionally differentiated state aid, the *EEA Agreement* pose a number of restrictions in cases where the regional development support hinders free competition. However, as opposed to the industry and the service sector, agricultural subsidies are not covered by the agreement. This may be a reason for having a widespread use of agricultural subsidies to redistribute wealth among the regions.

General objectives and features of the EU's rural development policies

²⁶ See definition in chapter 3.2.3.

One of the fundamental objectives of the CAP is *“to ensure a fair standard of living for the agricultural community, in particular by increasing individual earnings of persons engaged in agriculture”* (EU, 1997, p.180). This is a severe challenge, considering that the farmers’ incomes in the EU-25 are considerably lower than other groups²⁷ (Eurostat in EC, 2004). In a communication from 2000, the European Commission (2000, p.5) stresses the importance of the linkage between profitability in the agriculture and the provision of services and infrastructure: *“In peripheral areas, the quality of provision of essential services, such as health care and education, will depend on the level of economic activity and size of local population. These factors may be dependent on the relative prosperity of the farm sector, particularly in areas having few alternative sources of employment”*. As mentioned in chapter 4.2, the EU farmers are experiencing an ongoing shift from market support towards more regional development measures. According to the Commission (2000, p.3) *“rural development policies should exploit the contribution of farming, both in terms of improving on-farm activities and supporting ancillary services, to secure sustainable development for rural areas”*. The Commission has therefore proposed in its draft budget for the 2007-2013 budgeting period to transfer funds from *market and direct aids* (Pillar 1) to rural development (Pillar 2) through *modulation* (UK Parliament, 2005). There is thus a gradual shift away from strict sector policies to a more cross-sectoral approach to agricultural policies.

The function of the CAP’s new Pillar 2 is to foster supplementary or alternative job-creating activities and improve living and working conditions for farmers (ibid). The objective is to enhance the agricultural sector’s production of public goods and contribute to the development of rural areas. Nevertheless, today the agricultural subsidies to the Netherlands and Zeeland are primarily canalized through Pillar 1. Ca 95% of the agricultural subsidies that are allocated to the Netherlands are still market support and direct farm subsidies (Mang, 2006). According to the Commission (2006c), there were no significant regional development programmes that targeted the Dutch agriculture in the period from 2000-2006. This is however bound to change due to the ongoing modulation, which means that in the future the Netherlands and Zeeland will receive more regional development support whereas other types of transfers to the agriculture will decline.

²⁷ Less than 60% of the general income level in the EU-25 countries (Eurostat in EC, 2004).

Policy instruments that are used under the Pillar 2 aim at improving the agricultural marketing, contributing to the modernization and diversification of the agriculture, and supporting local structures. Although modulation most certainly affects the socio-economic and demographical development in a society, it is difficult to determine to what extent it can be considered a multifunctional agricultural policy instrument. Modulation transfers some of the funds that used to target rural viability in an indirect way by intervening in the agricultural economy²⁸ to rural development programs (Pillar 2) that aim directly at modernizing the farming sector, improving its profitability and creating new jobs in and outside the agriculture. As a consequence, the Pillar 2-measures do not necessarily target the primary agricultural production²⁹. It is important to keep in mind however that modulation also implies that market and price support is being replaced by other measures that aim at improving the profitability of the agricultural production (Pillar 2). Whether one considers modulation a multifunctional agricultural policy, does therefore depend on what function of the Pillar 2 one emphasizes the most.

The new pillar structure paves the way for one single framework for rural development support, the *European Rural Development Fund* (ERDF) which is financed through the *European Agricultural Guarantee and Guidance Fund* (EAGGF). The ERDF is according to the Commission (2005a) a broader approach to sustainable development in rural areas. ERDF is set up to “*improve the competitiveness of the agricultural and forestry sector, the environment and countryside management and enhance the quality of life and diversify the rural economy*” (EC, 2005b). Regional development plays an important role in the European Community, both in financial and in political terms. It is the ERDF is the major linkage between the agriculture and the EU’s regional development framework. In the *Treaty on the European Community*, Art 159, it is entrenched that the Community is committed to “*reducing disparities between the levels of development of the various regions and the backwardness of the least-favoured regions, including rural areas*” (EU, 1997). The reason why the regional development is so highly prioritised is because of the common market which requires uniformity in order to work functionally. Together with the *European Social Fund* (ESF) and the *European Regional Development Fund* (ERDF), the *European Agricultural Guidance and*

²⁸ This type of intervention can be classified as multifunctional, according to the definition in chapter 2.2.

²⁹ These funds are not multifunctional, according to the same definition in chapter 2.2.

Guarantee Fund (EAGGF) of the CAP constitutes the fundament of the EU's regional development framework. Complementary programs, like *URBAN*, *INTERREG*, *LEADER* and *EQUAL*, which focus on European-wide issues, do not target the agriculture in particular. Neither do they cover socio-economic or demographical issues in specific regions, and they are therefore not relevant in this case. According to the budgets for the period 2000–06, the EU is committed to spend 94 % of its structural funding on three regional priority objectives:

- **Objective 1:** “*Helping regions whose development is lagging behind to catch up*”. The Objective 1-funds are reserved for regions with a GDP per capita which is below 75 per cent of the EU-average.
- **Objective 2:** “*Supporting economic and social conversion in industrial, rural, urban or fisheries dependent areas facing structural difficulties*”.
- **Objective 3:** “*Modernising systems of training and promoting employment*”. The Objective 3-funds cover the entire European Union a part from the areas that benefit from Objective 1-support that include training and employment measures.

Source: EC, 2006a.

Maintenance of current settlements is not explicitly stated as one of the basic objectives for regional development in the EU. This is not to say that preventing depopulation has no priority, but net outflows of labour from one region to another will under certain circumstances not be considered as problematic (see chapter 2.2). However, it is evident that objectives' *raison d'être* is partly to hinder massive migration from less favored regions which is considered harmful to the economy and social welfare of the Community. Zeeland used to receive transfers as an objective 2-area, but does not qualify for the funds anymore. Many structural programmes financed or co-financed by the EU are therefore currently being phased out in the province (EC, 2006b).

The equalizer systems

One of Norway's most important agricultural support schemes with regards to

rural development is the *equalizer regime*, which is a system of market regulation and price equalizing. In practice the equalizer regime distributes profits from the agriculture among farmers and agro-industries across the country by regulating prices in the domestic market, storing excess produce, and transferring products from surplus areas to deficit areas (Rogstad (red), 2005). Internal or external dumping is also used. The most important of the price equalizing schemes is the one for dairy products which is set up to increase revenues and level the price of milk between different geographical areas and different types of use (ibid). The different milk prices that the various dairies earn are compared and a tax is posed on prices that are above the average. Subsidies exist when the prices fall below the average level. There are also market regulation systems for several other types of agricultural goods in Norway, although the dairy regime is beyond doubt the most significant one. The price equalizer regime is crucial in order to keep agricultural production all over the country, due to varying production costs and transport conditions.

Also in the EU there is a similar price equalizer system. Although many of the measures that traditionally were used to equalize prices across the EU countries are currently being abolished, the EU does still have the intervention price regime and arrangement for transfers of excess produce to deficit areas. As the EU market for agricultural goods is being deregulated, some of these policy measures are threatened. How this will influence the agriculture is difficult to forecast, but certain areas with high production costs and relatively low productivity will probably experience some difficulties, at least in a transitional phase.

Geographical differentiation and other measures stimulating employment and settlement

In Norway there are also several other measures for geographical differentiation than the price equalizer regime. In the *Soria Moria-declaration*³⁰ the Norwegian Stoltenberg-government settles that it will ensure that there is a “*diverse production across the whole country*” (SK, 2005). According to Hjørnegård (2006) at the LMD³¹, the *Agricultural Agreement of 2006* gives the greatest increase in subsidies to the agriculture in Western Norway (comprising Hordaland) and Northern Norway in form of

³⁰ The Soria Moria-declaration is the Norwegian Stoltenberg-government's policy manifesto for the period 2005-2009.

³¹ *Landbruks- og Matdepartementet (LMD)* is the Norwegian Ministry of Agriculture and Food.

regional development funds. In these areas the holdings are in average smaller than in the rest of the country and they are thus under greater economic pressure. The small-scale production in e.g. Hordaland contrasts with the bulk production and semi-industrial production of other regions, and is more labour intensive. It can therefore be assumed to have a greater effect on employment.

According to Prestegard (2004b), direct support is the type of subsidy that stimulates the most extensive farming and does therefore ensure the highest number of operating farms. Prestegard does therefore claim that direct payments “*enhance settlement and activity in rural areas suffering from depopulation*” (ibid, p.27). The last Norwegian governments have provided less subsidies to the production types that contribute less to the production of public goods or positive externalities and do not have an important effect on employment or settlement (Rogstad (red), 2005). The poultry, egg and pig sectors are examples of such production types. They are relatively competitive and are more dependent on the market. The producers of these goods do therefore to a larger extent rely on the import tariffs (ibid).

CAP reform and expected effects on farmer’s socio-economic conditions

For the budgeting period 2007-2013, the CAP transfers will be significantly reduced. Between 2007 and 2013 the total expenditure of the CAP is bound to fall to 29% of today’s transfers, and by 2013 the CAP will only constitute 26% of the annual budget. This is a dramatic reduction considering that today 45% of the EU budget is still going to the farming sector (UK Parliament, 2005). There are good reasons for believing that the reduction will have consequences for the socio-economic state of many holdings across Europe, such as e.g. the production of sugar beets and grain in Zeeland (see chapter 4.4). Another major change that will also affect farmers’ incomes is the recent EU enlargement. After a transitional period, CAP will be implemented in the CEE countries under the same conditions as in the other member countries. In its proposals for the next budgeting term, the Commission does therefore suggest to increase the transfers to the agriculture in the CEE countries to allow them to start catching up with the other member countries. For the EU-15 this will imply a further reduction of subsidies, since the total financial inflow to the CAP will not be augmented correspondingly (ibid). The reduction

of subsidies following the EU enlargement may have severe impacts for farmers in the EU-15 countries, especially for the small holdings (see chapter 4.4). Another problem related to the enlargement is that the increased transfers to the agriculture in the new member states may not be sufficient to solve the rural poverty problems in these countries (ibid).

Summary

In this sub-chapter I have discussed how embedded multifunctional agricultural policies are in socio-economic and demographical objectives (i.e. regional development goals) in Norway and in the EU. Both Norway and the EU prioritize the leveling of socio-economic conditions across the territory as the most essential regional development objective. In the EU, socio-economic coherence is entrenched in the founding treaty as an unalterable objective, whereas in Norway the reduction of regional disparities is not legally binding and the approach to regional development issues may therefore vary slightly from government to government. The most striking difference between the Norwegian and the EU goals with regards to rural viability is the Norwegian government's focus on preserving rural settlement. This is an objective that to a lesser extent underpins the agricultural policies in the EU.

The new Pillar 2 for rural development and the extensive use of modulation has linked CAP closer to the EU's regional policy framework. This is assumed to help cushioning the negative impacts of the decline in the agricultural sector. It does thus seem that the CAP today is more adapted to the development in the agricultural sector and the general structural changes in rural communities across Europe. In spite of the new focus on agricultural policies' contribution to rural development, almost all the funds that the Netherlands and Zeeland receive under the CAP are still Pillar 1-measures.

The Norwegian equalizer regime seems to be a significant instrument for strengthening the agricultural economy and maintaining settlement across the country. Also the extra subsidies and benefits that Hordaland receives along with some of the other areas where the agriculture is least efficient, can be considered in line with the objective of reducing regional disparities.

4.4 Stakeholders' perception of the socio-economic and demographical sustainability of multifunctional agricultural policies and their objectives

In this sub-chapter I present the findings from my empirical research among farmers, farmers' representatives and civil servants in Hordaland and Zeeland. The samples do only cover 30 respondents, i.e. 15 from each of the two regions. They can therefore not be seen as statistically representative and the qualitative data from the study do therefore only give indications of the effect of multifunctional agricultural policies. The ex-Commissioner of Agriculture, Dr Franz Fischler (2004b) states in one of his speeches that *"by listening and learning and taking a bottom-up approach, rather than dictating and complicating from Brussels, we can respond to the real needs and reward the real initiatives of people on the ground level, those who know best how to keep the countryside alive"*. As Dr Fischler underlines, it is crucial to consider how the policies work in practice. The main objective in this sub-chapter is in other words to investigate the functionality of the agricultural policies.

Profitability, farm size and the future of the agriculture

Both in Hordaland and in Zeeland all respondents had noticed a decline in the agriculture. N. Haga (farmer, Hordaland) captured the current tendencies in the following quote: *"The agriculture is in a downturn and farming is therefore extreme sport"*. Similar statements were also found among the Zeeland interviewees: *"I don't see where the agriculture [in Zeeland] is going to end. It is will take 50 years to phase out the European agriculture"* (J.W. van de Welde, farmer). Also four of the other Zeeland farmers suggested 50 years as a timeframe for phasing out the local agriculture.

All farmers and civil servants from Hordaland and a majority in the samples from Zeeland claimed that there are only marginal revenues to be earned from the agriculture and that the farmers' incomes therefore tend to be insufficient. Most respondents maintained that the reason for the insufficient returns is low market prices, whereas a smaller amount of people also saw a connection to the high production costs. Some even went further, such as e.g. K. van Stee, a Zeeland farmer, who stressed that *"for most people, farming is pure idealism"*. Several farmers and bureaucrats in Hordaland, such as

e.g. S.T. Gunntveit, (senior civil servant, Jondal), found that most smaller holdings were scaling down the production to part-time farming due to low revenues. To compensate, part-time farmers earn an increasing share of their incomes from off-farm jobs. *“The economy has been more pressured on the smaller farms in the last years and it has been more common to scale down to part-time farming”* (S.T. Gunntveit). This was a trend that was confirmed by many of the respondents in Zeeland as well. As B. Feijtel (ZLTO Zeeland) puts it: *“You need at least 100 HA to produce for the European markets. These farms have a future. They can have certifications and so on. All others are going to end up as part-timers”*. 100 HA as a critical size for arable holdings was a figure that was supported by most of the respondents, although a few thought that 150HA was more accurate. Both in Hordaland and in Zeeland, it was acknowledged that the subsidies stimulate the farms that have the capacity to expand. Almost all the farmers and civil servants in the study considered smaller farms to have no future. Some of the horticulturists on the other hand, such as A.W. van de Welde (Zeeland), have scaled up their production and do currently earn a larger share of their income from the agriculture than in the past. Almost all the respondents had also noticed an increasing dependence on additional income sources, especially tourism, sale of property and entrepreneurial services. In Zeeland many of the respondents explained that several farmers need the revenues from the tourism to keep the farm production.

The majority of the farmers both in Hordaland and Zeeland claimed that the local agriculture used to be competitive, but that farmers were now struggling to keep up with the pressure on prices that is caused by the internationalization of the food markets. Most holdings reported that the pressure was increasing, although they had enhanced their productivity compared to the past. Almost all the farmers, both in Hordaland and Zeeland, explained that physical limitations were the most significant obstacle to competitiveness. A. van Dorselaer (farmer, Zeeland), explained that *“you need a big farm and additional income sources to survive”*. Only one respondent believed that increased subsidies could make up for the lower productivity of the small holdings in Zeeland. A few farmers did however claim that the internationalization of the food markets did not cause any difficulties and that the declining profits could be compensated for either by additional non-farming activities or by increasing prices and supply in the cases were the

farmers sold their products directly to the customer.

In Hordaland, there was some disagreement on whether cooperative production could help the local agriculture. The respondents in Zeeland did not believe that cooperative production was an alternative. All respondents in Hordaland noticed that there are more cooperative holdings today, especially as far as milk production is concerned. Approximately 50% of the respondents in Hordaland claimed that cooperative production is a prerequisite for survival. S.T. Gunntveit, (senior civil servant, Jondal), explained that *“today it is necessary to switch to cooperative production. This is due to the large investments that are required”*. G. Dolve (senior civil servant, Kvam) underlined that *“although there are high capital expenses related to the restructuring, in the long run there will be economical gains [from cooperative production]. This is because of the enhanced efficiency that results from more and better instruments and economies of scale”*. The other half of the respondents did not agree that cooperative production was necessary or beneficial. T. Fjærtøft, a farmer from Hordaland, claimed that *“as far as subsidies are concerned, it is not beneficial to run a cooperative holding, but when it comes to leisure it is”*. Also O.A. Espedal (Hordaland), also he a farmer, agreed that *“cooperative production is not more intensive or efficient. It does make the work easier however”*.

Dependence on agricultural subsidies

As noted in chapter 4.2, Norwegian farmers seem to be more dependent on agricultural subsidies than most EU farmers. The same tendency was also found in Hordaland. All the Norwegian respondents claimed that the subsidies that they received were indispensable for their holding and could not imagine a scenario where the support schemes were abolished. In Zeeland the farmers and civil servants were more split. On the islands of Tholen and Schouwen-Duiveland it was claimed that agricultural subsidies were important for the viability of the local communities and much more significant than any other type of regional development support. In Walcheren, which on the other hand depends more on tourism, it was stated agricultural support schemes did not make any difference. One third of the farmers that were interviewed in Zeeland reported that there is a significant dependence on agricultural subsidies: *“Also the subsidies for sugar beets*

have been reduced. If these subsidies were abolished, it would kill the agriculture” (J.W. van de Welde, farmer, Zeeland). Nevertheless van de Welde warned that “rural communities don’t get what they need from Brussels and are slowly dying”.

It was repeated by almost all the Zeeland interviewees that sugar beets, potatoes and grain do not pay off well, whereas horticulture and processing do. All respondents also confirmed that the reliance on subsidies depends on the type of production. As B. Feijtel, (ZLTO Zeeland) underlined, it is *“only the weed and sugar beet farmers that have problems with the EU [subsidies]”*. The farmers that did not receive any support claimed to be able to get by without. Also many of the recipients of CAP subsidies maintained that they depend less and less on this support. According to the milk and cattle farmer M. de Reus (Zeeland), *“the subsidies are declining and we don’t rely on them [...]. When the subsidies are gone, this will not pose any major obstacles to the production”*. Almost half of the Zeeland farmers believed that agricultural subsidies ought to be abolished. J.W. van de Welde claimed that *“the subsidies from Brussels have never done any good. The best would be to stop them, although that would cost a lot of pain”*. This is a view that was supported also by several other Zeeland farmers.

One of the best indicators of whether the returns from the agriculture are sufficient or not, is willingness to invest. All the respondents from Hordaland and Zeeland acknowledged that the fundament for investments depends on the farm size. In Hordaland the interviewees tended to respond that the holding must yield one *annual labor unit* (ALUs) to be an investment object, whereas the Zeelanders maintained that two ALUs were required. Most of the respondents believed that in terms of opportunity cost, investments in the agriculture yield smaller returns than investments in other sectors. G. Dolve (senior civil servant, Kvam) explained that *“if you look at it as a pure investment, it is not rational to invest in the agriculture, but with a certain interest it is possible”*. The milk farmers and horticulturists were those that reported the highest phase-out rates for their type of holdings. It was explained that this is due to the high investment costs in these sectors. Several farmers and civil servants, most from Hordaland but some also from Zeeland, maintained that it is the least accessible land is taken out of use first.

Most of the Hordaland farmers complained that there was not sufficient subsidies

available in times of transition. Most of them envisaged that there will consequently be farms shutting down before the requirement of stall-less barns is implemented in 2024³². In Zeeland the focus was more on the measures that were taken to cushion the negative impacts of the gradual deregulation of the EU markets. *“When Brussels cut the subsidies and switched to free market mechanisms, many actors did not get export licences. That is not free market”* (J.W. van de Welde, farmer, Zeeland).

Both in Hordaland and in Zeeland it was uttered that production-subsidies are the most effective ones, both with regards to financial viability and legitimacy. As J.R. Eide, a farmer from Hordaland explained, *“the farmers want subsidies for the production. They do not want to be cultural landscape-gardeners”*. O.A. Espedal, also he a farmer from Hordaland, did also believe that *“entrepreneurial thinking is what it takes, not subsidies”*.

As discussed in chapter 4.2, over-production has been one of the negative by-effects of production support. Many of the farmers acknowledged this. As the Zeeland farmer J.W. van de Welde explained *“the production level is being artificially kept up by subsidies. This is not a good idea”*. Although many farmers shared van de Welde’s concerns, they still had a preference for a quota and price support-system.

Production lines and the farmers’ economic interests

Another topic that was addressed in the interviews was the production lines. Most of the respondents, both in Hordaland and Zeeland, thought that the cooperatives serve the interests of the farmers and are indispensable. However, some of the farmers missed more alternative production lines and more decentralization of the cooperatives. A few respondents in both regions claimed that the cooperatives were not functional: *“One of the major problems is the production lines. The farmer cooperatives, set up to serve the interest of the farmers, do not work in conformity with their own intentional purposes. The cooperatives are too big and may disregard the interests of single farmers. It is however difficult to sell agricultural products outside the traditional and formalized production lines”* (E. Elstad, senior civil servant, Fjell). Most of the farmers in Zeeland and a few in Hordaland claimed that it was difficult to establish regular deliveries to the

³² For more information about this regulation, see Rogstad (red.), 2005.

cooperatives, because the products have to come in large quantities and have to be of a certain quality and type.

Those that were involved in small scale food processing stressed that this type of products should not be canalized through the cooperatives, in order to keep a higher price level. Both in Hordaland and Zeeland it was explained that the most important incentive for *farm food*-production was the prices. Processed food tends to be more profitable than raw material. The Hordaland farmers did also report that there were significant subsidies available for this type of production. In conformity with what was hypothesized in chapter 3.2.1, most of the farmers believed that it was important that farm-food production did not get to widespread. According to M. de Reus (farmer Zeeland), *“in the future there will be mega- and small-scale production. Everything in the middle will disappear”*. Whereas Hordaland farmers claimed that there were increased profits to be earned from ecological production, their colleagues in Zeeland did not believe that this was the case in the province.

Several of the respondents in Zeeland noted that big purchasers have the power to dictate the prices of many agricultural products, especially potatoes. The reason is that farmers must guarantee prices in contracts to get loans in the bank and end up committing themselves to fixed, but low prices for long terms. It was uttered that the large, centralized buyers have grown too strong. This seemed not to be problem in Hordaland.

Most of the respondents answered that it would take small, marginal increases in price to make the agriculture economically sustainable. Most of the respondents suggested a 10% increase in producer price for unprocessed products. *“2-3 Cents more paid for the potatoes and onions and the market would flourish. It is a question of [an additional marginal profit of] 10%. This makes the difference between living and dying”* (J.W. van de Welde, farmer, Zeeland). Those that engaged in horticulture and processing did not feel the same need for higher prices. Approximately one half of the respondents believed that it is the government that is responsible for the low price levels, whereas the other half though it was consumers. S.T. Gunntveit (senior civil servant, Jondal, Hordaland) maintained that *“the government’s focus on prices is superior to other concerns”*. Also K. Nordvik, (farmer, Hordaland), agreed that *“if the prices [on agricultural products] are to go up, it is the government that needs to carry the burden”*.

Many did not agree with this view, and referred to the consumers instead. J.W. van de Welde (Zeeland), reminded that *“people spend a lot on processed food, but the farmer does not earn from this. People also spend less on food today than they did in the past”*.

Agriculture and rural viability

All the respondents in Vaksdal, Jondal and Kvam (Hordaland), and Schouwen-Duiveland and Tholen (Zeeland) believed that there is a strong correlation between a strong agriculture and rural viability. The respondents in Vaksdal and Jondal claimed that there are no other options in terms of employment in the community outside the agricultural sector. As N. Haga (farmer, Vaksdal) stressed, *“the agriculture is indispensable to maintain the settlement here”*. In the same communities there was also reported some loss of public and private services caused by the decline in the agriculture. Also in Zeeland the agriculture was found crucial to the viability of small communities: *“Agriculture is very important here, since it is a small place”* (M. de Reus, farmer). G. Dolve (senior civil servant, Kvam) believed that *“in the short run the decline in the agriculture will have consequences for the viability of the local community. It is more important that farmers keep living in the community than staying in the sector however”*. Mr. Dolve also acknowledged that *“the industries that are based on the agriculture will get trouble in a transitional phase”*. On Sotra (Hordaland) and in Walcheren and Zeuwsch-Vlaanderen (Zeeland) people were more reluctant to point out the agriculture as one of the main contributors to the viability of their community. All the respondents from Zeeland stated however that in their community, the agriculture had a significant related economy.

With regards to settlement, some of the respondents had registered that farmers from city areas in other provinces sell their land and re-establish their production in Zeeland. There were also counter-trends however: *“A lot of farmers go to France and Germany because they don't earn enough here”* (K. van Stee, farmer, Zeeland). Most of the respondents claimed that territorial planning affects the agriculture in one way or another. However, since these policies do not target the agricultural production, they do not qualify as multifunctional agricultural policies. I have therefore not dealt with them in this study.

By-products of agriculture and the related economy

On the question about where the farmers should get their money from, most of the respondents both stressed that the food production should retain its primacy. E. Elstad (senior civil, Fjell, Hordaland) claimed that *“the agriculture has already been sufficiently distanced from the primary production function. It should not go any further”*. A few respondents in Hordaland and Zeeland did not agree with this perspective however, such as e.g. B. Feijtel (ZLTO Zeeland): *“Every year 2-3% of the arable land goes to other uses. This is not too much. The specialization of farmers is the space, and they must therefore use the space in the best way. If someone wants to pay the farmer for potatoes, it’s ok. If they want to pay him [i.e. the farmer] for the nature, that is ok as well”*.

Most of the respondents in the Hardanger-area (Hordaland) and nearly all the farmers in Zeeland pointed at a link between the agriculture, the cultural landscape and tourism. On the island of Sotra (Hordaland) and in Zeeland on the other hand, the civil servants maintained that there is a weak or no correlation at all between farming, landscaping and tourism. K. Straume, (senior civil servant, Sund, Hordaland), stressed that *“when it comes to by-products of agriculture, there has been a tendentious focus on tourism”*. In Hordaland most of the farmers received so called SMIL-subsidies³³, whereas in Zeeland most of the respondents claimed that there were no significant subsidies for landscape maintenance. The respondents from Hordaland were divided in their view on whether the subsidies are sufficient to give the farmers incentives for investing in maintenance of the cultural landscape.

Recruitment is another important indicator of the socio-economic viability of the agriculture. Most of the civil servants that were interviewed were concerned that people from 50 years and up are over-represented in the farmer population. They did therefore claim that when this group retires, it will cause problems for the society due to a lack of succession. S.T. Gunntveit (senior civil servant, Jondal, Hordaland), noticed a decline in population in his community which, according to him, is *“mostly a product of a weak economy in the agriculture and a lack of employment opportunities in other sectors”*. The

³³ *Special Environmental Actions for the Agricultural Landscape (SMIL)*. The program provides production linked subsidies for maintenance of the culture landscape, e.g. subsidies for preventing overgrowth paid according to number of animals.

civil servants in Vaksdal and Kvam (Hordaland) were the only ones that reported that recruitment was not a problem for the farming sector in their communities. The same applies to Zeeland's greenhouse sector, according to the civil servants that were interviewed. It was however underlined that the massive employment in the greenhouses did not have any social value to the local communities, because the labour is mostly imported.

Summary

Both in Hordaland and in Zeeland all respondents believed that smaller farms have no future, due to unsustainable income levels. This finding is striking if one takes into account e.g. that the Norwegian agricultural policies point out preservation of smaller holdings as one of the primary objectives (LMD, 2006a). Those that claimed to have the best prospective were the horticulturists and those that did processing on the farm. Especially the sheep farmers in Hordaland were very pessimistic and saw no future for their holdings after they had retired themselves.

Two of the most important indicators of the economic viability of the agriculture, investment and recruitment, seemed to be dependent on the farm size. In Hordaland and Zeeland it was reported that both the investment and the recruitment rates were declining.

According to the European Commission (2000, p.6), *"farmers can also take greater control of their economic position through co-operative ventures or by selling to consumers directly through farm shops and markets"*. The findings from the interviews indicated that direct sale was indeed profitable, but data from Hordaland suggested that cooperative ventures may not necessarily be beneficial in terms of costs compared to revenues. In Zeeland none of the respondents knew about any cooperative venture in the province.

Romstad et al. (2000) argue that direct payments may be alienable. This was confirmed by all the farmers covered by this study, who tended to prefer production support to direct subsidies. According to Kay (1998), the call for efficiency has resulted in 80% of the agricultural subsidies going to the 20% most productive farmers³⁴, who can be assumed to be least dependent on such transfers. Many of the respondents in Zeeland

³⁴ Please note that there are some polemics concerning these figures. The Commission has e.g. been reluctant to acknowledge these percentages.

claimed the CAP subsidies have a low social value and cannot be relied upon, although others thought that the subsidies were indispensable for certain types of holdings. Many of the farmers, both in Hordaland and Zeeland, did also argue that the agricultural policies had proved to be flawed or insufficient in times of transition. In a deregulated agricultural market it is contracts between the producers and industry or retailers that regulate the prices. Norway and the EU are heading in this direction and many farmers were concerned about the lack of alternative production lines to challenge the large corporations that were perceived as capable of dictating prices.

It was also stated that a small increase in producer price would be enough to create sustainable incomes in the agriculture. A 10% increase was the most common suggestion both in Hordaland and Zeeland. Not surprisingly, in the most remote communities the agriculture was described as indispensable to the rural viability. Allegedly infrastructure was also threatened due to the decline in the sector.

Most respondents, especially in Zeeland answered that there was a lot of related industry in their community. Although most did not report any depopulation caused by the down turn, some respondents noted that certain farmers and ex-farmers moved from the community because of the insufficient incomes and/or job opportunities.

5. Conclusion

In this thesis I have discussed how multifunctional agricultural policies' can contribute to the attainment of socio-economic and demographical objectives in Norway and the EU, both from a macro-, a sector-, and a regional perspective.

Classic economic theory legitimizes state intervention in case of market failure. If we consider rural employment³⁵ and settlement as public goods, they can be seen as non-tradable and consequently subject to market failure. Subsidies are therefore prescribed. In this thesis the focus is on socio-economic and demographical aspects. I have therefore conceptualized *multifunctional agricultural policies* as policies that target socio-economic and demographical objectives through indirect action. As we have seen, multifunctional agricultural policies seek to maximize the production of positive externalities from farming and/or improve the profitability of the agriculture by means of subsidies, in order to pursue goals related to rural development and settlement. The Norwegian agricultural policies and the CAP are founded on the overall objective of keeping incomes in the agricultural sector at a level that is sustainable from a socio-economic perspective.

One of the topics that have been addressed in this thesis is sustainability. I have come to the conclusion that the sustainability of the multifunctional agricultural policies that target socio-economic and demographic objectives depends on three core elements: Their effects on employment, incomes and settlement. In order for the policies to be sustainable, they must contribute to the creation and/or preservation of a sufficient amount of jobs in the agriculture with an acceptable payment. They must also limit or prevent short- and long term unemployment. Another requirement is that the multifunctional agricultural policies stimulate the agriculture's related economy and can be seen as capable of internalizing positive by-products of farming. Besides, multifunctional agricultural policies can only be considered sustainable if they contribute to the prevention of drastic changes in local demographical patterns.

According to classic economic theory, the net benefits from keeping one person employed in the agriculture must exceed the potential net benefits from having the same

³⁵ As opposed to labour which certainly is a private good (see chapter 2.1).

person working full- or part-time in another sector, in order for agricultural policies to be rational instruments for pursuing socio-economic objectives. Under many circumstances it can therefore be assumed that it will be welfare maximizing to provide subsidies to all sectors in communities that are struggling with structural difficulties, and not only to the agriculture. My data material is however not sufficient to draw any final conclusions regarding when agricultural subsidies yield the greatest effect and when other support schemes are more suited.

In Norway, most farmers receive a significant share of their *gross farm receipt* from subsidies. This is also the case for producers of meat, sugar and grain in the EU. Other types of production in the EU countries do however receive considerably less support in relative terms. According to the findings from my interviews, the Hordaland respondents thought that agricultural subsidies contribute to the maintenance of jobs, especially in the sector of primary production, whereas the Zealanders were more reluctant to claim that the support schemes had any significant impact on employment. In this thesis I have therefore found that agricultural support schemes have a significant socio-economic function for the Norwegian agriculture and for certain types of agricultural production in the EU.

Both Norway and the EU prioritize the objective of bringing the farmers' incomes to the level of national average wages. However, Norwegian and EU farmers do still earn considerably less than other professionals. With a gradual deregulation and reduction of the Norwegian support regimes and the CAP's Pillar 1 measures, it is difficult to see how the agricultural policies can make the farmers catch up with the rest of the working population. In my interviews in Norway and the EU it was stated that the smaller holdings have no future, no matter if the current subsidy regimes are being retained or not. The only exceptions seem to be the holdings that concentrate on horticulture or processing. The same tendency was also confirmed by two other indicators of socio-economic sustainability, namely investment and recruitment in the agricultural sector. My findings revealed that only relatively large farms and the greenhouse sector were seen as investment objectives and managed to recruit. It was also reported that it is the largest units that benefit the most from the agricultural subsidies. The Zealand interviewees did therefore claim that the CAP has a low or no social or distributive effect.

The Norwegian agricultural support schemes provide a progressive increase in subsidies to the holdings that are most labour intensive. These support schemes seem to conform to the objective of reducing unemployment and preventing an uneven socio-economic development. Also the CAP's extra benefits to the *Least Favourable Areas* follow the same logics, although the CAP generally is not underpinned by any preference for labour intensive production.

Norway and the EU are currently scaling down their import protection regimes to comply with the *WTO Agreement on Agriculture*. Although it seems that the deregulation is being partly compensated for by other types of support schemes, the dismantling will, according to the respondents in Hordaland and Zeeland, make farmers more sensitive to external competition and the product prices are bound to fall. This can be assumed to put a significant pressure on the smallest holdings, especially in regions where production costs are high and returns low, such as Hordaland. It is therefore important that there are provided non-agricultural policies which can cushion the impact of the decline in the agriculture resulting from the deregulation of the import regimes.

Norway and especially the EU have made significant adjustments to make their respective agricultural policies more embedded in general socio-economic and demographical objectives. CAP's new Pillar 2 is an important integration of agricultural support schemes and regional development measures. The CAP's Pillar 2 can also be assumed to reduce the negative impacts of structural changes in the agriculture by helping rural communities adjusting to new requirements. CAP does therefore appear to be better adapted to the future of the European agriculture with significantly larger units and a considerable decline in agricultural employment. Finally, the Pillar 2 measures do also seem to prepare the EU for the increasing importance that multifunctional agricultural policies will have for rural development and socio-economic equity after the CAP is extended to the CEE countries.

Although the support schemes that are discussed in this study in many cases prove to be significant, Kay (1998) reminds that it is difficult to attribute the income level of farmers to the support regimes alone. Farm incomes are e.g. highly affected by market conditions and technological development etc. Also Anderson (2000) reminds how difficult it is to determine whether multifunctional agricultural policies are more effective

than other policies that target rural viability, due to the high number of externalities, trade-offs and conflicting interests that exist in this realm. The question is therefore which contribution we do know that multifunctional agricultural policies can add to the attainment of socio-economic and demographical objectives. In the case where the public goods or positive externalities are joint by-products of agricultural production, the *theory of public goods* emphasises that the only way of obtaining desirable outputs of these goods is through multifunctional agricultural policies. The findings from my interviews in Jondal and Vaksdal, two relatively isolated communities³⁶ in Hordaland, indicated that agricultural production and socio-economic and demographical stability may be correlated through jointness in these communities, due to insufficient or complete absence of alternative employment opportunities. This means that employment and settlement seem to be positively correlated with the agricultural activity in these areas. In most of the communities in Hordaland and Zeeland that were covered by my research, it was not reported any significant depopulation caused by the decline in the agriculture. As we have seen however, the respondents in Vaksdal and Jondal did claim that the agriculture is indispensable, not only for employment, but also for the local settlement. The respondents in Vaksdal and Jondal did therefore maintain that the current agricultural subsidies were necessary to maintain the local population. Hence, in these two communities the agricultural policies have a truly multifunctional effect.

Centralization and depopulation of the countryside can be assumed to be primarily a result of more employment opportunities and a better income potential in urban areas. As we have seen, the Norwegian government points out preservation of current patterns of settlement as one of its main goals for rural development. This is also one of the leading principles behind the country's agricultural policies. Also in the EU preventing depopulation of the countryside has a certain priority, but the principle does not underpin the agricultural policies to the same extent as in Norway. Classic economic theory raises the question of whether the agriculture should rather be concentrated in the areas where it is most efficient. It is not possible to draw any conclusions on which alternative would be welfare maximizing in this regard, but it is clear that the

³⁶ The demographical structure of the Municipality of Vaksdal varies from small, industrial towns to remote, agriculture-based communities. The respondents from Vaksdal that appear in this study are all based in Bergsdalen, a community located ca 1 hr away from the closest semi-urban agglomerate.

interdependence that often exists between the agriculture and the local related economy must be carefully assessed in this context.

According to classic economic theory, free movement of capital is welfare maximizing. The Norwegian policies of regional development can be considered relatively rigid. The overall objective is to level socio-economic conditions and prevent depopulation of the rural areas. To help achieving these goals, policy instruments such as regional price discrimination and quotas are being applied. The result is that resource allocation may be distorted and maximizing of efficiency may be hampered. In this study I do however argue that the price equalizer regimes and the regional quotas have an important function in the maintenance of spread agricultural activity. The same seems to be the case for geographically differentiated support schemes.

Since there are often trade-offs between public and competing private goods, one of the major challenges related to multifunctional agricultural policies is providing the right incentives for production of public goods. A prerequisite for using multifunctional agricultural policies for targeting socio-economic and demographical development and stability is therefore that it is possible and welfare maximizing to compensate the providers for investing in public goods instead of in commodities.

Rural economies are built up around deeply rooted structures. My findings from Hordaland and Zeeland indicated that these structures are difficult to change. This may be an argument for keeping a certain use of agricultural policies to target rural viability, at least in the short run. We have seen that the agriculture cannot accommodate labor from other sectors over time, and multifunctional agricultural policies can therefore not be the only action that is taken to prevent rural unemployment. The agriculture does however tend to provide stable employment for those that are already employed in the sector due to relatively immobile means of production, sunk costs and stable funding. Since the agriculture in this sense is less vulnerable to fluctuating business circles than other sectors, agricultural subsidies may potentially contribute to more stable jobs than other types of support schemes. It can thus be assumed that multifunctional agricultural policies under the right circumstances can be quite effective in ensuring socio-economic stability in rural areas.

In my central research question (p. 6), I asked “*what can multifunctional agricultural policies add to the attainment of socio-economic and demographical objectives in Norway and the EU*”? In this thesis I have found that multifunctional agricultural policies can contribute directly to the profitability of individual holdings and thereby also stimulate the related economy. This can have a significant positive effect on socio-economic conditions in rural communities where the farming sector is of a certain size, especially if there is also a related economy that depends on the agriculture. The policies’ effect on settlement is generally more difficult to determine. However, in remote communities that are dominated by agriculture it seems that multifunctional agricultural policies have a crucial effect on the settlement. I therefore conclude that agricultural policies can help preventing rapid structural changes and major depopulation in rural areas in Norway and the EU.

Finally I would like to underline that my research is primarily based on qualitative methods that cover a limited sample. The relationship between Hordaland, Zeeland and other regions in Norway and the EU-area could also have been further explored in order to allow for more general conclusions. I therefore see the findings that are presented in this thesis as a starting point for further research on the contribution of multifunctional agricultural policies to the attainment of socio-economic and demographical objectives.

6. Recommendations

As mentioned, the purpose of this thesis is to study and discuss under which circumstances multifunctional agricultural policies can contribute to the attainment of socio-economic and demographical policy goals. In this chapter I provide a set of recommendations on how socio-economic and demographical sustainability can be targeted by means of multifunctional agricultural policies. The recommendations are based on my empirical research and are adapted to the requirements of the *WTO Agreement on Agriculture*. I do also outline some recommendations for further research on multifunctional agricultural policies and their socio-economic and demographical effects.

6.1 Policy recommendations

According to the respondents from Hordaland and Zeeland, the small-scale agriculture has no future in these two regions. Also in most other parts of Norway and the EU-area there is an ongoing decline in the number of smaller holdings. There seems thus to be a need for cross-sectoral policies that integrate the agricultural and regional policies to reduce the negative impacts of these structural changes. The CAP's *ERDF* is a step in the right direction in this regard. Norway should also seek to integrate more of the agricultural support schemes with the *BU-measures* and other regional development instruments, in order to adapt to the structural changes in the sector. There does however also appear to be a need for policies that stimulate to a closer, multi-sectoral cooperation in the supply chain as well, to support the overarching rural development policies.

Both Norway and the EU are committed to the *WTO Agreement on Agriculture*. The Agreement's *Green Box*-measures are policy instruments that have none or only minimal trade distorting effects and are therefore permitted (WTO, 2006). *Green Box*-measures cannot be based on transfers from consumers and must therefore originate from the government (ibid). Most of the instruments that fall under the CAP's Pillar 1 are today direct support schemes and do therefore qualify as *Green Box*-measures. Norway on the other hand, has a relatively high number of *Amber Box*-measures which are

classified as trade distorting and are therefore bound to be reduced. Since Norway and the EU's target price regimes are partly based on import quotas (see chapter 4.2), these support schemes are also conflicting with the WTO Agreement and fall in the *Amber Box*. Although the respondents from my interviews in Hordaland and Zeeland tended to prefer production support³⁷ to direct subsidies, Norway must introduce more direct farm support to compensate for the *Amber Box*-subsidies that will eventually have to be dismantled. Without the current production subsidies and no alternative support schemes to replace them, it can be assumed that the Norwegian farming sector would experience severe losses that would have negative impacts on the socio-economic welfare and settlement in some rural communities. I therefore recommend direct livestock- and acreage payments to replace the production-bound subsidies, as these instruments will fit into the *Green Box*. Regionally differentiated tax relieves for farmers are not covered by the WTO Agreement either. This type of policies could therefore successfully be used more extensively in Norway and the EU to pursue socio-economic equity. It is important to note however that the use of regionally differentiated tax relieves in the EU may be subject to certain restrictions due to regulations on competition.

If the most significant instruments for market regulation were dismantled, it would be important to control the power of single retailers in order to avoid monopolies and oligopolies that could harm the farmers' economic situation (see chapter 4.4). Agricultural policies should therefore seek to stimulate the establishment of some alternative production lines. To be able to cope with the increasing pressure from the liberalization of the agricultural markets, agricultural policies should also stimulate differentiation and specialized production in order to ensure acceptable financial returns for the farmers.

As we have seen, regionally differentiated agricultural subsidies can be effective as regional development instruments, both with regards to socio-economic equity and demographical stability. Since the agriculture is not covered by the *EEA Agreement*, regionally differentiated agricultural subsidies can be applied more freely than many other types of regional development aid that are restricted by the Agreement. This type of agricultural support may therefore yield a valuable contribution to the attainment of

³⁷ Production support falls in the Amber Box (WTO, 2006).

socio-economic and demographical objectives. However, it is important to keep in mind that the most differentiated policies are costly to implement and monitor, and the balance between precision and transaction cost must therefore be cautiously assessed.

In conclusion it seems that the EU's agricultural policies are currently better adjusted to the structural changes in the farming sector and more compatible with the WTO Agreement on Agriculture than their Norwegian counterparts. It is therefore probably the Norwegian agricultural policies that will undergo the most significant reforms in the coming years.

6.2 Recommendations for further research

Due to the format of this study and the availability of data, there are several aspects of multifunctional agricultural policies that have not been covered. One of them is the linkages between socio-economic and demographical effects and other public goods or positive externalities that multifunctional agricultural policies may help generating. Examples of other public goods and externalities are e.g. biodiversity, landscape maintenance or food security. It lies in the nature of multifunctional agricultural policies that they have multiple effects, and it would therefore be desirable to investigate not only the interrelationship between them, but also whether it is effective (with regards to goal attainment) and cost-efficient to pursue various objectives with one policy instrument or one policy package.

This study covers a limited number of respondents and the empirical research has a qualitative character. It is therefore mostly hypothesis generating. Further research should therefore include surveys in larger scale that test the effect of multifunctional agricultural policies. Further studies on this topic should preferably also have statistically representativeness. I believe that it would be useful to investigate the socio-economic and demographical effect of agricultural policies by constructing a model that can apply relevant quantitative data in a systematic way. In chapter 3.2.3 I have suggested a model that could be used for this purpose. The model has however not been sufficiently tested. That may be possible with a more extensive data material than the data that can be found in this thesis.

One of the shortcomings of this study is that the relationship between Hordaland,

Zeeland and other regions in Norway and the EU-area has not been settled. As a consequence, it is difficult to draw any conclusions on the representativeness of the two regions. A last recommendation is therefore to explore Hordaland and Zeeland's representativeness compared to the rest of Norway and the EU in a systematic way.

Appendix 1: The empirical research

The primary empirical data used in this research project has been collected through interviews in a number of selected localities in Norway and the Netherlands. The municipalities that have been sampled for this research are the following: The Municipalities of Fjell, Jondal, Kvam, Sund and Vaksdal (Hordaland) and the Municipalities of Borsele, Hulst, Schouwen-Duiveland, Sluis, Tholen and Veere (Zeeland). These localities have all in common that they have a declining employment in the agricultural sector. Approximately half of the municipalities sampled from each of the two regions have also been experiencing declining population rates whereas the other half has an increasing population. I have also tried to sample both communities that have a significant commuting rate and some that have not. For further details about the individual communities, please see appendix 2.

The communities in Hordaland that are covered by this thesis represent three economically, historically and culturally different areas. This division tends to be used by national and local authorities for censuses and other types of statistics. The areas are:

- The Island of Sotra (Fjell and Sund)
- Hardanger (Jondal and Kvam)
- Midt-Hordland (Vaksdal)

The area division used for Zeeland, is identical to the one used by L.C.P.M. Stuyt and P.J. Rijk in their *Transactie en Toekomst van Deltalandbouw* (2006). The areas are:

- Walcheren and Zuid Beveland (Veere, Borsele)
- Schouwen-Duiveland and Tholen (Schouwen-Duiveland, Tholen)
- Zeeuwsch-Vlaanderen (Hulst and Sluis)

The geographical areas presented above have been used as a base for the sampling of respondents for my interviews.

Hordaland; interview objects:

Farmers' interest organizations:

-*Norsk Bonde og Smaabrukarlag*; O.A. Espedal, Representative, Jondal³⁸.

Local authorities:

-*Landbrukskontoret i* (the Agricultural Department of)

-*Sund Kommune* (Municipality of Sund, Sotra); K. Straume (Head of the Department of Territorial Planning).

-*Fjell Kommune*: (Municipality of Fjell, Sotra); E. Elstad, Agricultural and Environmental Consultant (Head of the Department of Agricultural and Environmental Affairs).

-*Vaksdal Kommune* (Municipality of Vaksdal, Midt-Hordland); T. Danielsen Kvamme, Senior Consultant (Head of the Department of Forestry, Game and Environment) and A.H. Haukedal (Senior Consultant, Department of Agriculture).

-*Kvam Herad* (Municipality of Kvam, Hardanger); Gunnar Dolve (Director of the Department of Agriculture).

-*Jondal Herad* (Municipality of Kvam, Hardanger); Svein Torgeir Gunntveit (Director of the Department of Agriculture).

Individual farmers:

-The Hardanger-area: Three farmers, all working full-time in the agriculture.

-J.R. Eide (full-time, Kvam)

-T. Fjærtøft (full-time, Jondal)

-O.A. Espedal (full-time, Jondal)

-The Island of Sotra: Three farmers, out of which one works close to full-time³⁹ in the agricultural sector and two work part-time.

-A.B. Trellevik (full-time farmer, Sund).

-A.J. Vårland (part-time farmer, Sund).

-K. Nordvik (part-time farmer, Fjell).

-Midt-Hordland: Two farmers, both working full-time in the agriculture.

-N. Haga (full-time)

-K. Rødland (full-time)

³⁸ In Norway the local representatives of the farmers' unions tend to be active farmers themselves. The representative from a Hordaland farmers' union that was sampled for this study, O.A. Espedal, is also included among the farmers from the Municipality of Jondal.

³⁹ Since most farmers have additional income sources, I have in this study operationalized full-time farming as one person's effort in the agricultural primary production which equals or exceeds one Annual Labor Unit.

Zeeland; interview objects:

Interest organizations:

-*Zuidelijke Land- en Tuinbouworganisatie (ZLTO)*, B.Fejjtjel (Senior Secretary).

Local authorities:

-Gemeente Tholen (Municipality of Tholen, Schouwen Duiveland and Tholen); H.M. Kieviet (Policy Consultant, Economic Affairs, Recreation and Tourism).

-Gemeente Schouwen-Duiveland (Municipality of Schouwen-Duiveland, Schouwen Duiveland and Tholen); R.van der Wekken (Alderman).

-Gemeente Veere (Municipality of Veere, Walcheren and Zuid Beveland); S. Vasseur (Policy Consultant, Economic Affairs, Recreation and Tourism).

-Gemeente Sluis (Municipality of Sluis, Zeeuwsch-Vlaanderen); V. Dekker-Glus⁴⁰.

Individual farmers:

-Walcheren and Zuid Beveland: Four farmers, out of which three work full time in the agricultural sector and one works part time.

-P. Rijk (part-time farmer, Borsele).

-K. and H. van Stee (full-time farmers, Borsele).

-W. de Visser (full-time farmer, Veere).

-Schouwen-Duiveland and Tholen: One farmer⁴¹.

-M. de Reus (full-time, Schouwen-Duiveland).

-Zeeuwsch-Vlaanderen: Three farmers, one full-timer and two part-timers.

-A. van Dorselaer (full-time, Hulst).

-J.W. van de Welde (part-time, Hulst).

-H. van Hage (part-time, Sluis)⁴².

⁴⁰ The interview with V. Dekker-Glus, Sluis, was carried out through mail correspondence.

⁴¹ In the area Schouwen-Duiveland and Tholen there is only one farmer among the respondents. To compensate, two civil servants have been interviewed from these communities. The total number of respondents in this area is thus three.

⁴² The interview with H. van Hage, Sluis, was carried out through mail correspondence.

The questions:

The interviews are semi-structured with open ended questions. I have opted for this design because it is best suited for shedding light on the links between the different variables and their importance.

-Importance of agricultural sector to the rural economy

[Farmers] *-What percentage of your total income is accounted for by revenues from agricultural activities, approximately?*

[Administrators and interest organizations] *-How important do you consider that the agricultural sector is for the rural economy?*

[Farmers] *-Is the income that you get from agricultural production, including government subsidies, sufficient for covering your cost of living?*

[Administrators and interest organizations] *-Do you consider farmers' income from agricultural production sufficient, including government subsidies?*

-Effectiveness of agricultural policies with regards to socio-economic and demographical objectives

[Farmers, administrators, interest organizations]

-Are the income and the employment opportunities in the agriculture sufficient as an incentive for people to stay in your community?

[“] *-Are other employment opportunities more important than those in the agriculture for giving people incentives to staying in your community?*

-Appropriateness of agricultural policies for approaching socio-economic and demographical challenges/regional policy objectives (goal attainment)

[“] *-Do you think that agricultural support mechanisms can contribute to a viable development in your community?*

[“] *-Do you think that there are other types of government support schemes that could be more effective in supporting and developing the economy of your community?*

-Viability of agricultural policies with regards to externalities

[“] *-Beyond producing food and fiber, do you feel that farmers are getting sufficiently supported by the government for other services and goods that they provide, such as e.g. maintaining the culture landscape, keeping cultural heritage alive, contributing to a viable*

rural economy etc?

-Sustainability of policy making process with regards to input

[Farmers and interest organizations] *-Do you feel that you/your organization have/has an impact on the government's objectives for the agricultural sector? How important do you think that involvement of farmers and their interest organizations is for the effectiveness and functionality of the government's support schemes for farmers?*

[Administrators] *-How do you think that involvement of farmers and their interest organization in the making of agricultural policies is/would be an asset to effective, functional and efficient policy making?*

[Farmers, administrators and interest organizations] *-Do you think that those who are involved in or affected by the agriculture should be invited to participate more actively in the policy making than today?*

[“] *-Do you think that moving more decision making concerning the agriculture to a local level would affect the functionality of the decisions?*

Appendix 2: Background information about the communities covered by this study

Municipalities in Hordaland

	Hardanger		Island of Sotra		Midt-Hordland
	Jondal	Kvam	Fjell	Sund	Vaksdal
Population (2005)	1.000	8.300	20.400	5.600	4.100
Inhabitants per km ² ('05)	5	14	134	55	6
Increase in population ⁴³	0.5 ⁴⁴	-0.7%	2.2%	1.9%	-0.5%
Net commuting rate ('05)	-13%	-9%	-16%	-31%	-11%
Percentage of the workforce employed in the agric. ('05)	7%	7.4%	0.5%	0.5%	3.9%
Unemployment ('05)	3.1%	2.4%	3.5%	3.8%	3.7%

Municipalities in Zeeland

	Schouwen-Duiveland and Tholen		Walcheren and Zuid Beveland		Zeeuwsch Vlaanderen	
	Schouwen-Duiveland	Tholen	Borsele	Veere	Hulst	Sluis
Population (2005)	35.500	24.700	22.400	22.000	27.100	24.600
Inhabitants per km ² ('05)	149	167	158	166	139	88
Increase in population ⁴⁵	0.2%	1.2%	0.4%	-0.4%	0.0%	-1.3%
Net commuting rate ('05)	N/A	-35%	N/A	N/A	N/A	N/A
Percentage of the workforce employed in the agriculture ('03)	11%	16.5%	15%	12%	9%	15%
Unemployment ('03)	4.8%	6%	5%	4.3%	5.7%	5.6%

⁴³ Increase/decline between 2004 and 2005.

⁴⁴ Although Jondal experienced a slightly increasing population between 2004 and 2005, the rates between 2000 and 2005 were significantly negative with a -6.3% decrease.

⁴⁵ Increase/decline between 2004 and 2005.

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Time schedule

Week 9, February 2006	Write research proposal. Discuss it with supervisor for approval. Discuss timetable with tutor. Set up conceptual framework.
March 2006	Read Literature. Meetings with supervisor (15. and 28. March).
April 2006	Internship starts at the Department of Agriculture, the Office of the Governor of Hordaland. Research. Data collection in Norway. Start writing the thesis. Contact by phone or mail with supervisor.
May 2006	Internship at the Department of Agriculture, the Office of the Governor of Hordaland. Research. Write thesis. Contact by phone or mail with supervisor.
June 1-30, 2006	Internship ends (01.06). Data collection in Zeeland. Finalize thesis. Write conclusions and recommendations. Revisions.
June 30, 2006	First Draft to be presented to first reader.
July 7, 2006	Comments and editing of the first draft of the thesis.
July 18, 2006	Second reader returns document with comments.
July 26, 2006	Final version of the thesis to the Department's secretariat.
August 24-25, 2006	Defense and official graduation.

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