

Multifunctional agriculture in policy and practice? A comparative analysis of Norway and Australia

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Abstract

Ideals of productivist agriculture in the Western world have faded as the unintended consequences of intensive agriculture and pastoralism have contributed to rural decline and environmental problems. In Norway and Australia, there has been an increasing acceptance of the equal importance of social and environmental sustainability as well as economic sustainability. Alongside this shift is a belief that primary production needs to move away from an intensive, productivist-based agriculture to one that may be defined as post-productivist. In this paper, we argue that the dualism of productivism and post-productivism as concepts on agricultural policy regimes are too simplistic and discuss whether multifunctional agriculture is a better concept for a comparison of rural primary production at two extreme points of the scale, the market-oriented, liberalistic Australian agriculture and the market-protected small-scale Norwegian agriculture. We argue that multifunctionality in Australia rates relatively weakly as an ideology or policy and even less as a discourse or practice and hence is situated toward a ‘weak’ end of a continuum of a level of multifunctional agriculture. In Norwegian agriculture, multifunctional agriculture has thrived within a protectionist setting with the support of the public, the state and agricultural actors. In this sense it is very clearly a policy, practice and discourse that aims to preserve and conserve rural spaces, the cultural landscape, the farming way of life and food safety. Norway is as such situated toward a ‘strong’ end of a continuum of a level of multifunctional agriculture.

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1. Introduction: productivism, post-productivism and multifunctionality as conceptual tools

This paper examines the inter-related issues of productivism, post-productivism and multifunctionality in agricultural and pastoral production and the value of the concepts applied to contemporary agriculture and agricultural policy. Research into these agricultural modes of operating is well established in Europe with geographers and rural sociologists taking up the challenge to conceptualise current formats of agriculture and rural land use. In his article on productivism and post-productivism, Wilson (2001) highlights the fact that there has been a tendency for much of the writing in this area to be ‘UK-centric’—and

this certainly does seem to be the case. However, the quality of the work coming out of Europe has provided a platform for the analysis of the status of rural production elsewhere. To date, there have only been a small number of Australian rural researchers using the concepts of post-productivism and multifunctionality to problematise the notion of a move to greater environmental sustainability at the same time that global market signals suggest that farmers and graziers need to increase production from the current natural resource base to remain economically viable (Richards et al., 2005; Gray and Lawrence, 2001).

In this paper, we use the conceptual frameworks of productivism, post-productivism and multifunctionality to address the current and future directions of agriculture and pastoralism in both Norway and Australia. We argue that Norway as a nation has already incorporated its understanding of multifunctionality, and has embedded

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such terminology into its agricultural policy and practices (Almås, 2004; Rønningen et al., 2004; Daugstad et al., 2006). In Australia, however, we argue that whilst there is some evidence of a move from productivism at the ideological and policy levels, the majority of primary producers as ‘agricultural actors’ have not necessarily embraced this way of thinking. We argue that the green agenda in Australia that has now been adopted bilaterally by state and federal governments implicitly signals the values of natural resources beyond the production of food and fibre. Programmes such as Landcare, the National Action Plan for Salinity and Water Quality (NAPSWQ) and the Natural Heritage Trust’s funding of regional bodies highlight the government’s move towards a more environmentally sustainable agriculture (Lawrence, 2005).

Before delving into this topic, it is necessary to attend to some definitional problems—what meanings do the concepts of productivism, post-productivism and multifunctionality convey? The aim of this paper is not to give the ‘right’ answer but to focus upon what is happening within agriculture and pastoralism, and whether these terms hold value in understanding Norwegian and Australian primary production and the complexities of environmental degradation relating to the production of agricultural commodities.

In particular, it is questioned whether post-productivism and/or multifunctionality moves from a policy to a practice at the property level and we discuss whether such reconceptualisations of agricultural policy and practice hold any value for the agricultural environment of Australia and Norway, which to different degrees are experiencing a crisis of rural decline, reduced agricultural profitability and environmental degradation (Olsson and Rønningen, 1999; Gray and Lawrence, 2001; Lawrence et al., 2005). Are post-productivism and multifunctionality merely academic conceptualisations on changing agricultural discourses? Are the concepts used as policy instruments presenting desired solutions to problems? Or is multifunctional agriculture the most fitting description of emerging agricultural practices? Or all of the above? This paper focuses upon different aspects of conceptualising agricultural production in a perspective where the importance of social, economic and environmental sustainability is considered. Using the two widely different agricultural policy settings of Norway and Australia, the rationale behind the contrasting forms of agriculture is assessed across the two countries.

2. Defining the concepts of productivism, post-productivism and multifunctionality

2.1. Productivism

With the benefit of hindsight, now that a number of decades of productivist agriculture have been experienced, productivism is perhaps the easiest of the three concepts to

define. It refers to a mode of both agricultural policy and practice that is input intensive and where emphasis is placed on the maximisation of the production of commodities (Wilson, 2001; Burton, 2004; Ilbery and Bowler, 1998). The ideology behind productivism precedes the Second World War but greater intensification of production can be traced to war efforts to increase production and secure food for war-torn nations (Argent, 2002; Burton, 2004). Productivism describes not only the style of agriculture, but the level to which a nation’s government supports production through subsidisation, price guarantees and protectionist policies (Argent, 2002; Gray and Lawrence, 2001). Following concerns about underfed ‘Western’ nations during the Second World War, the policies of subsidisation and agricultural protectionism were so ‘successful’ that the European Union and other Western countries were later faced with an over-supply of commodities (Walford, 2003). These products were often withheld from markets to prevent prices from plummeting, resulting in the ‘butter mountains’ and ‘milk lakes’ that epitomise the surplus production of some advanced capitalist nations in the 1980s.

The intensified form of rural production requires an ever-increasing application of inputs such as agri-chemicals, machinery and Fordist-type management practices which reduce labour inputs and lock producers into a treadmill of production that is geared toward increases of production and profit (Gray and Lawrence, 2001). At the same time markets are flooded with surplus commodities, reducing prices for all those economies that no longer rely on protectionist policies, such as Australia. This acts as an incentive to produce more goods to maintain profit margins, and therefore the economic viability of the family farm (Gray and Lawrence, 2001). It is rational to suspect that this increased exploitation of natural resources, coupled with the necessity to increase inputs such as agri-chemicals, has had a detrimental effect on the environment.

We concur with Wilson’s (2001, p. 80) analysis of *productivism* which identifies that agriculture holds a strong *ideological* position in society; there is a strong connection or co-operation between *agricultural actors*; the *food regime* is Fordist; the *agricultural production* is industrialised and specialised; the *agricultural policy* is marked by strong government support for production, property rights and protectionism.

2.2. Post-productivism

The farming crisis of the 1980s, which saw high commodity costs, agricultural overproduction and environmental degradation, facilitated several new measures to reverse the negative effects of productivist-style agriculture (Ward, 1993; Walford, 2003). Policy makers in the EU countries reformed the Common Agricultural Policy (CAP) with the intention of reducing agricultural production, budgetary costs and environmental problems associated with intensified agriculture (Walford 2003). In

Norway, environmental issues were recognised within agricultural production from the mid-1970s, alongside the key goals of productivity. Policy reform measures are characterised as having gone through a transition from a 'productivist' to 'post-productivist' era (Walford, 2003; Wilson, 2001), however, as 'productivist' is so easily defined, the term or content of 'post-productivism' is accordingly difficult.

'Post-productivism' implies a transition to a mode of agricultural production that has occurred after productivism (Ilbery and Bowler, 1998; Wilson, 2001) and is often offered as a critique of the intensification of primary production and its detrimental effects on rural society and the environment. Social scientists have pointed at the fact that when the social and economic significance of agriculture has lost its relevance for the national economy, problems of rural development, poverty and social exclusion cannot be solved through agricultural means (Marsden, 2003). Additionally, the consequences of intensified agriculture on the countryside, the changing landscape and environmental issues caused by agricultural pollution have brought about a different view of farmers as 'destroyers' rather than 'stewards of the land' (see Wilson 2001, p. 82; Holmes, 2002). With this change, the rural is increasingly separated from agriculture with new groups and interests gaining ideological ascendancy, from the consumption of agricultural products to consumption and preservation of the countryside and the biodiversity held within it.

As with the productivist regime, a post-productivist regime also contains a set of dimensions. Agricultural production or the food regime has moved into a free market, a liberalised world market that is critical of protectionist policies. Within agricultural production a new emphasis is laid on consumer demands: diversification, pluriactivity and extensification (Wilson, 2001; Holmes, 2002). At the same time, the state reduces support for production but offers some financial assistance or incentives for activities that help sustain the environment or reverse environmental degradation (Ilbery and Bowler, 1998). Ilbery and Bowler (1998, p. 71) argue that the post-productivist transition is strongly regulated through the 1992 CAP reforms, General Agreement on Trades and Tariffs (GATT) negotiations and the EU convergence of agricultural and environmental policies. As such, EU agricultural policy has widened to incorporate the interests of other actors, such as green groups. This has also implied a weakening of the relationship between the farm lobby and agriculture ministries.

2.3. Multifunctional agriculture

The state retreat from financial support of agricultural production has been accompanied by *increased* regulation of agricultural practices, voluntary agri-environmental policies that encourage conservation practices and the enhancement of local planning control. The popularity of (neo) liberal policies in Western countries, with their

emphasis on global trade in a de-regulated market has unintentionally contributed to a further intensification and concentration of the food chain (Burch and Rickson, 2001; Campbell and Lawrence, 2003; Lawrence, 1987) and many landholders in Australia are aiming to intensify their production through further vegetation clearing or the purchase of additional land (Richards et al., 2005). It is within this contradictory manifestation that productivism and what has been referred to as post-productivism are occurring at the same time. As Wilson (2001) argues, there is a flaw in thinking of 'post'-productivism as something that has occurred *after* productivism as there is evidence that both models exist side by side. As Marsden (2003, p. 11) wisely emphasises, there is an embodiment of conflict when these models are being played out amongst the farming and rural population. In recognition of this dilemma of terminology, Wilson (2001, p. 95) posits the phrase 'multifunctional agricultural regime', a term which acknowledges the complexity of agricultural modes of production that may be occurring at different spatial and temporal localities. Used in this way, he argues, post-productivism is useful in describing the 'transition' from one mode to the other, whereas

...the notion of a multifunctional agricultural regime allows for multidimensional coexistence of productivist and post-productivist action and thought and may, therefore, be a more accurate depiction of the multi-layered nature of rural and agricultural change (Wilson, 2001, p. 95).

As noted throughout this paper, Wilson (2001) stands as one key supporter of the 'multifunctional agricultural regime' as a preferable term for conceptualising changes in contemporary agriculture and rural societies, arguing that 'post-productivism' indicates something that occurs 'after' productivism that is also different from it. Although Wilson's understanding of multifunctional agriculture is well argued, his assertion that

...just as the post-productivist transition may only occur in societies that have gone through the PAR [productivist agricultural regime], so the multifunctional agricultural regime may only occur in societies that have gone through the post-productivist transition (2001, p. 95)

is contestable. Claiming a 'post-productivist' transition for multifunctional praxis is in our view narrows rather than opens up the debate for analysis and understanding changes outside of a UK—or Eurocentric—point of view and situation. The dualism of productivism and post-productivism is a too simplistic a way of conceptualising rural primary production, but does 'multifunctionality' represent something different, or as Wilson (2001) puts it 'beyond' post-productivism? This argument stems from research, or rather a lack of research, showing evidence of a post-productivist re-orientation at the property level. As extensification and diversification of production has

occurred in many regions of advanced economies, there is also evidence that production has intensified alongside this (Wilson, 2001, p. 83). While the idea of post-productivism certainly gained attention and supporters in northern Europe, several scholars have shown that there might exist competing rural development dynamics (for example, Marsden, 2003; Holmes, 2006) or, more radically, that ‘the dominant framing is in favour of a neoliberal regime of market productivism’ (Potter and Tilzey, 2005, p. 581).

The term ‘multifunctionality’ or multifunctional agriculture might be seen as a policy or regime within, beside or beyond productivism and post-productivism as it includes several functions of agriculture in addition to its primary role which has been mainly understood as producing food and fibre.

While many insightful analyses have been carried out on rural transition, this paper is specifically concerned about the transitions within agricultural policies and practices—(rather than the broader concept of ‘landscape’ in a purely geographical sense, as Holmes, 2006, has already dealt with) as they relate to the search for sustainable solutions for farming and agricultural production. In this sense, Tilzey (2003, p. 1) argues that agricultural multifunctionality is a concept that seeks to capture the multiple benefits and services related to agricultural systems that should benefit human and non-human nature alike. According to the OECD’s (2001, p. 7) ‘working definition’—the key elements of multifunctionality are the existence of 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 or public goods when markets for these goods do not exist or function poorly. In addition to producing commodity outputs such as food and fibre and other marketable products (for example, tourism), the non-commodity outputs include food security/safety, a rural way of life, and the protection of the environmental protection, biodiversity and landscape (see Durand and Van Huylenbroeck, 2003, p. 4).

In examining the sociological components of agricultural multifunctionality, Tilzey (2003) offers two distinct approaches to framing the issue: multifunctionality as ‘reality’ and as a ‘discourse’. The first refers to the practical performance of agricultural activity, the latter to the policy. Looking into the policy level first—multifunctionality is recognised as a key policy concept in World Trade Organisation (WTO)-policy negotiations (Potter and Burney, 2002). At the level of world trade in agriculture, the term multifunctionality has referred specifically to the ‘public good’ relating to the non-tradable concerns (NTCs) of agriculture. Countries reliant on exports such as Australia have strongly opposed the WTO’s ‘green light’ on domestic subsidies and border protection as they are claimed to distort markets (Parliament of Australia, 2001).

Tilzey’s findings resonate with those of van der Ploeg and Roep (2003) who found that multifunctionality holds a strong paradigmatic position at both an EU policy level

and at the practical level (farmers involved in rural development practices)—however with varying endorsement at the national level. The nation state supporters of multifunctionality in WTO concessional terms argue for the opportunity to support their farmers economically without being accused of distorting trade. Yet, among supporters there is a limitation of valid arguments, with a general view that the WTO ‘box’ categories are, in essence, a veiled form of protectionism. Potter and Burney (2002) state that the EU is also distancing itself from extreme statements issued by countries such as Norway and Japan. Norwegian agricultural authorities want to move economic support for farming from the ‘yellow box’ in WTO terms, where most funding is found today, to the ‘green box’—transfers that do not disturb international production and trade (Prestegard, 2004). However, does this exclude food exporting countries from practising multifunctionality outside of the WTO frameworks? In other words, can multifunctionality exist as a concept in its own right, decoupled from its bureaucratised meaning, and function as a response to social, economic and environmental decline due to the intrinsic potential of a multifunctional approach to improve rural and environmental sustainability?

This viewpoint is also forwarded by Cocklin et al. (2006) who argue that conceiving of multifunctionality purely in terms of trade liberalisation reflects the neoliberalism philosophy that also contributed to the commoditisation of nature and the relegation of social and environmental sustainability. To develop a multifunctional agriculture changes are needed on more than policy level (Durand and Van Huylenbroeck, 2003), rather a sustainable multifunctional agriculture, accepting the equal importance of social and environmental sustainability and economic sustainability, would necessarily mean that a sustainable practice was possible at the farm level. We will not argue that a ‘correct’ comprehension of a sustainable multifunctional agriculture needs to be attained, but will discuss whether the opportunities for a sustainable output is present. It is in this vein that we examine the prospects of multifunctionality as a facilitator of social, economic and environmental sustainability in its own right.

As a point of departure from purely WTO conceptions of multifunctionality via the ‘green-box’ agreement, we examine the present agricultural and pastoral modes at two extreme points of a scale, the market-oriented, liberalistic Australian agriculture and the market protected small-scale Norwegian agriculture. In doing this, an evaluation can be made regarding the emerging agricultural and pastoral land use in both Norway and Australia and to what degree a sustainable agricultural multifunctionality exists—meaning an environmentally sound, socially sustainable and economically viable agricultural production, as an ideology, policy or discourse and a practice or reality—that can be enacted at the property level.

3. The status of agricultural production in Norway and Australia

The value of multifunctionalism will be further ascertained through the grounding of this concept within the agricultural format of both Norway and Australia. These two countries are both advanced capitalist nations yet have conceived of the relational role of agricultural production and society in quite different ways. Before embarking on this exercise, it is important to consider the contextual settings of each nation by describing some key characteristics.

The descriptions and analyses are based on an extensive literature review in addition to building upon our own research in Australia and Norway. Data consist of interviews with Norwegian farmers (thoroughly described in Bjørkhaug (2006a, b)), analyses of statistical material from Norwegian farmer surveys¹ and the use of statistical material from secondary sources. Interviews with Australian graziers were conducted between 2002 and 2004 (see Richards et al., 2005, for initial findings from this research). Data are not presented as a symmetrical analysis or test of arguments throughout the paper, but represent the foundation of how the comparative description and analysis is outlined.

3.1. An Australian story

In Australia, agricultural production was introduced to the Australian landscape through a process of colonisation. The Europeans brought with them a system of agriculture that had evolved over time to suit a wet and fertile landscape, rather than the arid and semi-arid landscape of Australia. Rather than adapt their styles of farming and pastoral production to the new environment, the new settlers set about dominating the landscape to suit their purposes (see Barr and Cary, 1992; Gasteyer and Flora, 2000; Gray and Lawrence, 2001). This later involved the 'opening' of new lands for production by clearing trees then, following the Second World War, progressing to more intensive forms of production through broadscale clearing and the use of agricultural inputs such as irrigation, chemical fertilisers and pesticides and converting native pastures with exotic grass species.

As at December 2006, the Australian Bureau of Statistics (2006b) estimated the total resident population to be just under 21 million. Despite its vast size, Australia is arguably one of the world's most urbanised nations with around 80% of Australians living within 50 km of the coast (Bourke and Lockie, 2001). In rural areas, 99.6% of broadacre and dairy farms are traditional family farms—although the number of corporate farms is growing, particularly in the beef and cotton industries (Gray and

Lawrence, 2001). According to ABS estimated data, there were approximately 130,000 farms as of June 2005. Of these, the beef cattle industry was the largest in terms of farm numbers, consisting of 28% of all farms. Mixed farming (grain/sheep/cattle) represented 13% of all farms followed by sheep and grain with 10% respectively (Australian Bureau of Statistics, 2006a). Over the last 25 years, the number of farms has declined by 25%, leaving only relatively small or large farms (Gray and Lawrence, 2001). This has been facilitated by the 'get big or get out' rural restructuring of industrialised agriculture, whereby larger properties and increased outputs are needed to compete with global commodity prices.

Given the scale of the Australian continent, property size can be small on urban fringes or thousands of square kilometres in remote, beef cattle areas. In many remote areas, land is marginal, soils are poor and rainfall is infrequent. Hence pastoral properties span great distances in order to be economically viable. Clearing of vegetation and overgrazing, coupled with long periods of dry weather, has the potential to cause the desertification of large tracts of the Australian landscape. Due to the climatic variability, shifting commodity prices and, in some cases, high debt level, graziers tend to adopt a low-risk strategy, which reinforces productivist-style management practices (Richards et al., 2005).

As the rural population is decreasing, those who have remained in agriculture and pastoralism increasingly find themselves on a 'treadmill of production' (see Marsden, 1998; Vanclay and Lawrence, 1995; Ward, 1993). This necessitates increased inputs such as agri-chemicals, and hence costs, which in turn has a negative effect on farm viability and environmental sustainability. Broadscale tree clearing is a prime example of the ever-increasing need to obtain more land for production (Rolfe, 2002; Richards et al., 2005; Lawrence, 2005). The recent ban on broadscale clearing in the state of Queensland was met with fierce opposition from the farm lobby, a further testament to the commitment to broadscale, productivist-style agriculture and pastoralism in Australia. Ironically, on the other side of the world, a lack of agricultural activity and grazing animals is causing Norway to become a forest, which is seen largely as an environmental problem (Olsson and Rønningen, 1999).

3.2. A Norwegian story

Norway has a significantly different system of agricultural production than Australia, a system more in accordance with natural land capacity, capabilities and traditions which have evolved to match the landscape over centuries. Geography and climate create different conditions for agricultural production and Norway is considerably smaller than Australia in size. Climatically, the differences between these two countries are extreme. Norway has temperate, mild winters and cold summers along the coast, cold winters and warmer summers in the

¹Trend-data 2004 is survey data of Norwegian farmers collected by Centre for Rural Research, Trondheim, Norway, in January 2004. Numbers are based on own analyses of these data.

interior (Atlapedia, 2003). Despite its northern position, Norway takes advantage of the warm Gulf Stream, which provides agriculture with fair conditions for a reasonable level of production in the summer season.

The 4.5 million Norwegians are spread over a major part of Norway. About 75% of the Norwegian population live in what Atlapedia (2003) defines as urban, but ‘cities’ are often small, having between 10,000 and 50,000 people. This means that the population is dispersed throughout the country. The process of centralisation of the population is also perceived as a problem in Norway. The goal to uphold a populated countryside is maintained within the Norwegian regional policy and is widely supported throughout the Norwegian population (for example, see Almås, 2004). This issue is also strongly supported by the farmers themselves and their role as maintainers of rural communities is highly valued. In Trend-data (footnote 1) from 2004, about 70% of Norwegian farmers agreed that agriculture contributes to a high degree to ‘living rural communities’ and ‘a beautiful countryside’. Around 60% believed agriculture’s role in ‘contributing to knowledge of food production and shaping the Norwegian identity’ to be of great value. Still, many farmers find it difficult to handle the policy goals of rationalisation on the one hand and to produce public goods on the other (Rønningen et al., 2004).

4. Agricultural policies in Norway and Australia

Agricultural production, the market situation and policy relating to agriculture have gone through major alterations since the Second World War. Now, globalisation, or more specifically, global capitalism, has an enormous influence on agribusiness and the agri-food market. Global firms view regions of the world as potential markets and the policy environment enables goods and capital to flow around the world with minimal restrictions (Gray and Lawrence, 2001). Still, nations and political and economic institutions respond to world trade with different policies. Australia and Norway, two Western countries originating from the same cultural cradle, have developed quite different agricultural policy settings. Agricultural production in Australia and in Norway is aimed at different markets and the distinction between domestic or foreign markets is also illustrated through Norwegian and Australian policies on agriculture. Some essential features illustrate the developments in these two countries.

In Australia, agricultural products like wool, sugar, beef and wheat supplied a post-war European market. The production was protected, subsidised and regulated by the state (Lawrence et al., 1997). During the 1950s and 1960s agriculture prospered under the liberal-country-party expansion goals of increasing agricultural products and increasing sales abroad (Lawrence, 1987). Australia’s rural producers used the substantial benefits they gained from state subsidisation of agriculture to increase production and improve productivity throughout the ‘long-boom’ of

capitalist expansion (Lawrence, 1987, p. 9). Already established with a ‘world trade perspective’, Australian markets send raw agricultural commodities overseas and import a large volume of processed and manufactured goods.

As agricultural expansion also increased in other Western countries, overproduction occurred. As this forced the prices of agricultural products down, agriculture was left vulnerable to market forces. This led farmers into a cost-price-squeeze in the late 1960s, accelerated by the increasing expenses on agricultural inputs produced by agribusiness firms:

Although the terms of trade had begun to move against agriculture from the early 1950s the state, ever conscious of agriculture’s contribution to export earnings, had succeeded in underwriting farming providing, amongst other benefits, cheap credit, input bounties, loans to marketing authorities, quarantine services, water resource development, research, extension services, subsidies, concessions and taxation relief (Lawrence, 1987, p. 9).

Later, Great Britain’s entry into the common market fenced out Australian and New Zealand from free access to traditional trading partners. During the few years following this period, subsidies were abolished in Australia. Even with the reinstatement of a conservative coalition in 1975, subsidies were not brought back to earlier levels (Lawrence, 1987). The farmers themselves responded to the crisis by forming The National Farmers’ Federation (NFF) taking on an ‘anti-state-interventionist’ approach, applauding economic rationalist views that inefficient farmers and general wage inflexibility were the two major problems facing agriculture.

Australia responded differently from Europe and the US to the emerging realities of integrated global agriculture (Share et al., 1991). While Europe and the US have had ongoing protection of their family farming, Australia chose the free trade path. The logic was that with a decline in agricultural subsidies in Europe and the US, these nations would lose their competitive edge and Australia could serve these markets with low price food. Yet, with the European and US trading blocks not giving ground, this strategy served limited success (Share et al., 1991, p. 6).

Australian agricultural policy has, since the mid-1970s, travelled on a pathway towards non-subsidised agriculture within a free trade world market. However, more recently, increasing attention is being paid to the negative consequences of intensive agriculture on the environment. At this stage governments encourage individuals and local communities to take action (and recognise) their own environmental problems caused by high pressure on the land (see Cheshire, 2006).

Different ideals and political goals, than those developed in Australia, dominated the second half of the 1900s in Norway. The integration of Norwegian government and the agricultural interests is a key factor in the explanation

of how Norwegian agriculture has been sustained through the shift of industrialisation and rationalisation of agricultural production (Almås, 2004). Through organisation in co-operatives, unions and political parties, the Norwegian farmers have, since the late 1930s, had an ability to influence policy in a social democratic model of strong co-operation between state and sector interest, natural resources and labour (Almås, 2004). Norway has had and still has one of the world's most comprehensive systems of agricultural subsidies with a system of little export and little import of 'competing' agricultural products.

From the 1950s, Norway found itself in an era of productivist ideals, with the techno-scientific development, mechanisation and rationalisation of agriculture (Almås, 2004). Modernisation was the mantra, but so too was protection and support through agricultural subsidies. In the 1960s, Norwegian policy concentrated on developing a stable family farm through planned national policies (Almås, 1994). Taking the market into consideration, Norwegian agriculture was to be protected. Welfare issues took over the political agenda in the 1970s to secure the social status of farmers in a market where prices were falling and farmers were forced to leave. A political goal was to equalise the incomes of industry workers and farmers. The goal never materialised but brought about substantial welfare gains for farmers (Almås, 1994). It also opened a short period of optimism and growth in Norwegian agricultural production (Almås, 2004; Blekesaune and Almås, 2002). In this period environmental issues are first found written down in agricultural policy documents (Blekesaune, 1999). Protection was still important, but now Norway was also involved in international trade agreements like GATT (the forerunner of WTO) (Almås, 2004).

With new international commitments and the problem of overproduction, focus on negative effects of agricultural production on nature and farmers' increasing dependence on subsidies also entered the public debate in Norway, alternatives had to be developed. From 1980 onwards, there has been a greening and a re-regulation of Norwegian agriculture (Almås, 1994). Almås' studies, however, have indicated that there has been little change for farmers with changing policies. The key word has been 'persistence' rather than 'change'. Norwegian farmers adapted to policy changes even before actual changes were made. It was found that 'farmers in Norway lowered their investments and used less fertilisers and pesticides even before the present policy of "green liberalism" was implemented' (Almås, 1994, p. 15).

From the 1990s a new era arrived with new internal and external competition through institutionalisation and de-co-operativisation. Power moved to the market and the WTO. The WTO agreement of 1994 forced Norway to lower tariffs over time and state control was decentralised, and many institutions like marketing boards and the agricultural banks were abolished or merged with others. Despite this, farmers' voices were still heard through the

meat and dairy co-operatives and the yearly Agricultural Agreement.² However, as Almås (2004) notes, the Norwegian blend of democracy and capitalism is under pressure, partly because Norwegian politicians are abdicating before the global market forces, and partly because Norway is bound by international agreements.

One response to this has been to emphasise the NTCs of agriculture. In 1991, Alstadheimutvalget (a government appointed committee) formulated food security as the major goal of Norwegian agricultural policy. This was to be achieved through 5 points: food preparedness, environment and resource protection, rural settlement, equality of status between farmers and other people, and secure incomes in agriculture (Blekesaune, 1999). In 1998, the Department of agriculture for the first time invited tenders for a report on the *multifunctional* role of agriculture. Norwegian research institutions were invited to analyse the 'multifunctionality' of Norwegian agriculture and with that possible NTCs of economic support to agriculture in Norway. The research focused on food preparedness, rural policy and environmental issues, and added to production of food and fibre, this was suggested as the multifunctional role of agriculture in Norway (Blekesaune, 1999). In this context, multifunctionality refers to the additional outputs or functions of a viable ('traditional') agriculture. Agriculture's contribution to a long-term food security, the viability of rural areas, cultural heritage, land conservation and the maintenance of agri-biodiversity are all on the official Norwegian 'NTC list' and put forward in negotiations in the WTO. According to the Norwegian Ministry of Agriculture (2004a) the multifunctionality of Norwegian agriculture is now ensured through economic, legislative and administrative measures and through training and extension. Even though trying to protect its agricultural production, policies are also changing at the national level. From the end of the 1990s, domestic agricultural policy has encouraged increased rationalisation on the one hand, and value-adding based on agricultural resources on the other.

Norwegian policy might resemble EU policy in its arguments for protecting the nature of its agriculture. One of the key arguments for Norway not joining the EU was however, and still is, agricultural concerns. As Norwegian interests fear the consequences of international trade on its agriculture, the fear is greatly related to the possible effect of competing with goods served by the EU. Norway does co-operate with the EU through the European Economic Area (EEA) Agreement. The Agreement involves the free trade of products among agreeing partners, however, with limitations on agriculture and fishery products. So far, there have been no dramatic consequences for Norwegian agriculture, either through

²Important parts of the agricultural policy are laid down in the Agricultural Agreement, negotiated between the farmers' organisations and the government and approved by the Parliament (Norwegian Ministry of Agriculture, 2004a).

collaboration with WTO, the EU or through changing national policies (Veggeland, 2001). At the time of writing, the Norwegian opinion is not in favour of extending the collaboration to a proper EU membership.

In sum, governments of Australia and Norway have taken quite different approaches to managing their nation's agriculture. Australia has not been impervious to global capitalism and political leadership that has exposed agriculture to global competition and free trade by withdrawing financial support through subsidies. Norway's policies have been more protectionist in nature and have been able to engage in a level of global trade whilst supporting NTCs, such as the landscape, environment and rural communities, through subsidisation and the re-regulation of agriculture.

5. Agricultural modalities in praxis

Having provided the social, political, historical and geographical context of current agricultural practices in Australia and Norway—and considering some of the definitional and inherent problems of productivism, post-productivism and multifunctionality—the issue of multifunctionality, and the extent to which it has been accepted and implemented by agricultural and state actors in both Norway and Australia, will be analysed.

5.1. *Is there a multifunctional Australian agriculture?*

While cognisant of the problems posed by dualistic thinking (Argent, 2002; Evans et al., 2002; Wilson, 2001), a move away from protectionism and subsidisation of agriculture has occurred indicating what some may claim as a 'post-productivist transition' (see e.g. Wilson, 2001). The neoliberal state now places greater emphasis on regulatory signals to respond to environmental damage and producers are expected to be independent of government assistance. In Australia, extension services that offered technical advice to farmers and graziers on ways to improve production have traditionally been delivered by state government agencies (Departments of Agriculture/Primary Industries). Over the last decade these services have generally been in decline. Increasingly, landholders are expected to purchase services from the private sector that was historically the province of state-sponsored extension.

There is evidence that countries such as New Zealand (Willis, 2001) and the UK (Burton, 2004) and Australia (Argent, 2002; Smailes, 2002) to a lesser extent have made the conceptual shift away from productivism to something else. In Australia, can 'something else' be described as post-productivist or multifunctional? Having noted the pitfalls of the concept 'post-productivist' due to the inherent reliance on dualisms that do not begin to capture the scope of diversity within and between these concepts, multifunctionality is opted for as the most appropriate analytical term. Therefore, is Australian agriculture, like its Norwe-

gian counterpart, 'multifunctional'? Does it attend to the needs of NTCs such as biodiversity, landscape maintenance, cultural heritage, indigenous rights and vibrant rural communities?

The rural geographer Holmes (2002, 2006) has been one of only a few in Australia to take up this challenge by examining the Australian rangelands in terms of its commodity versus amenity-oriented regions. Holmes (2002) argues that there has been a change in Australia's pastoral areas towards post-productivism but stresses that this is not a result of any attitude change by pastoralists. In a recent paper, Holmes (2006) suggests that there are three key forces propelling the multifunctional transition in rural Australia: (1) agricultural overcapacity, due to technological advances and agricultural policies to a lesser extent (production values); (2) the emergence of alternative amenity orientated uses, which are capable of competing with, complementing, or replacing agriculture—for example, the increasing importance of non-market uses and the rural as a site of consumption (consumption values) and (3) changing societal values, such as the valuing of biodiversity, ecological sustainability and social justice (protection values). Out of this Holmes (2006, p. 146) has proposed that there are seven definable landscape types (or 'modes of occupance') that have appeared in Australia's transition to multifunctionality. He describes these as a productivist agricultural mode (production values dominate), a rural amenity mode (consumption values dominate), a small farm or pluriactivity mode (mix of production and consumption values), a peri-metropolitan mode (intense competition of values), a marginalised agricultural mode (integration of production and protection values) and conservation and Indigenous modes (protection values emphasised).

Clearly, there has not been a wholesale shift, at the property level, towards the values of multifunctionality. What can be asked, however, is not only whether Australian agriculture has moved away from productivism, but to what extent it has moved away and what might be preventing transitions into multifunctionality. To assess this, it is necessary to examine the varying conceptual spaces within society such as at the level of ideology, policy, discourse or reality and how these areas of thought are manifested in legislation and policy or in landholder and 'green' discourses. At the level of government or the state, an ideology of multifunctionalism may be held, and, to some extent, this may be subsequently translated into practice or reality via legislation and the provision of economic incentives to landholders for ecosystem services.

Of importance to the discussion in this paper is that Holmes (2002, 2006) contests the value of agency among rural actors in facilitating the transition to a multifunctional countryside. However, it can be argued that the role of agricultural actors is pivotal if this continuum towards a multifunctional agriculture is to be maintained. However, there is much evidence that landholders are resistant to change for a number of complex reasons, including

concerns about land autonomy (Reeve, 2001), suspicion about government agendas (Richards et al., 2005), a mismatch between landholders' values and practices (Cary et al., 2002); an internalised and embodied culture of productivism as the only legitimate form of primary production (Burton, 2004), the political-economic imperatives that lock landholders into productivist practices (Lawrence et al., 2005).

It is suggested here that the 'litmus test' for how far Australia is along a multifunctional pathway is to gauge how well such concepts are embraced by landholders, who are in essence the caretakers of the majority of the land in Australia. Landholders often possess ethics of stewardship, but often do not practise it to its full potential (Vancley and Lawrence, 1995; Lawrence et al., 2005). Landholders are subject to a range of contradictory and conflicting messages relating to their levels of production and sustainable land management. Regulatory and policy signals promote sustainable agriculture and at the same time global economic imperatives are forcing producers to increase outputs to remain competitive and economically viable as a business. This, more often than not, requires that producers engage in more intensified forms of production, for example, clearing native vegetation, re-seeding pastures with non-native species, increasing the use of agri-chemicals or looking towards genetically modified organisms to help increase production and profits. This cycle experienced by many Australian producers suggests a more deeply entrenched 'advanced productivism' rather than a shift from productivist practices or values (see Burton, 2004). This argument is further demonstrated in Richards et al. (2005, p. 202) where landholders reported that levels of sustainability could be determined by economic success, or the 'balance sheet' and where unproductive land was referred to as 'rubbish country' and forested areas were described as 'worthless scrub'.

Whilst landholders themselves may not be fully conversant with the potential sustainability outcomes of multifunctional approaches to primary production, over the last decade or two in Australia, governments have instituted a range of regulations and incentives to encourage better environmental management of natural resources on private property. At present, the rural is a site of contested knowledge (see Marsden, 1998), with the green lobby gaining more ground politically, to the extent that the Australian governments have legislated against any further broadscale tree clearing. This ban on clear-felling is not only significant in terms of preserving natural heritage but is symbolic that Australian governments are moving towards environmental protection rather than production and hence taking some important, early steps towards multifunctionality. Clearly, at the state level, with the institution of programmes such as Landcare and sustainability programmes through agencies such as the NAPSWQ, there are tangible shifts toward policies recognising the rural as a site not only for

agriculture but also as a place for services, such as the conservation of natural and social assets. At this stage, there still appears to be a mismatch between the goals of primary producers and those of the green lobby and governments.

The productivist paradigm has been the dominant mode of production for generations and to shift from this now embedded way of doing things strikes at the core of their own knowledge base, identity and role as producers (Burton, 2004). With decreasing opportunities for farm families to improve their financial situation (and in many cases it is dire), landholders report feeling cornered by governments who no longer recognise the farmer as the key actor in rural landscapes. This loss of rural hegemony has had a marked impact upon landholders both emotionally and practically. At the emotional level, landholders report to feeling besieged by green groups and governments who are now seeking to regulate the land management practices of the once-revered farmer. Farmers who were previously upheld as the protectors of the countryside are now at odds to explain why they are often labelled as environmental vandals through the popular media. Landholders are still receiving the message of 'get big or get out' (Higgins and Lockie, 2001; Richards et al., 2005) and witnessing the success of corporate farming that has intensified production, outputs and profits. Considering this scenario, it is not difficult to understand why farmers and graziers do not support their government's agricultural policies and why landholders often dispute 'best practice' conservation methods.

It can be argued that the multifunctional context undermines the hegemony of the farmer as the holder of private property rights and custodian of the countryside. In Australia, landholders are very aware that their private property rights are less robust, with state and federal governments regulating in a number of areas including vegetation management and water allocation. For Australian landholders, new environmental policies are perceived as a demand that interrupts their own beliefs and ideals of good stewardship of the land (Lawrence et al., 2005).

Whether Australia is merely 'greening' its agricultural policies, or is on the cusp of reform towards a truly sustainable, multifunctional agriculture, is debatable. What is apparent is that Australian governments are a reasonable way toward conceptualising the necessity of multifunctional agriculture if both agriculture and the environment are to be viable in the future. Landholders' views often do not synchronise with those of politicians and policy makers, mostly due to the inherent contradictions of development versus conservation (see Buttel, 1998) and a sense of betrayal and abandonment at the hands of government (Richards et al., 2005). Not only is the move from a productivist form of agriculture disparate across time, agricultural industries, geographical localities, institutions and agricultural actors (Holmes, 2002, 2006) but it is clear that in Australia there is a chasm between the

ideology of local agricultural actors and state and federal-level bureaucrats.

5.2. Multifunctional agriculture in Norway

The Norwegian situation is quite different from that currently experienced in Australia. As for other European countries, multifunctionality in Norway is bound up with a social mode of regulation and the contradictory dynamics of agriculture (Tilzey, 2003, p. 3). Tilzey (2003) clearly gives an indication of how to critique the model of multifunctional agriculture and the way it has developed in Europe and in this case, Norway. With this come questions of national protectionism.

Whilst Australia has not labelled itself multifunctional in terms of its agriculture, Norway has certainly embraced the notion of a multifunctional agriculture, endorsed through the WTO. This is clearly expressed within Norwegian agricultural policy. The Norwegian Ministry of Agriculture defines agriculture as multifunctional when it has one or several roles or functions in addition to the production of food and fibre. These other outputs from agriculture include among others food security over time, viability of rural areas, cultural heritage, land conservation, the maintenance of agricultural landscapes and agri-biological diversity (Norwegian Ministry of Agriculture, 2004b). These categories of support in the WTO Agreement on Agriculture are essential for Norwegian agriculture as agricultural production conditions vary considerably, climatically or for other reasons, among WTO member countries. In order to establish a fair and market-oriented agricultural trading system there is, according to the Norwegian agricultural authorities, a need to acknowledge the right of every country to secure the coexistence of various types of agriculture (Norwegian Ministry of Agriculture, 2004b). Given the greater social good of such services, the landholder should be assisted financially. Norway, as such, has not adjusted its policy in the post-productivist sense described by Wilson (2001). The social democratic model of Norway, though certainly liberalised over time, still holds strong corporate elements. Norwegian agriculture has been re-regulated, emphasising green elements or 'green liberalism' (Almås, 1994, 2004).

With this, goals for a multifunctional agriculture are stressed in words, but the effect might not be clear. The 2004 Agricultural Agreement negotiated between the farmers' organisations and the government encourages further effectiveness and rationalisation to ensure competitiveness in a future of increased international trade and the Norwegian consumer demand for cheaper food (Norwegian Ministry of Agriculture, 2004c). This means fewer and bigger farms. At the same time more funding is moved to 'green' actions like further economic support for converting to organic farming and support to take care of cultural landscapes. Farmers are encouraged to take action on their properties and financial support is also given to increase

the value added from the agricultural properties like letting out hunting rights, rural and farm tourism, refining farm products, engaging in 'green care'³ and so on.

Does this imply that Norwegian agricultural policy and its agriculture as such can be defined as multifunctional? Some critical voices would say that agri-environmental measures function as an alibi for further restructuring of agriculture and food production (Rønningen, 1999). By this, Rønningen (1999, 2001) means that most agricultural support is aimed towards the rationalisation of agricultural production whilst at the same time direct support is given to fulfil green goals of multifunctional agriculture. Many farms are getting bigger and more effective in a productivist spirit, while multifunctional land use is mainly found on marginal land and in extensive production like haymaking and grazing land (Flø, 2002). Further restrictions and regulations are imposed on agricultural or farmer's land due to both international conventions and national goals and policies. These involve national parks, protected landscape areas and the protection of large predators such as bears and wolves. These aims are conflictual at several levels, between rural and urban interests but also for the farmers' themselves. For many, changing production to farm tourism or niche products is possible, but for others changes are difficult (Rønningen et al., 2004). Difficulties are connected both to farm resources and the stage of life the farming family finds itself in.

New roles emerge for the farmers as their role interpretation is changing from being, just a farmer, or food producer to becoming landowners and rural business people (Rønningen, 2001). Some struggle as they understand that their work is changing and they are in essence becoming 'public gardeners'. Even though many want to fulfil new goals, the ability to 'nurture' the land is the last thing to be done after a long workday. In addition, as also found in Australia, there is a discrepancy in the interpretation of what is 'aesthetically pleasing' and what is 'good management'. For example, inherited (productivist) ideals of fully fertilised, dark green, re-seeded meadows often exceed the farmers' 'capability' to leave the cultural meadows full of weeds and wildflowers, as is said to be 'best' by accepted environmental management standards (Flø, 2002).

Norwegian agriculture and its family farmers are under pressure economically, due to the food-market situation globally, but also due to economic viability in a domestic labour and food market. Farmers are struggling to find new and different solutions to these problems in order to stay in agriculture, including pluriactivity, part-time farming, organic farming or farm-based tourism. Many support the new programmes out of economic necessity for farm survival (Rønningen, 1999).

³Green care is welfare programme whereby people with special needs can engage in activities on the farm as a therapeutic environment. Farmers enter into contracts with local agencies to provide such services in collaboration with welfare workers.

A sense of multifunctionality is not brand new in Norway. Traditional farming in combination with forestry, fishing and/or hunting has historically been a common strategy among many farmers, especially in areas of low production (Hetland, 1986; Flø, 1998; Flø and Bjørkhaug, 2001). Pluriactivity is common since most Norwegian farms are small and an essential amount of income needs to be derived from wage labour outside farming (Bjørkhaug and Blekesaune, 2004; Blekesaune and Almås, 2002; Løwe, 1998; Rognstad, 1991). However, this should not only be viewed as farm income being too low. Many farmers have chosen a double career (Jervell, 1999; Rye, 2002) and/or have a partner in the wage earning labour market (Bjørkhaug and Blekesaune, 2004).

Norwegian farmers have been found to be ready to change, even before a new regulation is enforced (Almås, 1994), and when asking them about what agricultural policy should give priority to, the majority respond most positively to 'multifunctional' aspects of agriculture, such as decentralised food production, food security, safe food, Norwegian food, rural settlement, cultural landscapes and biological diversity (Norsk Landbrukssamvirke, 2005). Farmers' attitudes are in favour of multifunctional goals but they fear cuts in financial support. Farmers and politicians both agree upon multifunctional ideals for agriculture, but farmers do not agree that further rationalisation for cheaper food needs to exist alongside this policy (Trend-data, refer to footnote 1).

The majority of Norwegian farmers feel that the environment of the Norwegian agriculture is healthy (Bjørkhaug and Flø, 1999). However, what is recognised as 'healthy' or 'good' might vary both between farmers and environmentalists and also between farmers involved in different modes of production. For instance, the opinions regarding the environment and possible effects of pesticides and other artificial inputs on land vary significantly between organic and conventional farmers in Norway (e.g. Bjørkhaug and Flø, 1999; Storstad and Bjørkhaug, 2003) but also among male and female farmers (Bjørkhaug, 2006a, b).

The Norwegian farmers might not find it as difficult to make the transition to this multifunctional mode of production as has been the case in Australia. With smaller farms and the availability of off-farm work and government payments, landholders earn their income from numerous sources and are protected from the anomalies of the global market. Farmers have not lost their trust with policy makers or society at large. Eighty percent of the Norwegian population wants to keep Norwegian agriculture at the present level to preserve rural communities, Norwegian food production and cultural landscapes (Norsk Landbrukssamvirke, 2005) and farmers perceive that consumers are supportive (Trend-data, see footnote 1). Within this context Norwegian actors provide an emphasis on farmers as the main defenders of cultural heritage linked to agriculture and rural communities (Daugstad et al., 2006).

Competing within a non-regulated world market is not believed to be sustainable for the majority of Norwegian farmers. By attaching itself to the 'outside world', through agreements with the WTO and international acts of environmental sustainability, Norway is bound to an eventual change. Protectionism is no longer easy, and as other countries' agricultural policies are open to criticism for using 'green-box' arguments in WTO negotiations, Norway is doing the same. Some economic analyses have shown that even though other sectors can deliver some of the outputs of a multifunctional agriculture, it is cost effective to let joint agricultural production take care of it (Vatn, 2002). As Potter and Burney (2002, p. 46) argue: it is not the existence of multifunctionality as such that is controversial but rather the design of domestic subsidies and to which these are deemed to be trade distorting. Such subsidies are presently viewed as legitimate in Norway, both at the policy level, among the farmers and in the general public.

6. Conclusion

It has been argued that whilst multifunctionality is an appropriate concept through which to assess changes in agricultural formats—and a necessary component of social and environmental sustainability—the multifunctional agricultural paradigm is currently weak in Australia. However, it can be detected in some policy settings largely through programmes that seek to devolve responsibility for sustainability to the regional level—although this has not necessarily trickled down to the property level to any great degree. Norway, however, has embedded both the language and action of a multifunctional agriculture into its agricultural mode of operation. This has been, to a great extent, facilitated through a high reliance on governmental subsidies, a system based on an agreement between governments and farmers' organisations (As described in footnote 2). As such, agricultural actors have a voice and role in bringing about a multifunctional countryside. At a policy level, there is a shift towards a requirement of more sustainable production and development. Special financial support is given to farmers for their efforts in sustaining biologically diverse, cultural landscapes on agricultural properties. Whilst subsidies have often been used to encourage productivism, the Norwegian experience has also shown that they can be used to bring about multifunctional landscapes. The history of a conflict-free settlement in rural areas might be one of the reasons for the successful maintenance of the environment and viability of rural communities. The Norwegians are used to an active utility and *use* relationship to the resources both through agriculture and harvesting of fish and game. This might have brought about a more amenity-oriented approach to a multifunctional agriculture that focuses upon the problematic externalities of a productivist agricultural regime (Rønningen et al., 2004).

We have argued that it is not necessary to examine multifunctionality only in terms of WTO agreements, and that the concept holds integrity in its own right. The importance of looking separately at the ideology and practice of multifunctionality has also been posited. It has been shown that Australian governments and some non-agricultural actors such as green groups are in the process of making the conceptual shift toward a multifunctional agriculture and viewing the rural as not only a site of production, but also as a site of consumption, biodiversity and cultural heritage. Whilst Holmes (2002, 2006) correctly claims that a number of changes have already occurred in Australian pastoral lands without reliance on changes of values of pastoralists, it is suggested here that agricultural actors also need to be engaged to continue to move away from hardcore productivism and embrace greater environmental conservation principles. However, in Australia, landholders are experiencing conflicting messages and market signals that ever-increasing productivity is required, whilst at the same time they are increasingly subject to regulations in relation to sustainable land management—the recent reduction in tree clearing rights is a prime example. At present, Australia's landholders are generally opposed to government interference in natural resource management at the farm level and are resisting top-down approaches to shift toward more sustainable practices, concerning social, environmental and economic viability (Richards et al., 2005).

Norwegian landholders have evidently been working in collaboration through the farm lobby groups to find a common ground that serves Norway's national interests. From the farmers' point of view, it is important that Norway gains acceptance internationally in the WTO for continued financial support for agricultural production to ensure survival of Norwegian family farming for the purpose of maintaining the farms, the rural population and the multiple values and functions agriculture produces. At this stage it is believed that emphasising the multifunctional role of agriculture might be the right way.

In conclusion, multifunctional agriculture requires support at the levels of agricultural actors, the public and the state. There is little to be gained from an ideological position of multifunctionality if there are still barriers to the implementation of some of these key features of multifunctionality at the property level. From this perspective, a sustainable multifunctional agriculture should strive for a joint production of functions, not a splitting up of functions where neoliberal ideals dictate a further concentration of productivist-style production on farms in favourable areas, whilst farms in agriculturally more marginal areas are supported to produce amenity and biodiversity outputs.

Arguably, Australian primary production is currently situated toward a 'weak' end of a 'multifunctionality continuum' and is constrained not only by the remote location of many Australian properties but also the overarching neoliberal political economy which serves to

send market signals that more raw commodities need to be produced for farmers and pastoralists to remain competitive in the global markets. At this stage, agricultural multifunctionality in Australia rates weakly as an ideology or policy and even less as a discourse or practice. It has been demonstrated that the concept of multifunctionality in Norwegian agriculture has thrived within a protectionist setting with the support of the public, the state and agricultural actors. In this sense it is very clearly a policy, practice and discourse that aims to preserve and conserve rural spaces, the cultural landscape, the farming way of life and food safety.

7. Uncited References

OECD, 2001.

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References

- Almås, R., 2004. *Agricultural History of Norway: from State Driven Modernisation to Green Liberalism: 1920–2000*. Tapir Akademisk Forlag, Trondheim.
- Almås, R., 1994. The rise and fall of agricultural policy cycles: from planned economy to green liberalism. *Journal of Rural Studies* 10, 15–25.
- Argent, N., 2002. From pillar to post? In search of the post-productivist countryside in Australia. *Australian Geographer* 33, 97–114.
- Atlapedia, 2003. <<http://www.atlapedia.com>>, accessed 18 November 2003.
- Australian Bureau of Statistics, 2006a. Population Clock <<http://www.abs.gov.au/ausstats/abs%40.nsf/94713ad445ff1425ca25682000192af2/1647509ef7e25faaca2568a900154b63?OpenDocument>>, accessed 15 December 06.
- Australian Bureau of Statistics, 2006b. *Agricultural Commodities*, Australia, 2004–05 <<http://www.abs.gov.au/AUSSTATS/abs@.nsf/productsbytitle/2829A5E125F18442CA2568A9001393FC?OpenDocument>>, accessed 15 December 06.
- Barr, N., Cary, J., 1992. *Greening a Brown Land: The Australian Search for Sustainable Land Use*. MacMillan, Sydney.
- Bjørkhaug, H., 2006a. Sustainable agriculture in the Norwegian farmers' context: exploring farming habitus and practice on the Norwegian agricultural field. *The International Journal of Environmental, Cultural, Economic and Social Sustainability* 2/4, 123–131.
- Bjørkhaug, H., 2006b. Is there a female principle in organic farming? An interpretation of data for Norway. In: Holt, G.C., Reed, M. (Eds.),

- Sociological Perspectives of Organic Agriculture: From Pioneer to Policy. CABI, Wallingford, pp. 195–209.
- Bjørkhaug, H., Blekesaune, A., 2004. Work and income patterns of men and women of Norwegian family farms: masculinisation, feminisation, or professionalisation of farm work? In: Cristóvão, A. (Ed.), *Farming and Rural Systems Research and Extension. European Farming and Society in Search of a New Social Contract – Learning to Manage Change*, pp. 139–150.
- Bjørkhaug, H., Flø, B.E., 1999. Organic farming in Norway—production and distribution of organic food. Paper presented at the XVIII Congress of the European Society for Rural Sociology, Lund, Sweden, 24–28 August 1999.
- Blekesaune, A., 1999. Agriculture's importance for the viability of rural Norway. Report no. 08/99. Centre for Rural Research, Trondheim.
- Blekesaune, A., Almås, R., 2002. Fra reguleringssiver til markedslogg—bondehusholdets ulike strategier for å overleve. In: Almås, R., Haugen, M.S., Johnsen, J.P. (Eds.), *Bygdeforskning gjennom 20 år*. Tapir akademisk forlag, Trondheim.
- Bourke, L., Lockie, S., 2001. Rural Australia: an introduction. In: Lockie, S., Bourke, L. (Eds.), *Rurality Bites: The Social and Environmental Transformation of Rural Australia*. Pluto Press, Annandale, NSW, pp. 1–16.
- Burch, D., Rickson, R., 2001. Industrialised agriculture: agri-business, input-dependency and vertical integration. In: Lockie, S., Bourke, L. (Eds.), *Rurality Bites: The Social and Environmental Transformation of Rural Australia*. Pluto Press, Sydney.
- Burton, R., 2004. Seeing through the 'good farmer's' eyes: towards developing an understanding of the social symbolic value of 'productivist' behaviour. *Sociologia Ruralis* 44, 195–215.
- Buttel, F.H., 1998. Some observations on states, world orders, and the politics of sustainability. *Organization and Environment* 11 (3), 261–286.
- Campbell, H., Lawrence, G., 2003. Assessing the neoliberal experiment in Antipodean agriculture. In: Almås, R., Lawrence, G. (Eds.), *Globalization, Localisation and Sustainable Livelihoods*. Ashgate, Aldershot.
- Cary, J., Webb, T., Barr, N., 2002. Understanding Landholders' Capacity to Change to Sustainable Practices. Bureau of Rural Sciences, Agriculture, Fisheries, Forestry-Australia, Canberra.
- Cheshire, L., 2006. Governing Rural Development: Discourses and Practices of Self-Help in Australia Rural Policy. Aldershot, Ashgate.
- Cocklin, C., Dibden, J., Mautner, N., 2006. From market to multifunctionality? land stewardship in Australia. *The Geographic Journal* 172 (3), 197–205.
- Daugstad, K., Rønningen, K., Skar, B., 2006. Agriculture as an upholder of cultural heritage? Conceptualizations and value judgements – A Norwegian perspective in international context. *Journal of Rural Studies* 22, 67–81.
- Durand, G., Van Huylenbroeck, G., 2003. Multifunctional and rural development: a general framework. In: Van Huylenbroeck, G., Durand, G. (Eds.), *Multifunctional Agriculture. A New Paradigm for European Agriculture and Rural Development*. Ashgate, Aldershot, pp. 1–16.
- Evans, N., Morris, C., Winter, M., 2002. Conceptualizing agriculture: a critique of post-productivism as the new orthodoxy. *Progress in Human Geography* 2, 313–332.
- Flø, B.E., 1998. Institusjonelle ordninger retta mot forvaltning av rurale ressurser Sikfisket i Femund. Rapport 4/98, Centre for Rural Research, Trondheim.
- Flø, B.E., 2002. Kulturlandskapet i bryting mellom individuell rasjonalitet og kollektive interesser. *Biolog* 3/4, 37–39.
- Flø, B. E., Bjørkhaug, H., 2001. Når storoksan ikke beiter ved Femund si'er: Chronicle Nationen 06.04.01 (also printed in Østlendingen 19.04.01).
- Gray, I., Lawrence, G., 2001. *A Future for Regional Australia: Escaping Global Misfortune*. Cambridge University Press, Oakleigh.
- Gasteyer, S.P., Flora, C.B., 2000. Modernizing the savage: colonization and perceptions of landscape and lifescape. *Sociologia Ruralis* 40 (1), 128–149.
- Hetland, P., 1986. Pluriactivity as a strategy for employment in rural Norway. *Sociologia Ruralis* 26, 385–395.
- Higgins, V., Lockie, S., 2001. Getting big and getting out: government policy, self-reliance and farm adjustment. In: Lockie, S., Bourke, L. (Eds.), *Rurality Bites: the Social and Environmental Transformation of Rural Australia*. Pluto Press, Sydney.
- Holmes, J., 2002. Diversity and change in Australia's rangelands: a post-productivist transition with a difference? *Transactions of the Institute of British Geographers* 27, 362–384.
- Holmes, J., 2006. Impulses towards a multifunctional transition in rural Australia: gaps in the research agenda. *Journal of Rural Studies* 22 (2), 142–160.
- Ilbery, B., Bowler, I.R., 1998. From agricultural productivism to post-productivism. In: Ilbery, B. (Ed.), *The Geography of Rural Change*. Longman, Harlow, pp. 57–84.
- Jervell, A.M., 1999. Changing patterns of family farming and pluriactivity. *Sociologia Ruralis* 39, 100–116.
- Lawrence, G., 1987. *Capitalism and the Countryside. The Rural Crisis in Australia*. Pluto Press, Sydney.
- Lawrence, G., 2005. The regional approach to natural resource management in Australia: achievements and continuing concerns. In: The 11th International Symposium on Society and Resource Management, Östersund, Sweden, 16–19 June.
- Lawrence, G., Gray, I., Stehlik, D., 1997. Changing spaces: the effects of macro-social forces on rural Australia. Paper presented at the XXII Congress of the European Society for Rural Sociology Mediterranean Agronomic Institute at Chania, Crete, Greece 25–29 August.
- Lawrence, G., Richards, C., Herbert-Cheshire, L., 2005. The environmental enigma: why do producers professing stewardship continue to practice poor natural resource management? *Journal of Environmental Policy and Planning* 6 (3/4), 251–270.
- Løwe, T., 1998. Levekår i landbruket: en studie av landbruksbefolkningens levekår. Report 98/25, Statistics Norway, Oslo.
- Marsden, T., 1998. Agriculture beyond the treadmill? Issues for policy, theory and research practice. *Progress in Human Geography* 22 (2), 265–275.
- Marsden, T., 2003. *The Condition of Rural Sustainability*. Van Gorcum, Wageningen.
- Norsk Landbrukssamvirke, 2005. Aktuelle Tall. Norsk Landbrukssamvirke, Oslo.
- Norwegian Ministry of Agriculture, 2004a. Agricultural policy in Norway. <<http://odin.dep.no/ld/mf/facts/policy/020031-990037/index-dok000-b-f-a.html>>.
- Norwegian Ministry of Agriculture, 2004b. Multifunctional agriculture and the WTO trade negotiation. <<http://odin.dep.no/ld/mf/index-b-f-a.html>>.
- Norwegian Ministry of Agriculture, 2004c. Innst.S.nr.260 (2003–2004) Innstilling fra næringskomiteen om jordbruksoppkjøret 2004—endringer I statsbudsjettet for 2004 m.m. (midlertidig versjon). <<http://www.stortinget.no/inns/midl/inns-20032004-260-i.htm>>.
- OECD, 2001. Multifunctionality. Towards an Analytical Framework. OECD, Paris.
- Olsson, G.A., Rønningen, K., 1999. Environmental values in Norwegian agricultural landscapes. Report no. 10/99. Centre for Rural Research, Trondheim.
- Parliament of Australia, 2001. Multifunctionality and Agriculture – Why the Fuss? Current Issues Brief no. 13. <<http://www.aph.gov.au/library/pubs/CIB/2001-02/02cib13.htm>>.
- van der Ploeg, J.D., Roep, D., 2003. Multifunctionality and rural development: the actual situation in Europe. In: Van Huylenbroeck, G., Durand, G. (Eds.), *Multifunctional Agriculture. A New Paradigm for European Agriculture and Rural Development*. Ashgate, Aldershot, pp. 37–53.
- Potter, C., Burney, J., 2002. Agricultural multifunctionality in the WTO—legitimate non-trade concern or disguised protectionism? *Journal of Rural Studies* 18, 35–47.
- Potter, C., Tilzey, M., 2005. Agricultural policy discourses in the European post-Fordist transition: neoliberalism, neomercantilism

- and multifunctionality. *Progress in Human Geography* 29 (5), 581–600.
- Prestegard, S.S., 2004. Multifunctional agriculture and the design of policy instruments: application to the WTO negotiations on agriculture. WP 8. Norwegian Agriculture and Economics Research Institute, Oslo.
- Reeve, I.J., 2001. Property rights and natural resource management: tiptoeing round the slumbering dragon. In: Lockie, S., Bourke, L. (Eds.), *Rurality Bites: The Social and Environmental Transformation of Rural Australia*. Pluto Press, Annandale.
- Richards, C., Lawrence, G., Kelly, N., 2005. Beef production and the environment: is it really 'hard to be green when you are in the red'? *Rural Society* 15 (2), 192–209.
- Rognstad, O., 1991. Stadig flere bønder arbeider utenom bruket. *Sammfunnsspeilet* 30–33, Statistics Norway, Oslo.
- Rolfe, J., 2002. Economics of vegetation clearing in Queensland. *Rangeland Journal* 24 (1), 152–169.
- Rønningen, K., 1999. Agricultural policies and countryside management: a comparative European study. Report 18/99, Centre for Rural Research, Trondheim.
- Rønningen, K., 2001. The meaning of farming and landscape within agricultural policies and strategies. Paper 6/01, Centre for Rural Research, Trondheim.
- Rønningen, K., Flø, B.E., Fjeldavli, E., 2004. The legitimacy of a multifunctional agriculture. Paper 06/04, Centre for Rural Research, Trondheim.
- Rye, J.F., 2002. Heltid eller deltid? En gjennomgang av bønders preferanser A-07/02, Centre for Rural Research, Trondheim.
- Share, P.H., Campbell, H., Lawrence, G., 1991. The vertical and horizontal restructuring of rural regions: Australia and New Zealand. In: Alston, M. (Ed.), *Family Farming in Australia and New Zealand*. Keypapers Number 2. Centre for Rural Social Research, Wagga Wagga.
- Smailes, P., 2002. From rural dilution to multifunctional countryside: some pointers to the future from South Australia. *Australian Geographer* 33, 79–95.
- Storstad, O., Bjørkhaug, H., 2003. Foundations of production and consumption of organic food in Norway: common attitudes among farmers and consumers? *Agriculture and Human Values* 20, 151–163.
- Tilzey, M., 2003. A framework for conceptualising agricultural multifunctionality. EPMG Working Papers, Imperial College, London.
- Vanclay, F., Lawrence, G., 1995. *The Environmental Imperative. Eco-social Concerns for Australian Agriculture*. Central Queensland University Press, Rockhampton.
- Vatn, A., 2002. Multifunctional agriculture: some consequences for agricultural trade regimes. *European Review of Agricultural Economics* 29 (3), 309–327.
- Veggeland, F., 2001. Norwegian agricultural policy and international commitments. NILF-rapport 2001-5, Norwegian Agriculture and Economics Research Institute, Oslo.
- Walford, N., 2003. Productivism is allegedly dead, long live productivism. Evidence of continued productivist attitudes and decision making in South-East England. *Journal of Rural Studies* 19 (4), 491–502.
- Ward, N., 1993. The agricultural treadmill and the rural environment in the post-productivist era. *Sociologia Ruralis* 33, 348–364.
- Willis, R., 2001. Farming. *Asia Pacific Viewpoint* 42, 55–65.
- Wilson, G.A., 2001. From productivism to post-productivism... and back again? Exploring the (un)changed natural and mental landscapes of European agriculture. *Transactions of the Institute of British Geographers* 26, 77–102.