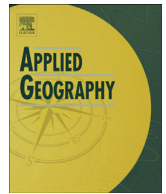


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Current policy approaches and potentials of landscape strategy making as a policy integrating approach[☆]

Q3 Jørgen Primdahl*, Lone S. Kristensen, Simon Swaffield

Q1 Centre for Forest & Landscape, University of Copenhagen, Rolighedsvej 23, 1958 Frederiksberg C, Denmark

A B S T R A C T

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Public policy interventions concerning rural landscapes have grown significantly in recent decades in many developed countries and internationally, in response to a range of imperatives. These include concern for declining biodiversity, heritage and social wellbeing in the face of urbanisation, and structural change in rural economies involving both agricultural intensification and extensification. The public policy response has been a fragmented array of measures, both horizontally (across policy sectors) and vertically (across political-administrative-organisational levels). Against this background, rural landscape policy approaches are analysed in respect to their instrumentality and spatial logic, informed by Hägerstrand's concepts of territorial and spatial competence. A framework for local policy making and policy integration inspired by landscape strategy making approaches is presented and illustrated through four Danish experiments in rural landscapes of various scale and with different policy issues. Results suggest that landscape strategy making represents a promising way to improve policy integration in rural contexts but research is needed to find suitable ways to engage large scale intensive farming with the community based process.

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Introduction

Public policy related to landscape has grown significantly since World War II both internationally and within nation states. This reflects several imperatives. The first is growing recognition of a 'public interest' at a range of scales from global to local in protecting common resources such as biodiversity, soil and water, and cultural heritage and identity (WCDE, 1987). In many countries, the status and socio economic wellbeing of rural communities has emerged as a related concern (Ploeg et al., 2008), which has led to recognition of the need to engage and empower local communities in deliberation (Drysek, 2000) over the sustainable management of the landscape resources upon which they depend (O'Riordan & Stoll-Kleeman, 2002). This is well illustrated by the United Nations Agenda 21 (Robinson, 1993). The potential of landscape as an integrative planning concept (Corner, 1999; Matthews & Selman 2006; Wescoat & Johnston, 2008) is also increasingly

acknowledged in public policy, as demonstrated in the European Landscape Convention (Council of Europe, 2000). The desire to achieve consistent standards and best practice policy responses to diffuse but widely shared problems has in turn stimulated analytical frameworks such as environmental assessment (World Bank, 1991), environmental indicators (OECD, 1997), and ecosystem services (Millennium Ecosystem Assessment, 2005) which typically also include consideration of landscape in a range of ways, with particular focus on visual character and aesthetics.

Alongside these emerging 'sustainability' imperatives involving landscape, there is also a major market policy imperative to create common policy frameworks for trade and market liberalisation (Held, 2004; Stiglitz, 2006). Organisations such as OECD promote policy development frameworks to ensure consistent market conditions and to address situations of 'market failure' in regard to environmental indicators such as landscape or amenity (Hodge, 2000). Landscape imagery and identity is also of increasing significance in the marketing of food, and in the emerging moral economy of food production and consumption (Morgan, Marsden, & Murdoch, 2007).

A range of international, national and regional policy institutions have emerged as a response to these imperatives, adopting different policy approaches, which are interacting in diverse ways. In the interstices between the formal institutions a wide range of new networked relationships have emerged – non-governmental organisations, coalitions, and roundtables – aimed at mobilising

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* Corresponding author. Tel.: +45 30275005.

E-mail address: jpr@life.ku.dk (J. Primdahl).

interests, concern and action over particular issues (Clapp & Dauverge, 2005; Held, McGrew, Goldblatt, & Perraton, 1999).

A common feature of these different structural, institutional and policy developments is an increasing differentiation and distance (cognitive as well as geographical) between the power and 'competency to act' of different agents in the system, and in particular between the locus and focus of international and transnational policy and decision making institutions and corporations, and the conditions and possibilities for action by the ultimate agents of landscape change – the local community, landowner, manager, citizen or worker (Hägerstrand, 2001). This differentiation is also expressed in contrasting spatial logics within specific land use and landscape practices. Castells (2000) used the terms of space of flows and space of place to express the different spatial logics that function through extended 'vertical' relationships of production and policy, and local relationships of proximity. Space of flows refers to the movement of goods, energy, people, information, and capital through global networks, whereas the space of place refers to the local spatial context in which people live, work and meet (Castells, 2000). The combination of distancing, spatial differentiation, and the spatial complexity of cross sectoral and non hierarchical relationships make it particularly difficult to guide landscape change in any locally integrated way (Buttimer, 2001; Pinto-Correia et al., 2006; Primdahl & Swaffield, 2010).

This article is focused upon ways to address this challenge and to enhance local community responses to the multi scalar dynamics expressed in rural landscapes defined as landscapes which are settled, but at a low density, in which production of food and fibre is a significant but not sole function, and where communities think of themselves as rural rather than urban (Woods, 2005, chapter 1). It considers two inter-related questions: What kind of policy instruments and spatial approaches are available to guide rural landscape change, and what are their characteristics? And how can local landscape strategy making help integrate the various policy approaches and bridge between different competencies in a specific rural landscape context?

Methodological approach

The investigation is organised in three parts. First, the wider context of rural landscape policy is considered in terms of two contrasting public policy agendas and different types of power to act. Second, established landscape policy responses are briefly reviewed, highlighting three of the most significant approaches, and the different spatial logics that underpin these approaches. Third, a local spatial strategy making approach is proposed and tested through comparative analysis of empirical results from four Danish planning experiments. The theoretical discussion draws on the wider literature on public policy and spatial planning, and upon contributions to a recent workshop on landscape practices (Swaffield & Primdahl, 2011). The empirical experiments present insights from a series of local case studies in Denmark. Four rural landscape planning projects representing different scale and planning problems and carried out by four municipalities were identified and included in the research program 'Diaplan'. The aim of the programme was to critically examine the potentials of collaborative landscape planning processes for integrating overall development goals and specific projects into a coherent strategy. Participatory experimental processes (Kemmis & McTaggart, 2005) constituted the main methodological approach applied in the four studies. Two of the authors of this article (NN and NN) were involved as action researchers in the programme, participating with local communities in the projects, and subsequently critically reflecting upon the course and outcomes of the experiments (Stein & Harper, 2003; Wicks, Reason, & Bradbury, 2008).

Public policy and the rural landscape

Two international policy agendas are of particular interest concerning rural landscapes- the open-market agenda and the sustainability agenda (Dwyer & Hodge, 2001; Primdahl & Swaffield, 2010). The open market agenda is institutionalised through the World Trade Organisation, bilateral trade agreements, and national and cross-national trade policies such as the open market policy within the European Union. Trade in food and fibre is central to many agreements, and in recent decades food markets and their supply chains have expanded on a global scale. At the same time, national and regional subsidy schemes have been reduced in scale, decoupled from production, or abandoned altogether (OECD, 2008; Potter, 2010). Over the years, market policy decisions and regulation have therefore become increasingly centralised, and in developed countries there are very few kinds of market policy below the national level that are of any relevance to rural landscapes. One consequence of this is that decisions taken by market policy institutions, which may have very different implications for different rural landscapes, are typically made far away from the farmer, the consumer and other affected local agents (Fig. 1).

The other dominant global policy agenda concerning rural landscapes, the sustainability agenda, can be understood in large part as a response to un-intended consequences of the market agenda (WCDE, 1987). Social and environmental effects of economic development were largely ignored until the UN Conference on the Human Environment held in 1972. The sustainability agenda was given formal expression in the mid 1980s (WCDE, 1987), and the UN Rio Conference in 1992 marked another important milestone, with key agreements on the Convention on Biodiversity and the Declaration on Environment and Development (Agenda 21). The sustainability agenda has continued to expand, with a large number of agreements and a growing global network of experts, policy institutions (public as well and non-governmental), coalitions and partnerships (Held et al., 1999). It works on all political-administrative levels, with varying degrees of coherence between the levels, depending upon the governance arrangements in different countries and territories.

The spatial scope of the sustainability agenda has also expanded, as resource evaluations have become framed at multiple scales from global to local (Millenium Ecosystem Assessment, 2005), and as conservation philosophy has extended from designation of 'reserves' (Lucas, 1992) to the integration of conservation objectives and processes within all cultural landscapes (Adams, 2003; O'Riordan & Stoll-Kleeman, 2002). There is also now a major focus in policy development upon cross compliance and coordination between the sustainability and the market policy agendas at national and international levels. The US Conservation Reserve Programme and EU agri-environmental schemes are two examples of attempts to relate environmental concerns with production (Bills & Gross, 2005). However while ambitious in scale and intent, in practical terms and at a local level the market policy agenda and the sustainability agenda are far from fully integrated. Numerous attempts have been made to integrate the two agendas at various levels, but have proven to be difficult and complicated to implement (Feindt, 2010; Gabler, 2010; Lenschow, 2002; Swaffield & Primdahl, 2011). Whilst examples of progress can be found, especially at centralised levels of policy making, when seen from the point of view of local communities and landscape managers with no influence on market politics, and with varying but modest degrees of influence on top-down environmental policy, it is increasingly difficult to integrate the two policy agendas at a specific territorial level (Primdahl & Swaffield 2010).

As noted above, Castells (2000) used the terms 'spaces of flows' and 'spaces of place' to express the different spatial logics that are

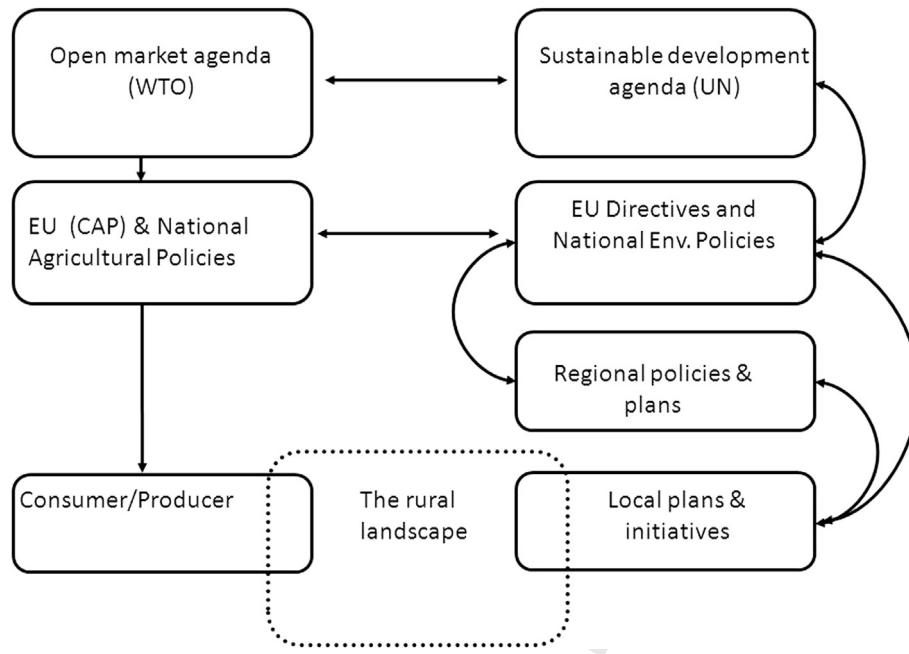


Fig. 1.

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expressed through extended 'vertical' relationships of production and policy, and local relationships of proximity, and Hågerstrand (2001) offers a complementary conceptualisation of the powers to act that are expressed at different spatial scales. He distinguishes between increasingly distant 'spatial competences' or powers that are embedded in policy institutions at higher level spatial domains (such as taxation regimes and environmental legislation in nation states), and 'territorial competences' that express the powers of local agents to act in particular ways in particular places (such as the right to farm a particular ecosystem). Spatial competencies establish rights and obligations which do not directly relate to particular landscape features (such as generic taxation regimes), whereas territorial competencies directly maintain, change or abandon local landscape practices and landscape features. As globalisation and the space of flows becomes ever more dominant, he argues, there is increasing dissonance between spatial and territorial competencies.

Ultimately however the success and effectiveness of higher level policy agendas rely upon the continuing health and resilience of the local landscapes and their communities that generate production surpluses and supply environmental services (Adams, 2009). Despite, or even because of the growing globalisation of policy, there is a fundamental and continuing need to ensure that the meeting of the trade and sustainability agendas in the local landscape is a constructive encounter which contributes to sustainable landscape functions and patterns (Matthews & Selman, 2006). In the next part of the article we therefore analyse the types of policy

instruments and approaches that are available to influence the protection, management and enhancement functions in rural landscapes, and compare the different spatial logics that are at work, and the tensions and opportunities they create.

Rural policy and planning

Rural policy interventions exist in numerous forms (Hodge, 2000, 2001). Rands et al. (2010) identify three tiers of response-foundational knowledge, enabling institutions and behaviours, and instrumental legislation, technologies, incentives etc. In this context we focus the discussion upon three historically significant and contrasting types of instrumentality, each with many subtle variations, and with significant interrelationships (Table 1). They are legislative regulation of rural activities through legislation; provision of material or financial incentives (or disincentives) to farmers and other policy target groups to act in specified ways (including taxation); and publicly supported education and persuasion to act in desired ways. Each approach typically expresses a different spatial logic and may be implemented through different spatial domains, although the policy target is in most cases individual agents, usually farmers and other property owners.

Public regulation of owners' and users' landscape practices (including farming and forestry) is the oldest recorded rural landscape policy approach in most societies (Olwig, 1996) and is generally based on different types of legal instrument or 'types of intervention' (Table 1, top). Rules relating to land markets

Table 1
Different instruments and approaches within rural landscape policy making.

Type of intervention	Primary function	Examples	Spatial domain
Regulatory measures	Ensuring well-functioning markets; environmental protection; land use regulations	Rules of agricultural support measures; environmental directives, zoning	International National Municipal
Incentives and other economic measures	Introducing/maintaining/reducing certain agricultural practices, enhancing ecological services and values	Tax policies, environmental investment programmes, agri-environmental schemes	National Municipal
Information, advisory, education	Persuasion, technical guidance, facilitation	Farming advisory service, guidance, education programmes, Certification	Regional International

(including purchase rights to farm properties), land use practices (including reclamation of natural and semi-natural habitats and building rights), rights to natural resources (gravel extraction, ground water, hunting, etc.), and recreational access rights are examples of interventions based on regulatory measures, which may be efficient in preventing undesired change and in conflict mediation. When linked to spatial planning, regulatory measures can become tools to ensure particular aggregate outcomes of change processes, e.g. urban expansion (Hall, 1974). Public regulation may be expressed in a range of different spatial domains, from the supranational (such as the EU Water Directive), to the national and municipal (eg administration of taxation), to community level determination of hunting rights. Territorial competencies affected by such regulation have historically been held and managed predominantly (but not exclusively) by people or organisations that are local to the affected landscape. However with increasing corporate and urban ownership of rural land, the holders of such competencies are likely to be based in locations that are remote from the landscape in which they are exercised, and to have little direct relationship with the exercise of the competencies, which are typically delegated to agents.

Public policy incentives (and disincentives) are used mainly to stimulate certain actions related to landscape change or management, or to dissuade undesirable actions through various forms of taxation or by compensating for the opportunity cost of no action. They are typically focused on actions which are otherwise unlikely to be undertaken without intervention. Historically, incentives have played a significant role in agricultural development through schemes to promote drainage, reclamation, irrigation, and other ways to stimulate expansion of farm land. Land consolidation schemes and more general investment schemes have also been very influential in transforming agrarian landscapes in most developed countries (Tarrant, 1992). Such schemes have been removed or significantly reduced since the 1980s as part of market policy deregulation (Potter & Tilzey, 2005). From the end of the 1980s, a range of agri-environment measures (subsidies) (AES) have been introduced throughout Europe (Baldock & Lowe, 1996) and similar measures have been introduced in North America (Bills & Gross, 2005). Through AES farmers are paid to introduce or maintain environmental friendly practices, and by 2008 more than 20 per cent of the agricultural area within the European Union was covered by AES contracts. Incentives remain an important type of policy intervention, although the underlining objectives are changing from mainly production support to environmental enhancement, meaning that this type of instrument has 'moved' from the market policy agenda into the sustainability agenda. Financial disincentives are also being increasingly used to influence change – one good example being the introduction of carbon taxes and carbon trading schemes to combat climate change. The spatial competencies to provide financial incentives and disincentives for rural landscapes are typically distant from local landscapes – vested in national and regional government ministries and agencies – and a general challenge of such incentives has been to include local values and preferences (Hodge, 2001).

Finally, there are a range of education and persuasive types of approach – 'soft' types of intervention – through which public agencies and non-governmental organisations seek to guide landscape change through provision of information, advice, and training, often at a regional level. There is a strong tradition historically in many countries for state involvement in the modernisation of agriculture through provision of education and advisory services, and the appeal is often to enlightened self-interest, to "capture the goodwill" (Hodge, 2001) of the managers by showing how they can achieve better returns for themselves in ways that also have collective benefits. States or municipalities also increasingly provide expert help and other support to communities that wish to work collaboratively towards a common goal that aligns with wider public policy, such as landscape enhancement (Stenseke, 2009).

Arguably, the various forms of product certification schemes that are developing in a number of agricultural sectors are also persuasive in underlying structure, as there is usually no legal obligation to join, and typically no public subsidy or incentive. The Forest Stewardship Council (FSC) certification of timber is an example. The benefits of certification have often been presented as enhanced branding of products that will attract higher prices. In practice, certification is increasingly becoming a means to ensure continuing access to particular markets, rather than premium prices, and this is an example of the way in which the different approaches to policy interweave and hybridize. So, for example, product certification becomes a prerequisite to sell products, rather than a voluntary action.

Contrasting spatial logics

These different policy approaches and the instruments through which they are implemented each carry within them different spatial logics. Spatial logic is a term that has been used by a range of theorists, including Albrechts (2004), Castells (2000), and Lefevrve (1991), to conceptualise the inherent spatiality in different social processes. Castells (2000) for example contrasts the 'place based' logic of local landscape actions with the 'space of flows' of global commodity chains. Here we use the term spatial logic to describe the way that different approaches to rural policy engage differently with the spatial dimension of the rural landscape, depending on the nature of policy design and implementation, and on the traditions and skills within the policy domain in question. We suggest below a typology of four categories: Spatial resource; Spatial entity, Spatial networks, and Environmental standards and services (Table 2), that helps draw out the implications of the spatial dimension for local policy integration.

Spatial resource focused policy has historically and continues to be typically based upon purposive designation of some kind of 'priority' or 'target' areas, determined by the location of a particular resource. These designated areas are typically characterised by highly valuable resources, symbolic values and/or visual qualities or by special locations (Lucas, 1992). Some are large, extending over several rural landscapes, such as the UK National Parks, while others are small, including just parts of a coherent landscape.

Table 2
Contrasting spatial logics of rural policy.

Policy focus	Spatial logic	Examples of specific initiatives
Spatial resource	Purposive areal designation based on the location and extent of a resource	National Parks, heritage listings, water catchments areas
Spatial entity	Integrated areal management based upon community, constituency, or landscape character	Local Area Plans
Spatial networks	The location is determined by organisational relationships, not the needs or qualities of a particular location	Certification, Local food partnerships
Environmental standards and services	Specified action or output irrespective of its location	Water quality standards, carbon credits

Regulatory measures from land use or environmental legislation are the common instrument applied to protect resources, but in other situations the designated areas are *target areas* for different types of incentive action, ranging from land purchase, to agri-environmental grants.

Spatial entities such as a municipality or an urban neighbourhood have historically been regulated through comprehensive physical planning combined with land use regulations, particularly in urbanised or urbanising regions. There is now also increasing emphasis in rural planning upon the integrated areal management of distinctive political or homogenous landscapes, and this can extend to include non-material cultural values such as landscape identity, as in the European Landscape Convention (ELC) (Matthews & Selman, 2006; Southern, Lovett, O'Riordan, & Watkinson, 2011). Such integrated policy approaches use regulatory and incentive measures, but are increasingly also persuasive and educational in their approach.

Spatial networks respond to emerging needs and opportunities that cross resources, areas and sectors, where strategies and actions are based upon organisational imperatives. The focus is upon functional relationships rather than upon location specific resources or areas. There are for example a large number of rural landscape partnerships within the UK that place emphasis upon the identification and promotion of institutional collaborations which are expected to have consequential positive benefits, for example local food networks (Morgan et al., 2007). Certification schemes run by producer or consumer organisations are another example of a network, as the spatial expression becomes a function of the organisational relationships within the supply chain, rather than a specific territorial imperative.

Environmental standards and services are focused upon the measurement and manipulation of particular dimensions of a policy environment largely independently of location or place—such as national water quality standards and buffer zone requirements. Increasingly, this approach is targeted at delivery of particular ecological or environmental 'services' such as biodiversity (Millennium Environmental Assessment, 2005). Hence conservation planting is promoted because of the ecological function it can fulfil in aggregate, rather than upon its role in particular places. Implementation strategies tend to be non-spatial, focused upon incentives or rules for particular activities (eg. cultivation) or conditions (eg. water quality). Their spatial expression is thus incidental, or dependent upon other factors such as social legacy (Van der Horst, 2011) (Fig. 2).

As with the different policy approaches described in the previous section, there is significant overlap and interweaving between these spatial logics in practice. Organisational networks for example may frequently have a spatial expression, such as regional labelling, even though the basic logic is driven by the supply chain.

There is also scope to further strengthen the spatial relations between complementary approaches. Termorshuizen and Opdam (2009) have argued for the concept of landscape services as an extension to ecosystem services, because of the way that location in a landscape draws out the values of a particular environmental or ecosystem function. Typically, however, different policy instruments are shaped around different spatial logics, and this adds further challenge to the local integration of different policy agendas, and in aligning these highly fragmented spatial competences with the social and cultural territorial competences functioning in the local landscape. There have been increasing calls for more coordinated and spatially coherent approaches (Hodge, 2007; Pinto-Correia, Gustavsson, & Pirnat, 2006; Swaffield & Primdahl, 2010), and in the next section we consider how landscape based strategies might help draw together the diverse and potentially conflicting spatial logics and competencies of public policy affecting rural landscapes.

Landscape strategy making – an experimental planning programme

Constructing a common frame to coordinate and integrate future individual actions in response to concrete issues of the place, including a plurality of policy concerns, is a key dimension of strategic planning and spatial strategy making in urban contexts (Albrechts, 2004; Faludi & van der Valk, 1994; Healey, 2009), where there has historically been a much more complex network of relationships than in rural areas. In a theoretical review of strategic approaches, Healey (2009) identified four dimensions of spatial strategy making: (1) Creating attention to the spatial "whole" and how it functions; (2) situating and scoping the stakes and ambitions of these involved; (3) mobilising knowledge resources available to support goal setting and future actions; and (4) framing the strategy through naming the strategy and selecting key objectives and strategic projects. These phases are aimed at bringing the spatial competences of municipal government into constructive interactions with the myriad of territorial competences producing and reproducing the urban realm. This approach developed in complex urban regions appears to have the potential to also be applied in rural settings.

In Denmark comprehensive land use planning for the rural areas has been practiced since the beginning of 1980s, initially by the Danish County Councils as part of a new regional planning system. Structural reform in 2007 abolished county councils (and regional planning) and municipal plans became the key instrument for both town and country planning. This meant that planning for rural areas was both rescaled and decentralised. Objectives of comprehensive municipal planning include integration and balancing different land use interests, which is primarily done through

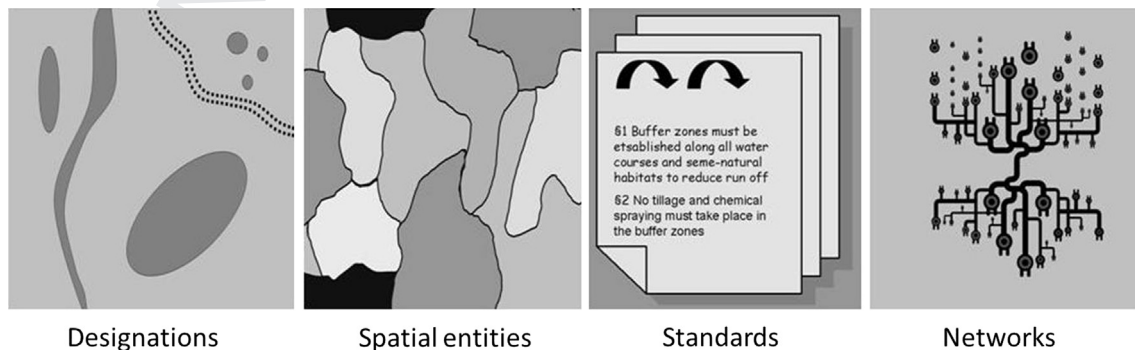


Fig. 2.

purposive designations of areas such as 'nature conservation areas', 'primary agricultural areas', 'afforestation areas', 'ground water protection zones' and similar areas. Such comprehensive planning has been successful in relation to protection of landscapes and areas of specific nature values from urban expansion, and in locating specific functions such as windmill parks and summer house areas. However its focus on land use and conflict management means that comprehensive planning has been less successful in promoting place making, or in linking specific social and natural qualities of rural landscapes with broader policy objectives. The prospect of more place-based approaches to rural landscape planning provides the context for the experimental action research programme, 'Dialogue based and integrated planning for the rural landscape' (Diaplan) initiated in 2010.

Diaplan involved four municipal planning projects, each of them owned and funded by separate municipalities. The four municipalities agreed to experiment with different spatial and strategic approaches to the plan making process, with the aim of investigating in practice in what ways and to what extent landscape policy may be better integrated. External funding enabled a number of initiatives to be taken to bring local stakeholders (as individuals and as community) in constructive interaction with the municipal planners. All the participating projects concern rural landscapes in Denmark that are relatively peripheral to urban centres, but different in context and scale (Fig. 3).

The first project, Skive, concerns the possible establishment of a nature park in an area rich in natural and semi-natural habitats which is close to the town of Skive with 25,000 inhabitants. The municipality saw potential to promote tourism, residential development and natural habitat restoration and management, and thus create benefit for the municipality as a whole. However, at present the area is not perceived by the public as landscape with its own and well established identity, nor does it constitute a distinct local community, but instead comprises many somewhat fragmented communities. The task was to investigate if a common understanding of the area as a place rich in natural and historic values can be established, and a landscape focused strategy developed.

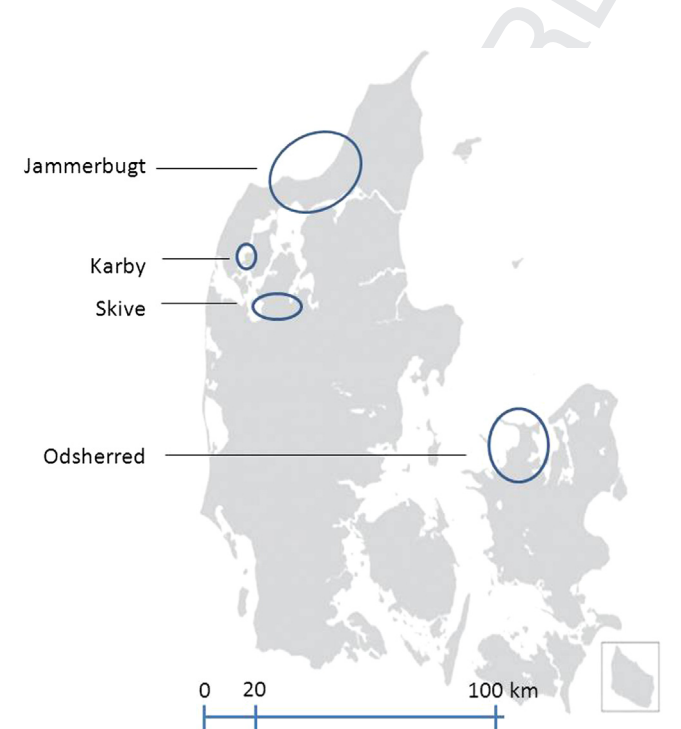


Fig. 3.

The second project, Karby, deals with a remotely located rural parish with very intensive livestock farming (pig and dairy production), located alongside a large salt marsh with semi-natural habitats of international importance. Whereas the village has been improved by a renewal project, no plans or other coherent policies have dealt with the landscape as whole, despite its outstanding qualities linked to heritage, ecology and scenery. The aim here was to formulate a landscape strategy for the parish as a whole, which could be used as a frame for actions to be taken by individual agents, the community and the municipality.

Establishing a designated park focussing on outstanding geological features (terminal moraines and other glacial landforms) and approved by the UNESCO network of 'Geoparks' was the starting point and primary goal of the third project, located in Odsherred municipality. In co-operation with key stakeholders linked to local museums, tourist and farm businesses, the municipality wanted to create a plan for the park including construction of a walking trail, and identification of sites for a visitor centre and other 'hot spots'.

The last project deals with the future of agriculture in Jammerbugt municipality in Northern Jutland, a rural region dominated by intensive agriculture and tourism along the North Sea Coast. In co-operation with stakeholders linked to agriculture and nature conservation the municipality aimed to develop a planning framework through which agricultural developments (farm buildings, constructions, livestock density, manure and fertilizer management etc.) could be regulated within a landscape context, using landscape character mappings (of entities), rather than through designations of special sites.

The four projects and main initiatives are summarised in Table 3. The programme started in the autumn of 2010 and the four projects have run at different speeds. By autumn 2012 a landscape strategy was almost in place in two of the projects, was close to being framed as strategy in the third, whilst the fourth is still in progress. The results in terms of experiences gained to date are discussed in the next section.

Discussion

The key feature of the four examples described above has been the grounding of spatial strategy making in particular rural settings. Not all were distinct spatial entities in terms of community organisation, but all were landscapes that could be defined either by community or character. The territorial approach applied in all four projects was clearly fruitful. Projects started with a process aiming at bringing the diverse issues and perspectives upon the rural landscape in question into common focus, and successfully worked towards development of coherent spatially expressed ideas for future landscape management. How successful these processes will be in coordinating and integrating the various policy influences is less clear, given the relatively short time since the start of the processes. At this stage however it can be concluded that the processes initiated did produce novel visions and integrated goals for what needs to be changed and protected, and how to guide these changes in general terms.

The experiences gained indicate that landscape strategy making represents a means to cope with – at various scales and in different problem contexts – problems of fragmented and incoherent (both in terms of instruments and spatial approaches) policies and plans. There was a high level of collaboration between some farmers, residents and other stakeholders within the landscapes in question. In the case of Skive and Karby (representing the smallest areas of the four projects) local strategy groups have been central in steering the outcomes of the final workshops where the strategies have been formulated. In the two other projects covering larger areas,

Table 3

The four projects participating in the Landscape Strategy Making (LSM) programme.

	1 Skive Nature park	2 Karby Parish plan	3. Odsherred Geo Park	4. Jammerbugt Future of agriculture
Primary task:	To consider the establishment of 'nature park' covering 7 parishes	To produce a strategy for the future landscape in a rural parish	To establish a 'Geopark' and get it approved by the UNESCO network	To establish a municipal planning approach to agriculture
Main objectives	Conservation and development	Improve the functionality and attractiveness of the parish	Support tourism and new residence. Coordination of policy and projects.	Establish an integrated framework for development of agriculture
Area:	7 parishes,	1 parish,	1 municipality,	1 municipality,
Population (2010):	70.4 km ²	23.0 km ² ,	355.3 km ² ,	872.9 km ² .
Population	3233 inhabitants	502 inhabitants	32,710 inhabitants	61.5% farmland
Density (mun.)	69/km ²	58/km ²	92/km ²	38,645 inhabitants
Policy focus of current policies of relevance	Designations, standards, incentives	Designations, standards, incentives	Designations	Designations and standards
Key strategy makers and participating stakeholders	Local citizens and Municipality	Local citizens and municipality	Municipality Key persons from agricultural and tourism business and nature conservation associations. Politicians	Municipality Representatives from Farmers Union
LSM events				
1. Creating attention	- landscape narrative workshop with external experts	- landscape narrative workshop with local residents	- Stakeholder meetings	- common language concerning future
2. Situating and scoping	and the municipal administration	- survey of farmers plans and preferences	- survey of owners recreational trips and trail preferences	of landscape – theater workshop with stakeholders
3. Mobilising knowledge	- landscape lectures by external experts	- excursion to areas with similar projects implemented	- narrative workshop	- excursion with municipal planners, local politicians and farmers
4. Framing	- survey of farmers plans and preferences	- Landscape poetry and art workshops a local school	- excursion to potential hotspots	- landscape character mappings of agricultural regions
	- LSM workshops	- LSM workshops		- stakeholder meetings
	- Public meeting	- Public meetings		
Cross project seminars	Thematic seminars for municipal staff and external experts (heritage planning, trail planning, agricultural development and EU policy, place making) Excursion with program participants (including a few citizens) to the Netherlands	Strategy in place A strategy group in place	Strategy frame in place – key locations identified and some projects identified	Common language established, framework for a territorial policy focus for agriculture under construction
Status (Fall 2012) and main outcomes	Strategy in place, three local working groups established in co-operation with Municipality			

the collaborative approach, steered by the municipality, has successfully engaged various officers within relevant sections of the municipal administrations and a number of key stakeholders outside the public domain.

The different types of strategy making processes listed in Table 3 have also resulted in valuable results. The narrative workshops (in which external experts are asked to give their individual story of the landscape in question) have in combination with excursions and common discussions given local participants (both municipal officers and citizens) new perspectives on the area, and have contributing to mobilisation and integration of shared knowledge. The surveys carried out in three of the four projects have brought local knowledge and values into the process. One effective and novel approach trialled in the projects was a managed 'confrontation' of the local strategy groups' draft strategies with 'quick and dirty' plan proposals delivered by experts in what we have termed 'confrontation dialogues'. This approach is informed by Habermas' ideal of communicative rationality (Forester, 1999; Habermas, 1984; Healey, 2003), and has proven effective in mobilising and testing ideas in an open and constructive way. Other forms of dialogue including a workshop in which professional actors perform conflicting actions and stories specifically linked to the landscape have also been useful in the scoping phase.

These dialogues combined with the narrative and strategy making sessions have contributed to create local engagement with and ownership of the strategy process. However the extent to which this sense of ownership will extend to the spatial strategies that come out of the processes remains to be seen, as does the concrete effects the processes will have on policy coordination and integration, and ultimately how effective the strategy will be in guiding landscape changes in coherent ways. In short it is still unclear whether this type of strategy making can make positive relationships between the space of flows and local place making initiatives.

One important experience gained from the experiments is that commercial agricultural production – an issue which was of priority in three of the four projects – has proven to be particularly difficult to deal with in the strategy making processes. In the Jammerbugt project, this is the key issue (the full project title is 'The future of agriculture in Jammerbugt municipality – in interaction with community and landscape') and so far no strategy has been produced for this project. Although positive results have been gained in Jammerbugt in bringing different stakeholders in constructive dialogues, a coherent, strategy for the development of agriculture is not within reach in the programme timeframe of 3 years. Furthermore, although agriculture in Skive and Karby was

identified as one of the key issues, it did not become a significant part of the strategies which have been outlined so far – neither in the visions and objectives stated, nor in the strategic project identified. A few large scale (full time) farmers have been involved in the strategy making workshops but have shown no interest in including agricultural developments (for example future building and land consolidation) into the process.

A possible explanation of the difficulty of engaging with the production sector may be that these farmers do not see their production activities as part of a common local context, but see their production practices mainly as a business orientated towards an increasingly competitive food market. This would be consistent with Castells's formulation of spaces of flow and spaces of place (Castells, 2000). A supplementary explanation may be that the municipality has limited influence when it comes to managing the local consequences of an agricultural policy designed mainly for Europe as whole, and agri-environmental policies (regulatory measures and incentives) designed from the Ministry in Copenhagen. On the other hand, in the Skive and Karby projects, farmers with designated semi-natural grasslands have shown some interest in including these areas and their management into the strategy. In the longer term there may be room for the development (or rather for re-introduction) of local agricultural networks in situations where commercial agriculture comes under further pressure, as it has been seen the Netherlands (Ploeg et al., 2008)

The key finding may therefore be summarised as that while the process of spatial strategy making in the four experiments has been effective in engaging most parts of the rural community in thinking about their common future, and lead to some useful collaborative actions, the incorporation of intensive, commercial farming into local landscape strategies is obviously no simple task. The successful collaborations have been on the margins and in the interstices between the spaces of industrial agriculture. Spatial strategy making from the bottom up has been unable to fully overcome the distancing in competencies and cognition between the spaces of flow and spaces of place. We return to this in the conclusion concerning future research.

Conclusion

A high number of policy interventions affect rural landscapes in most developed countries – from different sectors, from different political-administrative levels, with different types of control instruments and spatial approaches. The different approaches interact in numerous and mostly unknown ways, and they are only partially coordinated, and in the main poorly integrated. Contradictory interventions are widespread, especially at a general level between market policies and environmental policies. Most of the interventions affecting rural landscapes are top down and even when the objectives concern the landscape as whole they target the individual landowner. This article considered two inter-related questions: What kind of policy instruments and spatial approaches are available to guide rural landscape change under the current pressures of globalisation, and can local landscape strategy making help integrate the various policy approaches and bridge between different competencies in a specific rural landscape context?

In answer to the first question, four categories have been proposed to classify the way that public policies uses different types of spatial logic to influence landscape practices –approaching the landscape as a resource based area, as a spatial entity, as an organisational system, and as standards and services with no reference to space. Hagerstrand's conception of spatial and territorial competencies has also informed analysis of the way that policies and practices are interrelated and the different scales and dimensions of action that are involved.

In answering the second question, the possibilities of rural landscape strategy making have been explored through four examples in rural Denmark. The cases suggest that landscape strategy making at a local scale represents a promising way forward to bring different sectors together locally and in direct collaboration with local owners and users; landscape practices and their visions for the future. A strategy making process may also function as a means to coordinate individual actions taken by farmers (often the principal policy target) and other, and to better align the policy outcomes with policy objectives at the landscape scale. The project experiments suggest that local actors and communities are interested in participating in landscape strategy making processes, and in development perspectives given by external experts. Communicative rationality (Drysek, 2000) clearly has a role to play in framing future landscape policies for rural areas.

However there are still significant challenges to overcome. The Skive example revealed that making a strategy for areas that are not perceived as a whole by its constituent communities is challenging. A particular advantage of *landscape based spatial* strategy making is the eidetic quality of landscape (Corner, 1999) – it has powerful imagery- and the landscape narratives (or landscape biographies) including maps that are used in strategy making are an effective way to engage people with the possibilities of future action. A more intractable problem is how to integrate between local landscape competencies and practices and intensive agricultural production. Very few members of a rural community are now involved in the production system in many rural areas, and managers of these globally connected production systems are reluctant to negotiate territorial competencies with local communities (or indeed municipalities) who have no financial stake in the outcome.

Future research challenges therefore include first, how to extend such strategy processes across a wide range of rural landscapes. Is it possible to develop a 'tool box' that enables municipalities to replicate the approach across rural communities? Second, how can the different policies and competencies in an area be mapped and summarised in a way that enables a coherent implementation plan to be developed? Third, what are the implications of local spatial strategy making for the way in which higher level policies are implemented? Can spatial strategy making be usefully anticipated within higher policy – for example, by linking incentives to the production of such a strategy? Finally, and most challenging, what ways can local spatial strategy making better connect with the increasingly globalised spatial competencies of industrial agriculture? International comparative studies of situations in which producers have willingly cooperated with local communities to develop local integrated spatial strategies, under what circumstances and with what results, are urgently needed.

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References

- Adams, W. M. (2003). *Future nature: A vision for conservation* (2nd ed.). London: Earthscan.
- Adams, W. M. (2009). *Green development: Environment and sustainability in a developing world*. Routledge, London.
- Albrechts, L. (2004). Strategic (spatial) planning re-examined. *Environment and Planning B. Planning and Design*, 31, 743–758.
- Baldock, D., & Lowe, P. (1996). The development of European agri-environment policy. In M. Whitby (Ed.), *The European environment and CAP reform: Policies and prospects for conservation* (pp. 8–25). Wallingford: CAB International.
- Bills, N., & Gross, D. (2005). Sustaining multifunctional agricultural landscapes: comparing stakeholder perspectives in New York (US) and England (UK). *Land Use Policy*, 22, 313–321.
- Buttimer, A. (2001). Sustainable development: issues of scale and appropriateness. In A. Buttimer (Ed.), *Sustainable landscapes and lifeways. Scale and appropriateness* (pp. 7–31). Cork: Cork University Press.
- Clapp, J., & Dauverge, P. (2005). *Paths to a green world. The political economy of the global environment*. Cambridge, MA: MIT Press.
- Castells, M. (2000). *The rise of the network society* (2nd ed.). Oxford: Blackwell.
- Corner, J. (1999). *Recovering landscape: Essays in contemporary landscape architecture*. New York: Princeton Architectural Press.
- Council of Europe. (2000). *European landscape convention and explanatory report*. Strasbourg: The General Directorate of Education, Culture, Sport and Youth, and Environment.
- Drysek, J. (2000). *Deliberative democracy and beyond: Liberals, critics, contestations*. Oxford: Oxford University Press.
- Dwyer, J., & Hodge, I. (2001). The challenge of change: demands and expectations for farmed land. In T. C. Smout (Ed.), *Nature, landscape and people since the second world war* (pp. 117–134). East Linton: Tuckwell Press.
- Faludi, A., & van der Valk, A. (1994). *The concept of planning doctrine. Rule and order: Dutch planning doctrine in the twentieth century* (pp. 7–25). Dordrecht: Kluwer Academic Publishers.
- Feindt, P. H. (2010). Policy-learning and environmental policy integration in the common agricultural policy, 1973–2003. *Public Administration*, 88(2), 296–314.
- Forester, J. (1999). *The deliberative practitioner*. Cambridge (MA): The MIT Press.
- Gabler, M. (2010). Norms, institutions and social learning: an explanation for weak policy integration in the WTO's committee on trade and environment. *Global Environmental Politics*, 10(2), 80–117.
- Habermas, J. (1984). *Reason and the rationalization of society*. In *The theory of communicative action*, Vol. 1. Boston: Beacon Press.
- Hall, P. (1974). The Containment of Urban England. *The Geographical Journal*, 140(3), 386–408.
- Healey, P. (2003). The communicative turn in planning theory and its implications for spatial strategy formation. In S. Campbell, & S. S. Fainstein (Eds.), *Readings in planning theory* (2nd ed.). (pp. 237–255) Oxford: Blackwell Publishing.
- Healey, P. (2009). In search of the "strategic" in spatial strategy making. *Planning Theory & Practice*, 10(4), 439–457.
- Held, D. (2004). Globalisation: the dangers and the answers. *Open Democracy*. Available on <http://www.opendemocracy.net/content/articles/PDF/1918.pdf>.
- Held, D., McGrew, A., Goldblatt, D., & Perraton, J. (1999). *Global transformation. Politics, economics and culture*. Cambridge: Polity Press.
- Hodge, I. (2000). Current policy instruments: rational, strengths and weaknesses. In OECD (Ed.), *Valuing rural amenities* (pp. 105–128). Paris: OECD Proceedings.
- Hodge, I. (2001). Beyond agri-environmental policy: towards an alternative model of rural environmental governance. *Land Use Policy*, 18, 99–111.
- Hodge, I. (2007). The governance of rural land in a liberalised. *Journal of Agricultural Economics*, 58(3), 409–432.
- Hägerstrand, T. (2001). A look at the political geography of environmental management. In A. Buttimer (Ed.), *Sustainable landscapes and lifeways. Scale and appropriateness* (pp. 35–58). Cork: Cork University Press.
- Kemmis, S., & McTaggart, R. (2005). Participatory action research. Communicative action and the public sphere. In N. K. Denzin, & Y. S. Lincoln (Eds.), *The SAGE handbook of qualitative research* (3rd ed.). (pp. 559–603) London: Sage Publications.
- Lefevvre, H. (1991). *The social production of space*. Oxford: Blackwell.
- Lenschow, A. (Ed.). (2002). *Environmental policy integration. Greening sectoral policies in Europe*. London: Earthscan.
- Lucas, P. H. C. (1992). *Protected landscapes: A guide for policy makers and planners*. London: Chapman and Hall.
- Matthews, R., & Selman, P. (2006). Landscape as a focus for integrating human and environmental processes. *Journal of Agricultural Economics*, 57(2), 199–212.
- Millennium Ecosystem Assessment. (2005). *Ecosystems and human wellbeing: A framework for assessment*. Geneva: World Health Organisation.
- Morgan, K., Marsden, T., & Murdoch, J. (2007). *Worlds of food: Place, power and provenance in the food chain*. Oxford: Oxford University Press.
- OECD. (1997). *Concepts and framework*. In *Environmental indicators for agriculture*, Vol. 1. Paris: OECD.
- OECD. (2008). *Agricultural policy design and implementation: A synthesis*. Paris: OECD.
- Olwig, K. R. (1996). Recovering the substantive nature of landscape. *Annals of the Association of American Geographers*, 86(4), 630–653.
- O'Riordan, T., & Stoll-Kleeman, S. D. (Eds.). (2002). *Biodiversity, sustainability and human communities: Protecting beyond the protected*. Cambridge: Cambridge University Press.
- Pinto-Correia, T., Gustavsson, R., & Pirnat, J. (2006). Bridging the gap between centrally defined policies and local decisions. Towards more sensitive and creative rural landscape management. *Landscape Ecology*, 21, 333–346.
- Ploeg, J. D.v.d., Broekhuizen, R.v., Brunori, G., Sonnino, R., Knickel, K., Tisenkopfs, T., & Oostindie, H. (2008). Towards a framework for understanding regional rural development. In J. D.v.d. Ploeg, & T. Marsden (Eds.), *Unfolding worlds. The dynamics of regional rural development* (pp. 1–29). Assen: Royal Van Gorcum.
- Potter, C. (2010). Agricultural liberalization, multifunctionality and the WTO: competing agendas for the future of farmed landscapes. In J. Primdahl, & S. Swaffield (Eds.), *Globalisation and agricultural landscapes – Change patterns and policy trends in developed countries* (pp. 17–30). Cambridge: Cambridge University Press.
- 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.
- Primdahl, J., & Swaffield, S. (2010). Globalisation and the sustainability of agricultural landscapes. In J. Primdahl, & S. Swaffield (Eds.), *Globalisation and agricultural landscapes – Change patterns and policy trends in developed countries* (pp. 1–15). Cambridge: Cambridge University Press.
- Rands, M. R. W., Adams, W. M., Bennun, L., Butchart, S. H. M., Clements, A., Coomes, D., Entwistle, A., Hodge, I., Kapos, V., Scharlemann, J. P. W., Sutherland, W. J., & Vira, B. (2010). Biodiversity conservation: challenges beyond 2010. *Science*, 329, 1298–1303.
- IUCN Environmental Policy and Law Paper 027. *Agenda 21: Earth's action plan*. New York: Oceana Publishers.
- Stein, S. M., & Harper, T. L. (2003). Power, trust, and planning. *Journal of Planning Education and Research*, 23, 125–139.
- Stenseke, M. (2009). Local participation in cultural landscape maintenance: lessons from Sweden. *Land Use Policy*, 26(2), 214–223.
- Southern, A., Lovett, A., O'Riordan, T., & Watkinson, A. (2011). Sustainable landscape governance: lessons from catchment based study in whole landscape design. *Landscape and Urban Planning*, 101(2), 179–189.
- Stiglitz, J. E. (2006). *Making globalization work*. New York: W.W. Norton & Company.
- Swaffield, S., & Primdahl, J. (2010). Globalisation and local agricultural landscapes: patterns of change, policy dilemmas and research questions. In J. Primdahl, & S. Swaffield (Eds.), *Globalisation and agricultural landscapes – Change patterns and policy trends in developed countries* (pp. 245–270). Cambridge: Cambridge University Press.
- Swaffield, S., & Primdahl, J. (2011). *Pathways towards applied policy integration for sustainable agricultural systems*. Workshop Proceeding. LEaP Research Report 28. NZ: Lincoln University <http://researcharchive.lincoln.ac.nz/dspace/handle/10182/4144>.
- Tarrant, J. (1992). Agriculture and the state. In I. Bowler, & B. Ilbery (Eds.), *Agriculture and geography* (pp. 239–274). London: Longman.
- Termorshuizen, J., & Opdam, P. (2009). Landscape services as a bridge between landscape ecology and sustainable development. *Landscape Ecology*, 24, 1037–1052.
- Van der Horst, D. (2011). Adoption of payments for ecosystem services: an application of the Hagerstrand model. *Applied Geog*, 31(2), 668–676.
- Wescoat, J. L., & Johnston, D. M. (Eds.). (2008). *Political economies of landscape change: Places of integrative power*. Dordrecht: Springer.
- Wicks, P. G., Reason, P., & Bradbury, H. (2008). Living inquiry: personal, political and philosophical groundings for action research practice. In P. Reason, & H. Bradbury (Eds.), *The SAGE handbook of action research. Participative inquiry and practice* (2nd ed.). (pp. 15–30) Los Angeles: Sage.
- Woods, M. (2005). *Rural geography: Processes, responses and experiences in rural restructuring*. London: Sage.
- WCDE. (1987). *Our common future*. Oxford: World Commission on Environment and Development Oxford University Press.
- World Bank. (1991). *Environmental assessment sourcebook*. Washington DC: World Bank.