

# Co-operative approaches to agricultural landscape management-farmer groups as agents

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## Introduction

Traditionally, agricultural policy has aimed at expanding and enhancing agricultural production (Gilg, 1996; Vos and Meekes, 1999). Over the past three decades, however, public awareness of the other functions and values of the rural countryside has increased, and farmers experience public intervention within new regulatory areas; e.g. habitat conservation and nutrient management (Marsden et al., 1993; Lowe et al., 1997). In several countries, farmers have been highly vocal in demonstrating their dislike of this increasing regulation (Broekhuizen et al., 1997; Lowe et al., 1997). Restrictive statutory regulations have been perceived as unjustified attacks on the farmers' integrity while also being accused of neglecting the importance of the need to adapt to variations in the local environment. As subsidy schemes are voluntary, they induce fewer protests amongst farmers than do statutory regulations. However, both means of regulation have been criticised as being inflexible, because they include fixed and detailed instructions on specified farming practices (Broekhuizen et al., 1997; Luz, 2000).

The protests of the farming community can be interpreted as a negative reaction to "top-down" regulation. This approach is most often related to rationalistic planning, where public authorities decide upon optimal solutions based on objective data, legislating accordingly (Healey, 1997; Woerkum and Aarts, 1998). The adequacy of "top-down" regulation has been questioned by researchers for a number of years, and alternative approaches have been developed in terms of communicative planning, self-regulation and partnership (Arnstein, 1969; Stor and Taylor, 1981; Sager, 1994). Healy (1997) summarises the alternative approaches as "the interpretative, communicative turn in planning theory" (p. 28). Knowledge, value, and preferences are here perceived to be intersubjective, and thus actively constructed through social processes embedded in specific contexts. In this process, ownership of knowledge, problem identification and possible solutions spread to more people, and it is expected that with ownership a sense of responsibility and an urge to adopt a stewardship ethic will be developed (Hanna, 1995; OECD, 1998). This is in line with recent international agreements, which urge national governments to involve citizens further in planning and implementation processes, and to delegate responsibilities and

substantial decisional power to citizen groups (European Commission, 1996; Council of Ministers, 1998).

In urban planning “bottom-up” approaches have increasingly been adopted (Voogd and Woltjer, 1999; Engberg et al, 2000), and in recent years examples have also emerged in rural housing planning processes (Goodwin, 1998; Murdoch and Abram, 1998). Examples related to integrating landscape concerns in agriculture, though, are still uncommon and have been less subject to analysis.<sup>1</sup>

This article analyses on the potential of farmer groups as agents in “bottom-up” approaches to landscape management. Public regulation of farmers’ practice is most often aimed at the individual farmer, and linked to national and international policies and priorities (Dwyer and Hodge, 2001). However, the very nature of landscape management underpins the relevance of farmer groups as agents, because landscape issues such as preventing soil erosion or the provision of ecological corridors often require actions that extend across property boundaries. In order to optimise the achievements of individual farmers’ landscape practices, spatial co-ordination is essential (Burel and Baudry, 1995; Forman, 1995; Brandt, 1996).

Two cases are presented: environmental co-operatives in the Netherlands and planting associations in Denmark. Both the Netherlands and Denmark are characterised by intensive agricultural production and strong traditions of co-operation among farmers (Just, 1990; Ven, 1993; Just, 1994). The two types of organisations presented share the common goal of enabling groups of farmers to engage in binding agreements with public authorities in relation to landscape management. However, the emergence, achievements and organisation of environmental co-operatives and planting associations, respectively, are very different. Focusing on organisational aspects, the analysis compares experiences gained in the two countries in order to achieve a differentiated understanding of the potentials and shortcomings of farmer groups as agents in co-operative landscape management. In addition, the relationships between emergence, organisation and achievement are highlighted.

## Co-operative approaches as institutional arrangement for policy

From an economic perspective agriculture is traditionally perceived as the driving force, while public policies are considered as the responses to changes in the agricultural sector (OECD, 1997). Some researchers argue that all goods (including environmental ones) can be provided through a liberalised market with little or no public intervention (Anderson and Leal, 1991). Most often, though,

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<sup>1</sup> See however environmental co-operatives in the Netherlands (Bruin, 1995; Hees et al., 1994) and land care groups in Australia (Curtis, 1998; Sobels et al., 2001).

landscape values and other environmental goods are described as public goods, which will not be supplied by farmers as a result of a free market economy. From this perspective public intervention is necessary, and public authorities are understood to be the driving force in respect of the provision of public goods such as biodiversity and the protection of groundwater resources (OECD, 1997; Huylenbroeck et al., 1999; Dwyer and Hodge, 2001).

In contrast to this, co-operative approaches are characterised by citizens and public authorities engaging in debate and negotiations to achieve a common understanding of problems and possible solutions. In this process initiative, responsibilities and decisional power is shared between the parties (Meadowcroft, 1998; OECD, 1998). It is argued that involving local stakeholders may induce innovative solutions and mutual learning, as a multitude of ideas and knowledge on specific local conditions may be provided and developed (Glasbergen, 1998; Röling and Wagemakers, 1998). In addition, the process may lead to growing commitment and mutual understanding between the parties involved, and a legitimisation of the agreed actions (Hanna, 1995; Meadowcroft, 1998).

This article focuses on co-operation between public authorities and groups of farmers. In such arrangements, farmers are responsible to the public authority as a group and have the ability to regulate themselves within a framework set up by agreements made between the group and the public authorities. This enables the individual farmer to act in accordance with the specific conditions of his farm (OECD, 1998). In addition, working in co-operation, the members may achieve economies of scale for example by lowering the costs of gathering information or in buying specialised machinery.

From a broader socio-economic perspective it may be attractive for public authorities to address groups of farmers rather than individuals (OECD, 1998). Based on club theory, Slangen (1994) emphasises the efficient location of abatement costs (e.g. costs of improving habitats or lowering the surplus of nutrients), because internally in the club, members can choose the persons and the specific solutions, thus achieving the desired effects in a more cost efficient manner. Moreover, transaction costs (e.g. policy implementation and monitoring costs) may be lower because members perform internal social control and thereby ensure compliance (Slangen, 1994; Glasbergen, 1998). Internal control, though, cannot substitute for all external monitoring, because the public authorities must ensure that the agreed objectives are achieved, especially if public subsidies are involved (OECD, 1998).

Without fundamentally opposing co-operative and other communicative approaches, the increasing focus on involving local citizens in planning has, in recent years, been criticised. It is argued that overall planning is important because local stakeholders tend to ignore problems that are not important in the local context, but may be essential to a broader perspective (Goodwin, 1998;

Murdoch and Abram, 1998; Voogd and Woltjer, 1999). The protection of groundwater resources or the conservation of specific rare species and their habitats are good examples of this phenomenon. Meadowcroft (1998) argues that co-operative approaches should therefore be envisaged as supplementary to other public regulation – not as a replacement. In a review of co-operative approaches to sustainable agriculture the OECD (1998) concludes that local individuals and private enterprises may be expected to be most effective in dealing with issues that are locally important, where individual behaviour or outcomes can readily be observed in the local environment and within a short time scale.

An additional critical aspect here is the problem of identifying the relevant stakeholders to be included in the co-operative process between the public authorities and the citizens, and how to cope with the fact that some parties are more powerful than others (Murdoch and Abram, 1998). Important in this respect are both the power relationship between public authorities and the private stakeholders, and inequalities among private stakeholders (Meadowcroft, 1998).

## Co-operative arrangements in practice

Two contrasting cases of farmer groups as agents in co-operative approaches to landscape management are analysed: Environmental co-operatives in the Netherlands, and planting associations in Denmark. The formation of Dutch environmental co-operatives started as a reaction to the tense relationship between farmers and public authorities. The term “environmental co-operative” includes a variety of initiatives, which have in common the fact that they are:

an association or co-operative organisation of farmers who take the initiative to integrate care for environment, nature and landscape as essential parts of the farm production and take on a joint responsibility for this action (Hees et al., 1994 p. 2).

They all intend to engage in a constructive dialogue with public authorities in order to solve a variety of environmental problems in a local context, and avoid further restrictive regulation (Bruin, 1995). In contrast, planting associations emerged to co-ordinate a specific landscape activity (hedgerow planting), and public authorities encouraged the formation of planting associations. Farmers who plant hedgerows within a specified local area are organised through a national framework, which is authorised to administrate the public planting scheme (Fritzbøger, 2002; Busck, 2003). Thus the dialogue between the organisation and the public authorities is limited.

The present analysis of the emergence, organisation and achievements of the two initiatives is informed by written evaluations and interviews with farmers, advisers, public authorities and researchers in the Netherlands (during two field work periods in 1999 and 2000) and in Denmark (during the period 1998-2000).

## Case 1: Environmental co-operatives in the Netherlands

The first environmental co-operative, Verenigen Eastermaar Landsdouwe (VEL), was formed in March 1992 in the region of Friesland in the north of The Netherlands (Jong and Piebenga, 1994). Today more than 100<sup>2</sup> environmental co-operatives operate in the Netherlands (Renting and Ploeg, 2001).

### **Emergence**

The emergence of environmental co-operatives is based on a complex of circumstances related to public regulation, research activities and the local farming communities. During the 1980s, agricultural policy changed fundamentally. Prior to this, agricultural policy was characterised by close relationships between the Ministry for Agriculture, research institutes, the agricultural advisory service and the national farmers association. All agreed on a common objective of increasing agricultural production via mechanisation, specialisation, and intensification, including the increased use of pesticides and fertilisers (Ministerie van Landbouw, 1994; Ploeg, 1999). However, during the 1980s farmers experienced increasing regulation of the environmental impacts of farming practices. Dutch agriculture was forced to change strategy in order to comply with these new public demands, and a tense relationship between farmers and the public authorities developed as a result (Ministerie van Landbouw, 1994).

As part of the changing nature of public policy, a national ecological network was set up. The network was to be established through a combination of management agreements with farmers and acquisition of land for nature reserves managed by public and private nature organisations (Lammers and Zadelhoff, 1996; Rijksinstituut voor Volksgezondheid en Milieu (RIVM) et al., 2000). At the same time, detailed regulation of agricultural impact on the quality of soil, water and air was elaborated (Ministerie van Landbouw, 1994).

The national farmers' association, Land- en Tuinbouwer Organisatie (LTO), was unwilling to acknowledge the negative environmental impacts of agriculture (Informatie- en KennisCentrum Landbouw, 1999; Dijkstra pers. comm., 1999). The LTO and individual farmers reacted vigorously to the acquisition policy and the detailed regulation of agriculture (Broekhuizen et al., 1997). Farmers viewed the acquisition policy as an attack on agriculture and a dismissal of farmers as responsible managers of the landscape. In addition the detailed environmental regulation was accused of being overly rigorous and inflexible to local variation (Jong and Piebenga, 1994). Gradually a sense of mistrust towards public authorities and regulation developed among farmers (Broekhuizen pers. comm., 1999; Rombout pers. comm., 1999).

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<sup>2</sup> The exact number of co-operatives is uncertain, because environmental co-operatives are not registered in any central database (Renting and Ploeg, 2001).

Against this backdrop of disagreement and tension, some farmers attempted to improve their relationship with the public authorities in order to prevent even more restrictive environmental regulation in the future. In addition, they wanted to better develop possibilities for future diversification of farm income (Bruin, 1995; Renting and Ploeg, 2001). Moreover, as the conflicting issues were related to local environmental conditions, the formation of local co-operatives seemed reasonable, as well as being in line with the Dutch tradition of co-operative solutions to problems<sup>3</sup> (Dijk, 1990; Benedictus pers. comm., 2000).

Farming styles research (Ploeg, 1994b) in several rural areas in the Netherlands may be seen as an additional factor initiating the emergence of environmental co-operatives. In 1991, a study was conducted in the region where the first environmental co-operative (VEL) was later founded (Bruin and Ploeg, 1991). The concept of farming styles emphasises the importance of endogenous development based on local knowledge and capacities. Attention is drawn to the diversity of strategies present among farmers, to the potential that this diversity holds, and to the necessity to leave room for diversity to develop (Ploeg, 1994a; Bruin, 1995; Wiskerke, 1995). At the same time public authorities in the Netherlands experienced implementation problems related to “top-down” regulation (Ministry of Housing, 1999). In order to improve the strained relationships between the public authorities and citizens, the Ministry of Housing, Spatial planning and Environment in 1988 initiated planning experiments<sup>4</sup> on how to involve local stakeholders in solving environmental problems (Ministry of Housing, 1995). Similarly, in 1993 the Ministry of Agriculture, Nature management and Fisheries promoted initiatives focusing on “bottom-up” solutions to integrating landscape management in agriculture<sup>5</sup> (Haas et al., 1999).

Emerging from the developments described, the first environmental co-operatives received positive attention from the public authorities, and the ministries provided funding for co-operatives to develop visions for their future development in their local areas. Researchers and officials from county authorities were engaged in assisting the environmental co-operatives, helping them to identify problems, formulate solutions and develop plans for possible implementation (Jong and Piebenga, 1994).

### **Achievements of the environmental co-operatives**

The individual environmental co-operatives have developed different objectives and focal points according to the local environmental context and the interests of

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<sup>3</sup> Dating back to the 1300s the Netherlands has a strong tradition of farmers co-operating to reclaim land and intensify agricultural production (Ven, 1993).

<sup>4</sup> Experiments for “Ruimtelijke Ordening en Milieu” (so-called ROM-projects).

<sup>5</sup> Projects within areas appointed as ‘Waardevolle Cultuurlandschappen’ (so-called WCL-areas).

the members. However, the initiatives fall into four categories (Informatie- en KennisCentrum Landbouw, 1999):

- Nature and landscape management.
- Lowering nutrient surplus and the impacts of pesticides.
- Developing farm tourism.
- Developing production and the sale of region- specific food products.

The majority of projects relate to nature and landscape management, for example drawing up nature management plans for individual farms and local areas or engaging in specific actions to manage the population of meadow birds (VAN-Waterland, 2000). This is reflected in the fact that a number of environmental co-operatives named themselves “nature organisations” (natuurvereniging). However, the objectives and projects of most environmental co-operatives do extend to other issues (Woerkum and Aarts, 1998; VAN-Waterland, 2000; Velvanla, 2003).

In addition to the activities focusing on projects, the environmental co-operatives engage politically in developing alternative income possibilities for farmers, and promoting increased flexibility in public regulation. The results are apparent for example in the recently developed nature and landscape management scheme “Programma beheer”, which includes a new measure for collective nature management agreements and finance for developing the organisations (Ministerie van Landbouw, 2000). The contract is to be signed collectively by a group of farmers, and the farmers are free to distribute the obligations (e.g. a specified number of hectares with activities related to meadow bird protection) among themselves. The subsidy scheme is part of the Dutch Rural Development Programme, which is approved and partly financed by the EU. This has proven problematic, because the EU is unwilling to certify organisations as contract partners and the Ministry of Agriculture, Nature management and Fishery is currently seeking a solution to the controversy (Ministerie van Landbouw, 2002).

Evaluations of the activities of environmental co-operatives have, until recently, focussed on process-oriented achievements (Informatie- en KennisCentrum Landbouw, 1998; Informatie- en KennisCentrum Landbouw, 1999). The evaluations point out that farmers have increased self-confidence and positive expectations for the future. Through formal and informal contacts the co-operatives function as a common focal point for a variety of interests in the local area, and the co-operatives catalyse innovative ideas adapted to the local context. In relation to public regulation farmers are more motivated to implement regulations when they have participated in the formulation of the objectives and methods used. Monitoring the substantial environmental effects of the activities is not as yet well developed. However, in the case of the environmental co-operative VAN-Waterland (situated north of Amsterdam) a positive effect on the

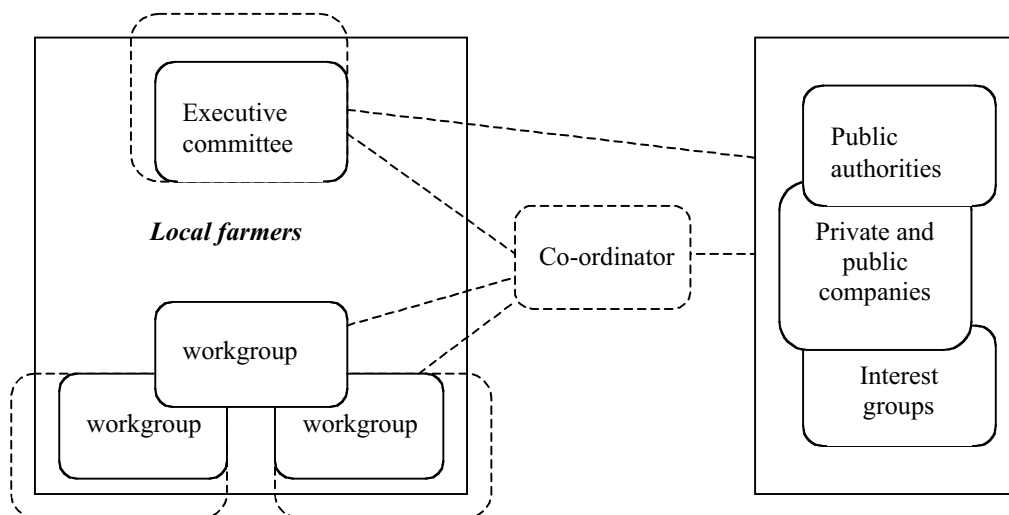
number of meadow bird and plant species related to permanent grassland has been identified (VAN-Waterland, 2000).

### Institutional considerations

Environmental co-operatives have existed for approximately ten years, and have established themselves as an important factor in the political arena in the Netherlands. In the western part of the country the umbrella organisation “*In Natura*” was formed in 1998 to safeguard the interests of the environmental co-operatives in the region (*In Natura*, 2000), and similar organisations have developed in the north, south and east of the country during 2001 and 2002 (cf Noordelijke Land- en Tuinbouw Organisatie, 2003; Velvanla, 2003). Moreover, the national farmers’ association has recently acknowledged the important role of the environmental co-operatives, and is engaging in closer cooperation with the regional umbrella organisations (*In Natura*, 2000; Noordelijke Land- en Tuinbouw Organisatie, 2002 Land- en Tuinbouw Organisatie, 2002).

Most environmental co-operatives organise themselves as co-operations or associations based on formal membership, an executive committee and a number of project groups related to specific projects or tasks (Informatie- en Kennis-Centrum Landbouw, 1998). The majority of environmental co-operatives consist of farmers, though some do include other local actors (e.g. nature organisations) as members. In addition, some environmental co-operatives employ a person to co-ordinate projects and to be the daily point of contact for members, public authorities and interest organisations (figure 1).

**Figure 1.** The local organisation of environmental co-operatives.



Both public authorities and members of the executive committees of environmental co-operatives point to the fact that environmental co-operatives need to



have a professional organisation if they are to become reliable partners for the public authorities (Benedictus pers. comm., 2000; Jonge pers. comm., 2000; Zwetsloot pers. comm., 1999). Executive committee members emphasised the problems confronted when all organisational work has to be done on a voluntary basis. Initially the work was inspiring and encouraging because of the favourable attention and positive attitude directed at environmental co-operatives and their activities (Benedictus pers. comm., 2000). Today the pioneer environmental co-operatives face the problem of consolidating themselves and the need to develop already established relationships and activities. In this situation having an employed co-ordinator is important, but not all environmental co-operatives can afford this. Whereas the public authorities were enthusiastic about the work of environmental co-operatives during their pioneer phase, this once-positive attitude is now conditional on their ability to document substantial results in terms of environmental outcomes. In the initial years emphasis was placed on the process achievements (e.g. mutual understanding and respect between involved parties). Today the public authorities want to engage in mutually binding contracts with environmental co-operatives on activities directed towards substantial environmental results (Zwetsloot pers. comm., 1999; Ministerie van Landbouw, 2002). However, this approach is still to be developed.

## Case 2: Planting associations in Denmark

Hedgerow planting has a long tradition in Denmark, dating back to the 1700s (Kjærgaard, 1991). However, the first Danish planting associations were formed in the late 1800s. By 1930 there were 71 associations throughout Jutland and a few also in Zealand (Fritzbøger, 2002). During the 1930s, storms caused severe soil erosion, particularly in Western Jutland. Many new planting associations were consequently formed and had their most active period in the following 20 years. This period of high activity was then succeeded by a period of decreasing activity. In the mid-1970s the planting associations were revived, and additional associations were formed particularly in Eastern Jutland and Zealand (Fritsbøger, 2002).

### **Emergence**

The formation of planting associations was closely related to changes in agricultural land use on the outwash plains of Western Jutland. During the late 1800s and early 1900s large heath reclamation projects were conducted, and the sandy soils of the former heath became increasingly subject to wind erosion. Until the mid-1930s most hedgerows were planted by individual farmers (Fritzbøger, 2002). However, in 1937 the so-called “Flying Corps” was established as a public-private partnership. The Flying Corps had the dual purpose of combating

high unemployment and preventing soil erosion through planting new hedgerows and forests (Olesen, 1979; Knudsen, 1983). If farmers wanted to benefit from the work of the Flying Corps, they had to co-ordinate their planting activity within local areas. This was part of the contract with the Flying Corps, because co-ordinated activity was needed to effectively prevent soil erosion and enhance the microclimate for crops on the former heath lands (Knudsen, 1983). Having planted hedgerows in one region, the Flying Corps proceeded to new locations. The Corps was abolished in 1963, mainly due to the reduction in unemployment. Consequently, the planting activity decreased (Fritzboøger, 2002).

The re-emergence of planting associations in late 1970s was induced by several factors. Most hedgerows planted by the Flying Corps consisted of spruce (*Picea glauca* or *Picea sitchensis*) planted in one or two adjoining rows. These species have a lifetime of approximately 50 years (Knudsen, 1983). Degeneration of the trees was accelerated by Heart-root fungus disease, which caused damage to the roots. Thus, by the late 1970s a number of hedgerows were in a poor condition, and substitutes were needed to prevent wind erosion (Knudsen, 1983). In 1975 a subsidy scheme was launched with the objective of planting and re-planting hedgerows through planting associations (Olesen, 1979). Once again co-ordination of hedgerow planting was promoted to ensure optimal shelter effects, rationalise the planting activity and make the subsidy administration less time consuming for the public authorities.

However, apart from the well-known shelter function, the other benefits of hedgerows (e.g. creating habitat for wildlife) became increasingly important in the promotion of hedgerow planting. In order to achieve multifunctional hedgerows with a long lifespan, the new hedgerows comprised of deciduous trees and shrubs planted in a minimum of three adjoining rows (Olesen, 1979; Knudsen and Vestergaard, 2001).

### **Achievements of the planting associations**

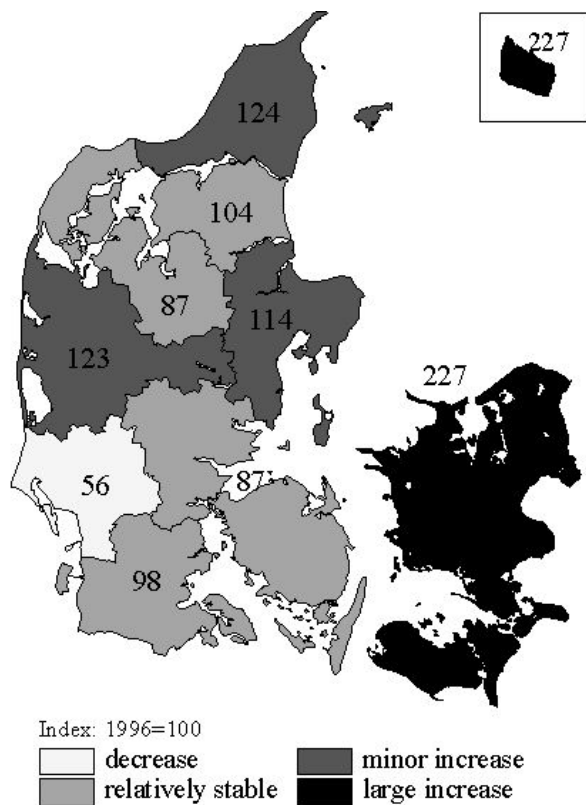
Each year since 1976 a fixed subsidy (32 mill DKR for 2000 ~ 4.3 mill Euro) has been allocated for planting hedgerows through planting associations. Apart from the subsidy for planting hedgerows, public funds are also used for advisory services and research activities, the planting associations being authorised to allocate the subsidy among them, and to administer the payments with little intervention from public authorities.

The subsidy allocated for planting hedgerows has basically remained stable, although the shifting political climate has at times threatened the subsidy scheme. In 2001 it was suggested that the subsidy be abolished. After intense negotiations the subsidy was retained at an amount of 20.6 mill DKR for 2001 and 20.7 mill DKR for 2002. The exact amount allocated to hedgerow planting in the coming years is not yet agreed upon, though it is expected to be lowered to 15.9 mill

DKR by 2005 (Knudsen pers. comm., 2002). In addition, the proportion of costs that may be covered by subsidies has been lowered from 50-60 per cent to 40 per cent in 2001 (Landsforeningen De Danske Plantningsforeninger, 2003).

Supported by the subsidy, planting associations have initiated and kept up planting activity (approximately 1000 km hedgerow each year since 1976). During the 1970s and 1980s most hedgerows were planted in Jutland as substitutes for the plantings made by the Flying Corps (Fritsbøger, 2002). However, in recent years planting activity has extended to the loamy soils of Eastern Denmark (figure 2). where the problem of soil erosion is less urgent but where the agricultural landscape is more open and the uncultivated elements are poorly connected

**Figure 2.** The development of planting activities in Denmark, 1996-2000 (based on data from the National Board of Shelterbelt Planting (NBSP)).

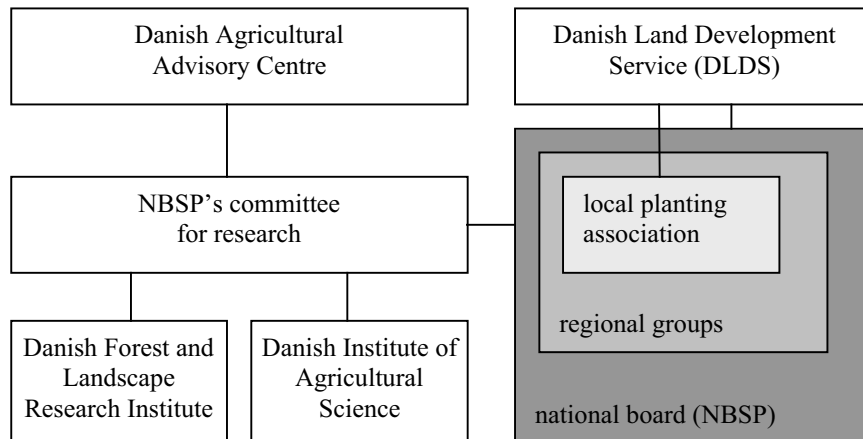


### Institutional considerations

Planting activity is co-ordinated and developed through an institutionalised national framework (figure 3). The local planting associations consist of local farmers, who at a general assembly elect an executive committee to co-ordinate the planting activity within the local area. A planting association consists of at least 20 persons planting a minimum of 20 km of hedgerows in one year. The executive committee is represented in one of ten regional groups, which in turn is

represented in the National Board of Shelterbelt Planting (NBSP). Based on time-schedules made by the regional groups it is then decided in which year each local planting association may receive a subsidy to finance hedgerow planting (the so-called ‘planting rounds’).

**Figure 3.** The national framework related to subsidised hedgerow planting in Denmark



The NBSP is a private non-profit organisation, being responsible for the distribution of the subsidy and the proper use of the public funds. When farmers plant hedgerows through planting associations they are assisted by authorised advisers, and authorised contractors do the actual planting and three maintenance years. The authorisation is made by the national board, based on recommendations from the local planting associations and the regional groups. As part of their activity the NBSP maintains close relationships with the Danish Land Development Service (DLDS), which employs most of the advisers and contractors used by the planting associations (Landsforeningen De Danske Plantningsforeninger, 2002). In addition, advisory services related to agricultural production are represented in the NBSP and in the regional groups.

Standard hedgerow designs, planting routines and maintenance practice are developed through professional dialogue at the national level with the NBSP and its committee for research as the primary forum for discussion. The national institutionalisation of hedgerow planting has proven successful, insofar as many well functioning hedgerows have been established, and the subsidy has been stable for a number of years. Today the planting activity is established practice nation-wide, and the role of the local planting associations is now primarily an administrative one, as little encouragement is needed to make farmers plant hedgerows (Fritzbøger, 2002; Busck, 2003). In order to rationalise the organisation, local planting associations are currently being encouraged by the national board to merge at the municipal level (Knudsen pers. comm., 2002).

However, planting activity has recently been challenged by the reduction in public subsidy, and the framework for planting hedgerows is now being discussed (Knudsen pers. comm., 2002). A case study of the interactions between farmer, hedgerow adviser and the executive committee of the local planting association revealed that the current planting activity is characterised by routine and a minimum of dialogue between actors at the local level (Busck, 2003). Farmers decide individually where to plant hedgerows and often a standard design of hedgerow is used. Moreover, as hedgerow planting has become a matter of routine, the potential for spatial coordination and for the use of the local planting associations as forums for dialogue concerning improvements in local landscape assets, is not being fully developed.

## Discussion

Dutch environmental co-operatives and Danish planting associations represent two different examples of farmer groups engaging in landscape management. Based on these experiences, two important themes emerge when discussing the relevance of co-operative approaches to landscape management. One is the relationship between the private organisations and public authorities, in particular the delegation of decisional power, and second is local collective commitment, particularly the local anchorage of activities.

### **The relationship between private organisations and public authorities**

The Danish planting associations are organised within a national framework, which is professional, achieves substantial results (numerous vital hedgerows) and has the confidence of the public authorities. The organisations has been delegated the responsibility for implementing the public scheme for hedgerow planting, with little public intervention. This delegation includes the administration of public funds, and the authorisation of advisers and contractors.

However, the framework is focused on one specific activity and dependent on one single subsidy scheme, and therefore the planting activity and the organisation would disintegrate if the subsidy were abolished. At the same time, the delegation of decisional competence and the close relationship between the planting associations and the implementation of the subsidy scheme implies that the NBSP is an essential partner for the public authorities. By virtue of the close national co-operation between NBSP, the DLDS and the farmers' advisory services, the NBSP has become an important and indeed a powerful agent. As such it influences the design of subsidy schemes, and has been able to prevent the recently suggested abolishment of the subsidy.

An unintended consequence of the success of the planting activity, and the lack of public intervention may be that the public authorities and the politicians

direct their attention towards other issues and lose interest in planting activity. Thus its essentially “uncontested” success may very well become a threat to the established framework of hedgerow planting. When public funds are to be distributed the subsidy scheme for planting hedgerows may be given a lower priority because public attention is now focussed elsewhere. Therefore the NBSP and the local planting associations may need to change their mode of operation in the future, in order to maintain public interest in the planting activity. During the last few decades the objectives of planting hedgerows have changed. The former emphasis on the shelter function in relation to agricultural crop production is today replaced by a spectrum of motivations, encouraged by the general public attention to the non-production values of the countryside. However, the organisation and mode of operation of the planting associations have not changed accordingly. Currently, the NBSP have started urging the local planting associations to invite people other than farmers to become members of the associations. This is an attempt to include more perspectives in the decision-making and to involve more stakeholders in the planting activity (Knudsen pers. comm., 2002). Another recent initiative is the development of so-called “collective nature plans”, which broaden the objective of the planting associations to include activities other than hedgerow planting (Jørgensen et al. unpub. Knudsen pers. comm., 2002). Both initiatives may prove to be important first steps in the transformation of the planting associations and their activities.

The Dutch environmental co-operatives are in a very different position. When they emerged, the national farmers’ association was not willing to negotiate with the public authorities on landscape management issues. The environmental co-operatives therefore achieved public attention, sympathy and public funds. An important motivation for the public authorities in this respect was to encourage the development of alternatives to the traditional “top-down” approach to public regulation. Today the public authorities have sharpened their tone towards the environmental co-operatives, demanding mutually binding contracts with measurable environmental results. In response to this demand the environmental co-operatives are evolving into professional organisations. In addition, the environmental co-operatives are organising themselves into regional umbrella organisations in order to regain political attention and power.

Like the planting associations the environmental co-operatives have achieved influence on the design of subsidy schemes. However, in contrast to the planting associations, environmental co-operatives are not associated with specific public funds, and they are not delegated extended decisional power to administrate and implement subsidy schemes. This implies that environmental co-operatives expend significant efforts on attracting funds for their activities. On the other hand they are less vulnerable to changing policies, because they attract funds from a variety of sources.

## **Local anchorage and commitment**

The Dutch environmental co-operatives have emerged from local engagement and dialogue. They are based on internal dialogue amongst their members, and external contacts with local stakeholders to identify problems and develop solutions, which are adapted to the local context. Regional and national frameworks have only recently been established. The level of local commitment was profound in the beginning, and innovative solutions to environmental problems have been developed (Noordelijke Land- en Tuinbouw Organisatie, 2002). Today, some environmental co-operatives are struggling to consolidate themselves, and the farmers, who were active during the pioneering stage, want to be relieved from the time consuming work of the executive committees. The dependence on the voluntary commitment of the members makes the organisations vulnerable, and in response, some environmental co-operatives have successfully employed a co-ordinator to solve the problem. In some cases, though, this has had the unintended consequence of changing the members' perception of the environmental co-operative. The co-operative becomes a service agent for members (e.g. as fundraiser), instead of a forum for co-operation between local actors (Edel pers. comm., 2000).

As with the environmental co-operatives, the emergence of planting associations was based on local commitment, and on an immediate need to co-operate. In the beginning the existence of "fiery souls" was essential in order to encourage and co-ordinate the planting activity. Today planting hedgerows is an established practice, and little local encouragement is needed. The level of local commitment has become individualised, and the membership of a local planting association is reduced to a formal precondition for receiving a subsidy. Dialogue concerning the objectives of planting hedgerows, the design of hedgerows etc. is most profound at the national level or in the contact between hedgerow adviser and the individual farmer. Commitment and dialogue related to the local scale is rare, and the potential of spatial co-ordination across property boundaries remains under-developed. The recent development towards merging planting associations at the municipality level may even prove negative in relation to stimulating a local dialogue, as the extended area to be covered by a single association may prove to be difficult for local actors to relate to.

## **Conclusion**

This analysis elucidates the balance between substantive environmental results, the process of involving relevant stakeholders, and developing ideas and mutual understanding among the public and private parties. All are important elements when evaluating the achievements and relevance of farmer groups in co-operative approaches to landscape management. The initial focus of a farmer

group may be of a substantial environmental, or a process-oriented nature depending on the context in which the organisation emerges. The emphasis, however, may need to be changed at a later stage in order to redress the balance as and where necessary.

Secondly, it is shown that the activities of the farmer groups need to achieve a professional and institutional profile if the public authorities are to delegate decisional powers to such groups. Such delegation is an essential aspect of co-operative approaches. However, a high degree of delegation may have the drawback of the public authorities subsequently losing interest in the activity of the farmer groups. In addition, a professional organisation may fail to encourage a culture of active, committed involvement on the local level, as activities become characterised by routine.

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