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Land redistributions in Denmark: can agricultural exceptionalism produce multifunctional landscapes?

An analysis of the Multifunctional Land Redistribution Fund and its likely implications for future land use in Denmark

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Abstract

This thesis examines the Multifunctional Land Redistribution Fund, launched in March 2020 by the Danish Ministry of Environment and Food, and the outcomes this policy may propel. The Fund takes aim at multiple issues of sustainability related to land use: biodiversity loss, groundwater contamination, nutrient leaching, and rural development. The Fund is to serve as a pilot project for large-scale land redistributions during the next decade and will therefore likely have implications for how land use change is approached in Denmark in the years to come. Semi-structured interviews were combined with document analysis in order to uncover the perceived benefits and disadvantages of the policy and to explore who stands to benefit from the Fund. The concept of multifunctionality is used in different paradigms and consequently can take on a variety of meanings. This thesis places these paradigms along two axes: the continuum of land sharing and land sparing, and the dichotomy of agricultural exceptionalism and agricultural normalism. The analysis finds that the Fund employs an understanding of multifunctionality as a partially advanced form of agricultural exceptionalism that seeks to address both negative and positive externalities of agriculture but remains fundamentally exceptionalist in its view of the sector. While the Fund is inspired by bottom-up and community led processes, it does not offer any funding for facilitation of community deliberations or for implementation of project elements other than the redistribution of land ownership. Neither is the Fund concerned with land use intensity or management after redistribution, and the substantial overlap between the criteria used for weighing project proposals, further increases the risk that the redistributions will mainly serve narrow interests such as consolidation of agricultural properties with a minimal increase in landscape multifunctionality. It is concluded that the Fund primarily serves as an indirect form of compensation for landowners who stand to incur costs associated with general regulation. The design of the Fund heavily favours the landowners' role in reaching consensus, which will likely constrain other stakeholders' influence. The concrete outcomes of the policy may have negative implications for environmental and social sustainability, and should therefore be reviewed as soon as the first project proposals have been accepted.

Keywords: multifunctionality, agricultural exceptionalism, consensus, governance, sustainability, land use

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1. Introduction

Denmark faces a number of severe sustainability challenges. Groundwater is increasingly contaminated with pesticides (Thorling et al., 2019), a biodiversity crisis is unfolding (Aarhus Universitet, 2020), and in an effort to combat global climate change the Danish government has set out to achieve climate neutrality by 2050 (Klima-, Energi- og Forsyningsministeriet, n.d.). Paramount to all of these challenges is the question of land use. Agriculture alone releases 36% of all greenhouse gas emissions from Denmark's non-quota sectors (Danish Council on Climate Change, 2017) and the sector occupies 61% of the country's territory (FAOSTAT, 2019).

In March 2020, the Danish Agricultural Agency launched a pilot project with the aim of enabling voluntary, community-led, and multifunctional land redistributions. Land ownership can be redistributed among landowners that have an interest in "swapping" land in order to have adjacent plots of land. Other actors, such as municipalities, the Nature Agency, or simply private actors, can also acquire land. The project, named the Multifunctional Land Redistribution Fund, was allocated 150 million kroner to be spent during 2019-2022. It aims to redistribute up to 7000 hectare, amounting to 0,3 percent of Danish agricultural land (Landbrugsstyrelsen, 2020a).

The pilot project was designed to contribute to a wide range of nationally significant goals. In order for a project to qualify for funding, it will have to meet a minimum of three pre-defined objectives, thus living up to the principle of "multifunctionality". Multifunctional agriculture simultaneously produces food and public goods such as biodiversity protection, or aquifer protection, or heritage conservation. A landscape can be said to be multifunctional when it incorporates different functions such as the above at the landscape scale. The set objectives concern different issues of sustainability such as emissions reductions, groundwater management, biodiversity and nature conservation, and protection of wetlands and aquatic environments (Landbrugsstyrelsen, 2020b).

Public reception was largely positive. Key political organisations such as Local Government Denmark and the Council of Rural Districts expressed a mainly positive view of the pilot project (Bjerregaard & Damsgaard, 2020). In the time leading up to the launch of the fund, various interest groups had campaigned for land redistributions, with some actors even launching their own proposals for multifunctional redistribution. The Danish Agriculture & Food Council and the Danish Society for Nature Conservation, in a rare collaboration between two traditionally opposed actors, launched their joint plan for land redistributions on a grand scale (Danmarks Naturfredningsforening and Landbrug & Fødevarer, n.d.).

However, prominent scholars on ecology and biodiversity have been critical of the pilot project. Senior researcher at Aarhus University, Rasmus Ejrnæs, warned that the main challenge to biodiversity in Denmark is the on-going utilisation of areas that are in fact already laid out for conservation (Ejrnæs, 2019), essentially criticising the current multifunctional management of e.g. Danish forests.

Regardless, land redistributions are likely to become frequent in Denmark in the years to come. The government budget of 2020 established funding of 200 million kroner per year to be used in the period 2020-2029 for conversion of agricultural land and other land use change (Finansministeriet, 2019). The pilot project is likely to determine whether future land redistributions will prioritise multifunctionality.

1.1. A general introduction to the concept of multifunctionality

Land is a finite resource. This is the starting point of the debate on land sharing versus land sparing. In Denmark, 130-140% of the country's area would be needed if all the declared plans and national goals for renewable energy production, nature conservation, agriculture, economic growth and infrastructure were to be realised (Arler et al., 2017). Proponents of land sharing thus claim that land use ought to be multifunctional.

The core of the concept of multifunctionality is that land use can serve multiple purposes through simultaneously producing the traditional commodities of food, feed, and fibre, while performing non-agricultural functions (Jongeneel et al., 2008; Renting et al., 2009; Slámová & Belčáková, 2019; Waldhardt et al., 2010). These may include such varied functions as landscape conservation, preservation of cultural identity, nature and biodiversity conservation, continuation of the socio-economic viability of rural areas in the form of village renewal and business development, recreation, and climate adaptation through water retention and flood control (Jongeneel et al., 2008; Renting et al., 2009; Stańczuk-Gałwiaczek et al., 2018; Waldhardt et al., 2010). In short, land use may simultaneously have ecological, cultural, and commercial functions. Advocates of land sparing, however, argue that important functions will be compromised if they are not given sufficient space (Noss et al., 2012).

During the past two centuries, Europe has experienced a succession of land management regimes, which naturally affect different changes in landscape (Jepsen et al., 2015). Periods of intensification and industrialisation have been followed by a phase characterised by more environmentally aware practices. Though these agro-environmental policies recognising the environmental impacts have

been increasing since the 1990's, intensive agriculture remains the dominant form of agriculture in Europe and in Denmark (Jepsen et al., 2015).

In a number of ways, the concept of multifunctional agriculture underpins the paradigm of agricultural exceptionalism, which has an extensive history in Europe and has shaped the EU Common Agricultural Policy to a large extent (Dibden et al., 2009). This is the view that the agricultural sector is fundamentally distinct from most other economic sectors as it contributes to national interests, and that this merits preferential treatment of the sector (Coleman et al., 1996; Daugbjerg & Swinbank, 2009). These national interests have first and foremost been food security, meaning safe food supplied at stable prices, however in recent decades the national interests have grown to include ecological protection and rural development (Daugbjerg & Swinbank, 2009). In 2017, a report by the European Court of Auditors (2017) concluded that European agriculture was not as environmentally sustainable as otherwise portrayed, which prompts the question of which exceptional traits of agriculture are actually being safeguarded under EU agricultural policy.

2. Aim and Research Questions

This thesis explores how the Multifunctional Land Redistribution Fund (henceforth the Fund) came to be and whose interests are reflected in the pilot project. I will examine which sorts of outcomes the Fund is likely to prompt, and which political paradigms it supports. While the explicit aim of the Fund is to serve multiple interests and purposes, any political process is likely to bring about both winners and losers. Thus, the overarching research question that will be addressed is the following:

> Whom does the paradigm of multifunctional agriculture serve in the case of Denmark, and what are the implications of the Multifunctional Land Redistribution Fund from a sustainability perspective?

Fundamentally, this question concerns power and governance over land, which positions this thesis within the field of Political Ecology. One of the central tenets within this field is that environmental issues cannot be fully understood without broad contextualisation (Robbins, 2019). Political ecologists take a political view of environmental issues, meaning that the wider economic and social setting of any environmental issue has to be taken into account to understand what is driving small-scale, local, and individual actions. As such, the issues that the Fund seeks to alleviate cannot be understood merely as local problems of poor planning and management, but need to be placed within the broader context of an agricultural paradigm.

The following two sub-questions will guide the research and analysis of the Fund.

> What specific approach to land governance does the policy represent in terms of 1) land sharing vs. land sparing, and 2) agricultural exceptionalism vs. normalism?

> What are the perceived benefits and disadvantages of the Fund and of the concept of multifunctionality as it is currently employed in this policy?

In analysing the pilot project I aim to describe and critique the making of the Fund with reference to the debate on land sharing versus land sparing. Additionally, I aim to position the Fund in relation to the political paradigm of agricultural exceptionalism.

3. Methodology

This thesis is based on a single-unit case study (Gerring, 2004), i.e. an intensive study of the Fund. The approach of an in-depth study is better suited for exploratory rather than confirmatory (hypothesis-testing) research (Gerring, 2004), which is reflected in the research questions.

The research is grounded in critical realism, characterised by ontological realism, epistemological relativism and methodological rationalism (Wad, 2012). The word realism alludes to the underlying ontological view that reality exists independently of the researcher's observations and interpretations (Jespersen, 2004). The critical realist operates with a three-tiered understanding of reality. The *empirical level* consists of experienced, observed and interpreted events. The *actual level* is made up of occurring events (whether these will be observed or not) and what is termed the *real level* consists of the underlying causal mechanisms (Fletcher, 2016). While the researcher's access to reality thus cannot be absolute, hence the epistemological relativism, the aim is nonetheless to produce descriptions and explanations of real phenomena (whether social, natural or both) that are as accurate as possible.

3.1. Doing Sustainability Science

It has been argued that critical realism insists on a link between description and prescription – that the social critique inevitably will produce normative recommendations (Fletcher, 2016; Wad, 2012). This makes it very compatible with sustainability science. In a seminal paper, Kates et al. (2001) conclude that research within the field of sustainability ought to focus on "the character of nature-society interactions, on our ability to guide those interactions along sustainable trajectories, and on ways of promoting the social learning that will be necessary to navigate the transition to sustainability". In this sense, sustainability science is normative in that it has a clear direction, i.e. maximising sustainability, and action and problem solving is on the agenda of the field. The Fund represents an approach to solve multiple social and environmental sustainability challenges using a single tool, i.e. the redistribution of land. Critical analysis of the Fund increases the chances of this approach being a key instrument for future problem solving as it examines its flaws and strengths and the conditions on which the approach will work.

3.2. Method of data collection and analysis

Qualitative content analysis will form the basis of this study. Interviews generated data in the form of direct quotations, while documents provided data in the form of excerpts (Labuschagne, 2003). This data was then categorised according to codes that correspond to the research questions (Bowen, 2009). The coding allowed for thematic analysis (Vaismoradi et al., 2013). The same principal codes

were used for data collected by different methods, i.e. through interviews and document analysis, thus integrating the data and allowing recurring patterns and themes to become apparent (Bowen, 2009). During coding, I followed the flexible deductive approach laid out in Fletcher (2016). The codes were initially informed by literature review and theoretical framework but were continuously developed during the process of coding.

The interviews were conducted in a semi-structured manner so as to allow further probing questions while ensuring that the interview would cover all relevant topics (Harrits et al., 2012). On account of the spread of novel coronavirus, interviews were conducted over telephone. The interviews were recorded and the excerpts relevant to the analysis were transcribed (Halcomb & Davidson, 2006; Harrits et al., 2012).

Triangulation is valuable in critical realist research (McEvoy & Richards, 2006). It is an attempt at validating and corroborating the argument by obtaining data from different kinds of sources – if data from different sources converge then the resulting argument is more likely to be valid (McEvoy & Richards, 2006). For example, data from documents can both corroborate and contextualize data obtained from interviews (Bowen, 2009), minimising the risk of bias. This provides a more nuanced perspective of the empirical level, allowing the critical realist to reach deeper levels of understanding through retroduction (McEvoy & Richards, 2006).

3.2.1. Interviewees and documents

A purposive sampling of interview participants fits the flexible deductive approach outlined above. The participants are chosen based on their potential capability to inform the research, i.e. their relevance to the research question (Schwandt, 2007 in Harrits et al., 2012). Consequently, it was critical to interview actors that had performed a formal role in the process of developing the Fund – this meant it was crucial to interview representatives from the Agricultural Agency and from Collective Impact, the platform upon which the Fund was modelled.

Repeated attempts were made to include the Ministry of Environment and Food but these were unsuccessful. As the official standpoint, their perspective is to a large extent represented through the policy documents. I would thus argue that their unavailability for interview does not undermine the findings.

The Society for Nature Conservation was a relevant actor in two ways, seeing that it was and continues to be a partner in Collective Impact, and is Denmark's largest green NGO. Furthermore,

two renowned researchers were selected for interviewing – both have distinguished academic careers besides being familiar with the Danish context. This was valuable as it advanced my understanding of the topic as viewed from different paradigms. Additionally, one of the scholars had been part of the research team that evaluated the effects of Collective Impact's initial projects. Table 1 lists the affiliation and position of the interview participants. Table 2 describes the documents used for analysis. All documents were obtained online.

Organisation	Occupation of interview participant	Initials
Danish Agricultural Agency ***Landbrugsstyrelsen***	Project manager of the Multifunctional Land Redistribution Fund.	S. E.
Collective Impact, a partnership founded by the private foundation Realdania, consists of 12 member organisations	Chairman of the steering committee of Collective Impact.	S.M.
Danish Society for Nature Conservation ***Danmarks Naturfredningsforening***	Senior advisor of agricultural policy.	L.O.
Senior Researcher at University of Aarhus	Biologist. Part of the research group evaluating Collective Impact's first 3 projects. Has written extensively on biodiversity, both in academia and media.	R.E.
Professor at Copenhagen University	Political scientist and Professor of Agricultural and Food Policy. Has published widely on agricultural policy and agri-environmental regulation.	C.D.

Table 1. The table displays the interview participants and the organisations they represent.[1]

[1] The 12 members of Collective Impact are Realdania, Local Government Denmark, Danish Agriculture & Food Council, Danish Society for Nature Conservation, Danish Ornithological Society, Danish Outdoor Council, Danish Anglers Association, Danish Hunters Association, Danish Forest Association, Organic Denmark, Danish Gymnastics and Sports Associations, the organisation "Bæredygtigt Landbrug".

Document title	Type of document
"Pilot scheme for multifunctional land redistribution – Guideline for approval of multifunctional land redistribution"	The official guide on how to apply for funding from the Fund. Published by the Danish Agricultural Agency, 2020. (Landbrugsstyrelsen, 2020b)
"Effects of three pilot projects of multifunctional land redistribution – documentation of the effects on rural districts, farm financials, nature, environment, and recreation."	Scientific evaluation of the effects of the 3 initial land redistributions carried out by Collective Impact. Published by University of Copenhagen, 2019. (Ejrnæs et al., 2019)
"Policy briefing note. Preliminary version of departmental order on multifunctional land redistribution."	Policy briefing note. Prepared by the Agricultural Agency, 2020. (Landbrugsstyrelsen, 2020c)

Table 2. The table displays the documents that were selected for analysis because they were instrumental in shaping the policy.

3.3. Population and inference

Bearing in mind that case studies are more useful for descriptive inference rather than causal inference (Gerring, 2004, 2012), the aim is to be able to generalise from this case to other instances of multifunctional land redistributions. Seeing as this is a pilot project and additional publicly funded land redistributions (of which the details are not yet thought out) are planned, I will argue that this is a critical case. The pilot project is specifically intended to "produce knowledge of multifunctional land redistributions and the results thereof. This knowledge is to serve as input for a subsequent land reform on a larger scale" (Landbrugsstyrelsen, 2020b, p. 8). Understanding of the characteristics and effects of the Fund is likely to be generalizable to future publicly funded land redistributions, and thus this case can be said to have "strategic importance in relation to the general problem" (Flyvbjerg, 2006). Table 3 lists planned and proposed land redistributions in Denmark.

Organisation	Multifunctional	Project size	Public funding	Time period
Collective Impact, Realdania	yes	209 ha as of May 2020	No	2014-2022
Agricultural Agency, the Ministry of Environment and Food	yes	7000 ha. DKK 150 million.	Yes	2020-2022
Danish Society for Nature Conservation and Danish Agriculture & Food Council	yes	100.000 ha. Proposal.	Proposal, yes.	-
SEGES, a think tank under the Danish Agriculture & Food Council	yes	Unspecified number of ha. DKK 500.000.	Yes	2020-2021
Government budget 2020	Not specified	Unspecified number of ha. DKK 2 billion.	Yes	2020-2029

Table 3. The table displays the planned and proposed land redistributions in Denmark.[2]

[2] SEGES is funded through *Promilleafgiftsfonden*, which is administered by the Danish Agriculture & Food Council and funded through the Ministry of Environment and Food.

4. Theoretical framework

As it is not an academic discipline in the traditional sense, political ecology is perhaps best characterised as "a theoretical and political lens through which to understand, challenge, and structure further inquiry into nature–society relationships in the contemporary world" (McCarthy et al., 2015). Political ecology concurrently seeks to "advance and undermine explanation", that is, the political ecologist critically engages with other academic fields, critiquing their projects, assumptions, and conclusions (Robbins, 2015). Moreover, political ecology is explicitly normative, thus the arguments made are as political as they are theoretical or empirical (McCarthy et al., 2015). This thesis critically engages with the concept of multifunctionality, which is used in a number of fields.

Broadly speaking, there are two types of perspectives, which determine how multifunctionality is understood and implemented. First of all, the concept of multifunctionality is muddled because it is used in different academic disciplines. Consequently, the concept is applied at different scales. Agronomists and agricultural economists examine the multifunctionality of agriculture whereas the multifunctionality of landscapes is dealt with by the likes of biologists and geographers (Vejre et al., 2007). Secondly, multifunctionality has taken on its own definition within the field of political science. Multifunctionality as a concept is thus seated between academic disciplines that have subtly differing notions of the idea.

In this thesis I will draw on both understandings of the concept and will thus analyse the Fund along two different axes. While these interact and have some similarities, they originate in different paradigms. One is the continuum of land sharing or land sparing, concerned with the question of how to combine different functions in order to achieve multifunctionality in a given area. The second is the dichotomy of agricultural exceptionalism or normalism, asking whether to intervene politically in agriculture to shape land use to support multifunctionality. In the rest of this chapter, I review the academic literature on multifunctionality in order to explain why and how these two axes constitute a valuable framework for analysing the Fund.

4.1. Multifunctionality: a contested concept

Multifunctionality is not a coherent theoretical framework, but a contested concept that can be incorporated into different paradigms. There is no single definition of multifunctionality but many interpretations and focal points. Therefore, it can translate into practice in numerous ways depending on which kind of paradigm the concept is incorporated into.

To some, agriculture cannot be anything but multifunctional, as it will always jointly produce (positive or negative) non-food functions (Pretty, 2008). These externalities of agriculture can be unintentional by-products or intended joint production (Jongeneel et al., 2008). This understanding of the concept reflects a simple physical reality of land use and agriculture.

Contrasting this view, multifunctionality can also be considered a policy concept and a tool for directing change. Multifunctional agriculture is often labelled the "European Model of Agriculture" and has been the European Union's main argument against trade liberalisation (Dibden et al., 2009). Multifunctionality is here regarded as a paradigm that grew out of the protectionist policies of the 20th century (Daugbjerg & Swinbank, 2009). Section 4.3. will further elaborate this view of multifunctionality.

Whether a given area is conducive to multifunctionality depends on biophysical and socio-economic characteristics (Willemen et al., 2010; Wilson, 2008). Areas that are typically thought of as "agriculturally disadvantaged" will often be more multifunctional for the simple reason that these lend themselves better to extensive rather than intensive farming (Wilson, 2008). Evidence suggests that only sub-optimally performing functions are highly multifunctional (Willemen et al., 2010). Put differently, if one wants optimal performance from any one function, one needs to solely focus on and optimise that function. This points to the fundamental tension in discussions of multifunctionality, namely the question of agricultural output. Although specialisation in general does lead to increases in both yields and efficiency, some have argued through modelling that multifunctional agriculture could deliver "comparable quantities of agricultural output" (Rega et al., 2019). This could be achieved through increased local production by small and medium farms, but would in some places lead to slight increases in the extent of arable land, and would require "a robust policy agenda" and substantial interventions to support farmers (Rega et al., 2019).

It is thus clear that the multiple functions will often give rise to trade-offs (Ripoll-Bosch et al., 2012; Stańczuk-Gałwiaczek et al., 2018; Willemen et al., 2010). Typically, strong trade-offs are found between the cultural and regulating ecosystem services and the provisioning ecosystem services (Raudsepp-Hearne et al., 2010; Turner et al., 2014). A number of studies have approached multifunctionality through the concept of Pareto efficiency[3] in order to determine the optimal allocation of land (Groot et al., 2006; Groot et al., 2010; Parra-López et al., 2008). However, demands

[3] A situation is considered Pareto efficient if no criterion can be improved upon without simultaneously disadvantaging at least one other criterion (Britannica, n.d.).

for land use and landscape functions change over time (Jongeneel et al., 2008; Vos & Meekes, 1999), and thus any optimal allocation will also be subject to change.

The non-food functions of multifunctional agriculture are all in one way or another public goods and have therefore been termed farmer-managed public goods (Blom-Zandstra et al., 2016). Crucially, cooperation between stakeholders is necessary for the production of public goods that are non-excludable or non-rivalrous (Blom-Zandstra et al., 2016; Jongeneel et al., 2008; OECD, 2013). A present-day farmer has little incentive to produce a public good, for which s/he cannot be compensated on the market, thus necessitating subsidies.

Finally, it is important to note that multifunctionality can be applied at different scales. Individual farms may be multifunctional, or certain areas or regions, or the entire agricultural sector may be conceptualised as multifunctional (Kizos, 2010). The question of scale becomes central to the discussion of multifunctionality as a case of either land sharing or sparing, as monofunctional landscape units in aggregate can appear quite diverse and multifunctional when the scale of analysis is coarse enough (Stürck & Verburg, 2016). While the question of scale is often overlooked or decided upon arbitrarily, this ought to be clearly stated as the scale of analysis affects the results (Laterra et al., 2011; Mastrangelo et al., 2013; Stürck & Verburg, 2016). Smaller scale multifunctionality encourages more radical land sharing approaches than at coarser scale, where landscapes characterised by land sparing also appear multifunctional.

4.2. Sharing or sparing land

Multifunctionality is linked to two paradigms of land governance and nature conservation, namely the continuum of land sharing and land sparing. The latter is perhaps most pointedly exemplified through the idea of “Half Earth” conceived by leading conservation scientists (Büscher et al., 2016; Half-Earth Project, n.d.). Half Earth is the radical idea that half of the planet should be spared for conservation, which would allow ecosystems to be truly resilient (Noss et al., 2012).

The starting point of the debate surrounding land sharing versus land sparing has been the question of how to best preserve biodiversity – through extensive management and “sharing” of the land or through intensive use of some land in order to completely preserve and “spare” land elsewhere (Kremen, 2015). The implicit trade-off is between conservation and food production.

There is scientific evidence that land sparing, or at least management “with conservation of nature as a primary objective”, is the most suited towards maintaining biodiversity (Noss et al., 2012, p.2).

Especially species with small global ranges benefit from spared land (Phalan et al., 2011). In a study of species density under different agricultural yield scenarios in southwest Ghana and northern India, researchers found that "most species would have higher populations under land sparing than under land sharing or intermediate-yield farming" (Phalan et al., 2011, p. 1290). While this study focused on only two taxa (birds and trees) and only one type of natural land cover (forest), it does suggest that land sharing does not deliver the proposed "win-wins" for biodiversity and food production.

However, the suggestion that sparing land is always better for biodiversity is entirely dependent on the assumption that impacts from the land in use ultimately do not severely affect the spared land (Büscher et al., 2016). Resource consumption, fossil fuel use, pesticides and water use, even if only taking place in certain areas, will invariably have an effect on the rest of the Earth system, either regionally or globally. A similar argument in favour of land sharing and multifunctionality is that it relieves other ecosystems of having to provide goods for the non-producing regions. The mono-functional landscapes that arise from land sparing result in a greater need for import of foodstuffs and the like, goods which other regions and ecosystems have to provide (Fischer et al., 2017).

The strategy of land sparing has been criticised for supposedly resting on a notion of human interactions as something separate from nature. In fact, many ecological niches are the product of human intervention in the natural habitat (Fischer et al., 2011). This is also the case in Denmark, where several species depend on agricultural habitats such as meadows and pastures (Heldbjerg et al., 2017). For example, the common starling is dependent on grazed grassland otherwise the bird cannot access the insects it preys on. During the last four decades, Denmark has lost 60% of the breeding population of the common starling, due to changed grazing regimes of the dairy sector (Heldbjerg et al., 2016). The declining multifunctionality of this particular agricultural sector caused a change in managed landscapes that had become a habitat on which species depend.

Multifunctional agriculture most directly builds on ideas of land sharing. It is an expansion of the traditional task of agriculture through the consideration of the land's multiple functions. However, multifunctionality at landscape scale may build equally on the idea of land sparing in the form of mosaic landscapes consisting of both natural and managed areas (Milne & Bennett, 2007). Figure 1 illustrates that sparing and sharing are two approaches on a spectrum; land use can be fully specialised or highly multifunctional, but there is also the possibility of "small scale sparing".

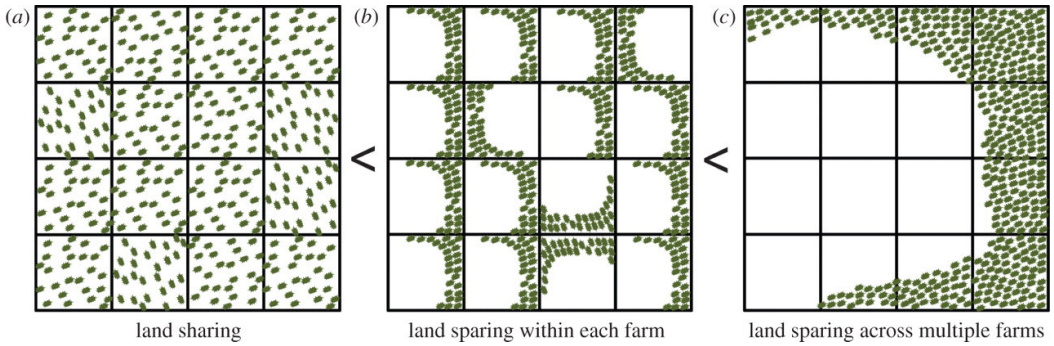

Figure 1. The figure displays the continuum of sharing and sparing land; the scale of analysis to some extent determines whether sharing or sparing best describes the land use. Balmford et al. (2012) argue that the rightmost drawing provides the best conditions for the provision of ecosystem services. Source: Balmford et al., 2012

The potential for “win-win situations” through land sharing is shaped by the existing conditions. For example, in the intensively managed agricultural regions of northwest Europe, increases in landscape heterogeneity are likely to go a long way towards greater pollinator biodiversity and the ecological function this involves, as both threatened and non-threatened species currently lack spaces for nesting and foraging (Senapathi et al., 2015). Generally, spill over from natural to managed land is represented as a positive, such as increased pollination and pest control (Garibaldi et al., 2014). Yet, the effects of managed on natural land are understudied (Blitzer et al., 2012). Spill over of such a nature seems likely to favour generalist rather than specialist species (Blitzer et al., 2012), but there are interesting examples of species partially relying on managed land. One study found pollinators in western Kenya using crop field resources before returning to nearby rain forest fragments, suggesting that the supplementary resources from managed land, granted that this was "species-rich and structurally diverse farmland", helped pollinators survive and fulfil their functions in natural habitats which were otherwise not able support the population (Hagen & Kraemer, 2010).

Regardless of land use strategy, fragmentation of natural habitat gives rise to the so-called "edge effect", meaning that “human activities, altered microclimate, and non-forest species [in any case, species from other habitats, red.]” extend into the natural habitat and effectively alter it (Haddad et al., 2015). Fragmentation in whichever form - whether reduction in area, increase in isolation or increase in edge - reduces core ecosystem functions such as carbon storage, nitrogen retention, productivity and pollination (Haddad et al., 2015). High connectivity between shared and spared lands is thus important in ensuring the provision of ecosystem services. Connectivity facilitates immigration and counteracts the dangers of isolated, spared parcels of land, offers refuge for species that can only partially fulfil their needs in managed land, and can even offer additional resources that species may be lacking in the natural habitat. Sparing land is not necessarily the same as doing

nature conservation, especially if care is not taken to secure immigration and connectivity through contiguous plots of land (Kremen, 2015). Therefore, recent studies have suggested that the two approaches complement each other with land sharing promoting spill over of ecosystem services into agricultural landscapes, and land sparing being crucial for conservation of non-farmland species (Erős & Bányai, 2020; Grass et al., 2019). Both land sharing and land sparing are thus necessary for a connected, multifunctional landscape.

4.3. Agricultural exceptionalism

The second perspective on multifunctionality has to do with the policies that govern agriculture. Government intervention into agriculture has historically been justified on the grounds that the market mechanism is believed to not be the best-suited method for bringing about an efficient agricultural sector. This has also been termed the state-assisted paradigm (Coleman et al., 1996).

Two arguments underpin the idea that this particular industry is exceptional: the farm income problem and the agricultural treadmill (Daugbjerg & Swinbank, 2009). The problem of low agricultural income arises when there is a mismatch between the demand and supply of agricultural products. Demand for agricultural products will tend to be very inelastic – people tend to only consume so much food, even if they experience an increase in their disposable income.[4] At the same time, the perishable nature of most agricultural products means that the supply will also be very inelastic – once the products are harvested, they must be sold within a given space of time. The prices of various foodstuffs may also vary between the time of sowing and the time of harvesting, without the farmer being able to adjust his output. Overall, farm productivity increases at rates far faster than demand and thus prices for agricultural products decrease over time. This is known as the farm income problem or simply the farm problem (Daugbjerg & Swinbank, 2009; Gardner, 1992).

Connected to the challenge described above is the agricultural treadmill, a well-known positive feedback loop. In an attempt to ameliorate the farm income problem, farmers strive for technological advances that can lower their production costs. As this increases agricultural production, prices drop, and farmers are driven to seek new technological improvements in order to keep up with competition (Daugbjerg & Swinbank, 2009; Levins & Cochrane, 1996). It is important to note, that not only mechanical technologies constitute the agricultural treadmill, but that pesticides and fertilizers are of great significance in this arms race, causing severe environmental damage.

[4] This is known as Engel's Law: demand will increase at a slower rate than the increase in income so that the proportion of income spent on agricultural products in fact decreases over time (Den Store Danske, 2009).

Furthermore, globalised agricultural markets bring with them increased competition, sparking simultaneous episodes of intensification and abandonment of the less productive land that gives lower marginal returns on investment (van Vliet et al., 2015). While some areas in Europe continue to be high-input agriculture, other areas are abandoned or the land use is de-intensified, resulting in a process of polarisation (Jepsen et al., 2015; van Vliet et al., 2015).

4.3.1. Characteristics of agricultural exceptionalism

Due to the abovementioned challenges, agricultural policies have typically displayed a number of remarkable characteristics. First of all, agricultural exceptionalism is characterised by corporatism, i.e. closed policy networks of agricultural ministries and farmers controlling the policy process, from policy formulation to implementation (Daugbjerg & Swinbank, 2009: Daugbjerg & Swinbank, 2012). The complexity and closed nature of the networks make it difficult for non-agricultural actors to enter the policy process (Grant, 1995). This results in a high degree of compartmentalisation, where the absence of representation means that the policies only reflect a limited number of interests (Daugbjerg & Swinbank, 2012).

Another characteristic is substantial government intervention in the market in the form of significant economic redistribution in favour of the agricultural sector (Daugbjerg & Swinbank, 2012). This may entail a variety of cost-reducing measures (e.g. subsidies of different farm inputs or investment grants) or revenue-increasing measures (e.g. direct payments or import tariffs) (Daugbjerg & Swinbank, 2009). Agricultural exceptionalism generates policies that are primarily producer-centred (Grant, 1995).

In addition to this, agriculturally exceptionalist policies tend to be distinguished by significant self-regulation (Daugbjerg & Feindt, 2017). Self-regulation means that private actors to a significant degree shape the rules and norms that govern them themselves (Porter & Ronit, 2006). Self-regulation may take many forms – ethical guidelines, certification schemes, voluntary agreements, or public-private partnerships to name a few. It entails that some stages of public policy making take place in private organisations rather than in public institutions and that these processes therefore are not steered or structured by public authorities (Porter & Ronit, 2006).

4.3.2. Multifunctionality – the alternative paradigm?

Exceptionalism, however, is not the only contemporary agricultural paradigm. Agricultural normalism is the viewpoint that the sector should be treated like any other sector in liberal economies, because it is best governed through the market mechanism, and that instability in agricultural markets in fact

stem from government intervention (Alons, 2017; Daugbjerg et al., 2015; Daugbjerg & Swinbank, 2009). This market-liberal paradigm became the main challenger to the state-assisted paradigm during the 1980s (Daugbjerg & Swinbank, 2009), and is currently the dominant regime in other countries, particularly Australia and other major agricultural exporters (Dibden et al., 2009; Farsund & Daugbjerg, 2017).

Some argue that multifunctionality – taking the farmer-produced public goods as starting point and concluding that farmers should be economically compensated for these – is a distinct third paradigm (Alons, 2017). However, multifunctionality can also be viewed as a variant of agricultural exceptionalism, or a modern guise for it (Daugbjerg & Swinbank, 2012; Dibden et al., 2009). From this point of view, particularly the European Union makes use of the concept as a justification for agricultural exceptionalism instead of pursuing agricultural liberalisation (Dibden et al., 2009).

Multifunctionality is then understood as a result of the partial decompartmentalisation of agricultural policy; a post-exceptionalism that responds both to concerns about sustainability and to objections from neoliberal trade institutions through novel but still exceptionalist policies (Daugbjerg & Feindt, 2017). This practice of slow, gradual policy reform is referred to as layering seeing that new concerns and targets are layered upon existing policies (Daugbjerg & Swinbank, 2016). As food production increased and relative food prices fell during the second half of the 20th century, the notion of national interests such as food security morphed into the notion of public goods, the multifunctionality, associated with agriculture (Daugbjerg & Swinbank, 2009).

Decompartmentalisation was driven first by the unaddressed negative externalities of an agricultural sector that was very narrowly focused on optimising a few indicators, and later by the proposed positive externalities that farming could potentially bring about (Daugbjerg & Swinbank, 2012; Feindt, 2010). At a conference held by the World Trade Organization, the European Commission argued: “In order to assure the provision of environmental and cultural benefits from farming, countries may need to implement specific and targeted policies designed to persuade farmers to deliver these public services” (WTO, 2000). Here, the concept of multifunctionality and the farmer-managed public goods clearly serve as the foundation of exceptionalist policies. The same conference concluded, “market forces alone could not address these non-trade concerns” (WTO, 2000).

However, agricultural exceptionalism remains an ambiguous idea from the viewpoint of a sustainability-oriented researcher. Critics say that the narrative of the "European Model of Agriculture" as a particularly sustainable agricultural paradigm is problematic. A Special Report by the European Court of Auditors concluded in 2017 that the greening measures implemented in 2013 were not yet "environmentally effective" (European Court of Auditors, 2017). In fact, the investigation found that the changes in policy were severely shaped by deadweight, i.e. the incentivised activities were undertaken already without the increased subsidy. The increased incentives were estimated to have changed farming practices on a mere 5% of all farmed land in the EU. This prompted the conclusion, that "the budget allocation for greening is not justified by the policy's environmental content. The green payment remains, essentially, an income support scheme" (European Court of Auditors, 2017). From this point of view, agricultural policies such as the CAP are still, despite a shift in rhetoric towards sustainability concerns, mainly concerned with farm incomes, symptomatic of agricultural exceptionalism. For the last couple of decades, the so-called greening of the CAP has thus served as a legitimisation for continued farm income support (Daugbjerg & Swinbank, 2015).

4.4. Summary

Neither end of the land sharing-sparing continuum guarantees sustainable land use. Similarly, neither notion of the exceptionalism-normalism dichotomy is of course synonymous with a perfectly sustainable agricultural sector. On the contrary, every type can lead to problematic scenarios. Still, they are analytically useful concepts, which together provide a valuable framework consisting of two axes along which to analyse and place the Fund. This allows for a closer look at different aspects of the policy, whether these are political or rooted in concrete land use, and can give a better understanding of the likely implications of the Fund.

5. Analysis

As demonstrated in the previous chapter, there is no single definition or use of the concept of multifunctionality. Therefore, it is also not a given how the concept will be implemented and what outcomes it will direct. This warrants a closer look at how the concept is interpreted and translated into practice through the Fund.

5.1. The design of the Fund

The Agency's guide for applicants takes a landscape-view of multifunctionality and of multifunctional land redistributions. It defines a multifunctional project, i.e. the planned land redistributions and other land use changes, as a joint project with multiple purposes in the open land. The Fund is thus concerned with multifunctionality on the larger scale, aiming for the landscape to contain multiple functions. Similarly, the applicants' guide states that one of the Fund's aims is "to lay out land to conserve biodiversity through creating more connected areas of nature" (Landbrugsstyrelsen, 2020b, p. 5). This places the Fund closer to the land sparing position than its opposite. The Fund is not concerned with the management of the individual parcels of land.

On a more practical level, all proposed projects will be evaluated against a set of 11 criteria representing "national goals" (see Figure 2). These criteria are further grouped into three categories: "EU directives", "national interests of high priority", and "other national interests". A project must demonstrate that it will likely contribute to 3 national goals, of which at least 1 must be an EU directive. In order to obtain the final score and assess the eligibility of the proposed project, the criteria are weighted. The practical circumstances of the proposed project, such as the number of hectare and the realizability of the project components, carry the most weight. In second place are the four national goals that are instituted through EU directives. "National interests of high priority" and "other national interests" are weighted the same, essentially making the classification of "high interest" superfluous. The figure below demonstrates the table used for assessing the proposed projects.

	Weight		Points			Score
		0 (not applicable)	1 (below average)	2 (average)	3 (above average)	
National goals - EU directives - highest priority						
Clean aquatic environment	3					
Clean drinking water	3					
Natura 2000 and Annex IV species	3					
Greenhouse gas reduction	3					
National interests of high priority						
Climate adaptation	2					
Nature and biodiversity	2					
Afforestation	2					
Organic agriculture	2					
Other national interests						
Outdoor recreation	2					
Rural development	2					
Consolidation of agricultural properties	2					
Other criteria						
Land redistribution realizability	4					
Number of hectare	4					
Project realizability	4					
Total score (vertical summation)						

Figure 2. The figure is a representation of the evaluation form used by the Agricultural Agency. Adapted from Landbrugsstyrelsen, 2020b.

A number of EU directives thus play important roles in the configuration of the Fund. The national goal of a clean aquatic environment is a product of the Water Framework Directive, adopted in 2000 (Directive 2000/60/EC). The national goal of clean drinking water follows from the Groundwater Directive, adopted in 2006 (Directive 2006/118/EC). The combined national goals of protecting natural habitats (Natura 2000) and endangered species (Annex IV species) are demanded by the Birds Directive and the Habitats Directive (Council Directive 92/43/EEC; Directive 2009/147/EC). Finally, the national goal of greenhouse gas reductions is based on the European Union's 2030 Climate and Energy Framework. Particularly the emissions from the non-quota sectors (popularly identified as cars, homes and farmers) are the relevant target in this instance.

Counting both EU Directives and consolidation of agricultural properties towards the set of minimum three pre-defined targets, leaves little incentive for additional multifunctionality to be developed. The criteria that constitute the national goals point less to deliberation over which functions local communities want their multifunctional landscapes to include, and more to merely attempting to implement EU directives that in some cases are close to three decades old (seeing as the Habitats Directive was adopted in 1992). There is also significant overlap between some of the goals, e.g. a project may be awarded points for greenhouse gas reduction by afforestation, which is also a separate national goal.

5.2. Critique of the Fund's design

Prior to the Fund being instated, the Agency had received comments from 18 organisations on the draft bill and on the applicants' guide on how to apply for funding. Subsequently, as is the required procedure, a commented summary of the replies was submitted to parliament. This document reveals two main recurring criticisms of the Fund. Firstly, that the Fund does not cover the actual costs of creating multifunctional landscapes, especially seeing as there is no funding for the all-important preliminary procedures. Secondly, that the Fund does not provide any compensation for changes in land use. This is perhaps a surprising feature of a pilot project aiming at shifting land use in a more sustainable direction. Instead, the Fund is concerned solely with the transfer of ownership.

5.2.1. No funding for actual costs of facilitating a project

Nine of the actors who commented on the drafts expressed serious concerns over the lack of funding for project facilitation and project implementation (Landbrugsstyrelsen, 2020c). Successful applicants to the Fund are given "free land redistribution" – i.e. the costs of registering the changes in ownership are covered. In addition to this, the Agricultural Agency pays for a land surveyor from an office under the administration of the Agency. Therefore, they do not cover the actual costs associated with acquiring or implementing other components of the multifunctional landscape, whether minor such as pathways, benches or bird watching towers, or major such as wetland restoration. If an applicant succeeds in initiating the project and secures local support, there is thus no funding for the proposed project elements that the community wishes for. Funding for these project components will have to be found elsewhere, for example through other public funds or through the municipality's budget.

The Fund likewise does not cover the costs of the preliminary procedures associated with initiating a community led project. According to the remarks, this will likely become a very heavy burden on the applicants, as this is a very time-consuming process that is fundamental to the outcomes of the projects. Furthermore, the applicants must submit a preliminary survey including technical details about soil type, hydrology, habitat and species (Landbrugsstyrelsen, 2020b). Apart from the costs associated with providing detailed reports on the above, capital expenditure and landowner compensation for land use change are likely to make up additional expenses, the guide clarifies (Landbrugsstyrelsen, 2020b). This means that the applicants, i.e. municipalities, will have to cover all costs associated with undertaking land surveys, gathering stakeholders, and brokering an agreement between the landowners before submitting a proposal to the Agricultural Agency.

Collective Impact maintains that the initial community meetings were a crucial element of their design, and that the preliminary efforts are the cornerstone of any multifunctional land redistribution. While favourable to multifunctional land redistributions in general, a number of key organisations[5] specifically requested that the Fund be made more similar to the framework of Collective Impact (Landbrugsstyrelsen, 2020c). Apart from being the platform for multifunctional redistributions carried out by private foundation Realdania, Collective Impact is also the name of an approach for facilitating cooperation developed by American consulting firm FSG (Collective Impact Forum, 2014). This approach, which the Danish platform employs, is based on a centralized infrastructure, i.e. a secretariat, which coordinates cross-sector and structures the process (Kania & Kramer, 2011). Crucially, the Fund does not establish such a secretariat.

5.2.2. No compensation for changes in land use

Another important critique of the Fund is that there is no compensation for changes in land use. If for example a landowner agrees to change from intensive to extensive land use on a given area s/he will not receive any compensation for the decrease in value from the Fund. The report commissioned by Collective Impact had concluded that the option of registering land use change for a recompense without necessarily changing ownership would be crucial for achieving larger benefits for nature and environment (Ejrnæs et al., 2019).

Land consolidation, traditionally called arrondation in a Danish context, is the dominant feature of the Fund. Consolidation involves redrawing property boundaries so that scattered pieces of land are joined together. The overall area of farmed land is thus not increased but rather land parcels of the same size and quality are reallocated for increased efficiency. This process of consolidating land has deep roots in Denmark's agricultural history, as it does in neighbouring countries such as Sweden (Barton, 2008; Meissner, 1956). While consolidation will likely be a feature of any voluntary land redistribution, it is worth noting that it counts towards the required three targets. With extensive consolidation comes the risks of enlarged monocultures and of dismantling important hedgerows and field margins, which are typically important for biodiversity and the associated ecosystem functions (Heath et al., 2017). At the Agricultural Agency, S.E. concedes that these risks exist and that the Fund does not take a stand on this. This further underlines the understanding that the Fund is not taking the land sharing approach to land use governance, but rather looks at the landscape at a coarser scale, so to speak. The organisation of Denmark's municipalities suggested that consolidation should not be counted as a national goal (Landbrugsstyrelsen, 2020c), whereas the Agency

[5] Danish Society for Nature Conservation, Local Government Denmark, Danish Agriculture & Food Council, Danish Hunters Association, Danish Outdoor Council, and Danish Anglers Association

emphasized consolidation as a useful incentive for the landowners to accept proposed projects (Landbrugsstyrelsen, 2020b).

5.2.3. Limited environmental benefits?

The initial evaluation of Collective Impact's first three projects, carried out by an independent team of researchers and published by the University of Copenhagen, revealed that the positive effects on environment and nature were insignificant, whereas the effects on recreation and rural development were substantial. The total area of agricultural land decreased only insignificantly, indicating that these pilot projects too mainly achieved consolidation and not quite landscape-scale changes in land use. Asked about this, S.M. of Collective Impact maintained that these effects was highly dependent on the areas in which the redistributions took place, in the sense that environmental effects simply not had been an issue or priority in the selected areas. The biologist, one of the researchers behind the abovementioned evaluation, claimed that either the carrot or stick approach would be necessary for guiding future change. From his experience with Collective Impact, he concluded that the desire to contribute to increased sustainability never is born merely from learning of the challenges.

> "They [farmers, red.] just find it weird when you take the floor and start talking about butterflies. Because they have no incentive to make the landscape more butterfly-friendly, they just find it silly." (R.E., February 26, 2020)

These incentives and regulations exist, he points out, with regards to aquatic environments and nitrogen leaching, but there is no such national regulation with regards to nature or biodiversity. From this point of view, by employing existing directives and regulation the Fund becomes more likely to succeed. The national goals that are not directly backed by such measures will have a lesser chance of being properly addressed.

5.3. How does the Fund conceive and support multifunctionality?

As noted above, the Fund on the whole aims for multifunctional landscapes. Multifunctionality in the sense of land sharing for example through multifunctional agriculture is not the objective. In fact, neither dimension is explicitly discussed by the Agency in the policy documents. This lack of precision and transparency may lead to confusion and problematic outcomes. Organic agriculture, however, is categorised as a national interest. This could potentially entail some form of multifunctionality, e.g. in the case of organic dairy production that would require the animals to graze, potentially benefitting farmland specialist species. However, this remains the only criteria directly relevant to

farm-level multifunctionality. In theory, the individual project elements need not be connected in any way, which the applicants' guide also points out (Landbrugsstyrelsen, 2020b).

This is radically different from how Collective Impact carried out projects. The representative of the Society for Nature Conservation argued that the projects realised through the Fund would not amount to true multifunctional redistributions, according to her definition of the process, which she shares with Collective Impact.

> "It [Collective Impact, red.] is truly multifunctional because Collective Impact looks at, among other things, the landscape in full and draws up a list of all the aspirations of the community (…) so that you get an effect on all parameters. When you're looking at the Agency's model, you see that they have made a prioritization, where they say that it is first of all about commercial agriculture, meaning that you consolidate land, and then in second place it's about the international requirements." (L.O., March 23, 2020)

To L.O., true multifunctionality concerns the whole landscape and truly multifunctional projects address the full range of functions that are or have potential to be present in a given landscape. This flexibility is lacking in the design of the Fund.

Parallel to the contention in academic literature on the definition of multifunctionality, analyses of the interviews reveal very different notions of the concept and consequently very little agreement over what constitutes land sharing or sparing. Interestingly, the biologist held the view that farm-level multifunctionality was in essence small-scale land sparing, meaning that little patches or margins of land were left unused. L.O. of the Society for Nature Conservation made the argument that it is in fact the general regulation, such as the EU directives, that is responsible for the multifunctionality of land use and agriculture.

> "Multifunctionality on the farm level, that is a question of the general regulation, (…) the maximum amount of pesticides that your farm may leach, how much you may fertilize. There may be general demands for buffer zones close to streams and so on. And there are rules about having some form of *greening* in order for you to get your agricultural support." (L.O., March 23, 2020)

This understanding of multifunctionality is in line with the arguments given by the EU. The abovementioned "greening", a result of the 2013 reform of the EU CAP, is a relatively new type of direct payments, which consists of three requirements that are mandatory for Member States, and to which all Member States must direct 30% of their national funding allocations. In return, farmers must maintain existing permanent grassland, maintain an "ecological focus area" of 5%, and cultivate at least 2 or 3 different crops (depending on the size of the farm) (European Parliament, 2020a). Implementing these "multi-purpose payments" strengthened the alleged multifunctionality of the 1st pillar of the CAP, which traditionally only dealt with direct payments to farmers (European Parliament, 2020a). Before the 2013 reform, it was the rural development policies in what is known as the 2nd pillar of the CAP that represented the multifunctionality that is typically touted as characteristically European, namely preservation of ecosystems, economic development in rural areas, climate action, and sustainable management of natural resources (European Parliament, 2020b). The Fund perpetuates the EU's understanding of multifunctionality in that it does not take aim at farm level multifunctionality because general regulation is assumed to deliver this.

5.4. Explaining the Fund's shortcomings: Reproducing a problematic kind of exceptionalism?

While the Fund was launched on the grounds that it should tackle a range of sustainability issues, the political context of exceptionalism makes it difficult to foresee what the outcomes will be. With a very loose definition of multifunctionality and a heavy focus on land consolidation, the Fund could potentially even lead to problematic outcomes.

5.4.1. How did the Fund come into being?

The Fund was instituted in "Relief package for Danish agriculture", an accord that was signed with broad political agreement. Colloquially called "the drought package", the economic stimulus of DKK 380 million was an attempt at alleviating the impacts of an unusually dry summer (Finansministeriet, 2018a). The Fund was "particularly inspired" by the model for multifunctional redistributions employed by Collective Impact (Miljø- og Fødevareministeriet, 2019a).

Speaking to the representative of Collective Impact, there was openness about their lobbying efforts and the effects of these. Asked whether government had approached the secretariat of Collective Impact for input on the pilot project, the reply was that it was the other way round.

> "When they wanted to establish a drought package and didn't really know what it was to include, we made sure to work the political system so that our project would be continued

> under public management. The fact that there is this Multifunctional Land Redistribution Fund is due to our active lobbying efforts." (S.M., February 26, 2020)

Furthermore, he added, the post on the government budget of DKK 200 million yearly over a period of ten years was also of their making, as they had actively lobbied to find a method for taking low-lying lands out of agricultural use.

The fact that the Fund originated in the "drought package" of 2018 plays an important role. Creating the Fund as part of this specific policy sent a political signal to the agricultural sector, in particular landowners and farmers, that this money was theirs to spend. This undermined potential long-term benefits that the Fund could have had, according to R.E.

> "If you were to design a pilot project that was to pave the way for a national land reform that would draw a completely new map of Denmark for the next 100 to 150 years, then you should do it whole-heartedly. Then you ought to try and design it the way you would ideally have it look like, and not as a form of compensation for a loss in production in some random year." (R.E., February 26, 2020)

Interestingly, the drought seems to have been used as a political opportunity for consolidation, seeing that the "drought package" included two funds for land redistribution; the multifunctional fund as well as one solely aimed at commercial agricultural consolidation (Finansministeriet, 2018a). Like the other elements of the "drought package", subsidising commercial consolidation is an attempt at reducing costs for the farmer, as s/he will be able to manage the land more efficiently if the fields are large and/or adjacent. This means fewer resources wasted on transport and more efficient use of large, expensive agricultural machines (Finansministeriet, 2018b).

5.4.2. Agricultural exceptionalism as reflected in the Fund

A recurring argument is that actors representing agricultural landowners have dominated the policy process and shaped the priorities. While involving relevant parties was attempted, the traditional corporatist style of policy making is still recognisable. The policy network is still highly compartmentalised. At the Society for Nature Conservation, L.O. stated that while they were involved and oriented during the development of the Fund, in the end they did not have much influence over the result. R.E. echoes this as he characterised the Fund as the work of "civil servants under the influence of lobbyism from agriculture, municipalities and Realdania, all these Collective Impact partners" (R.E., February 26, 2020). At Collective Impact, farmers were likewise the starting

point with the chairman even stating that Realdania (the organisation that funds Collective Impact) had felt that they "owed it to the farmers" to take their interests into consideration (S.M., February 26, 2020).

While the Fund did not directly originate in farmer-led organisations, part of the policy making process very clearly did not take place within the traditional political establishment of the Environment and Food Ministry. As shown, Collective Impact was successful in its lobbying efforts. Out of the 12 partners behind the Collective Impact initiative, however, 3 were directly representing the interests of farmers and landowners[6]. While it does not resemble traditional self-regulation where the regulated partners more or less openly regulate themselves through quotas, standards, or labels, influential agricultural actors have actively contributed to the project design, seeing that Collective Impact operates by consensus according to S.M.

Like the projects of Collective Impact, it is often highlighted that the implementation of the Fund's projects will be community led. However, the biologist points out that there is an inherent asymmetry in the supposedly democratic deliberations.

> "There is a natural asymmetry in those democratic debates that they have chosen to pretend doesn't exists, which is very unfortunate. The asymmetry exists because the farmers own the land that you wish to redistribute. That means, that if you start by getting together in some village hall with all those who live in the area and who might want something from the local area, there will be some farmers who are thinking 'why are we even here, when we own the land after all'." (R.E., February 26, 2020)

Taking a more practical view of rules and norms, it could however be argued that community led in this instance means "farmer led" or "landowner led". The landowners have substantial influence over the negotiations and a single landowner can of course obstruct the whole process if s/he does not agree with the terms. The governance has thereby been delegated to the individual landowners, who can choose to engage or not. The risk is that the projects end up reflecting the wishes and norms of the farmers who are institutionally supported in a way that the other interests are not. Indeed, this is concluded by the evaluation of Collective Impact's initial projects: "(…) Collective Impact's vision of an inclusive bottom-up process based on citizen involvement, volunteerism, and a

[6] Danish Agriculture & Food Council, "Bæredygtigt Landbrug", Organic Denmark

common goal is appealing but also demanding to such a degree that it has not been possible to fulfil in the three pilot projects" (Ejrnæs et al., 2019, p.7).

Another interesting feature that is worth noting is the Land Distribution Committee. Once the relevant agencies (which ones are relevant will depend on the individual project application and which national goals are included) have accepted the project proposal, the Committee will consider the case. This Committee is made up of four persons; a judge, a member appointed by the Ministry of Industry, Business and Financial Affairs, a member appointed by the Agriculture & Food Council, and a member appointed by Local Government Denmark, the organisation of the country's municipalities. Looking at the composition of the committee from a sustainability perspective, the representation is very unequal, and can perhaps best be understood as an example of the very strong corporatist tradition: land redistribution is viewed only as a matter for the legal system, the banks, and the farmers.

Finally, the Fund does to a certain extent exemplify economic redistribution in favour of the agricultural sector, orchestrated by government. Out of the DKK 150 million in the Fund, 94 million are reserved for acquisition of land, which may then be sold, potentially with a loss, to other stakeholders (Landbrugsstyrelsen, 2020b). According to S. M. at Collective Impact, the prices paid for land by the Agency are a lot higher than the market price. As mentioned before, funding is provided for landowners to achieve consolidation or rid themselves of land that may become troublesome for them due to regulation, whereas the Fund does not include resources for any other project components. The notion that farmers ought to be compensated for environmental regulation is principal in the Fund. This idea is exceptional, C.D. points out; other industries are instead guided by the "polluter pays"-principle. The base assumption is thus that the farmer has the right to pollute, and if s/he can no longer exercise this right, s/he must be compensated.

6. Discussion

The analysis found that the Fund could be understood as an exceptionalist policy disguised as an all-round sustainability policy – in line with the general development of agricultural policy in the EU. The Fund exhibits exceptionalist traits such as corporatism, self-regulation to some degree, and economic redistribution to farmers. The Fund is not explicit with regards to its approach to land use governance but the design of the policy is more conducive to land sparing than land sharing. The fact that the Fund utilises existing EU directives as criteria for redistribution will likely incentivise landowners and farmers to participate, because they are aware that these are rules they eventually will have to comply with. At the same time, it is problematic that the projects are confined by the set of pre-defined (and to some degree overlapping) targets, as this circumvents the process of community deliberations. The lack of funding for process initiation and community deliberations may prevent social or environmental sustainability, because projects can be designed without the inclusion of these interests. Moreover, the analysis highlighted that the Fund cannot be understood as a single policy object. On the contrary, the Fund represents underlying politics not necessarily obvious from the policy.

This section will discuss first of all discuss the disadvantages and benefits of a contested concept, before discussing consensus-approaches to sustainability and the challenges that participatory, consensus-driven processes may encounter. With regards to the Fund, particularly the issue of consolidation demonstrates that consensus should not be mistaken for sustainability.

6.1. Multifunctionality: of any use at all?

The ambiguity and differing notions of the concept even among people who have worked on the same projects (through Collective Impact) may suggest that the concept is not suitable for a policy context. After all, it is hardly of any help if every actor can read into it whichever definition s/he prefers and it may perhaps even hurt the policy process. Like multifunctionality, sustainability and sustainable development are contested concepts (Connelly, 2007), and many articles have been published calling for more clarity or arguing in favour of certain definitions, with some even arguing that the spread of watered-down, ambiguous and ultra-flexible notions of ‘sustainability’ can have negative consequences (Károly, 2011). Likewise, calls for a clarification of multifunctionality have been made (Caron et al., 2008): what ought to be the units of analysis and at what scale?

Others, however, have stressed that the fuzziness in some regards has been an advantage of the concept. Precisely the flexibility and “opacity” of the concept of multifunctionality have been identified as the attributes that made it possible for the EU to incorporate it in the various

instruments of both pillars of the CAP (Clark, 2006; Feindt, 2010). Through policy layering, the EU has made use of the concept both as a defence of direct farm income support schemes and simultaneously as a reason for slow reform in a highly heterogeneous political arena. This has been possible precisely because the concept is not clear-cut, since "broad-brush notions are needed to engineer alliances among member states, and to provide political discretion to domestic elites in addressing the needs of agricultural constituencies" (Clark, 2006). On the other hand, EU's successful use of the concept has made the concept controversial and "tainted" to others (Caron et al., 2008).

Still, whether the concept is operational for addressing sustainability issues is an entirely different discussion. The very qualities that facilitate the introduction of the concept in high-level politics make for "liabilities" when it comes to practical implementation (Clark, 2006). It is striking that the Fund leaves out the tangible question of land management after the redistributions have taken place, seeing as land use intensity matters, both in land sharing and land sparing. Leaving the concrete aspect of land use out of the scope of the policy poses a serious risk to the overall sustainability of the project outcomes.

In a paper on multifunctionality in both agriculture and landscapes, Vejre et al. (2007) asked whether multifunctionality was to be understood as a normative or neutral concept. Clearly, when the EU and similar actors employ the concept it is normative – European agriculture is multifunctional and therefore exceptional. But even the purely descriptive classification of agricultural output as multifunctional acquires a normative dimension when dealt with through sustainability science (Caron et al., 2008). Too often, agriculture is regarded as politically exceptional for "all the wrong reasons" – perhaps it is time to reconfigure the perception of what makes agriculture exceptional.

6.2. Consensus-approaches to sustainability

The Fund and the private project Collective Impact alike have been keen to underscore that the land redistributions were/will be community-led and bottom-up processes resulting in voluntary exchanges. This is presented as a major advantage in terms of legitimacy and representativeness, but it also makes the process very vulnerable to being taken over and restricted by narrow self-serving interests.

The initial planning that precedes the application to the Fund may be characterised in terms of consensus-building among multiple stakeholders. Consensus-building approaches to sustainability are not a novelty (Peterson et al., 2005), with some going as far as equating participation and consensus among the relevant parties with sustainability: "In the end, it is the consensus of affected

interests and communities itself that provides the best measure of sustainability of a project" (Doelle & Sinclair, 2005). This sentiment seems to summarise the Agency's point of view. From a critical realist point of view, however, this constructivist interpretation does not appear to by entirely truthful.

Indeed, while true sustainability may be difficult to accomplish, it is quite straightforward to find examples of unsustainable practices. In the case of the Fund, one obvious pitfall is that a community without any understanding or appreciation of vital ecological systems risks embarking on unsustainable projects. To a certain extent, this is moderated by the fact that all projects are screened by relevant ministries and institutions as to whether they are likely to contribute to the national goals. With regards to long-term sustainability and representativeness, consensus-approaches risk resulting in injustices towards the unrepresented interests, whether these are future generations or non-human species (Treves et al., 2018).

On a practical note, bottom-up management for sustainability requires social attributes such as leadership, cooperation, and conflict resolution abilities (Rivera et al., 2019). Such resources thus have to be present in the municipalities, who will oversee the collective bargaining. After the project has been sanctioned by the Fund, the implementation and management of all other project elements but the formal redistribution depend on the local actors once more.

Furthermore, because the landowners have to concur on the project proposal as highlighted in section 5.4.2,, they are likely to be the restricting part, and the project is likely to perpetuate their interests the most. This may hinder more radical wishes for sustainability and multifunctionality. Participatory and bottom-up processes in relation to agricultural management are often praised, but one might add that all stakeholders are not created equal. Inevitably, some stakeholders, such as well-organized landowners, will enjoy much more influence than others. Local structures of power should not be underestimated. When governance is delegated to communities and power is supposedly decentralized, it is important to ensure that local democracy can take place and that power is not simply delegated to a local elite (Stenseke, 2008). Decentralization demands the question of "to whom or to which group of people" power is delegated (Stenseke, 2008).

In fact, Denmark has seen experiments of this sort before. Participatory planning of land use change has been implemented in Denmark through the so-called Water Councils since 2014 (Miljøstyrelsen, n.d.). In many ways, the Water Councils operate in a fashion similar to the Fund. Municipalities are

responsible for inviting all relevant stakeholders – both "users" and "protectors" of streams – which together produce a series of recommendations for restoring the ecological quality of streams, which may then be funded by the very same ministry (Graversgaard et al., 2017; Miljø- og Fødevareministeriet, n.d.). Experience here showed that the organized landowners and farmers were very effective in shaping both the overall policy and the individual project proposals and thus constituted the inhibiting factor of sustainability and ecological reparations (Danmarks Naturfredningsforening, 2014). Likewise, the design of the Fund risks that community led takes on the meaning of farmer led. Within the next two years, the first pilot projects will tell whether the Fund will mainly function as a tool for facilitating consolidation, obscured as a policy for multifunctionality.

6.2.1. Institutional consensus

The shortcomings of consensus-approaches do not only exist on the local scale where the Fund has observable impacts, but do also apply to the institutions in which the Fund originates. Traditionally, the fact that there was a separate agricultural ministry has been considered an expression of the compartmentalised way of doing policy in that sector, i.e. the opposite of stakeholder consensus-approaches. Recent changes in the political institutions may be seen as an attempt at imitating the appearance of consensus.

Denmark had a Ministry of Agriculture until 1997, when it was renamed Ministry of Food. This ministry was joined in 2015 with the Ministry of Environment in a merger that since has been interpreted as the end of the independent, or exceptionalist, status of the Ministry of Agriculture (Daugbjerg et al., 2019). It could however be argued that the union of these two ministries rather represented an attempt at a consensus-approach. The combined ministry appears to respond to concerns over agriculture's negative externalities by apparently doing away with sectoral boundaries and integrating sustainability with traditional core functions. The environmental and the agricultural representatives appear to act in unison. However, this apparent consensus could also be understood as nothing more than agricultural interests usurping the environmental agenda – that is to say, layering on an institutional level. The main raison d'être of the ministry remains supporting the interests of a very narrow group of people, with the Agricultural Agency distributing DKK 9 billion every year to less than 35.000 landowners (Hansen, 2019; Miljø- og Fødevareministeriet, 2019b). Policies such as the Fund appear to address environmental practices and sustainability, but these additional layers mainly serve as a legitimisation of agricultural exceptionalism and income support.

Indeed, when government led by the farmers' party *Venstre* merged these in 2015, critics worried that the move would mean the prioritisation of agricultural considerations over environmental concerns, as they perceived there to be a fundamental conflict of interests between the two domains (Kragesteen & Lund, 2018; Rehling, 2015). Eight months after the merge, the minister stepped down after she was accused of understating the negative environmental consequences of a proposed agricultural policy reform (Heinskou & Faber, 2016) and calls for separation of the ministries were renewed (Leonhard & Bruhn, 2016).

That is not to say that environmental policy integration (EPI) is not important or valuable. EPI is in fact crucial to sustainable development (Lafferty & Hovden, 2003). The point is, that if the joint ministry is to integrate concerns over environmental sustainability, it will have to be done with a clear "value-hierarchy" (Lafferty & Hovden, 2003) so it does not end up simply weakening and obscuring the environmental argument. EPI ought not be done in the hopes of "win-win" situations but rather with a clear, normative bias towards environmental ends. Integrating environmental concerns in e.g. agricultural policies will inevitably produce substantial conflicts of interests, which makes it important to have norms guiding the integration – the idea is to give "principled priority" to maintaining ecological life-support systems (Lafferty et al., 2007). Up to this point, principled priority seems to be losing the battle against the long-standing champion agricultural exceptionalism. By May 2022, the first redistributions funded by the pilot project will have taken place. Evaluations of these projects will reveal whether the municipalities were capable of involving the full community in drawing up a new, multifunctional map of the landscape or whether landowners maintain their position at the top of the hierarchy.

7. Conclusion

The Fund's approach to land governance is the most similar to a strategy of land sparing and it is therefore the landscape, which potentially can increase in multifunctionality. The main focus of the Fund, however, is consolidation of agricultural properties. In fact, the design of the policy poses a number of challenges to the implementation of the other national goals. Especially critical are the lack of funding for the vital facilitation process and the lack of compensation for land use changes, which would otherwise be conducive to both small-scale multifunctionality and landscape multifunctionality. In the current design of the policy, the Fund primarily benefits landowners who stand to incur costs on some of their land or who simply are interested in consolidating their land. The Fund is not geared towards facilitating collective deliberations on the land use or towards implementing additional project elements besides the actual land redistribution. From a sustainability perspective, the Fund likely will not bring radical change in the functions provided at landscape level. The national goals, besides the questionable goal of arrondation, are for the most part goals that were already committed to. The most likely outcome is increased consolidation and increased compliance with various EU directives and existing regulation. The Fund is characterised by several traits commonly associated with agricultural exceptionalism such as corporatist beginnings, self-regulation to some extent, and economic redistribution to landowners and farmers. In this way, the Fund mirrors the development of agricultural policy in the European Union.

8. References

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