



How are ecological approaches justified in European rural development policy? Evidence from a content analysis of CAP and rural development discourses

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ABSTRACT

Ecological approaches to farming are gaining increasing interest in the EU's Rural Development (RD) policy. From a societal perspective, these approaches are expected to deliver public goods in terms of environmental and social benefits for both consumers and rural actors. This study aims to investigate the policy discourses that are being used in the Rural Development Programmes (RDPs) of Sweden, France, Bavaria, Hungary, Poland and Romania to depict and justify the support for ecological approaches across three programming periods of the Common Agricultural Policy (CAP). For this purpose, a model integrating both CAP and RD discourses was developed and applied using deductive content analysis focused on the policy documents of RDPs. The results suggest that during the entire CAP period from 2000 to 2020, ecological approaches were mainly justified in a multifunctionality discourse, especially with the two RD discourses of i) nature conservation in all considered EU member states and regions, with the exception of Sweden, and ii) agri-ruralism, including Sweden. The neo-mercantilist discourse appears to be the third most dominant discourse in the two most recent CAP periods from 2007 to 2013 and 2014–2020, becoming more prominent between these two periods. Ecological approaches are almost never advocated along liberal lines as the neo-liberalist discourse is almost absent. These results highlight that these six EU member states and regions recognize the potential of these approaches for delivering public goods, despite a lesser emphasis on socio-economic benefits.

1. Introduction

Since the MacSharry reforms of 1992, the European Commission has signalled its willingness to 'green' its Common Agricultural Policy (CAP) by making agriculture more compatible with environmental sustainability. Recently, ecological approaches to farming were encouraged by the CAP and were promoted as having the potential to deliver public goods to society (European Commission, 2019a). These approaches consider the mobilization of ecosystem services from animals, plants and other organisms that can directly or indirectly benefit agricultural

production, such as pollination, soil formation, nutrient cycling, water purification and climate regulation (Bommarco et al., 2013). Compared with conventional agriculture, they are expected to provide a more sustainable way of producing food without compromising yields and farmers' profitability (Garibaldi et al., 2017). By respecting the soil, water, air and biodiversity, these approaches can be beneficial for both consumers and rural actors such as farmers, who depend on these natural resources.

Agricultural policy measures, such as those from the Rural Development Programmes (RDPs) of the CAP, function as a way for society to

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communicate the desired future direction of farms and to influence farmers' behaviour (Recanatì et al., 2019). RDPs are policy documents drafted by EU member states under the second pillar of the CAP. This pillar focuses on measures for rural development (RD) policy and aims to promote functions other than the original productive functions of agriculture that are supported by the first pillar of the CAP, which provides direct income support to farmers (Bureau and Thoyer, 2014). From an economic perspective, the basic rationale for any policy is to address market failure(s) originating in positive or negative externalities. Regarding the promotion of ecological approaches in agriculture, differences in policy measures across EU member states may be attributable to different societal attitudes, societal understanding and the problematizing of agricultural externalities. One way of understanding such differences at the societal level is to view them as originating in different discourses (Nilsen and Ellingsen, 2015). In fact, discourses can be considered to be supporting a well-entrenched policy paradigm, comprising ideas about “what can and should be done in a sphere of policy” (Hall, 1993: 290) or which policy goals should be achieved using certain policy instruments (Alons, 2017). Thus, a discourse analysis of the policy could help understand the policy justifications associated with ecological approaches and, in particular, how they are promoted from a public good perspective across different EU member states. Furthermore, as EU member states enjoy relatively more flexibility in adapting the second pillar's measures to their specificities compared to the first pillar (Agra Europe, 2006), focusing on the RDPs in order to examine policy discourses could reveal these contrasting societal views. This would not only inform about how ecological approaches are perceived and promoted in different societies but also about the types of approaches that are recognized in national policy. Both these dimensions could, in turn, add to the understanding of the potential reasons for regional differences in the uptake of ecological approaches in rural areas.

Previous literature on the agricultural policy discourse has focused on commissioners' speeches and other policy documents (Alons, 2017; Clark et al., 1997; Erjavec and Erjavec, 2009, 2015; Erjavec et al., 2009; Potter, 2006; Potter and Tilzey, 2005). Another branch of literature (Elands and Wiersum, 2001; Hermans et al., 2010; López-i-Gelats et al., 2009; Quétier et al., 2010; Selby et al., 2007), which focuses more on RD, highlights the different functions of rural areas as reflected in different socio-political discourses, originally developed by Frouws (1998). While being mutually complementary, thus far, both areas of literature have not investigated how the CAP and RD discourses are used in the CAP rural development policy. Furthermore, despite the European ambition to promote ecological approaches to farming, these have rarely been explored through discourses, with the exception of Lynggaard (2007), who focuses on the policy field of organic farming in the CAP. Finally, there is a lack of geographical comparison in this literature, which would be useful for identifying the differences in national policy discourses.

Accordingly, this study aims to explore CAP and RD discourses in relation to how certain EU member states and regions justify their use of ecological approaches to farming in the policy documents of RDPs, by using a deductive content analysis (CA). Following Rega et al. (2018), ecological approaches to farming are categorized in five clusters of farming systems: agroecology, organic farming, integrated farming, low-input farming and conservation agriculture. RDPs have been collected for the 2000–2006 CAP period in Sweden, France and Bavaria, as well as in Hungary and Poland, which joined the EU in 2004; for the 2007–2013 CAP period in the same member states and regions, as well as Romania, which joined in 2007; and, finally, for the 2014–2020 CAP period in all six member states and regions. National contextual information is provided that potentially influences the types of discourses and farming systems reflected in policy documents.

This study contributes to the literature in several ways. First, it is the first attempt to assess how CAP and RD discourses integrate ecological approaches. Second, it addresses the lack of geographical comparison by

studying the differences and similarities in policy discourses about ecological approaches across certain EU member states and regions. Third, it highlights how deductive CA can be used to trace and compare societal perceptions of public good components in ecological approaches and quantify the recognition of ecological approaches in RDPs.

The paper continues as follows: the conceptual framework first introduces the types of discourses and clusters of farming systems used in this analysis; the method is then outlined. The following results section presents findings on the dominant discourses for each CAP period, with a summary of their geographical and temporal comparisons, and reports on the number of references to ecological approaches from each RDP. Lastly, the results and policy implications are discussed.

2. Conceptual framework

2.1. Types of discourses and integrated model

2.1.1. The CAP discourses

As highlighted by Erjavec and Erjavec (2009), three different types of discourses have been identified in the scientific literature on the history of the CAP. After the Second World War, the CAP was founded on productivist principles that emphasized the productive and export capacities of European agriculture. At the time, the provision of a sufficient food supply to achieve food security justified state intervention. Farmers and their production were cast as public goods¹ that must be protected via market regulation and state assistance. Potter and Tilzey (2005) describe this first discourse of the CAP as *neomercantilist*.

At the beginning of the 1990s, a *multifunctionality* discourse appeared, depicting agriculture as achieving several functions: the sector not only produces food but protects the environment, preserves biodiversity, enhances rural landscapes, maintains viable social conditions for rural communities, and provides other services for society (Erjavec et al., 2009). This discourse was prominent during the Cork Declaration of 1996 on RD (Potter and Tilzey, 2005). More recently, the CAP has developed a *neoliberalist* discourse following budgetary restrictions and international trade pressure from the World Trade Organization (Erjavec and Erjavec, 2015; Potter and Tilzey, 2005). Competitiveness, flexibility and the liberalization of agriculture were newly introduced notions which, at the time, gained prominence in the policy debate (Erjavec and Erjavec, 2009).

2.1.2. The RD discourses

While the above-mentioned literature has identified discourses related to agricultural policy in general, the literature on rurality focused on discourses of RD policies. The EU's RD policy, designed under the second pillar of the CAP, underlined three main objectives for rural areas during the 2007–2013 period: improving the competitiveness of agriculture and forestry, improving the environment and the countryside, improving quality of life and encouraging the diversification of economic activity (Agra Europe, 2006). According to Elands and Wiersum (2001) and López-i-Gelats et al. (2009), some parts of the countryside are experiencing a profound transformation in which agriculture is no longer the only sector of activity. In fact, different functions for rurality, such as “recreational activities, nature conservation, a clean environment, local culture, housing etc.” (López-i-Gelats et al., 2009: 602), are being promoted by various actors. Different views and opinions on the process and outcomes of RD policies are being expressed through diverse discourses. Hoggart et al. (1995), Frouws (1998) and Elands and Wiersum (2001) identified five socio-political discourses of RD, relevant to Europe. These discourses are characterized as being

¹ Note that the term *public goods* in this article is used in reference to two types of goods that are identified in agriculture literature: environmental and social goods, food security being classified as a type of social goods (Vanni, 2013).

socio-political in the sense that they were recognized from debates among public actors from politics, government, interest groups, administration, institutions etc., and therefore do not represent the views of rural or urban dwellers (Elands and Wiersum, 2001; Frouws, 1998). The following three discourses are derived from Frouws (1998), who focuses on rural discourses from The Netherlands, but asserts that they are applicable to other Western European countries: *agri-ruralist*, *utilitarian* and *hedonist* discourse. The validity and accuracy of Frouws' framework has more recently been re-evaluated by Hermans et al. (2010) in the case of The Netherlands, but by relating these three discourses to sustainable rural development. Their results support most of Frouws' original typology, although discourses on sustainable agriculture are seen as a natural extension of these rurality discourses. To some extent, the concept of sustainable agriculture is covered by the *nature conservation* discourse from Elands and Wiersum (2001), which is presented later in this section. Furthermore, as stated by Hermans et al. (2010), the debate on sustainable rural development is more topical than ever at the European level, hence the relevance and contribution of this study to relating these discourses to ecological approaches across certain EU member states.

In the *agri-ruralist* discourse, farmers are regarded as being the stewards of the countryside, carriers of rural values such as “food production, nature and landscape conservation, open space and cultural heritage etc.” (Frouws, 1998:58). As explained by Frouws (1998), in this discourse, craftsmanship, family farms and traditions should constitute the main mode of agricultural production. Criticized for polluting the rural environment with modern farming methods, farmers should practice a multi-functional type of agriculture that meets social demands for products such as healthy foods and pure drinking water (Frouws, 1998:58). For Frouws (1998), the *hedonist* discourse emphasizes the cultural dimension of rurality. The countryside is regarded as playing a cultural role in that it should provide a certain quality of life through beauty, attractive landscapes and quietness. The priority of RD is to regenerate the aesthetic nature of rural scenery. In the *utilitarian* discourse, RD is instead conceptualized on economic dimensions (Frouws, 1998). Rural areas are considered economically underdeveloped because of inefficient regulation and the need to expand through market integration, innovative economic activities and investment (Elands and Wiersum, 2001).

Based on the work of Hoggart et al. (1995), Elands and Wiersum (2001) add two types of discourses that are relevant to covering the broader European debate on rural development: *community sustainability* and *nature conservation*. For Elands and Wiersum (2001), the *community sustainability* discourse emphasizes the need for rural areas to be economically revitalized through improved living conditions. Thus, RD should aim to create a “minimum set of social and economic structures” (Elands and Wiersum, 2001: 12) for rural populations. Employment and income must be supported through state intervention and regulation and, compared to the *utilitarian* discourse, market forces should play an insignificant role. Regarding *nature conservation*, Elands and Wiersum (2001) define this discourse as criticizing the intrusion of agriculture into wilderness and the threat it constitutes to biodiversity. Nature is considered to have intrinsic values that need to be preserved for future generations. Eco development is being promoted, rather than RD, with the final objective of recovering “a balance between the rural and wilderness areas” (Elands and Wiersum, 2001: 12).

2.1.3. Integrated model

Since our study focuses on the RDPs designed under the second pillar of the CAP, it is necessary to use both types of discourses described in 2.1.1 and 2.1.2 in this analysis. Furthermore, the RD discourses parallel the objectives set by the European Commission for its RD policy. For example, the ambition to diversify economic activity in rural areas echoes what is promoted in the utilitarian discourse. However, the various roles promoted for agriculture in the CAP's multifunctionality discourse are somewhat redundant compared to the rurality functions

promoted in each of the RD discourses. For example, the multifunctionality and the agri-ruralist discourse both refer to environmental protection and the multifunctionality and the community sustainability discourse both refer to employment generation and the maintenance of viability in rural areas. This overlapping can be explained by the fact that multifunctionality was promoted by the CAP during the 1990s at a time when its RD policy was emerging. Furthermore, in the CAP documents of the 2014–2020 reform, Erjavec and Erjavec (2015) noted that support for RD policy was described in both a multifunctional and neomercantilist discourse, although the latter was used in conjunction with multifunctionality. This shows the interconnection between multifunctionality and the CAP's policy objectives of RD, which are theorized in the RD discourses.

Thus, for the purposes of this study, we have integrated the different socio-political discourses of RD as sub-discourses of multifunctionality (Fig. 1). We consider that RD discourses cannot be similarly related to neomercantilism and neoliberalism since they are specific to RD policy, while neomercantilism and neoliberalism are conceptualized at a broader level of the CAP. RD discourses promote the generation of public and private goods for national rural development, while neoliberalism is conceptualized at a macro level through the promotion of transnational agribusiness and collaboration with international trading partners. However, this does not exclude the possibility that the discourses from the integrated model can be used together, when a policy objective relating to ecological approaches is being justified.

2.2. Clusters of farming systems that integrate ecological approaches

In order to categorize clusters of farming systems that use ecological approaches to agriculture, we have adopted the classification system proposed by Rega et al. (2018), in which existing categories of farm types, based on the degree of uptake of ecological approaches to farming, were identified from an extensive literature review. They identified a total of five clusters of farming systems: agroecology, organic farming systems, integrated farming systems, low-input systems and conservation agriculture (Table 1). The characteristics of these systems are summarized in Table 1. Appendix 1 provides information on all types of practice associated with each of these clusters.

3. Method

3.1. Deductive content analysis

This study used deductive content analysis (CA) to explore the types of CAP and RD discourses used to justify the support for ecological approaches. According to Berelson (1952), CA is a “research technique for the objective, systematic and quantitative description of the manifest content of communication.” (Berelson, 1952). Thus, it was originally defined as a quantitative method for analysing qualitative data, aiming to describe and quantify specific phenomena (Downe-Wamboldt, 1992). In order to achieve this, CA compresses large amounts of words by classifying words, phrases or other textual units into categories that share similar meanings (Cavanagh, 1997). In this study, the relative frequency of categories of discourses is compared across space and time.

Two approaches to CA can be used: inductive and deductive. The deductive approach classifies text into pre-defined categories, derived from previous work and theories, while the inductive approach develops categories directly from the text (Elo and Kyngäs, 2008). One of the purposes of deductive CA is to test existing categories or concepts in a different context with a new type of data (Kyngäs and Kaakinen, 2020). This type of CA is also useful for comparing and replicating an analysis across time and geographical units (Elo and Kyngäs, 2008).

In this study, deductive CA has been used to explore how CAP and RD discourses are identified in a new context: what type of commonly studied discourses appear in the policy documents of RDPs when associated with ecological approaches? This approach also allows us to study

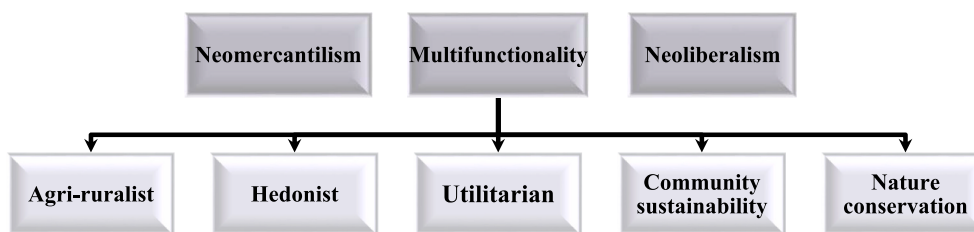


Fig. 1. Integrated model of CAP and RD discourses.

Table 1
Main characteristics of farming clusters. Source: Rega et al. (2018).

Farming cluster	Characteristics
Agroecology	<ul style="list-style-type: none"> - Considered to be a science, social movement and practice - Use of biodiversity and its ecosystem services to enable farmers' resilience and generate environmental, social and economic benefits
Organic farming	<ul style="list-style-type: none"> - Regulated through certification - Synthetic chemical fertilizers, pesticides and mineral fertilizers are forbidden - Crop rotation, reduced tillage, natural pest control, use of green animal manure and cover crops
Low-input farming/ extensive farming	<ul style="list-style-type: none"> - Minimizes the use of external inputs while optimizing the use and management of on-farm resources - Limits groundwater and surface water pollution, pesticide residues in food, farmers' overall risk and improves farm profitability
Integrated farming	<ul style="list-style-type: none"> - Inorganic inputs can be used although not as systematically as in conventional farming and in lower amounts - Promotes healthy soil conditions, nutrient and pest management
Conservation agriculture	<ul style="list-style-type: none"> - Preserves soil quality: reduces soil disturbance through the use of alternative tillage strategies, crop rotation, use of cover crops

this question across CAP periods and EU member states and regions. What discourse prevails in different periods? What types of public goods are promoted in French policy documents compared to Swedish policy documents when referring to ecological approaches? And last but not least, the quantitative feature of deductive CA is a valuable tool for assessing the extent to which ecological approaches have been emphasized in RDPs.

3.2. Coding scheme

In line with deductive CA, the coding scheme was designed based on the types of discourses and farming systems identified in previous literature. The first set of nodes gathered 34 codes containing information on farming clusters (five nodes) and farming systems (19 theme nodes) identified by Rega et al. (2018). The types of discourses introduced in section 2.1 and integrated together in Fig. 1 constitute the second set of nodes with three main nodes (CAP discourses) and five theme nodes (RD discourses). This coding scheme resulted in a two-dimensional categorization matrix (Table 2).

The sampling units comprised national policy documents of the CAP for the 2000–2020 period and were collected from the relevant case study areas. Specifically, national policy documents covered the three CAP periods as follows:

- i) CAP 2000–2006 in Sweden, France and Bavaria, CAP 2004–2006 in Hungary and Poland, which joined the EU in 2004
- ii) CAP 2007–2013 in the same case study areas, as well as Romania, which joined the EU in 2007
- iii) CAP 2014–2020 in all six case study areas

The specific policy documents sampled from each case study area comprised national RDPs (see supplementary material). The entire policy document was considered for coding. Regarding the coding unit, which refers to the segment of text placed in the categorization matrix, one sentence, multiple sentences, or a paragraph could be coded. Since the text segment aimed to include information related to the farming system and policy discourse, restricting the coding unit to a sentence sometimes led to the fragmentation of information. Actually, at times, policy justification for encouraging a farming system or practice appeared at the end of a paragraph. Thus, in some cases, it was necessary to allow for such a larger coding unit.

During the coding process, a farming system was first identified in the text before being associated with one or several discourse categories. The authors could use two different ways to code for a farming system: either if the text directly referred to a type of farming system from Table 2 or if the text directly referred to a farming practice from Appendix 1. The second way involved coders using the table from Appendix 1 to link the identified farming practice to one or several farming clusters in Table 2. Regarding the discourse categories, Table 3 provided a list of themes for each discourse to be used by coders as definitions. If at least one theme from a discourse was recognized, the coding unit was associated with that discourse. The same unit could be associated with multiple discourses.

Reliability was verified by crosschecking the results in each case study team. This could be conducted in two ways: in some case study teams, a third person on the project double-checked the chosen classification of the text for a farming system and a type of discourse.² In other case study teams, in which the coders had originally divided the coding of documents among themselves, they double-checked each other's classifications. The classifications of references were discussed until consensus was reached. Only minor revisions were reported.

It should be noted that two types of discourses did not emerge as mutually exclusive categories for some coders: the complexity of agriruralism could overlap with nature conservation. In order to limit making subjective decisions when selecting one type of discourse instead of another, we allowed for the possibility of associating a coding unit with multiple discourse categories. Similarly, given the conceptual framework, some farming practices could be associated with multiple farming clusters, for example, cover crops, crop rotation (see Appendix 1). Thus, some types of farming clusters were not mutually exclusive categories. However, only farming clusters marked with a double cross "XX" in Appendix 1 were coded, meaning the associated practice typically represented that particular farming cluster instead of just being recurrently associated.

3.3. Sampling and specificities of case study areas

The selected sample of case study areas is representative of diverse

² In Bavaria, a 40% sample of references was randomly drawn for cross-check.

Table 2
Categorization matrix.

Farming clusters	Farming systems	Discourse				
		Neomercantilism	Neoliberalism	Multifunctionality		
				Agri-ruralist	Utilitarian	Hedonist
Agroecology	Agroecology Biodiversity-based farming systems Diversified farming systems Eco-agriculture Ecological arable farming systems Permaculture Natural systems of agriculture					
Organic farming Systems	Biodynamic Biological input-based farming systems Organic agriculture Organic farming systems					
Integrated farming Systems	Integrated arable farming systems Integrated crop-livestock systems Integrated crop-range-livestock systems Integrated farming systems Integrated perennial crop systems					
Low-input/extensive Systems	Extensive grass-based systems Extensive systems Low external input systems Low input systems Low intensity systems Reduced input systems Silvopastoralism					
Conservation agriculture	Conservation agriculture Conservative agriculture Minimum tillage systems No tillage systems Reduced tillage systems Strategic tillage systems					

parts of Europe: Western (France), Northern (Sweden), Central and Eastern (Bavaria,³ Poland, Hungary and Romania) and includes both old and new EU member states. This geographical and historical diversity represented by the six case study areas reflects diverse political institutional settings, levels of rural development, types of farming systems, as well as socio-economic and environmental challenges in rural areas that could influence policy justifications for encouraging ecological approaches and, consequently, the national policy discourse. These national contextual specificities are briefly outlined below.

First, the profile of agricultural production and farm structure is rather diverse across case study areas. While dairy production plays a prominent role in Sweden (European Commission, 2020) and Bavaria (STMELF, 2018b) crop production dominates animal farming in Hungary (NHRDP, 2011) and Romania (Institut National de Statistica, 2018); Poland and France have a rather diversified type of agricultural production (European Commission, 2015a). Regarding organic production, Sweden has the highest proportion of fully converted organic area across the entire UAA, with 20% in 2018, followed by France and Germany (in the entire territory) with 7%, Hungary with around 4% and less than 4% in Poland and Romania (Eurostat, 2020). Old EU member

states such as Sweden, France and Germany (Bavaria) are characterized by larger farms. New EU member states such as Hungary, Poland and Romania are characterized by smaller farms and also have a relatively lower level of mechanization and investment in fixed assets, which has consequences on productivity and farming intensity (Pawlewicz and Pawlewicz, 2018). However, while Poland had traditional methods of cultivation when it joined the CAP (RDP, 2005), it has modernized its farm buildings and equipment, particularly during the 2007–2013 RDP (Bartkowiak and Bartkowiak, 2017).

Second, the case study areas face different challenges in the rural sector, considering their diverse historical, economic and environmental specificities. In Sweden and Bavaria, the decreasing number of commercial farms and their resulting increased size is considered problematic (European Commission, 2019c; STMELF, 2018a). A low level of profitability in all farm sectors is another challenge in Sweden (European Commission, 2019c), while rising land prices and difficulty accessing farmland is an issue in Bavaria (STMELF, 2018a). In France, RD addresses multiple types of objectives: from urban planning, nature protection, combating unemployment, to the preservation of rural identities (Trouvé and Berriet-Sollic, 2010). Instead, the new member states highlight the severe economic and social difficulties they are experiencing in rural areas. In both Poland and Romania, a lack of basic infrastructure and services has been linked to a risk of poverty and social exclusion. Poor technical equipment and a lack of market integration through innovations have also been mentioned (European Commission, 2015b, c). Hungary is facing a low level of rural employment and a lack of biodiversity protection, with 83% of habitats in poor condition (European Commission, 2019b). In terms of environmental challenges,

³ A region of Germany was selected instead of the whole of Germany because the inclusion of a federal state would have led to a lack of homogeneity, from both a societal perspective on ecological approaches and in the application of ecological farming measures. Each region of Germany has its own competent authority and defines its own RDP. Bavaria is one example that had already implemented ecological approaches.

Table 3
Themes of CAP and RD discourses.

	Type of discourse	Themes
CAP discourses	Neomercantilism	State protection/Market regulation Productivism/Food security Exports/Competitiveness
	Neoliberalism	Deregulation Trade competition
	Multifunctionality	Environmental protection Viability of rural areas Biodiversity protection Sustainability of rural landscape and cultural heritage
Socio-political discourses of RD	Agri-ruralist	Farmers, as stewards of the countryside, promote the following: food production, nature and landscape conservation, open spaces and cultural heritage Local production and handicrafts Healthy and quality foods Agricultural practices that respect the environment and/or animal welfare Ecological modernisation
	Hedonist	Aesthetic/cultural values of the landscape Quietness/quality of life for urban dwellers
	Utilitarian	Innovative economic activities (e.g. ecotourism, housing, high-tech agriculture) Openness to markets and investments in economic RD
	Nature conservation	Biodiversity/protected areas Eco-development
	Community sustainability	Basic community infrastructure for rural dwellers/improved living conditions Generation of employment and income

nitrogen pollution that harms water quality is of concern in all case study areas and eutrophication of the Baltic Sea is a particularly significant issue in both Poland and Sweden (Grizzetti et al., 2011). Soil degradation by water erosion is also a significant threat in several case study areas, particularly in France and Romania, which exhibit a high soil loss rate (Panagos et al., 2015).

Lastly, it is important to take into consideration the national institutional specificities that could influence policy priorities. For example, while France is regarded as embodying the productivist tradition (Erjavec and Erjavec, 2009), Sweden is known for its more stringent environmental and animal welfare regulations (Regeringskansliet, 2015).

4. Results

First, this section presents in detail the dominant discourses about ecological approaches found in each CAP period. We define “first dominant” as the type of discourse that had the highest percentage of coded references in at least 50% of the case study areas; the “second most dominant” as the type of discourse that had the second highest percentage etc. Second, these dominant discourses are compared over time and countries. The nature conservation, agri-ruralism, community sustainability and hedonist discourses, which are mentioned below, are conceptually included in the multifunctionality discourse (see Fig. 1.). Finally, the total number of references to ecological approaches from each RDP appear in the final sub-section 4.3.

4.1. Dominant discourses about ecological approaches

4.1.1. CAP 2000–2006

The nature conservation discourse is the first dominant discourse. It appears first in all case study areas, with the exception of Sweden, where

it appears second. Agroecology is frequently associated with justifications from the nature conservation discourses in Bavaria, Hungary, Poland, France and Sweden. Extensive systems are also often referenced in the case of Bavaria and France. The key focus in Sweden is on natural pasture lands, which should be managed in such a way as to conserve and enhance the fauna and flora (Regeringskansliet, 2000). Ley farming, riparian strips and landscape features are also regarded as being beneficial for promoting biodiversity, thereby providing important cultural heritage values, a concept which overlaps with the agri-ruralist discourse (Regeringskansliet, 2000). It is notable that what is promoted with this discourse is an integrated approach to nature conservation, in which cultivation favours biodiversity rather than segregation between nature and agriculture. Similarly, in Bavaria, policy measures that support more agroecology and biodiversity are related to integrated conservation, through the integration of nature into agricultural land to enable sufficient agricultural production, while ensuring the conservation of biodiversity. In contrast, France refers to the long-term removal of arable land as a mean of protecting biodiversity (PDRN, 2006). France has the highest share of coded references associated with nature conservation (68%), often in reference to extensive farming systems. For example, subsidies for maintaining grassland, in the case of extensive grass-based systems, are promoted as a way of preserving nature (PDRN, 2006). In Hungary, nature conservation refers to agroecology as a system for targeting soil erosion. This system is promoted as a solution for improving the situation of biodiversity, characterized by a significant loss of habitats for wildlife (NRDP, 2006). Most measures identified with nature conservation refer to agri-environmental measures and the Natura 2000 payments.

Agri-ruralism is the second dominant discourse. However, it is ranked first in Sweden with 67.5% of coded references. Sweden associates this discourse with diverse farming systems including agroecology, conservation agriculture and organic farming. Measures for promoting certain ecological practices such as ley farming, grassland, local varieties, catch crops and riparian strips are justified in order to limit nitrate pollution and nutrient leaching, which affect the environment. Other measures include improving soil structure, preserving traditional cultivation and conserving cultural heritage values in the case of semi-natural pasture lands and mown meadows (Regeringskansliet, 2000). In Bavaria, agri-ruralism is also related to agroecology, although primarily to extensive grass-based systems, which can be explained by the importance of the dairy sector. For example, environmental-friendly land management is encouraged on grasslands that are described as being part of the Bavarian cultural landscape (STMELF, 1999). In Hungary and Poland, agroecology is the main farming system justified in an agri-ruralist discourse, while this type of discourse is absent in France.

Neomercantilism and the community sustainability discourse were identified in policy documents, although they were of less important. In Sweden, subsidies for organic farming are mostly justified on productivist grounds, which is a characteristic of the neomercantilist discourse. Neomercantilism also exists in Poland, where the competitiveness of integrated farming is encouraged through better quality certification that is demanded by domestic consumers (RDP, 2005). As an example of the community sustainability discourse, low-input farming is regarded as being a solution to generating income for farmers living in areas of low productivity in Hungary (NRDP, 2006).

4.1.2. CAP 2007–2013

Nature conservation re-emerges as the first dominant discourse for this period. It appears first in the case study areas of France, Bavaria and Hungary, while agri-ruralism is as equally represented as nature conservation in Romania. In Sweden and Poland, nature conservation is ranked second after agri-ruralism, although the difference in percentage points of coded references is minimal. In France and Bavaria, neomercantilism is primarily associated with agroecology and extensive systems, with few references to organic farming. An increase in

pollination areas and a reduction in polluting inputs, such as phytosanitary products, are examples of opportunities identified to enhance biodiversity in France (PDRH, 2011). In Bavaria, the potential of agroecology practices such as fallow land and semi-natural habitats on farmland has been recognized for enhancing and protecting areas of ecological importance (STMELF, 2007). Banning the use of chemical inputs is also regarded as being a way of maintaining or developing certain species (STMELF, 2007). In Romania, measures for encouraging agroforestry are justified to improve soil capacities, thereby increasing biodiversity (NPRD, 2015).

Agri-ruralism is the second most dominant discourse but is ranked first in Sweden and Poland. It depicts policy measures related to agroecology, organic farming and integrated farming. In Sweden, measures for the environmentally-friendly cultivation of local varieties have been implemented in order to maintain traditional forms of cultivation and cultural heritage, while introducing riparian strips aimed at limiting the environmental degradation of nitrogen leaching (Regeringskansliet, 2008). Measures associated with organic farming also emphasize the benefits for animal welfare (Regeringskansliet, 2008). Integrated farming in Poland is once again in focus and is promoted as being beneficial for environmental protection and human health (RDP, 2007).

The neomercantilist discourse is the third most dominant discourse. It is ranked third in Hungary, Sweden and Poland, while the hedonist discourse is ranked third in France and Bavaria; the community discourse is ranked third in Romania. Once again, organic farming is the system that is often justified with neomercantilistic perspectives in Sweden. For example, the Swedish government has highlighted the importance of increasing the organic food supply through investments and government intervention by promoting the consumption of certified organic products in the public sector (Regeringskansliet, 2008). Organic farming, agroecology and integrated farming are also depicted in this discourse in Hungary and Poland. The hedonist discourse is used in France, for example, when referring to grass buffer strips as a way of enhancing the landscape (PDRH, 2011).

4.1.3. CAP 2014–2020

Nature conservation remains the first dominant discourse for this final CAP period, although it is almost non-existent in Sweden. This discourse continues to cover varied types of farming systems within and across case study areas: agroecology, extensive farming, integrated farming and organic farming and, to a lesser extent, conservation agriculture. Measures most often relate to payments for agri-environment and climate commitments. Nature conservation dominates in Bavaria as it accounts for 78.8% of the coded references and refers to agroecology, as well as extensive and organic farming systems. Permanent pasture lands are promoted for preserving natural habitats (STMELF, 2018b). France asserts that biodiversity can be preserved through pasture, although overgrazing is regarded as being a potential threat. A reduction in chemical inputs is once again being encouraged in order to preserve biodiversity as their overuse can threaten flora and fauna (DCN, 2015). In Hungary, agroecology practices such as semi-natural habitats are being encouraged in order to preserve natural life and organic farming is described as a system that promotes a “natural balance among plants, animals and soils” (MVP, 2014). The benefit of catch crops is mentioned in Poland for increasing species diversity and pollinators (RDP, 2018).

Once again, the agri-ruralist discourse is the second most dominant discourse. It is ranked second in France, Romania and Hungary. However, it is ranked first in Sweden, in which the identified agricultural practices are often part of agroecology and aim to decrease nutrients and nutrient leakage, greenhouse gas emissions and improve water quality (Regeringskansliet, 2015). Organic production is promoted as being an appropriate system for improving soil quality and animal welfare via feeding methods and environments that meet the natural behavioural needs of animals (Regeringskansliet, 2015). The agri-ruralist discourse is also important in Romania and is mainly used to promote the

environmental benefits of organic farming and agroecology. Organic farming is particularly regarded as being a system that provides environmental public goods to society (NPRD, 2019).

Finally, neomercantilism is the third most dominant discourse. It is particularly important in Sweden and Poland to argue that farmers should be compensated through subsidies and investment support, for lost income and additional costs arising from practices that produce social goods (RDP, 2018; Regeringskansliet, 2015).

4.2. Temporal and geographical comparisons

The above-mentioned results have identified three dominant types of discourses: nature conservation (Fig. 2), agri-ruralism (Fig. 3) and neomercantilism (Fig. 4). We will now present how these discourses have evolved over the three CAP periods, across each case study area, to assess if specific trends emerge.

The nature conservation discourse is clearly present in France and Bavaria. This discourse is not as important in Sweden, where it became negligible during the most recent CAP period. The representation of nature conservation in the policy documents of Bavaria and Romania increased during the three CAP periods, whereas it decreased during the second CAP period in Poland, Hungary and France, before increasing again during CAP 2014–2020.

The agri-ruralist discourse dominates in Sweden across all three CAP periods and was also important in Romania during the last two periods. However, its representation decreased during the three CAP periods in Bavaria, Hungary and Romania and in all countries, with the exception of Sweden, between the two last CAP periods.

The neomercantilist discourse is mostly used in Sweden and Poland to justify the use of ecological approaches. Its proportion increased during the three CAP periods in Bavaria, Hungary and Romania, and between the second and third CAP periods in Poland and France.

4.3. References to ecological approaches

This section reports on the total number of references that were coded from each RDP (Table 4). This quantified type of result offers insights into how often ecological approaches, including both ecological farming systems and ecological farming practices, have been discussed and justified in policy discourses in RDPs. The findings indicate that ecological approaches are more frequently mentioned in the second and last RDPs, in the case of France and, in the last RDP, in the case of Sweden. In the new member states of Poland and Romania, ecological approaches have gradually become more prevalent over time. In the case of Hungary and Bavaria, these approaches were most often mentioned in the 2007–2013 RDP.

5. Discussion and conclusion

This study aimed to explore the dominant policy discourses used in the RDPs of six EU member states and regions to depict and promote ecological approaches during three different CAP periods. An integrated model containing both CAP and RD discourses was developed and applied using deductive content analysis. Compared with previous literature on CAP and RD discourses, the novel approach of this study allowed to assess how policy discourses integrate ecological approaches by using a broad typology of ecological farming systems. The study also contributes to the literature, in which there is a scarcity of geographical comparisons in national discourses related to RD policy, by contrasting them in certain EU member states and regions.

Overall, the findings suggest that ecological approaches are justified from a multifunctional perspective. They are particularly promoted as providing two main types of public goods: i) the preservation and enhancement of biodiversity through the nature conservation discourse and ii) respect for the environment and the conservation of cultural heritage and traditional modes of production through the agri-ruralist

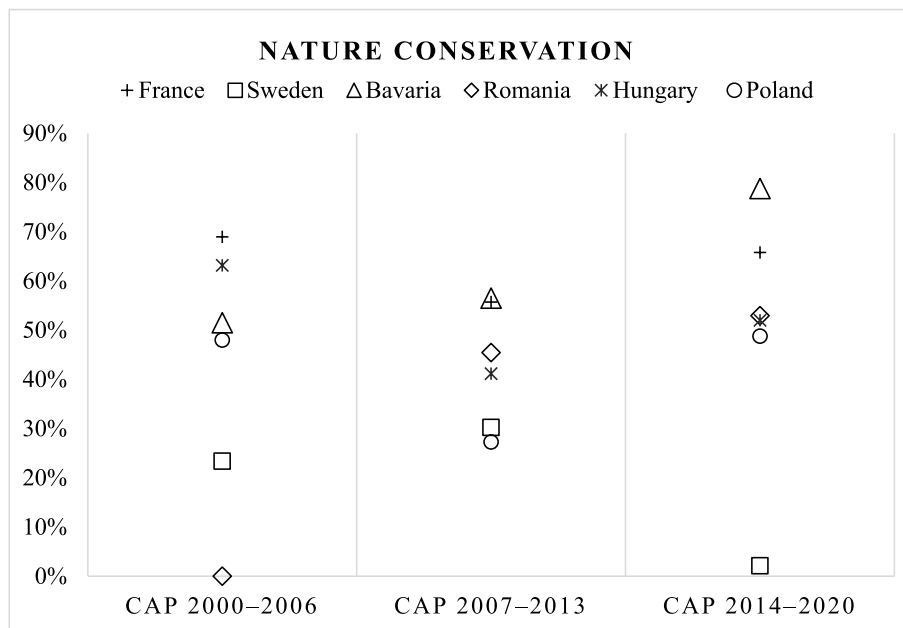


Fig. 2. Percentage of references coded in nature conservation across CAP periods and case study areas.

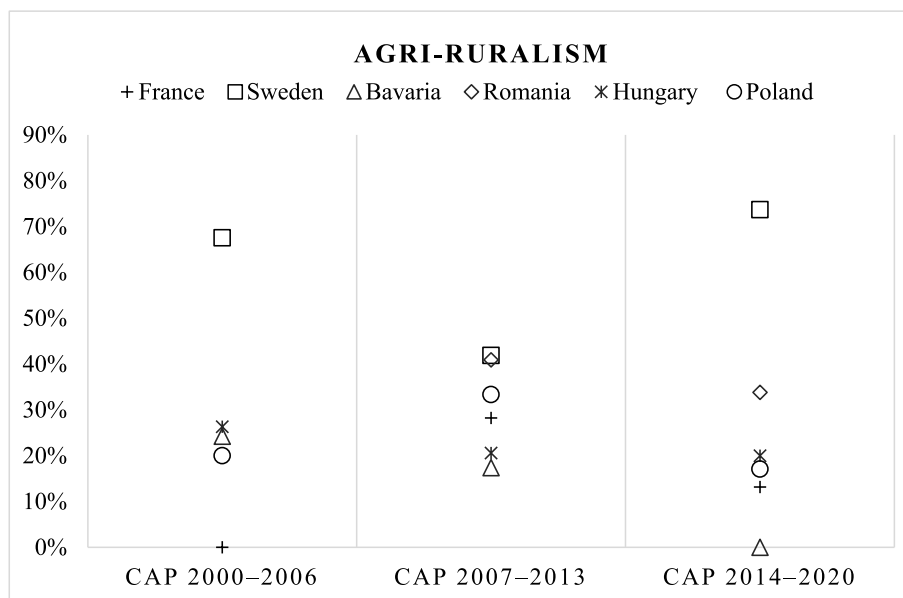


Fig. 3. Percentage of references coded in agri-ruralism across CAP periods and case study areas.

discourse. The findings indicate that these two discourses are often used simultaneously. This can be explained by the fact that preserving biodiversity entails respecting the environment (water, soils, etc.). With the exception of Sweden, the results suggest that the nature conservation discourse gained prominence between the 2007–2013 and the 2014–2020 CAP periods, while the importance of agri-ruralism decreased between these periods. Stringent environmental and animal welfare regulations in Sweden may explain why the agri-ruralist discourse is relatively more important in this country. Neomercantilism has also been used to encourage ecological approaches on productivist and protective grounds. The findings indicate that it has become increasingly prominent over time, ranking third in at least 50% of the sample during the two last CAP periods. The largest increase was during the most recent period. This is confirmed by the recent literature findings in Commissioners’ speeches: the re-emergence of the traditional

neomercantilist discourse in the CAP agenda from 2014 to 2020 (Erjavec and Erjavec, 2015; Rutz et al., 2014). However, compared to previous literature, which has noted an increase in the CAP neoliberal discourse (Erjavec and Erjavec, 2009; Potter, 2006; Potter and Tilzey, 2005), this discourse is almost absent from our findings. For example, Erjavec and Erjavec (2009) found some elements of multifunctional agriculture associated with liberal rationales in Fisher Boel’s speech, when she referred to organic farming. In contrast, this study shows that when focusing on the discourse of certain EU member states and regions as embedded in their RDPs, ecological approaches are justified as serving national interests instead of being liberalized and promoted in external markets. These results confirm the important public good component that justifies rural policy: measures that support ecological approaches are driven to handle market failures by encouraging the provision of public goods. However, despite the previously mentioned economic

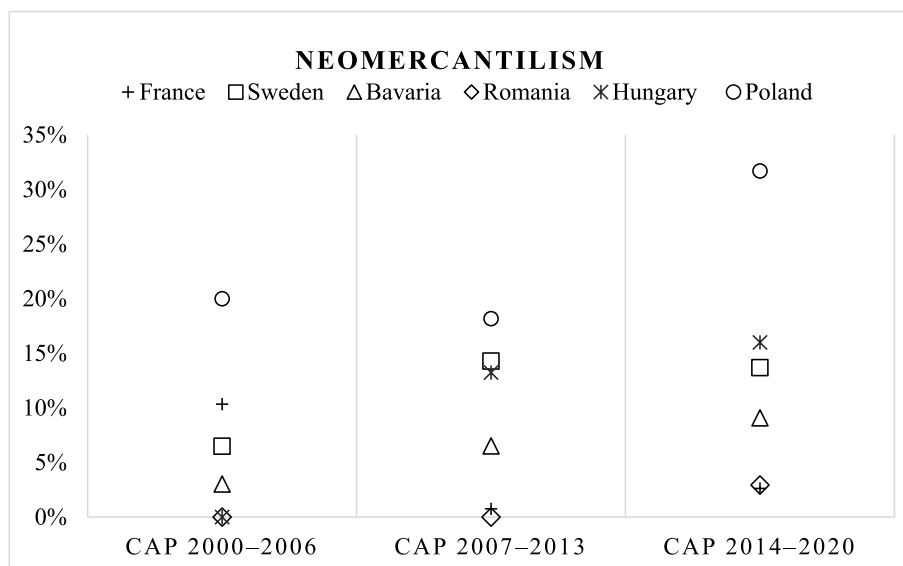


Fig. 4. Percentage of references coded in neomercantilism across CAP periods and case study areas.

Table 4

Total number of coded references from each RDP of the case study areas.

Case study area	2000–2006 ^a RDP	2007–2013 RDP	2014–2020 RDP
France	29	131	114
Sweden	77	43	95
Bavaria	33	46	33
Romania		21	68
Hungary	22	77	28
Poland	25	33	41

^a 2004–2006 RDP for Hungary and Poland.

issues faced by rural areas in new EU member states, ecological approaches are not really justified using the utilitarian discourse.

Finally, agroecology, together with biodiversity-based farming and organic farming, appear to be the most frequently mentioned farming systems. However, it is worth noting that as farming practices were also coded to be associated with farming clusters, and that some farming practices could be representative of multiple farming clusters (see Appendix 1), this analysis cannot inform on the most prevalent type of farming cluster. Furthermore, given the classification of Rega et al. (2018), many farming practices are associated with agroecology (Appendix 1), which may give the impression that this farming cluster is predominant. Thus, it is important to highlight that such result should not be interpreted as meaning “agroecology is a prevailing farming cluster”, but rather that multiple farming practices “construct” agroecology as a farming cluster. Regarding the support for ecological approaches, which refers to both ecological farming systems and ecological practices, the findings indicate that, in their respective RDPs, Poland and Romania have increasingly considered these approaches.

Several factors and mechanisms could influence a change of policy discourse across time and space – in our case, across the considered case study areas and CAP periods. These dynamics can be understood within the framework of Lynggaard (2007), which underlines the importance of new ideas and agents’ interests in policy change. It focuses on two phases: first, an articulation phase, in which ideas are translated into discourses; second, an institutionalization phase, in which discourses are translated into institutions. In our case, different discourses across case study areas can originate in the presence and influence of different stakeholders or concerned agents with different conceptions and ideas about societal services and public goods that can and should be provided by ecological farming. For example, a large national or regional presence of environmentalist organizations that value the provision of

healthy foods and a clean environment from agriculture would influence the articulation process of these ideas being translated into a national agri-ruralist discourse. As Lynggaard (2007:306) emphasizes, the articulation and institutionalization of these conceptions and ideas would depend on the role and legitimacy of these agents in the CAP debate. In fact, the CAP is characterized as a “multi-level governance system” in which member states, EU institutions and non-institutional actors interact with different agendas and discourses (Erjavec et al., 2009). As the European Commission sets policy objectives for EU RD, it is also an important agent to consider for forming ideas and discourses in RDPs. Focusing on RDPs as a sole source of policy documents for our deductive content analysis may have therefore introduced some standardization of concepts across case study areas. An interesting task for future research would be to compare with results obtained from a similar analysis of national policy documents related to e.g. environmental policy, which are not monitored by EU institutions. However, EU member states are responsible for deciding upon which type of policy measures should be implemented and funded in RDPs, depending on their national specificities, challenges and needs (Agra Europe, 2006). As implemented policy measures are justified according to national specificities, the identified discourses from RDPs capture these national arguments.

Furthermore, as Feindt (2010) points out, Lynggaard’s framework emphasizes ideas that are formulated “from the margins” rather than from the core of the policy process, as agents are embedded in one specific social context. This is relevant in relation to our study as contextual factors influence the ideas and discourses represented in national policy documents. Factors that explain why dominant discourses related to ecological approaches may differ between countries and over time are likely related to the social, economic and political context of each country. Future research should investigate how such factors shape the differences in policy discourse related to ecological approaches, and how the differences in policy discourse may be linked to differences in farmers’ adoption of ecological approaches.

In fact, policy justifications for encouraging ecological approaches could indirectly influence farmers’ uptake of such approaches. Using deductive CA, we were able to trace and quantify policy justifications in the form of policy discourses that reflected specific policy goals. As policy measures are implemented and justified in order to attain such goals (Hall, 1993), measures that support ecological approaches in RDPs may be more frequently adopted by farmers who are motivated by similar objectives. Farmers’ personal objectives, be they economic, environmental or sociocultural, are evidently an important behavioural

factor that influences practice adoption (Greiner et al., 2009; (Kallas et al., 2010); Buckley et al., 2015). Our findings indicate that EU member states and regions consider that ecological approaches should primarily preserve biodiversity and respect the environment through the conservation of cultural heritage and traditional production. Thus, policy that encourages ecological approaches may be predominantly adopted by farmers who identify themselves with such objectives. However, the potential socio-economic benefits of ecological approaches that contribute to rural vitality, such as profits, income, employment or improved living conditions, are not so much emphasized, as rationales from utilitarian and community sustainability are rarely used. Consequently, farmers who value such socio-economic objectives may not be motivated to adopt practices that are not justified according to their rationales. Thus, the types of policy discourses identified in this analysis could provide useful information for future research to investigate whether policy goals fit farmers' personal

objectives and whether this, in turn, influences farmers' adoption of ecological approaches.

Finally, this study provides information on the types of public good components that are associated with ecological approaches. From a policy perspective, this information could be used to justify supporting a broader set of ecological farming systems than organic farming alone, thereby contributing to the further uptake of ecological approaches.

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Appendix 1. Association of farming practices to clusters of farming systems

Practices	Agroecology	Organic Farming	Low-input/Extensive systems	Integrated farming systems	Conservation agriculture
Agri-environmental measures	X	X	X	X	
Agroforestry	XX			X	
Use of chemical inputs					X
Use of organic pesticides	X	XX	X	X	
Biodynamic preparations		XX			
Semi-natural habitat on farmland	XX	X	X	X	
Intercropping	XX	X	X	X	
Crop-livestock integration	XX		X	X	
Use of organic animal manure	XX	XX	X	X	
Use of green manure	XX	XX	X	X	
Biological pest control	XX	XX	X	X	
Biological nitrogen fixation	XX	XX	X	XX	
Cover crops	XX	XX	X	XX	XX
Conservative tillage	X	X	X	X	XX
Crop rotation	XX	XX	X	XX	XX
Sustainable water management	XX	X	X	X	
Extensive livestock systems	X	X	XX	X	
Inclusion of fallow land	XX	X	X	X	
Spatial heterogeneity	XX	X	X	X	
Selection of breeds and cultivars	XX	X	X	X	
Sustainable grazing	XX	X	X	X	
Integrated pest management			X	XX	
Low agrochemical input			XX	X	
Low fertilizers input	X	X	XX	X	
Low mechanization	X	X	X	X	X
Integrated nutrient management	X	X	X	XX	
Mulching	XX	XX	X	XX	X
Alternative weed management strategies	XX	XX	X	X	
Use of concentrate					
No use of concentrate	X	XX			
No use of chemical input	X	XX			
Management of soil organic matter	XX	XX	X	X	X
Precision farming					
Set aside	X	X	X	X	
Crop residue management	XX	X	X	X	X
Crop diversification/Polyculture	XX	X	X	X	

Note: X = recurrent association between farming system and practice; XX = practice that typically represent a specific farming system.

Source: LIFT Deliverable D1.1: Review of the definitions of the existing ecological approaches.

Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.jrurstud.2021.06.009>.

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