


Article

Policy Mixes as a Strategy to Provide More Effective Social and Environmental Benefits: Evidence from Six Rural Areas in Europe

Francesco Mantino * and Francesco Vanni 

CREA, Council for Agricultural Research and Economics, Research Centre for Agricultural Policies and Bioeconomy), Via Po 14, 00198 Rome, Italy; francesco.vanni@crea.gov.it

* Correspondence: francesco.mantino@crea.gov.it

Received: 13 October 2019; Accepted: 21 November 2019; Published: 23 November 2019



Abstract: At the EU level, agricultural and rural development policies are increasingly oriented and targeted to the provision of public goods associated with farming. While most analysis focuses on the efficiency and effectiveness of specific types of interventions, this paper aims at exploring the role of policy mixes in stimulating the provision of environmental and social benefits (ESBs) associated with agriculture. The role of policy mixes in determining the provision of ESBs to farming is a complex matter, since different types of policies may have synergistic, overlapping and/or contrasting effects. On the basis of a comparative analysis of six case studies in different European countries, the analysis shows interesting solutions already being experimented with in the field by local actors working together through some form of cooperative action, highlighting how public intervention is often a combination of different policy instruments that may vary according to the type of socio-economic and institutional settings as well as according to the type of ESB targeted. The effectiveness of policy mixes depends not only on the design and implementation phases, but also on new governance arrangements stimulating alternative mechanisms of public goods provision, including market mechanisms and collective action.

Keywords: policy mixes; farming; environmental and social benefits; governance arrangements

1. Introduction

In Europe agricultural and rural development policies are increasingly oriented and targeted to the provision of public goods associated to farming. Where markets fail to provide the desired level of agricultural landscape, rural vitality, farmland biodiversity and other public goods, various policy interventions (regulations, direct payments, rural development measures) may be adopted to ensure a better provision. Amongst the studies that are more oriented towards the policy implications of public goods provision through agriculture, Cooper et al. [1] made a clear distinction between environmental and social public goods. Among the former it is possible to mention landscapes, biodiversity, water quality and availability, soil functionality, improvements in greenhouse gas emissions or carbon storage, air quality, and resilience to flooding and fire. Among the latter we can include food security, rural vitality and farm animal welfare and health, although they are not public goods in *sensu strictu* but rather social and political outcomes [2]. A key aspect to be considered when analyzing the provision of public goods is whether they are provided as joint outputs of production or of a combination of productions. The level of “jointness” of different public goods with agricultural practices is very complex, and it is usually determined by the characteristics of the areas and farming systems, as well as by the environmental and social goods considered [3,4]. This article looks at this issue through a different and broader theoretical framework, by considering the provision of public

goods and ecosystem services as a demand of society for multiple functions of farming. This conceptual framework involves a holistic and broader vision regarding the relation between agriculture and public goods, based on a systemic and socio-political approach [5]. We will use the concept of environmental and social benefits (ESBs) delivered by agro-food systems, with the objective to consider in a more comprehensive manner all the outcomes deriving from agriculture which benefit society. ESBs may be considered at the crossroad between the public goods and ecosystem services concepts, since they may include social and cultural outcomes derived by farming, but also ecosystem services with public goods characteristics [6,7]. While most of the analysis on public goods associated with farming focuses on the efficiency and effectiveness of specific types of interventions (e.g., Common Agricultural Policy measures such as greening or rural development measures), this paper aims at exploring the role of policy mixes in stimulating the provision of ESBs associated with farming.

To date there are only few attempts of exploring the role of policy mix for public goods in farming, and the discussion on best policy mixes and coordination amongst actors is still quite controversial and hard to manage [8,9].

The paper addresses three main objectives: (i) identifying which categories of policy tools might be combined at different administrative levels in a joint manner, in order to improve the provision of ESBs associated with farming, and which types of relations emerge among them (conflicts or complementarity). To do so, specific policy mixes recently adopted in different European contexts are examined (Section 4.1); (ii) highlighting how different policy mixes may foster innovative solutions for the provision of ESBs through market mechanisms or new governance arrangements (NGAs) by involving the coordination of activities between multiple actors, as is explored in Section 4.2; (iii) providing some insights on the policy implications with regard to the next reform of the Common Agricultural Policy for the post-2020 period (Section 4.3).

The analysis is based on a set of hypotheses developed in the theoretical framework and on information drawn from six case studies across Europe, carried out in the context of EU funded PEGASUS Research Project. Although the case studies analyzed in this paper do not necessarily represent the full range of ESBs provided by agriculture and forestry in the EU or in the different countries, they provide a preliminary exploration of the potential role of policy mixes in a broad range of farming systems across the EU. From this perspective, it should be noticed that in the field of agriculture and rural development the current debate on the post-2020 Common Agricultural Policy (CAP) is strongly focused on the capacity of member states and regions to combine the policy tools available in their different historical, cultural and geographical contexts. National and regional governments are required to design strategic plans based on objectives and proposed actions against a needs-based assessment of their rural areas, which are expected to involve a mix of policy tools (e.g., a combination of policy instruments of both CAP pillars).

2. Theoretical Framework

The concept of ‘policy mix’ initially emerged in the economic policy literature, mainly in studies carried out in the 1960s that were looking at the relationship and interaction between fiscal and monetary policy [10]. While in this first phase the concept remained confined to these economic policy debates, since the early 1990s it has gained increasing attention by other public policy areas. Amongst the most significant applications of the concept, it is worth mentioning air pollution and climate policies [11], emission control instruments [12], forest programs [13], innovation policies [14,15] and biodiversity policies [16].

In terms of definitions, it is necessary to clarify the distinctions between ‘instrument mixes’ and ‘policy mixes’ [9]. While an ‘instrument mix’ may be defined as a combination of instruments which is related to a single policy frame, a policy mix may be identified with a combination of instruments relating to more than one policy context [17]. At the same time, as argued by Howlett and Rayner [13], a policy mix involves some “attempt to create or to reconstruct a policy domain with coherent policy goals and a consistent set of policy instruments that support each other in the achievement of the goals”.

For such reasons, the added value of policy mix analysis is going beyond the effectiveness of single instruments or single strategies: since all instruments have strengths and weaknesses, the superiority of policy mixes derives from the capacity of building on the strengths of individual instruments, as well as compensating for their weaknesses through additional or complementary instruments. Some categorizations of the instruments composing the mixes have been also suggested. Gunningham and Young [18], for example, identified three main categories: (i) regulatory instruments, which directly control or restrict environmental harmful activities (e.g., permits, standard setting, zoning or planning); (ii) economic instruments, including those internalizing negative externalities (e.g., taxes, charges and fees) and payments for environmental services and support addressing positive externalities (e.g., PES-payments for ecosystem services, agri-environmental schemes); (iii) informational and motivational instruments, aimed at shifting individual or community preferences (e.g., information campaigns).

However, there are still many unresolved questions and challenges regarding the analysis of policy mixes, including a lack of appropriate frameworks for the analysis and the design of instruments, especially when such instruments belong to different territorial/administrative levels [19,20].

In the literature, several frameworks for policy mix analysis have emerged, the aim for which was not usually to identify the most effective or most efficient instrument compared to another, but to identify the relationships or interaction between policy instruments [11,21–23]. As regards the interaction between the policy instruments composing the policy mixes, Gunningham and Sinclair [24] identified four different combinations amongst instruments belonging to different categories: (i) inherently complementary: instruments are used together and they enhance each other's effect; (ii) counterproductive: one instrument conflicts with or dilutes the effect of another instrument; (iii) complementary if sequenced: instruments show complementarity and reinforce each other when introduced one after the other; (iv) context-specific complementarity: outcomes depend largely on the particular context, including the prevailing political and cultural environment.

Some authors [13,25] put a strong emphasis on factors influencing the nature of these interactions, especially on “new governance arrangements” (NGAs) which are set up with the aim of mixing policy instruments according to precise strategies and policy goals. NGAs imply “... to integrate existing, and sometimes competing, policy initiatives into a cohesive strategy; to coordinate the activities of multiple agencies and actors; and generally, to substitute a holistic approach to a problem for one that has decomposed policy into a set of multiple and apparently unrelated problems and solutions” [13].

Another important challenge regarding policy mixes relates to their evaluation, since in many cases evaluating the entire policy mix could be complex or even impossible, since the counterfactual is often lacking [9], but also because policy mixes often consist of layering of policies over time [26].

Finally, a very relevant issue is related to the fact that policy design and policy mixes can depend on the context [27]. In this regard, it may be argued that the analysis of policy mix requires not only a detailed analysis of tools and their interaction, but also an analysis of the institutional and socio-economic contexts where policy mixes operate [28].

The main purpose of this article is not to assess the impact of existing policy mixes, but to demonstrate how policy mixes can be articulated in different territorial settings (based on a case study approach) and which governance arrangements and market instruments can improve the provision of environmental and social benefits. The general approach implies adapting the conceptual frameworks developed for policy mixes in other fields for the provision of environmental and social benefits (ESBs) associated with agro-ecosystems, by categorizing the most relevant policy instruments and by providing evidence of specific instruments interactions, on the basis of selected case studies. In this research we assumed three main hypotheses.

The first one is that the successful provision of ESBs strongly depend on whether and how different domains and stakeholders at different tiers interact over time in an agricultural context and/or broader rural territories. Indeed, in a given territorial system (region, socio-economic district, natural area, etc.), we can always find different policies, directly or indirectly contributing to the

provision of ESBIs. Policy instruments are designed in different domains (EU Common Agricultural Policy, regional development policy, environmental policy, spatial policy, etc.) and implemented at different tiers (European, national, regional, local). They can influence the use of natural resources both in agricultural domain (sectoral policies) and in the broader territorial context (rural area via regional development and/or spatial policies). Moreover, different policies may differently affect farmers: through the setting of regulatory rules or standards requiring compliance or through economic incentives aimed at fostering more sustainable practices.

The second hypothesis is that the study of NGAs that stakeholders can put in place to exploit the potentiality of policy instruments is crucial in influencing the implementation and the policy results, since different actors may have different visions and strategies about sustainability of agriculture in regional and local contexts. Interplays between policy instruments can be either positive or negative, in relation to the role played by the other variables indicated by the theoretical model in Figure 1: when institutional stakeholders work in a coordinate way and/or local actors mobilize themselves in some form of collective actions, then policy instruments can be implemented in order to pursue joint and coherent objectives. In this case, NGAs may directly promote complementary relations between different policy instruments (arrow A in the figure). However, there is also the possibility that NGAs indirectly promote the complementary use of policy instruments, via market mechanisms such as premium prizes, labelling and quality certification of agri-food products, etc. These market mechanisms would not be possible without cooperation and collaboration of local actors, who set up the necessary organization to manage the market over time. In this case, the new governance arrangements do not only promote the coherent use of policies but also reinforce the effects of policies through a proper use of the market (arrow B in the figure).

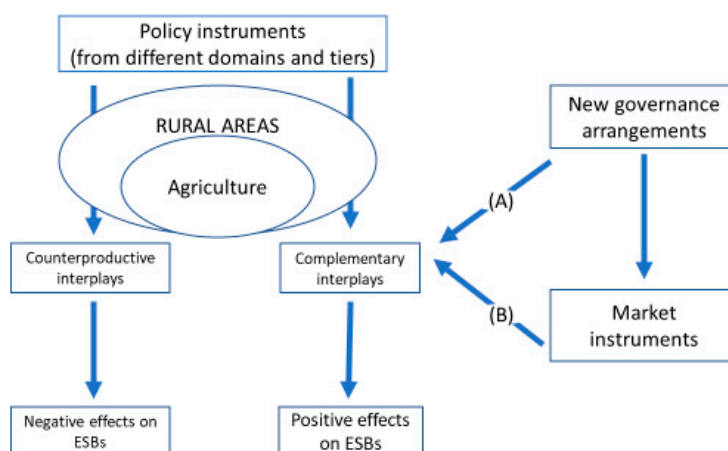


Figure 1. Theoretical framework. Source: authors' elaboration.

Finally, the analysis also includes negative interplays between policies, namely when policies pursue conflicting objectives or when stakeholders have conflicting visions and strategies about the exploiting of natural resources in rural areas so that they are unable to put in place adequate governance arrangements to mediate and manage these conflicts over time.

3. Methodology

For the purpose of this paper a three steps methodology was adopted. The first step was a review of socio-political, economic and institutional drivers which influence the provision of ESBIs in ten EU member states, on the basis of 34 case studies [29]. The selection criteria for the case studies were designed to obtain a good balance and representativeness of the variety of agriculture and forestry situations in the EU. Particular attention was paid to innovative initiatives and mechanisms going beyond current mainstream policy. This analysis was aimed at preparing an inventory of the most relevant policy instruments that play a major role for the provision of ESBIs in each case study.

Data were collected, by following a common methodology, at the national level through semi-structured interviews with relevant stakeholders (mainly policy makers and policy advisors in each country or region) in the ten countries [30].

This general overview was then integrated with the second step of the research, which was based on a more in-depth investigation of the main drivers and motivations as well as the conditions for the enhanced provision of ESBs in selected contexts [31]. A more in-depth analysis of the policy mix was carried out only for six case studies. These cases were selected on the basis of the relevance of policies in delivering environmental and social benefits, as well as for covering different combinations of the policy instruments composing the policy mixes. The most important sources of information in most cases were semi-structured interviews with experts and stakeholders, results from workshops and/or focus groups, and analysis of official statistics and other relevant secondary sources (e.g., scientific studies, policy documents, media and other reporting, etc.). A relevant part of the analysis involved the inter-relations between different system components (e.g., actors, governance regimes, policy instruments uptake, main changes of ESBs over time).

The third step was specifically developed for the purpose of this paper, since additional evidence was collected on interactions of different instruments through specific questionnaires addressed to the authors of the six selected case studies.

In Table 1 the key features of the six case studies selected for the analysis of policy mixes are synthesized: each related reference (last column) includes a dedicated section listing all data sources and methods used for data collection, which were mainly semi-structured interviews with local experts as well as workshops and focus groups with local stakeholders.

Table 1. Key features of the case studies. Source: our elaborations from case study reports.

Case Study	Short Description	Key ESBs	References
AT—Organic farming label in the mountain Murau region	Focus is on a joint quality certification and marketing initiative for organic mountain haymilk, which is considered the highest premium milk product in the country.	Species and habitats, landscape characteristics and cultural heritage	[32]
NL—Payment for grazing systems in dairy production	Meadow farm milk: milk produced by grazing cattle, which has specific production techniques and final characteristics, different from in-house production systems.	Landscape character and cultural heritage, species and habitats, animal welfare, soil functionality, soil protection	[33]
CZ—Birds and amphibians support on wet meadows	Project aiming at creating appropriate conditions for the return of wetland birds and amphibians in the floodplain of the river Metuje	Species and habitats, educational activities, landscape character and cultural heritage	[34]
IT1—Processed tomato supply chain in Northern Italy	Supply chain actors cooperating to combine environmental sustainability with competitive advantages	Water quality, water availability, soil functionality, soil protection, climate mitigation	[35]
IT2—Bergamot, niche and organic products in Calabria	Value chain re-organization of bergamot (a highly specific species of citrus cultivation) in Reggio Calabria Province	Water and soil conservation, landscape and rural vitality	[36]
PT—Small scale farming and peri-urban mosaic in Montemor-o-Novo	Small-scale farming and traditional farm high quality products marketed via short supply chains, and rural vitality, in a municipality in central Alentejo.	Rural vitality, food security	[37]

The first two cases (AT and NL) have in common the support of the dairy sector in two specialized areas, with the objectives of supporting organic haymilk productions (AT) and the maintenance of the pasture grazing system (NL).

The Dutch grazing system is considered as having positive impacts on the landscape [33]: tourists and residents appreciated a rural landscape with cows more than an 'empty' landscape whereby the dairy cattle is kept indoors. At the same time, outdoor grazing is also beneficial for animal health and for keeping mineral resources highly balanced and diversified in the soil. In the mountain district of Murau, in Austria, the organic haymilk production is part of a private quality certification and marketing initiative called "Zurück zum Ursprung" (ZZU) [32]. Haymilk production is considered a type of farming where dried grass represents the main fodder base for dairy cows and substitutes for silage.

The organic mountain ZZU haymilk scheme is based on more stringent standards than organic regulation, and it involves the whole fresh milk supply chain, since milk is processed by a local dairy and it is distributed by one of the largest Austrian retailers, which also holds the intellectual property rights of the ZZU brand. Since organic hay farming is generally more extensive than conventional silage-based milk production, there are positive effects on biodiversity due to the use of the appropriate mowing regime but also to the non-use of mineral fertilizers and of silage.

The Czech case study (CZ) is quite close to the previous ones, but not so linked to a specific agricultural value chain. The case is in the north-eastern part of the Czech Republic (Hradec Kralove region) and focuses on the sustainable management of 70 hectares of meadows to produce hay for different purposes (horse keepers, zoological gardens, some beef producers). Key initiatives in this context were the restoration of the previously abandoned irrigation system in order to raise the ground water level, the creation of small pools/ponds and the setting of formal agreements with farmers on the timing of hay cut. These new practices were highly beneficial for biodiversity, educational activities and traditional landscape: the number of target species (waders and amphibians) increased significantly [34].

The Italian cases (IT1 and IT2) are two examples of typical Mediterranean value chains. The first one (the processed tomato in Northern Italy) focuses on integrated production and new technologies in water saving in the processed tomato production [35,36]. This case study focuses on 14,000 hectares under tomato (nearly 40% of the whole supply chain in North Italy) in Emilia-Romagna. In this area, specific guidelines have been introduced since the early 1990s to minimize chemicals and optimize fertilization. As a result, pesticides were reduced by 20–30%, as well as damage to human health (of producers, first of all), due to a reduced use of high and medium acute and chronic toxic products [38]. Furthermore, official evaluation shows fertilizers were reduced by 30–45% as regards macro-elements (nitrogen N, phosphorous P, potassium K), and consequently, minor releases were recorded in groundwater (–40% for nitrogen, –60% for phosphorous). As for water saving methods, recent studies confirmed that innovative irrigation methods brought about water saving of at least 10% and yield increase of more than 8.5% [38].

The second Italian case refers to the bergamot supply chain, a citrus cultivation, in the most coastal part of the province of Reggio Calabria, where the territory has been devastated by urbanization and hydro-geological erosion of land. Growing bergamot is a way to conserve and consequently also improve the image and identity of the area, biodiversity and rural employment levels and quality of life. The typical landscape of the area is shaped by the presence of bergamot, which is highly appreciated by tourists whose presence has increased since the second half of the 1990s. The positive effects of a bergamot chain on ESBs were supported by the setting up of two consortia, which ensured more convenient contractual arrangements with the main buyers. Such arrangements ensured the stabilization of annual market prices of the bergamot essence, leading to positive indirect effects on farm incomes due to the maintenance and growth of the bergamot area and, consequently, to the landscape conservation [39]. Moreover, they positively affected farm employment in the local industry of essential oil and in tourism.

Finally, the Portuguese case (PT) focuses on the municipality of Montemor-o-Novo, in central Alentejo, a peri-urban area in the surroundings of the main town, where the landscape is a characteristic small-scale mosaic of farm units below the size of 5 ha [37]. The proximity of Lisbon and the town of Montemor affects the potential of this area: the presence of small-scale farms, attracting newcomers and retaining the new generations of families from the area, together with the proximity to the town of Montemor, has positively shaped the vitality of the rural community. At the same time, over years, a consistent reduction of the number of small farm units was observed, with the consequence of endangering this highly valued landscape mosaic.

4. Results

4.1. The Analysis of Policy Mixes

The general overview of the 34 case studies allowed an exploration of the broad range of policy instruments which can be adopted in different socio-economic context across Europe to stimulate the provision of ESBs. The identified instruments were then grouped in five categories: CAP I pillar, CAP II pillar, EU cohesion and social policies, national policies and local policies (Table 2).

Table 2. Categories and types of policy instruments analyzed.

Category	Main Policy Instruments	Effects
CAP I pillar	Direct payments, special and coupled support	Indirect
	Common market organization (CMO)	Indirect
CAP II pillar	Agri-environment-climate measures (AECM); less favored area (LFA) payments; organic farming; natural constraints payments; non-productive investments; Natura 2000; forestry	Direct
	Productive investments (farming and agro-industry); diversification; tourism; quality; LEADER; cooperation	Indirect
	Advice, information and training	Indirect
EU cohesion and social policies	Structural funds, projects with environmental focus	Direct
	Structural funds, projects with social capital focus	Direct
	Structural funds, projects with territorial capital focus	Indirect
National policies	Support for organic/extensive agriculture; countryside conservation; biodiversity strategies; sustainable forest management; support for mountain and LFA	Direct
	Support for mountain and less favored areas	Direct
	Advice and innovation instruments	Indirect
Local policies	Water management rules; forest management rules; local regulations on landscape and biodiversity conservation	Direct
	Marketing and information action; support for short supply chain	Direct
	Spatial planning	Indirect

Source: authors' elaboration on case studies reports.

European environmental policies, which are also relevant in the context of EU policy instruments aimed at ESBs, were excluded since they are strongly embodied in national and regional policies. Thus, to avoid confusion and double counting, we omitted them as a general category, to include

related instruments in “national policies” and in “local policies”. Table 2 also shows the main policy instruments considered for each category. Once identified, the most frequent and relevant policy instruments in the whole sample (34 cases) were surveyed more in depth through specific questions to local stakeholders and experts, in order to understand their role in affecting ESBs, the existence of synergy/conflicts and the perception of likely impact over time.

As can be observed in Table 3, policy mixes activated in the six cases under study involve different categories of policies and policy tools. Although the CAP was recognized by interviewees as one of the most important ones, in all cases (with the exception of AT1) the provision ESBs is influenced by the combination of CAP instruments with national and local policies. In the case of CZ, the policy mix is structured in a more complex way, as a set of environmental instruments deriving from three kinds of policy categories: the voluntary agri-environmental support of CAP second pillar, combined with EU structural funds and a national regulation. In all the other cases the provision of ESBs is determined by a mix of policies of a different nature, where the environmental tools are combined with other policies focused on market support, advice and training, as well as on social and spatial planning issues. This highlights how the provision of public goods and ecosystem services associated with farming depends upon a complex mix of public policies that reflect the multidimensional nature of such ESBs.

Table 3. The composition of policy mixes in the six case studies.

Case Study	Categories/Typologies	Policy Instruments
AT1—Organic farming label in the mountain Murau region	CAP II pillar	Agri-environment-climate measures (AECM), organic farming, areas under natural constraints scheme
	CAP II pillar	Extension services support scheme
	CAP II pillar	AECM
CZ—Birds and amphibians support on wet meadows	EU cohesion and social policies	Structural funds, projects with environmental focus
	National policies	National water law (rules for design of water management regime)
IT1—Processed tomato supply chain in Northern Italy	CAP I pillar	Operational programs of producers’ organizations and, in a second phase, CMO reform introducing inter-branch organization
	Local policies	Regional standards policy for integrated production
IT2—Bergamot, niche and organic products in Calabria	CAP II pillar	Farm investments
	CAP II pillar	AECM
	Local policies	Regional legislation and financial support to the setting up of a producers’ consortium
NL—Payment for grazing systems in dairy production	CAP I pillar	Direct payments
	CAP I pillar	Abolishment of milk quota
	National policies	National scheme (premium for outdoor-grazing)
PT—Small scale farming and peri-urban mosaic in Montemor-o-Novo	CAP I pillar	Direct payments
	Local policies	Spatial planning at local level

Source: authors’ elaboration on case studies reports.

In order to categorize the possible interactions, the typology proposed by Gunningham and Sinclair [22] was taken into account, with some adaptations. Interactions are categorized in three

main typologies: (a) complementary (in the same period of time); (b) complementary if sequenced (in different period of time); (c) counterproductive. Moreover, interactions can take place in two different domains: agriculture/agri-food system or the broader rural context. These different domains are strictly related to the sectoral scope of policies used and also to the capacity of actors and stakeholders to engage themselves in domains lying beyond the agricultural sector (Table 4).

Table 4. Types and domain of interaction in the six case studies.

Type of Interaction	Interaction Domain	
	Mainly Agricultural Sector	Broader Rural Policy
Complementarity	AT—Organic farming in Murau region NL—Payment for grazing systems in dairy production	CZ—Birds and amphibians support on wet meadows
Complementarity if sequenced	IT1—Processed tomato supply chain in Northern Italy	IT2—Bergamot organic product in Calabria
Counterproductive	-	PT—Small scale farming and peri-urban mosaic in Montemor-o-Novo

Source: authors' elaboration on case studies reports.

With regard to the first domain, a policy mix characterized by complementary tools was observed in AT and NL cases. In particular, the AT case shows a strong integration between different RDP instruments (AECM, organic farming, areas under natural constraints scheme, extension services support), which has been crucial to make the extensive agriculture in Austrian mountain area more economically viable. Nigman et al. [32] calculated that, on average, haymilk organic mountain farms were beneficiaries both from I and II pillar. The amount received from II pillar was €15,157, of which 8835 was from AECM and 5614 from the Area of Natural Constraint scheme. Among the AECM, organic farming measures are quite relevant, alongside abandonment of silage and animal protection. The interviewed experts agreed that without public support mountain agriculture would not be viable, putting at risk the alpine landscape and biodiversity. This mix of schemes means that 37% of all mountain farms in the district are managed organically, which is far above the national average of 24%.

In the Netherlands, complementarity was observed between CAP I pillar and a national scheme. The national premium for outdoor grazing secured a fair price to farmers for grazing, but it also improved the quality and taste of the cheese as well as increasing animal welfare. While the economic viability of many farmers is ensured by a high level of direct payments, the national legislation on grazing could be considered a sort of new system that limits milk production, improves quality and environmental sustainability and, to some extent, replaces the milk quota regime [33]. Here, the contribution of the policy mix in supporting ESBs is still relevant, but farms are less dependent on CAP support than other areas: pillar I payments for dairy farms with pasture grazing account, on average, for €12,000 per farm, which is smaller than the average of all dairy farms in the Netherlands (€15,800 per farm). CAP pillar II payments for dairy farms with outdoor-grazing are €4000 per farm on average, which is significantly below the average payments received by of all dairy farms in the Netherlands (€7500 per farm).

As regards as the second domain (the broader rural area), the case on birds and amphibians support on wet meadows in Czech Republic (CZ) is an interesting example of complementarity amongst different policies such as CAP, EU Structural funds and a national scheme. In this case the national water law was crucial in setting the management rules and in providing institutional setting to agree on water use for different users, and especially rules governing how the meadows are saturated by water to create wetland. This can be considered a sort of pre-condition for meaningful investments to the renovation of old (and quite unique and valuable from the cultural point of view) irrigation systems, enabling to bring water back to original wetland. This was crucial for the creation of small pools for waders and amphibians. Operational programme for Environment (EU Social and Cohesion

policy) was a key support to biodiversity provision, water retention, and facilities for visitors. On the CAP side, AECM ensured the use of such facilities by supporting extensive grassland management, otherwise endangered by land abandonment.

The processed tomato supply chain in Northern Italy (IT1) shows a case of complementarity between policy tools if implemented in a sequenced way. After the 2007 CAP reform, incentives were decoupled and linked to effective sales of tomato from recognized producer organizations (POs). Since 2015, tomato processing has been able to benefit again from coupled payments, but much less than in the previous programming periods, since the entry into force of the convergence mechanism, which envisaged that direct payments had to converge to a national unitary value. In conclusion, during the first decade of the 2000s, CAP subsidies under the 1st pillar were substantially reduced, and they were not compensated by any other form of CAP or regional support. This implied the transition towards a local governance model, relying on cooperation between farmers and processing firms in the inter-branch organization (IO), which became mandatory after the common market organization (CMO) reform. This also forced the processing industries and primary producers of the tomato sector to set up a strategy more oriented to cost-reduction, sustainability and quality. Public support was implemented in different phases: in a first phase it was regulatory; then, in a second phase it was financially implemented through the AEMs and integrated production of the CMO and rural development programs; and finally, it was conveyed through specific research programs and technical regional advisory structures [35,38].

The Italian bergamot area (IT2) is another case of complementarity between policy tools if implemented in a sequenced way. In order to improve the producers' bargaining power within the value chain, a producers' consortium was created by the state (in a typically top-down manner) and then confirmed by the regional administration once the legislative power on agriculture was transferred to regions (early 1970s). The consortium was initially driven by the state, and in a second phase, it was managed by a producers' association, and this was a turning point in the local policy targeted to bergamot [39]. This new governance arrangement was supported by public policies in a sequenced way: in a first phase the regional Department of Agriculture covered the consortium's overheads and promotional activities, while in a second phase (in the period 2007–2013) promoted private investments through specific regional law (aiming to renovate old bergamot plants and the processing machinery of bergamot industry). This contributed to an increase of the bergamot area, alongside the stabilization of the market price of bergamot oil.

The last case (PT) can be considered one of counterproductive policy mix, characterized by two conflicting policies: the I pillar of CAP and the spatial planning at the local level. The CAP support gives priority to large-scale and specialized farming, promoting competitiveness and positioning in the global market [37]. Small farms do not benefit from the CAP because they often do not meet criteria for investment support, and transaction costs are too high for them as in the case of organic or integrated farming, which suffer from the certification costs, not sufficiently covered by subsidies provided by rural development measures. On the opposite side, small-scale mosaic farming is maintained and somehow protected by spatial planning. The national legislation, implemented through local plans, envisages that farm structures below 7.5 ha cannot be further subdivided. Further, municipal plans set strong limitations on the non-agricultural use of the land, and this contributes to maintaining the small-scale mosaic system.

4.2. The Relations of Policy Mixes with Market Instruments and New Governance Arrangements

Policy mix cannot be considered as the only factor stimulating the provision of ESBs, since it must be analyzed in conjunction with the market mechanisms and new governance arrangements (NGAs) set up in each area by local actors and stakeholders (Table 5) [13,40].

Table 5. Relations between policy mixes and components of sustainable strategies at local level.

Policy Mix Interaction	Sustainable Strategies at Local Level	
	Governance Arrangements	Market Instruments
Complementarity in agriculture (AT; NL; IT1)	Stronger connection/cooperation along the value chains	Labelling (organic production and environmental standards in the food chain)
	Formalized and shared set of rules within the supply chain	Premium price mechanisms
Complementarity in the broader rural policy (CZ; IT2)	Broad rural networks including actors from rural and urban society	Searching for new and direct relations with national/export markets
	Local partnerships based on NGO, communities, local volunteers, etc.	Strengthening local markets
	Small consortia driven by pro-active small farmers	In some cases, difficult valorization through markets (need of public support)
Counterproductive (PT)	Informal networks and associations of small farmers	Alternative short supply chains, directly linked with urban consumers
	Citizens' networks	Public procurement

Source: authors' elaboration on case studies reports.

Market mechanisms contribute in two ways: they usually reinforce the action of public policies addressing ESBs and they can make more sustainable the provision of ESBs for public finance, and in the long run, they could also make such provision completely independent from policies. In this study, three prevalent types of market instruments to support the provision of ESBs were identified: (i) premium price payments; (ii) labelling and certification of some sustainable production (organic, environmental certifications, etc.); (iii) new and alternative market channels. Such strategies are often pursued in a joint manner, in order to maximize the result both for private operators and for the society as a whole. The six case studies analyzed here suggest that NGAs are necessary to design and manage both the most appropriate mix of policies and also market instruments at local level. The cases also show that the ways in which policies can be combined and adapted at regional and sub-regional level are strongly affected by local actors and stakeholders' strategies [41].

In greater detail, the cases of policy complementarity in agricultural domain (AT, NL and IT1) are characterized by a well consolidated governance of related value chains: the main actors cooperate with the aim of improving competitiveness and sustainability of productive processes. This is true both for the primary production and for the processed final product (tomato in North Italy, milk in Austrian mountain Murau, cheese in Dutch area). In this regard, cooperation between farmers and processing industries is a key strategy to reach environmental standards:

- The ZZU brand organization in the Austrian case sets more stringent requirements than organic regulations (including, e.g., silage-free forage, the almost self-production of roughage, the totally organic feed from Austrian origin, the prohibition of soya bean feeding, a minimum of 180 days of access to open runs combined with a minimum of 120 days of pasture grazing).
- In the tomato food-chain (IT), governed by the inter-branch organization (IO), the integrated production is complemented by other environmental certification based on water footprint and techniques saving water at the processors' level.
- In the grazing dairy system (NL), the greatest part of members of the CONO kaasmakers' cooperative of the province of North Holland have adopted outdoor grazing for about 190 days (while minimum is 120 days, at least 6 h a day), and in other areas this practice falls to 137 days.

In this group of cases, higher environmental standards are supported by both an adequate policy mix and market instruments managed by efficient private governance structures. These key actors are private bodies that (a) govern the vertical and horizontal value chain actors; (b) define a formalized set of rules and control compliance with environmental standards for organic or other labels; (c) manage the premium price mechanisms by compensating producers for high production standards; (d) establish direct relations with the retail chain in order to valorize the environmental and safety quality linked to food production (this is particularly true for the organic haymilk brand ZZU in the Murau region and for some private labels in the Italian tomato area). In these contexts, policy mixes are driven and delivered by these key actors as a complement to market mechanisms (premium prices and labelling/certification schemes) to maintain viable incomes for agricultural producers and competitiveness for the whole agri-food industry. Some criticism, however, has been raised on real policy needs in order to avoid overcompensation and not leave other agricultural areas behind [32].

The second group includes three cases of complementarity in the broader rural context (CZ and IT2). These kinds of areas are marginal in terms of agricultural resources, with small-scale supply chains and weak sectoral governance. For these structural reasons, NGAs must encompass broad rural networks, beyond the food value chains, to include actors from rural and urban society, NGOs, local communities, volunteers, etc., as in the case of wet meadows in Czech Republic (CZ). Networks/consortia of small farmers with diversified activities in non-agricultural sectors (e.g., tourism), and usually with little bargaining power in the traditional value chain, can be very relevant actors in setting up alternative supply chains, as in the bergamot study area in Calabria. This second group adopts quite different policy mixes when compared with the first group: rural development measures (AECM and farm investments) are combined either with structural funds addressed to territorial and social capital (e.g., rural and environmental small infrastructures) or with regional/local policies supporting the improvement of local governance. ESB provision in these areas is more dependent on policies of different domains and also on the presence of some relevant innovators (either in a rural-urban context or in small groups of farmers), who are able to introduce new forms of market valorization of traditional landscape and cultural heritage.

The third group is represented by just one case, the Portuguese Montemor-o-Novo, but this represents a quite common situation in the enlarged EU rural context: Montemor-o-novo is an area of small-scale mosaic farming, mostly excluded from CAP support, which is able to resist only thanks to regional/local policies. This is quite usual in many peri-urban areas, where the competition for the use of land is very strong and agriculture alone is unable to face external pressures without the support of conservative land policies at local level [37]. Counterproductive policies can be compensated by new a form of pro-active rural partnership, where the alliance between small farmers and urban consumers is a crucial factor to maintain viable and multi-functional forms of agriculture.

4.3. Policy Implications

This study provides some insights on several policy implications which are strongly relevant in the light of the new proposal of CAP reform post 2020 [42]. This is for three main reasons: (a) the increased importance of the ESBs provision attributed to agricultural sector; (b) the importance of interactions and synergies among policies in the future CAP strategic plan; (c) the future relations between CAP and cohesion policies, which were so relevant in some cases to establish and consolidate ESBs provision.

The increased importance of ESBs provision is strengthened in the new set of CAP objectives. Among nine specific objectives, three are focused on environmental issues: (a) to contribute to climate change mitigation and adaptation, as well as sustainable energy; (b) to foster sustainable development and efficient management of natural resources such as water, soil and air; (c) to contribute to the protection of biodiversity, enhance ecosystem services and preserve habitats and landscapes. There is an increased ambition both in terms of methods and in terms of policy mixes. The proposal for the new regulation, in fact, states firstly the importance of following environmental climate targets;

second, using all the possibilities of the environmental climate architecture (enhanced conditionality, eco-schemes, management commitments, etc.); third, considering other relevant interventions (AKIS, advice, sectoral interventions, training); and, finally, taking into account other relevant elements of the strategy (e.g., interaction with national schemes). These provisions go in the direction of valorizing all possible synergies between different policy instruments and avoiding conflicts and counterproductive effects.

Positive policy interactions should be stimulated by the “new delivery model” embodied within the CAP strategic plan, whose main aim is encompassing all policy instruments in just one tool basket to raise possible coordinate actions in favor of the different objectives. Critical issues have been raised in the recent literature [43–46] on the most appropriate governance approach and on the related intervention level. The new regulations states that only one CAP strategic plan will be developed in each member state. This is sharply against a decentralized approach coping with the specificities and peculiar needs of heterogeneous rural areas in the EU.

This study allows the role of the local level to be emphasized, maybe a sort of meso-level between the micro (the farm) and macro (the state/regional administration), in combining effectively the most appropriate instruments that should be targeted to local needs and environmental resources. The proposal of EU regulation on CAP reform and strategic planning, instead, seems to give more importance to the central role of the government in order to coordinate the different policies within the CAP. Nothing can be said about local governance (the meso level), which is left to the decisions of each member state.

For many member states, adopting a strategic plan can be considered an opportunity to rationalize a policy whose effects are contradictory. This lack of coherence is particularly stark in the contrast between pillar I (direct payments) and pillar II (rural development policy). While certain pillar II measures encourage a change of practices (e.g., AECM) and the adoption of a more rational and cooperative approach at meso-level, this contrasts with pillar I basic payments, which support the status quo (though convergence and redistributive payment have very slowly mitigated this tendency) and can be managed directly at national level by paying agencies [43]. This is the most critical challenge of the reform, evident in all case studies analyzed here, where there were none with NGAs capable of introducing innovation in integration of the two CAP pillars.

The third implication of the post-2020 CAP reform concerns the relations between CAP and cohesion policies, which can be considered relevant in some areas as an appropriate mix of policies for the provision of ESBIs. Unfortunately, the proposal of a common framework at national level, different from the partnership agreement in the period 2014–2020, does not seem to include CAP funds (EAGF - European Agricultural Guarantee Fund and EAFRD - European Agricultural Fund for Rural Development - EAFRD)) in the future, limiting in this way opportunities for synergies and coordination between agriculture, rural development and cohesion funds.

5. Conclusions

The article shows that the role of policy mixes in providing ESBIs associated with farming is a complex matter, since different types of policies may have overlapping and contrasting effects.

The main limitations of this analysis are fundamentally of two types: (a) first, working only on six cases cannot not give a full representation of the different possible combinations of policies which local actors and NGAs can arrange to provide ESBIs. There are, in the European panorama, other policy mixes that we did not take into account and which can represent a fertile field of work for future research and pan-European comparisons; (b) policy mixes as we have presented through six case studies are the outcome of dynamic and continuous choices taken by local stakeholders over time and also of policy changes deriving from EU reform of CAP. This implies that policy mixes are always a dynamic concept. This is a big challenge for research on policy impact, since it implies more in-depth analysis and methods than those that were available in our research project.

At the same time, the in-depth analysis of six case studies shows that solutions combining different policy instruments at local level may ensure an effective and well-coordinated public intervention for ESBs provision. Furthermore, the relevant policy mixes may vary according to the different socio-institutional contexts as well as the type of environmental or social benefits targeted. Among the different policy instruments, regulatory frameworks represent powerful tools to provide ESBs, even at local level. At the same time the adoption of NGAs can make a substantial difference in final outcomes.

The initial theoretical framework resulted in being somewhat valid, but the evidence collected allowed several notable specifications to be added (Figure 2). Complementary interplays among policy instruments can be promoted by two relevant factors: (a) a strategic perspective by local stakeholders who deliberately choose to explore policy mixes in a sustainable frame and undertake a process of design, monitoring and updating existing policies to this aim; (b) a shared consensus among stakeholders to coordinate their actions and a common platform of discussion allowing a sort of “learning organization” as a way to deal with problems and constraints step by step [25]. These two factors are mutually relevant in the setting up of new governance arrangements at local level: we have gathered evidence of new organizations in the agricultural field, as in the Austrian ZZU brand organization, the inter-branch organization (IO) of the tomato food chain and the CONO Kaasmakers cooperative of the province of North Holland. However, new arrangements have been crucial as well in the broader rural context, as in the case of the wet meadows in Czech Republic (CZ) and the consortia of small farmers in the bergamot study area in Calabria.

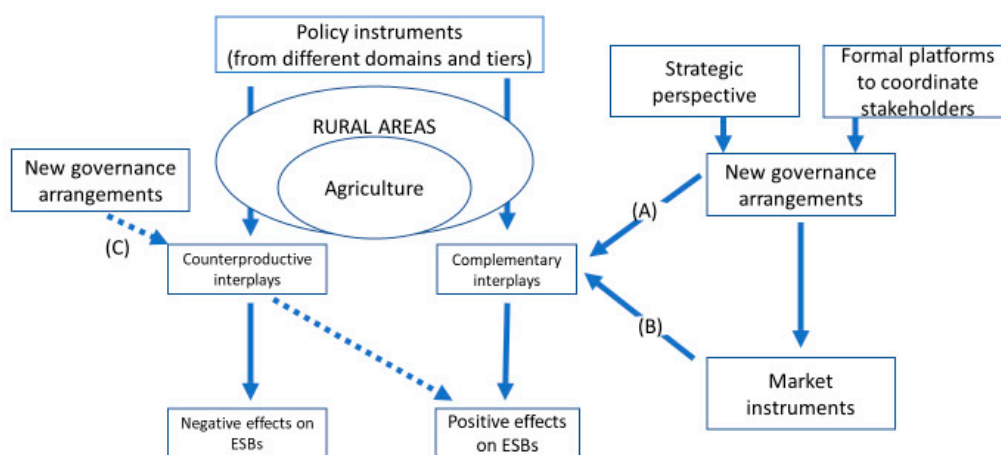


Figure 2. The revised theoretical framework. Source: authors’ elaboration.

Another notable result, with regard to original hypotheses, is that NGAs can mitigate the negative impact of conflicting policies in some case studies. The Portuguese case, for example, shows that alternative networks set up by organized groups of small farms and urban consumers might be a way to keep viable farm incomes in a peri-urban context, despite the lack of specific EU support to small farms. Municipal spatial planning rules prevent land parcels from being used for non-agricultural purposes (mainly urbanization) but cooperative strategies and common organizational platforms allow farming to survive and maintain original landscapes over time. It is this that mitigates the negative impact of conflicting policies (arrow C in Figure 2).

Finally, public policies are not the only instruments driving the provision of ESBs. A very important role is also played by market-based policy mechanisms, such as premium price payments, labelling/certification of sustainable production and finally searching successfully for new and alternative market channels. The effectiveness of both regulating public policies and market-based mechanisms is highly dependent on institutional and governance settings and on the different ways in which public and private actors cooperate in promoting and delivering public goods and services [47]. The efficiency of policies depends not only on the design and implementation phases of specific measures, but also on the capacity of public support in stimulating alternative (and innovative)

mechanisms of ESBs provision. Case studies show that policy mixes should further stimulate collective action, private schemes and other mixed public-private arrangements, in order to better involve the rural stakeholders in the definition and delivery of ESBs associated with farming and forestry.

Further analysis should provide more evidence not only on interactions between policy instruments, but also on complementarities and trade-offs between policy mixes and market-based policy mechanisms in the provision of ESBs in rural areas.

Author Contributions: The paper was conceived and designed jointly by the authors. Regarding the specific contributions of the authors: F.M. wrote Sections 1, 4.2, 4.3 and 5, while F.V. wrote Sections 2, 3 and 4.1.

Funding: This work was funded under the European Union’s Horizon 2020 research and innovation program PEGASUS “Public Ecosystem Goods and Services: Unlocking the Synergies” (Grant agreement No. 633814).

Acknowledgments: The paper is largely based on the case studies reports and on other outputs of the PEGASUS project. For more information, see the project website: <http://pegasus.ieep.eu/>. The case study descriptions included in this article are available online: <http://pegasus.ieep.eu/case-studies/introduction>.

Conflicts of Interest: The authors declare no conflicts of interest. The study has been conducted purely as part of a research program and has no commercial or other private interests.

References

- Cooper, T.; Hart, K.; Baldock, D. *Provision of Public Goods through Agriculture in the European Union*; Institute for European Environmental Policy: London, UK, 2009.
- Novo, P.; Slee, B.; Byg, A.; Creaney, R.; Faccioli, M. Conceptual paper on the ‘unpacked’ notion of public goods. In *Provide—Providing Smart Delivery of Public Goods by EU Agriculture and Forestry Deliverable*; 2015; Volume 2, Available online: http://www.provide-project.eu/documents/2016/10/d2-2_conceptual-paper-on-the-unpacked-notion-of-public-goods.pdf (accessed on 28 July 2019).
- Abler, D. Multifunctionality: The question of jointness: Applying the OECD framework: A Review of Literature in the United States. In *Proceedings of the OECD Workshop on Multifunctionality*, Paris, France, 2–3 July 2001.
- OECD. Multifunctionality in Agriculture. In *Evaluating the Degree of Jointness, Policy Implications*; OECD Publishing: Paris, France, 2008.
- Dwyer, J.; Berriet-Sollic, M.; Lataste, F.G.; Short, C.; Maréchal, A.; Hart, K. A Social-Ecological Systems Approach to Enhance Sustainable Farming and Forestry in the EU. *EuroChoices* **2018**, *17*, 4–10. [[CrossRef](#)]
- Dwyer, J.; Short, C.; Berriet-Sollic, M.; Gael-Lataste, F.; Pham, H.-V.; Affleck, M.; Courtney, P.; Déprès, C. *Public Goods and Ecosystem Services from Agriculture and Forestry—Towards a Holistic Approach: Review of Theories and Concepts Pegasus D1.1*; Institute for European Environmental Policy: London, UK, 2015.
- Maréchal, A.; Baldock, D.; Erjavec, E.; Juvančič, L.; Rac, I.; Dwyer, J.; Hart, K. Towards a Step Change for Enhanced Delivery of Environmental and Social Benefits from EU Farming and Forestry. *EuroChoices* **2018**, *17*, 11–15. [[CrossRef](#)]
- Uetake, T. Policy Mixes for the Provision of Agri-environmental Public Goods and Additionality: Some country experiences. In *Proceedings of the 88th Annual Conference, Agricultural Economics Society, AgroParisTech*, Paris, France, 9–11 April 2014.
- Bouma, J.A.; Verbraak, M.; Dietz, F.; Brouwer, R. Policy mix: Mess or merit? *J. Environ. Econ. Policy* **2019**, *8*, 32–47. [[CrossRef](#)]
- Flanagan, K.; Uyarra, E.; Laranja, M. *The ‘Policy Mix’ for Innovation: Rethinking Innovation Policy in a Multilevel, Multi-Actor Context*; Manchester Business School Working Paper 599 2010; Manchester Business School: Manchester, UK, 2011.
- Sorrell, S.; Sijm, J. Carbon trading in the policy mix. *Oxf. Rev. Econ. Policy* **2003**, *19*, 420–437. [[CrossRef](#)]
- Goulder, L.H.; Parry, I.W. Instrument choice in environmental policy. *Rev. Environ. Econ. Policy* **2008**, *2*, 152–174. [[CrossRef](#)]
- Howlett, M.; Rayner, J. Design Principles for Policy Mixes: Cohesion and Coherence in ‘New Governance Arrangements’. *Policy Soc.* **2007**, *26*, 1–18. [[CrossRef](#)]
- Rogge, K.S.; Reichardt, K. Policy mixes for sustainability transitions: An extended concept and framework for analysis. *Res. Policy* **2016**, *45*, 1620–1635. [[CrossRef](#)]

15. Kivimaa, P.; Kern, F. Creative destruction or mere niche support? Innovation policy mixes for sustainability transitions. *Res. Policy* **2016**, *45*, 205–217. [CrossRef]
16. Ring, I.; Schröter-Schlaack, C. Justifying and assessing policy mixes for biodiversity and ecosystem governance. In *Instrument Mixes for Biodiversity Policies*; Ring, I., Schröter-Schlaack, C., Eds.; POLICYMIX Report, Issue No. 2/2011; Helmholtz Centre for Environmental Research—UFZ: Leipzig, Germany, 2011; pp. 14–35.
17. Del Rio, P.; Howlett, M.P. *Beyond the 'Tinbergen Rule' in Policy Design: Matching Tools and Goals in Policy Portfolios (April 8, 2013)*; Lee Kuan Yew School of Public Policy Research Paper No. 13-01; Available online: <https://ssrn.com/abstract=2247238> (accessed on 13 March 2019). [CrossRef]
18. Gunningham, N.; Young, M.D. Toward optimal environmental policy: The case of biodiversity conservation. *Ecol. Law Q.* **2007**, *24*, 243–298.
19. Ring, I.; Barton, D.N. Economic instruments in policy mixes for biodiversity conservation and ecosystem governance. In *Handbook of Ecological Economics*; Martinez-Alier, J., Muradian, R., Eds.; Elgar Publishing: Cheltenham, UK, 2015; pp. 413–449.
20. Howlett, M.; Del Rio, P. The parameters of policy portfolios: Verticality and horizontality in design spaces and their consequences for policy mix formulation. *Environ. Plan. C* **2015**, *33*, 1233–1245. [CrossRef]
21. OECD. *Instrument Mixes for Environmental Policy*; OECD Publishing: Paris, France, 2007.
22. Gunningham, N.; Sinclair, D. Designing environmental policy. In *Smart Regulation: Designing Environmental Policy*; Gunningham, N., Grabosky, P., Eds.; Oxford University Press: New York, NY, USA, 1998; pp. 375–453.
23. Purkus, A.; Hagemann, N.; Bedtke, N.; Gawel, E. Towards a sustainable innovation system for the German wood-based bioeconomy: Implications for policy design. *J. Clean. Prod.* **2018**, *172*, 3955–3968. [CrossRef]
24. Gunningham, N.; Sinclair, D. Regulatory pluralism: Designing policy mixes for environmental protection. *Law Policy* **1999**, *21*, 49–76. [CrossRef]
25. Kubo, H.; Wibawanto, A.; Rossanda, D. Toward a policy mix in conservation governance. A case study of Gunung Palung National Park, West Kalimantan, Indonesia. *Land Use Policy* **2019**, *88*, 104–108. [CrossRef]
26. Justen, A.; Fearnley, N.; Givoni, M.; Macmillen, J. A Process for Designing Policy Packaging: Ideals and Realities. *Trans. Res. Part A Policy Pract.* **2014**, *60*, 9–18. [CrossRef]
27. Howlett, M. The criteria for effective policy design: Character and context in policy instrument choice. *J. Asian Public Policy* **2017**, *11*, 245–266. [CrossRef]
28. Barton, D.N.; Benavides, K.; Chacon-Cascante, A.; Le Coq, J.F.; Quiros, M.M.; Porras, I.; Primmer, E.; Ring, I. Payments for Ecosystem Services as a Policy Mix: Demonstrating the institutional analysis and development framework on conservation policy instruments. *Environ. Policy Gov.* **2017**, *27*, 404–421. [CrossRef]
29. Knickel, K.; Maréchal, A. Stimulating the social and environmental benefits of agriculture and forestry: An EU-based comparative analysis. *Land Use Policy* **2018**, *73*, 320–330. [CrossRef]
30. Mantino, F.; Vanni, F.; Forcina, B. Socio-political, economic and institutional drivers. In *A Cross-Country Comparative Analysis*; Synthesis Report PEGASUS D3.3; CREA: Ottawa, ON, Canada, 2016.
31. Knickel, K.; Dwyer, J.; Baldock, D.; Hülemeyer, K.; Dax, T.; Westerink, J.; Peepson, A.; Rac, I.; Short, C.; Polman, N.; et al. *Approaches to an Enhanced Provision of Environmental and Social Benefits from Agriculture and Forestry*; PEGASUS D4.3; Institute for European Environmental Policy: London, UK, 2017.
32. Nigmann, T.; Hovorka, G.; Dax, T. *Organic Farming in the Mountain Region Murau*; PEGASUS D4.3; BABF: Vienna, Austria, 2017.
33. Brouwer, F.; Polman, N.; van der Heide, M. *Payment for Grazing Systems in Dairy Production*; PEGASUS D4.3; Wageningen Research: Wageningen, The Netherlands, 2017.
34. Prazan, J.; Sejnohova, H.; Camska, K.; Mrnustik-Konecna, M. *Birds and Amphibians Support on Wet Meadows*; PEGASUS D4.3; UZEI: Prague, Czech Republic, 2017.
35. Forcina, B.; Mantino, F. *Processed Tomato Supply Chain in Northern Italy*; PEGASUS D4.3; CREA: Rome, Italy, 2017.
36. Mantino, F. *Bergamot, Niche and Organic Products in Calabria*; PEGASUS D4.3; CREA: Rome, Italy, 2017.
37. Guiomar, N.; Pinto-Correia, T.; Rocio, J. *Small-Scale Peri-Urban Mosaic in Montemor-O-Novo*; PEGASUS D4.3; University of Evora: Evora, Portugal, 2017.
38. Mantino, F.; Forcina, B. Market, Policies and Local Governance as Drivers of Environmental Public Benefits: The Case of the Localised Processed Tomato in Northern Italy. *Agriculture* **2018**, *8*, 34. [CrossRef]
39. Mantino, F.; Vanni, F. The Role of Localized Agri-Food Systems in the Provision of Environmental and Social Benefits in Peripheral Areas: Evidence from Two Case Studies in Italy. *Agriculture* **2018**, *8*, 120. [CrossRef]

40. Nigmann, T.; Dax, T.; Hovorka, G. Applying a social-ecological approach to enhancing provision of public goods through agriculture and forestry activities across the European Union. *Stud. Agric. Econ.* **2018**, *120*, 1–7. [[CrossRef](#)]
41. Maréchal, A.; Baldock, D.; Hart, K.; Erjavec, E.; Rac, I.; Vanni, F.; Mantino, F. *Policy Lessons and Recommendations from the PEGASUS Project, Deliverable 5.4*; IEEP: London, UK, 2018.
42. European Commission. Proposal for a Regulation of the European Parliament and of the Council Establishing Rules on Support for Strategic Plans to be Drawn up by Member States under the Common Agricultural Policy (CAP Strategic Plans) and Financed by the European Agricultural Guarantee Fund (EAGF) and by the European Agricultural Fund for Rural Development (EAFRD) and Repealing Regulation (EU) No 1305/2013 of the European Parliament and of the Council and Regulation (EU) No 1307/2013 of the European Parliament and of the Council. COM/2018/392 final–2018/0216 (COD). 2018. Available online: [http://www.europarl.europa.eu/RegData/etudes/BRIE/2018/630324/EPRS_BRI\(2018\)630324_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/BRIE/2018/630324/EPRS_BRI(2018)630324_EN.pdf) (accessed on 15 September 2019).
43. ARC. Where Next for CAP—Can Strategic Plans Deliver? 2019. Available online: <http://www.arc2020.eu/series-where-next-for-cap-can-strategic-plans-deliver/> (accessed on 20 October 2019).
44. Erjavec, E.; Lovec, M.; Juvančič, L.; Šumrada, T.; Rac, I. The CAP Strategic Plans beyond 2020: Assessing the Architecture and Governance Issues in order to Achieve the EU-Wide Objectives. 2018. Available online: [http://www.europarl.europa.eu/RegData/etudes/STUD/2018/617503/IPOL_STU\(2018\)617503_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/STUD/2018/617503/IPOL_STU(2018)617503_EN.pdf) (accessed on 15 September 2019).
45. European Court of Auditors. Future of the CAP, Briefing Paper, March 2018. Available online: www.eca.europa.eu (accessed on 15 September 2019).
46. Matthews, A. Evaluating the Legislative Basis for the New CAP Strategic Plans. 2018. Available online: <http://capreform.eu/evaluating-the-legislative-basis-for-the-new-cap-strategic-plans/> (accessed on 20 October 2019).
47. Brouwer, F.; Mantino, F.; Polman, N.; Short, C.; Sterly, S.; Rac, I. Private sector actions to valorise public benefits from agriculture and forestry. *EuroChoices* **2018**, *17*, 16–22. [[CrossRef](#)]



© 2019 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0/>).