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# When are Collaborative Interventions for a More Sustainable Agriculture Successful? Towards an Analytical Framework

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**Abstract:** Today's agriculture both contributes significantly to current environmental, social, and economic problems and also suffers from the consequences of this non-sustainable development. Despite the importance of research at the farm level to tackle these problems, it has often been argued that research and work for sustainable agriculture has to go beyond the farm gate. However, designing and implementing solutions at higher levels makes the collaboration of different stakeholders indispensable. There has already been much work on conditions influencing success or failure of joint action but there has been no research specifically on conditions for the success of collaborative interventions that aim at the improvement of the sustainability of agriculture. Furthermore, much of the existing work is based on the examination of one or few case studies, which makes it difficult to identify overall patterns. To fill this gap, I am developing an analytical scheme that can be used for comparative, integrative analysis. In this paper, I describe how the variables making up this analytical scheme were derived. This includes the formulation of a meaningful definition of what actually is a case as well as the operationalization of 'success'. Finally, I give an overview over the resulting coding scheme, containing factors that potentially contribute to or hinder success of collaborative interventions trying to achieve a more sustainable agriculture.

**Keywords:** sustainable agriculture; collaboration; interventions; comparative case analysis; analytical framework.

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## 1. Introduction

Today's agriculture both contributes significantly to current environmental, social, and economic problems and also suffers from the consequences of this non-sustainable development [1–3]. Thus, the contribution of agriculture to many pressing environmental issues, such as soil degradation, depletion of water resources, pollution through pesticides and excessive use of fertilizers, biodiversity loss and the associated decline in ecosystem services, and climate change [4–7] probably exceeds the impacts of all other sectors [8,9]. In case of biodiversity loss and the disruption of the nitrogen cycle, the threshold values defining the boundaries of a safe operating space have even been exceeded multiple times already [10] and the impact of agriculture on these two more than critical environmental problems is hard to be overlooked [11]. At the same time, all of these issues negatively impact agricultural production by decreasing yields, increasing populations of harmful insects [12] and other pests as well as by degrading productive areas to the point where they cannot be used for agriculture anymore. This in turn leaves many, especially smaller farmers, to abandon their land, contributes to rising food prices [13], and makes it difficult to meet the needs of an increasing world population, of which already about one billion people are chronically undernourished as their daily calorie intake is too low and another one billion suffer from micronutrient deficiencies [1].

Much of the research that seeks to address these issues and make agriculture more sustainable has been focused on the farm and field levels. Despite the importance of such research, it has often been argued that research and work for sustainable agriculture has to go beyond the farm gate [14]. The reason for this is that the causes for many issues, e.g. food waste or the excessive demand for meat and other animal products, are located in the design of supply chains and in consumption patterns rather than on the farm itself [15]. Furthermore, some environmental issues require coordinated action at landscape scales, for example the harnessing of biodiversity through the design of biotope networks or the support of water regulation services [14,16–18].

Addressing problems at these scales that go beyond the farm level makes the collaboration of different actors indispensable [17]. Designing biotope networks, for instance, requires the collaboration of a number of farmers that have to coordinate their land use with each other and with public authorities responsible for landscape management. In a similar way, food waste can only be reduced if several stages of the supply chain, from the farmer through the processor, distributor, and retailer to the consumer, work together and coordinate their actions.

There has already been much research on why and under which circumstances joint action of different actors aiming at the achievement of a set of common goals is successful. Among these are literature on community-based natural resource management (CBNRM) [19–21], collective action [16,22–31], social networks [32–34], advocacy coalitions [35,36], partnerships [37], and cooperatives [38–41]. However, so far no research has been conducted specifically about conditions for success of collaborative interventions aiming at the improvement of the sustainability of agriculture. Furthermore, much of the research about the success of collaborative intervention has been based on the investigation of one or few case studies. Although small-N case study research allows deep insights into causal mechanisms, it does not allow identifying overall patterns and generalizability of the results remains critical.

Comparative, integrative analyses across several case studies of collaborative interventions aiming at the realization of a more sustainable agriculture offer one way to fill this gap. Such analyses may be realized by conducting, for instance, small to middle-N comparative case studies [42,43] or case surveys [44–46]. An important feature of such comparative, integrative analyses is the development of an analytical scheme which is then applied to all case studies under investigation. This analytical scheme determines which aspects of the case studies will be taken into account and evaluated as outcome and as factors influencing this outcome or, in other words, as dependent and independent variables. Thus, the selection of aspects included in the analytical scheme has a crucial influence on the final results of the analysis as those aspects that are not included in the analytical scheme will be neglected in the evaluation. Therefore, a careful design of the analytical scheme is imperative.

This paper describes how an analytical scheme for the identification of factors that determine success or failure of collaborative interventions aiming at the improvement of the sustainability of agriculture was derived. Furthermore, it gives an overview over the resulting analytical scheme, which contains factors that potentially contribute to or hinder success of collaborative interventions trying to achieve a more sustainable agriculture.

## 2. Methods

A first, preparatory step for the formulation of an analytical scheme for comparative, integrative case analyses is the definition of what would be considered a case for the analysis. As the aim is to study which aspects correlate (positively or negatively) with the success of a collaborative interventions dealing with the sustainability of agriculture, another necessary preparatory step is working out a way to operationalize the concept of ‘success’ to be able to include it in the analytical scheme as dependent variable.

For the actual identification of the independent variables, which are the factors that potentially have an influence on success or failure of collaborative interventions aiming at the realization of a more sustainable agriculture, a search for publications was conducted in which such success factors of different kinds of collaborative interventions in general agricultural contexts are proposed. Here, both conceptual and or empirical literature was included. The success factors brought up in these publications were summarized, integrated and structured as a basis for the formulation of the analytical scheme.

In a next step, a preliminary verification of the collection of possible success factors was realized. For this purpose, five case studies of collaborative interventions aiming at a more sustainable agriculture were selected that were consistent with our case definition but had differing characteristics – all case studies were located in different countries, reported different types of interventions carried out at different levels and were successful to different degrees, ranging from great success to failure. A qualitative analysis of these case studies was conducted in order to detect the factors that were crucial for success or failure of the interventions in these cases. The findings of this analysis were compared with the success factors identified through the literature review. As a result, it was on the one hand possible to check the applicability of the analytical scheme to the case studies of interest by verifying if (at least a part of) the factors of the analytical scheme did have an influence on the performance of the interventions in these five case studies. On the other hand,

through this comparison of the results of the qualitative case study analysis and the collection of potential success factors, further success factors which had not appeared in the reviewed literature could be identified and included in the analytical scheme.

## 3. Results and Discussion

### *3.1. Defining a case*

According to Bullock and Tubbs [47], Larsson [45], and Newig and Fritsch [46] setting criteria that guide the selection of case studies for the case survey is an important step within the case survey method and also for other comparative case analyses. This step has to be carried out in the first phases of the research as it not only guides the search for and selection of the case studies to be included in the analysis but is also crucial for the definition of the scope of the analytical scheme that will ultimately guide the case analysis.

The purpose of the analytical scheme developed here is to assess which factors were under which circumstances most crucial for success or failure of collaborative interventions trying to improve the sustainability of agriculture. Therefore, the analytical scheme should be applicable to cases that meet the following definition:

> *A case is defined as an intervention (initiative, project, legislation etc.) which is implemented or realized on the local or regional level (i.e. any level above farm-level and below national level), aims at the improvement of the sustainability of agriculture in the concerned locality or region, and is carried out under the active involvement of several actors.*

However, the criterion of "improving the sustainability of agriculture" is too vague to allow for a rigorous distinction between case studies to which the analytical scheme is applicable and those that do not fall within the scope of the scheme. Therefore, this definition needs to be complemented by a working definition of what it means to improve the sustainability of agriculture:

> *An intervention is considered to aim at the improvement of the sustainability of agriculture if it seeks simultaneous improvements or maintenance of an already good status quo in environmental, economic and social aspects of agriculture. This does not imply that such interventions have to place equal concern on each of these aspects but that they must not neglect any of them. In other words: Interventions that aim at the improvement of the sustainability of agriculture may focus on only a part of the aspects but still need to pursue their objectives concerning these aspects in a way that also benefits the remaining, non-focal aspects.*

Aside from "improving the sustainability of agriculture" also the criterion of "active involvement" requires further clarification: Here, actors are seen as actively involved in an intervention if they invest resources (time, money etc.) in order to achieve the goals of the intervention. One example of actors that do have a stake in the intervention but are not actively involved in it are consumers who merely buy the products produced in the context of an intervention without any further engagement with the intervention itself. Authorities whose only contribution is the granting of necessary permits or from which only funds for the realization of the intervention are obtained are another example.

*3.2. Operationalizing success*

Being the dependent variable, also the (non-)success of the interventions attempting to improve the sustainability of agriculture needs to be included into and evaluated in the analytical scheme. This requires that this success be operationalized, which means it has to be defined and decomposed into single assessable criteria, which can then be merged into a single measure representing the degree of the success of the intervention.

For the operationalization of the success of interventions, I build on McConnell's [48] definition of policy success. He defines a policy as successful if it "achieves the goals that proponents set out to achieve and attracts no criticism of any significance and/or support is virtually universal." [48] Thus, McConnell's definition contains two criteria for the evaluation of success of a policy/intervention: 1) did the policy/intervention achieve its original goals, i.e. did it bring about the intended effects? 2) Was the policy/intervention criticized or supported? Although this definition provides a good basis for the evaluation of the success of an intervention, it still neglects some aspects of successful interventions/policies. Therefore, further amendments and modifications of McConnell's criteria for policy success are necessary.

With regard to the first criterion (achievement of the goals of the intervention), the success of an intervention can be misjudged if it is evaluated only in relation to the goals of the intervention without questioning the standard of the goals themselves. Thus, an intervention X that has ambitious goals, which it achieves only partially, might have a better overall outcome than intervention Y with modest goals, which are fully achieved. Therefore, aside from the achievement of the goals also the ambitiousness of the goals should be included in the evaluation of the success of an intervention. The goals of an intervention are the more ambitious the more varied and the more fundamental the improvements aimed at are. This leads to two criteria for the evaluation of the success of interventions:

1. Degree of achievement of the goals of an intervention;
2. Ambitiousness of the goals of an intervention.

Another important aspect neglected by McConnell's definition is the durability of the achievements of an intervention. For instance, a project aims at the introduction of a more sustainable management practice and succeeds as most of the targeted farmers adopt the new practice. However, after the project ends and funding and technical assistance ceases, farmers abandon the new practice and go back to business-as-usual. If only the achievement of the aims of the project was considered, the project would be evaluated as quite successful. Yet, this contradicts common sense, where we would evaluate the project as only partially successful and would find it more successful if the farmers continued using the new practice even after the project ended. Thus, the assessment of the achievement of the goals should also consider if the achievements endured despite changed conditions. Consequently, an additional evaluation criteria for the success of an intervention is the

3. durability of the intended effects of the intervention.

In case of the second aspect of success of McConnell's definition (support or criticism of the intervention), the criterion for success was modified: Criticism of an intervention usually occurs if the goals of the intervention are not achieved – which is already covered by criterion 1 – or if the

intervention brings about unintended side-effects which are evaluated negatively by stakeholders. On the other hand, support is more likely to occur if the intervention, apart from achieving its goals, has positively evaluated side-effects. Thus, instead of evaluating the presence of criticism or support of an intervention, its success can also be evaluated by looking at the presence of unintended side-effects. Therefore, an evaluation of success should also look at criteria measuring the side-effects:

4. Degree of the presence of positive side-effects of the intervention;
5. Degree of the presence of negative side-effects of the intervention.

After defining the criteria of success of interventions, the next step is the merging of the criteria through mathematical operations into one single measure for the degree of the success of an intervention as the dependent variable. For this purpose, I propose the following calculation:

$$\mathrm{G(i)} = \frac{\sum a_{j_i} \cdot g_{j_i}}{\sum a_{j_i}}$$

$$IE(i) = \sqrt[3]{A_i \cdot G(i) \cdot D_i}$$

$$SE(i) = PS_i - NS_i$$

$$S(i) = IE(i) + SE(i)$$

*S(i): success of intervention i*
*IE(i): intended effects of intervention i*
*SE(i): net side-effects of intervention i*
*G(i): total degree of achievement of the goals of intervention i*
$a_{ji}$*: ambitiousness of goal j of intervention i*
$g_{ji}$*: degree of achievement of goal j of intervention i*
$A_i$*: total ambitiousness of the goals of intervention i*
$D_i$*: durability of the achievements of intervention i*
$PS_i$*: total positive side-effects of intervention i*
$NS_i$*: total negative side-effects of intervention i*

**Table 1.** Attributing values of S(i) (total success of an intervention) to the different intermediate success categories (adapted from McConell [48]). In this example, the independent variables can be attributed values between 0 and 2, such that S(i) may receive values from -2 to 4.

| Value range | Success category |
|---|---|
| $4 \geq S(i) \geq 2$ | success |
| $2 > S(i) > 0.5$ | resilient success |
| $0.5 \geq S(i) \geq 0$ | conflicted success |
| $0 > S(i) \geq -1$ | precarious outcome |
| $-1 > S(i) \geq -2$ | failure |

Aside from defining policy success, McConnell [48] suggests that there is a spectrum of success with various intermediate stages between total success and complete failure and provides a categorization with five of these intermediate stages: success, resilient success, conflicted success,

precarious success, and failure. Also the measure of total success of an intervention (S(i)) implies the idea of a success spectrum as it can potentially receive a range of different values rather than being a binary measure of either full success or clear failure. Therefore, different values of S(i) may represent the different categories of success proposed by McConnell (Table 1) (However, in place of McConnell's term "precarious success", I prefer the term "precarious outcome" because it is hardly reasonable to call a precarious situation a success).

### *3.3 Success factors identified from existing literature*

For the collection of possible success factors of collaborative interventions for a more sustainable agriculture I built on publications that suggest and examine aspects influencing the performance of different kinds of collaborative interventions in agricultural and sustainability contexts. For this, the findings from literature about farmer cooperatives [38–41]; CBNRM [19]; collective action either to improve the marketing of agricultural goods [27–30], or to achieve environmental outcomes in agricultural contexts [22,23,25,26,49], or for regional development [31,50]; social networks in agricultural and sustainability contexts [32–34]; advocacy coalitions [36]; and partnerships and subnational governance for environmental outcomes in agriculture [37,51] were summarized and structured. Also the implementation of certain policies to foster a more sustainable agriculture may require collaboration of different stakeholders and can therefore be considered collaborative interventions for a more sustainable agriculture as well. In these cases, the design of the policies to be implemented supposedly has an influence on the outcome of the intervention, too. Therefore, also literature about the design of policies for more sustainable land management [52,53] was included.

Many of the used publications base their results on one or a small numbers of case studies. These case studies took place in all parts of the world but most of the case studies were located in Africa [19,22,26,27,29,30,33,37,49]. Five publications presented case studies in Europe [16,24,31,50,51] and smaller numbers of case studies were located in the United States [32,40], the Caribbean [28], Australia [53], and Iran [38].

Through the review of this literature, a great number and diversity of factors that potentially have an impact on the performance of collaborative interventions in agricultural contexts was collected. These factors were divided into several groups in order to structure this diversity (Table 2).

**Table 2.** Types of potential success factors obtained through the literature review.

| Factor type | Factor subtype | Factor examples |
|---|---|---|
| **Characteristics of the issue** | | • Issue type [23]<br>• Issue area, boundaries, mobility, location etc. [25,27] |
| **Characteristics of the policy to be implemented** | | • Policy type (command-and-control, incentive-based) [53]<br>• Involvement of stakeholders in policy formulation [52,53]<br>• Flexibility of policy requirements [31,52,53] |
| **Characteristics of individual involved actors** | *Knowledge and skills* | • Formal education of the involved actors [32]<br>• Knowledge about and skills for collaboration [22,24,30,40]<br>• Intervention included efforts to enhance the |

| | | |
|---|---|---|
| | | skills of the involved actors[19,29,30,37,50] |
| | *Attitudes* | • Strength of environmental values [32]<br>• Motivation to achieve a common goal [28,37–40,50,51]<br>• Satisfaction with the intervention [38] |
| | *Economic assets of non-state actors* | • General economic situation of the involved actors [25,32,41]<br>• Provision of financial resources for the intervention by involved non-state actors [37] |
| **Characteristics of the group of involved actors** | *Group size and composition* | • Group size [16,23,25,26,28,36,40]<br>• Diversity/heterogeneity of the involved actors [25–28,30,33,34,37,38]<br>• Complementarity of the non-financial resources of the actors [37] |
| | *Social Capital: Shared norms, objectives, and social learning* | • Shared goals [16,24,25,28,31,37]<br>• Shared norms [16,24,25,27,36,37]<br>• Social learning [24,32] |
| | *Social Capital: existing relations and trust* | • Existence of relations among the involved actors at the outset of the intervention [16,31]<br>• Common identities [16,50]<br>• Trust between the involved actors[22,30,36–38] |
| | *Competition and conflict* | • Competition between the involved actors [28,31,38]<br>• Conflict between the involved actors [28] |
| | *Group dysfunctions* | • Power imbalances [26,28,37]<br>• Group is taken over by one or few actors for their individual interests [28,30]<br>• Corruption [30,49] |
| **Structure and organization of the intervention** | *Group formation* | • Existence of a charismatic initiator [31]<br>• Feasibility study before initiation of the intervention [41] |
| | *Tasks and objectives* | • Objectives of the intervention are clearly defined [19,37]<br>• Number and diversity of objectives [30,34,40]<br>• Compatibility of the objectives with existing livelihoods [19] |
| | *Conditions enabling collaboration* | • Incentives to collaborate (instead of acting alone) [23,30,34,36,37,50]<br>• Transaction costs of collaboration [36] |
| | *Group structure* | • Density of the network among the involved actors [33]<br>• Existence of a core group/central committee [16,23] |
| | *Communication and interaction* | • Intensity of communication among involved actors [23,28,37,39–41,50,51]<br>• Variety of communication channels used [34,39]<br>• Frequency of face-to-face communication [32,39,50,51] |
| | *Internal decision-making and participation* | • Involvement of the actors in decisions since early stages of the intervention [37]<br>• Decision-making mode [22,24,30,34,36]<br>• Forms and intensity of participation of the involved actors in all crucial decisions [22,24,30,36] |
| | *Distribution of benefits* | • Possibility to clearly identify the individuals |

| | | |
|---|---|---|
| | | benefitting from the intervention [36]<br>• Fair distribution of benefits [25,28,36] |
| | *Internal rules and enforcement* | • Existence of clear rules [24,27,30]<br>• Simplicity of the rules [25]<br>• Existence of enforcement mechanisms [26,27,30,31,41] |
| | *Monitoring and accountability* | • Monitoring of the activities and achievements of the intervention [24,30,36]<br>• Accountability to the involved actors [25,27,28,30,36] |
| | *Leadership* | • Existence of a single or a group of leaders [41,50,51]<br>• Leader characteristics (age, education, skills etc.) [25,30,38,41,50]<br>• Degree to which state actors carried out leadership [16,19,24,25,28,30,31,34,37,52] |
| | *Financial resources* | • Availability of overall sufficient financial resources for the intervention [38,50]<br>• Indebtedness of the intervention [38] |
| | *Human Resources* | • Availability of sufficient manpower [50]<br>• Quality of the labor force of the intervention (if it had any employees) [41] |
| | *Relations to external actors* | • Existence of personal contacts to important external actors [33]<br>• Contact to other similar interventions [41]<br>• Alliances with other actors not involved in the intervention [41] |
| | *Other organizational factors* | • Intervention was given a legal form [24,50]<br>• Intervention became self-sustaining [28]<br>• Early achievements of the intervention [50] |
| **Factors of external conditions and support** | *Political environment* | • Existence of laws and regulations enabling interventions like the one in question [41,50]<br>• Support by concerned authorities and existing policies [22,28,30,31,36,37,41,50,52] |
| | *Forms of support* | • Availability and adequacy of funding [19,25,28,30,37,41]<br>• Availability and adequacy of technical support [25,30,31,41]<br>• Support through facilitators [16,19,24,27,41,50] |
| | *Other external factors* | • Occurrence of impacts through external events [28]<br>• Coordination of the intervention with regional planning [50] |
| **Factors for interventions that include the marketing of products and/or services** | *Competitiveness* | • Product quality, price, range and uniqueness [30,31,38,41,50]<br>• Reputation of the intervention [41] |
| | *Market integration* | • Market access [22,38]<br>• Vertical integration [30,41,50] |
| | *Logistics* | • Closeness to inputs and customers [41]<br>• Physical infrastructure of the intervention [41,50]<br>• Dispersion of the involved actors [41] |
| | *Marketing and business strategy* | • Marketing competency [41,50]<br>• Professional promotion of the intervention [39,50] |

| | |
|---|---|
| *Financial performance* | • Income, costs and profits of the intervention [31,38,40,41,50] |
| *Market-related factors* | • Demand for the product(s) of the intervention [22,41]<br>• General economic climate [41]<br>• Number and prices of competitors [41] |

Some of these kinds of factors were brought up in (almost) all types of the examined literature, which suggests their importance for the (non-)success of very different kinds of collaborative interventions. These ubiquitous factors are those related to

- knowledge and skills of the involved actors,
- attitudes of the involved actors,
- group size and composition,
- pre-existing relations and level of trust among the involved actors,
- communication and interaction in the group of actors,
- decision making and participation within the intervention,
- leadership,
- political environment.

The remaining kinds of factors are stressed as crucial for the performance of a collaborative intervention only in some types of the examined literature. Most characteristic are the publications dealing with questions of policy design [52,53], which almost exclusively highlight this kind of factors, as was to be expected. On the other hand, this is also the only type of examined literature which pays heed to aspects of policy design (with the exception of Lamprinopoulou et al. [31] who also make reference to the importance of the flexibility of policies). Another kind of factors that are held up as important in only one literature type are the characteristics of the issue addressed by the intervention, which are dealt with only in the collective action literature [23,25–27,50].

Questions related to marketing as well as to financial and human resources were contributed mainly by publications investigating the success of collective action interventions for regional development [31,50] and by the literature about cooperatives [38–41]. In a similar fashion, publications about collective action in general and literature about advocacy coalitions are the main contributors of aspects related to existence and design of internal rules and their enforcement [16,23–28,30,36] as well as of factors of monitoring and accountability [24,25,27,28,30,36]. As to be expected, the social network literature advocated issues of the structure of the group of actors (especially the network density) and of links to external actors [33] as decisive for the success of a collaborative intervention. However, a different aspect of the group structure, namely the existence of a core group or central committee, appears as important also in the collective action literature [16,23] and relations to external actors are suggested as success factor also in publications about agricultural cooperatives [41].

Aspects of group dysfunctions such as power imbalances and corruption, which might negatively influence the performance of a collaborative intervention, are not so much bound to a certain kind of literature. Rather, they are stressed in publications obtaining their evidence from case studies in developing countries, especially Africa [26,30,37,49] and the Caribbean [28]. Despite these factors being more apparent in developing countries, they certainly also play a role in some collaborative interventions in other parts of the world.

*3.4 Verification of the success factors identified from the literature by comparison with case study evidence*

For a first verification of the applicability of those factors that were suggested as decisive for the outcome of collaborative interventions in the reviewed literature, five case studies of interventions aiming at the improvement of the sustainability of agriculture qualitatively were examined. Through a qualitative analysis of these case studies, the factors that were decisive for the performance of the interventions in these cases were identified. The five test cases were selected from a pool of case studies which had been obtained through a comprehensive, internet-based search for cases studies that meet the case definition of our analytical scheme (see chapter 3.1). The selection criterion for these five case studies was to reach a great variance in the characteristics of the described interventions, such as the country where the intervention was realized, the scale at which it took place, the way it was initiated, the degree of its success, and the type of intervention undertaken (As my research ultimately aims at a comparative analysis of case studies in the European Union, also the test cases are all located in EU-countries.) In the following part, the chosen test case studies are shortly presented.

In the case of "Manchester Food Futures" in the UK [54–56], the Manchester Environmental Resource Center (MERCi) was established in 1996 with the aim of making Manchester more sustainable. This stimulated many food projects addressing social problems such as poverty, unequal access to goods and services, social exclusion, and health inequalities. These early initiatives from several civil society groups led the city authorities to adopt two important policy frameworks, the Manchester Community Strategy, which aimed at making Manchester more sustainable by 2015, and the Manchester Food Futures (MFF), a partnership of public, private and civil society groups aiming at the creation of a culture of good food in the city. The adoption of these two policies initiated the development of a loose network of alternative food initiatives operating in a diverse range of spaces across the city. These initiatives variously used or supported alternative methods of production, such as organic cultivation, permaculture, urban gardening and/or alternative methods of distribution and had a great impact on the food-landscape of Manchester. The MFF played a central role in coordinating and supporting these initiatives.

A case in which the collaborative intervention did not succeed is the case of the "Palermo Organic Farmers' Market" on the Island of Sicily (Italy) [57]: In co-operation, the Palermitan branch of an Italian environmental NGO and farmers belonging to the regional chapter of one of Italy's main organic producers' association set up an organic farmers' market in the northern, more affluent part of Palermo. Prior to the market's launch, several meetings were held at the NGO's headquarters to organize the event. The NGO group dealt with bureaucratic matters and interacted with the authorities. After a first refusal, the NGO was able to obtain the permission and the market first opened in November 2006. It was met with great interest by the consumers but also with several administrative difficulties. For instance, the organizers could not get approval for a greater number of stalls for more farmers and, more importantly, the organizers had obtained approval only for two market days, one in November and one in December 2006. Despite great efforts to obtain approval for additional market days, the organizers could not get the necessary permits and so the market did not take place again after only two market days. Orlando [57] attributes the re-

sistance of the local administration to grant further permits to clientelistic politics that constrain grass-roots activism in Sicily.

Different from the remaining cases, the main subject of the intervention of the German case "Uckermark Soil Erosion" [58–60] was the implementation of different policies for soil conservation at the county level. Soil degradation was a relevant environmental issue in the region of the Uckermark. The high risk of soil degradation was linked to high intensity agriculture combined with soil conditions, field topography and field shapes. There was a range of policies to address this problem in the Uckermark and the State of Brandenburg as a whole. They ranged from EU level to the level of the State of Brandenburg and included both incentive-based and command-and-control measures. Most important among them were the Nitrates Directive (command-and-control, EU level), German Soil Protection Act, and the Direct Payments Obligations Act (both command-and-control and federal level). Existing, good relations between the involved authorities were supportive of the implementation of these policies. On the other hand, the responsible authorities suffered from staff-constrains, which hindered a more successful outcome. The implementation of some of the policies was more successful than the implementation of others but overall, a moderate improvement of the soil status was achieved, mainly driven by changed production systems and the implementation of soil conservation measures.

The case of "Biomelk Vlaanderen" [61–63] took place in the region of Flanders in northern Belgium. Despite the great importance of the dairy sector in Flanders, organic dairy production was very marginal in Flanders: Until 1999, there was almost no organic milk production on Flanders so the few farmers that produced organically, were selling in the conventional chain or were processing on the farm. In April 1999, a dairy company from the region of Wallonia started collecting organic milk in Flanders. This boosted organic milk production and another 15 producers converted to organic milk production in Flanders. In November 2001 however, the dairy company stopped collecting the milk from organic dairy farmers in Flanders despite all guarantees and concessions it had made to them. The Flemish farmers delivering to the dairy company had already formed a suppliers' group, which started to discuss a solution with the dairy, with no result whatsoever. It was then that the farmers decided to found an own cooperative in February 2002 in a way that would not require high investments and be able to function with minimal capital. They achieved this by hiring third party services and doing all the administrative work themselves. The main objectives of the cooperative were guaranteeing 1) the collection of the organic milk, 2) a good price, and 3) regular payments to the farmers. The cooperative was able to make agreements with processors and transporters very quickly and thus start functioning. After a stagnation of the initiative until 2004, the cooperative could increase its milk volume from 5 million liters in the beginning to 11 million liters in 2008. Also, the share of milk sold as organic with a premium was increased from 30% at the outset to 100% later on. This was possible thanks to the entrance of new (non-Flemish) members, which enabled the cooperative to open new marketing channels in the Netherlands, UK and Germany.

**Table 3.** Characteristics of the five test cases and factors that influenced the performance of the interventions of these case studies (a (+) indicates that this aspect was supportive of, a (–) indicates that the aspect was obstructive of success of the intervention).

| | Manchester Food Futures | Palermo Organic Farmers' Market | Uckermark Soil Erosion | Biomelk Vlaanderen | Gailtaler Almkäse |
|---|---|---|---|---|---|
| | | | ***Case characteristics*** | | |
| **Country** | United Kingdom | Italy | Germany | Belgium | Austria |
| **Scale** | City and surrounding region, > 115 $km^2$ | City and surrounding region, > 158 $km^2$ | County, 3058 $km^2$ | Region/state, 13522 $km^2$ | Region, <808 $km^2$ |
| **Initiation type** | Mixed | Bottom-up | Top-down | Bottom-up | Top-down |
| **Intervention type** | Network of food initiatives to support alternative forms of production and distribution | Establishment of an organic farmers' market | Implementation of soil conservation policies | Establishment of an organic dairy farmer cooperative | Introduction of a Protected Denomination of Origin (PDO) |
| **Success/failure** | Success | Failure | Success | Success | Success |
| | | | ***Factors at work in each case*** | | |
| **Issue characteristics** | - | - | - | - | - |
| **Policy characteristics** | - | - | Policy type, specificity, precision, flexibility, enforcement (+/-) | - | - |
| **Characteristics of the involved actors** | Motivation (+) | Motivation (+) | - | Motivation (+) | Motivation (+) |
| **Characteristics of the group of actors** | Existing relations (+) | - | - | Existing relations (+) | Existing relations (+) |
| **Structure & organization of the intervention** | - | Personal contacts to important external actors (+) | Communication intensity (+), availability of human resources (-), self-sustenance (+) | Communication intensity (+), alliances with external actors (+/-) | self-sustenance (+) |
| **External conditions & support** | Political support (+) | Political support (-) | Availability and adequacy of external funding (-) | Political support (+/-), availability and adequacy of external funding (-), availability of facilitation (+) | Political support (+), availability of external funding and technical support (+) |
| **Marketing-related factors** | - | Product quality, range, price (-), product demand (+), number and prices of competitors (-) | - | Product uniqueness (+), geographic dispersion of involved actors (-), marketing competency (-), product demand (+), number and prices of competitors (-) | - |

Just as in the case of "Uckermark Soil Erosion", also the intervention in the Austrian case of "Gailtaler Almkäse" [64–66] was initiated in a top-down fashion, yet it did not pursue the implementation of policies: Prior to its entry into the EU in 1995, Austria already prepared its regions to

make them competitive for the EU context. One of these measures was the foundation of the Kärtner Agrarmarketing AG by the government of the State of Carinthia. The aim of this organization was to increase the value added among agricultural producers and regions in food-related projects. One of the largest projects of this new lobby firm was the "Gailtaler Almkäse", a cheese produced with a long tradition in mountain chalets. In a first step, the state government undertook an inquiry to identify candidates for an application at the EU for a Protected Denomination of Origin (PDO) through which the Gailtaler Almkäse, among others, was identified. The project then went to the regional level and local activity groups and networks among different interested parties were created to apply for a PDO, assisted by consulting firms. In connection with the PDO application, the "Gailtaler Almprotokoll" was established. This protocol continued the tradition of the medieval "Alpordnung" and contained detailed regulations for production, quality and pricing of the Gailtaler Almkäse. The PDO certificate was granted in 1996. The 14 chalets produce about 50 tons of Gailtaler Almkäse nowadays, an amount which cannot be increased due to the strict PDO-regulations. With these amounts, cheese production itself is of lesser economic importance for the region. What does contribute significantly to the creation of value added, is the "Gailtailer Kulinarium", a festivals initiated in 2001 related to cheese and ham from the Gailtal. This festival has great positive effects on tourism, gastronomy and handicraft. Although the state had a very important and proactive role in the beginning of the process, it later shifted responsibilities to the stakeholders when these had become self-sufficient.

Overall, we found many of the factors that were suggested in the literature as crucial for success or failure of collaborative interventions in agricultural contexts to have an effect in our five test cases as well (Table 3). However, one kind of factor that seems to play a significant role in none of these cases is the type of issue addressed. The reason for this probably is that these issue characteristics mainly apply to environmental issues. At the same time, the only case that addressed a specific environmental issue is Uckermark Soil Erosion while the other cases rather addressed environmental quality in general. But even in the Uckermark Soil Erosion case, the characteristics of the environmental issue apparently did not play a decisive role.

Apart from this, there are also other differences between the success factors proposed in the literature and those found in the five test cases. As stated in chapter 3.3, there are many types of factors that are brought up across most types of the reviewed literature. Some of these factors also seem to have an impact in most of the test cases, such as the motivation of the involved actors, pre-existing relations, communication intensity and the political environment. In contrast, other types of factors widely proposed in the literature are not of striking importance in any of the test cases. These are factors related to knowledge and skills of the involved actors, group size and composition, internal decision-making and participation, and leadership. Nevertheless, also the factors that do not occur in the test cases might be of importance in other kinds of cases that have not been covered by the five test cases.

A factor that seems to have a greater impact in the test cases than suggested in the reviewed literature is the issue of the intervention becoming self-sustaining after some time. In the reviewed literature, it is put forward in only one publication [28]. However, this issue was apparently important for the success of two of the five test cases (Uckermark Soil Erosion and Gailtaler Almkäse). Furthermore, the qualitative analysis of the test cases even yielded two additional factors not considered in the publications we reviewed. In the case of Uckermark Soil Erosion, as-

pects of policy design were decisive for the relative success of the intervention (this is the only test case where the implementation of policies was central to the intervention). Aside from the policy design aspects already identified in the relevant literature, also the specificity of the policy requirements to the local conditions as well as their precision (i.e. how well they defined what had to be done) seemed to have an impact on the outcome of the intervention. Therefore, these two factors were added to the collection of potential success factors.

### *3.5 The final analytical framework*

Apart from the factors favoring or obstructing a successful outcome of collaborative interventions that aim at the improvement of the sustainability of agriculture, a complete analytical scheme for the analysis of case studies of such interventions has to include further aspects. First of all, the analytical scheme also has to capture general information of the case study (such as the case name, references, country in which the intervention took place, case start and end dates etc.) as well as characteristics of the intervention itself, e.g. administrative level at which the intervention was realized, types of actors involved, did the intervention include the implementation of policies or the marketing of goods or services etc. Capturing information about the type of intervention at hand is especially important because for different kinds of interventions the factors that are most decisive for success or failure of the intervention can be very different as well. A further kind of information that is indispensable for the evaluation of a case is the information of which kind of goals the intervention pursued and how ambitious they were. This information is essential as the success of the intervention is ultimately evaluated, among other things, in relation to the goals of the intervention (see chapter 3.2). This leads to the last kind of information to be included in the analytical scheme aside from the success factors themselves: the evaluation of the success of the intervention, which considers achievement of the goals of the intervention, their ambitiousness, the durability of their achievement as well as positive and negative side-effects.

As for the success factors themselves, it certainly is valuable to include into the analytical scheme the option to capture further success factors that are found in the case studies being evaluated with the analytical scheme and that had not been part of the scheme so far. If such factors appear in the analyzed case studies repeatedly, they might be of general significance and therefore they should be integrated in the analytical scheme. With this addition, the analytical scheme becomes a structured tool to guide the analysis of case studies of collaborative interventions aiming at the realization of a more sustainable agriculture, yet remains open for inductive findings.

In sum, the final analytical scheme comprises the following parts:

1. General Information (case name, references, country in which the case took place, case start and end dates …),
2. Case Type (level of the intervention, initiation type, type of actors involved…),
3. Goals of the intervention (incl. their ambitiousness),
4. Factors supporting or hindering the success of the intervention (see chapter 3.2 for more detail):
    a. Characteristics of the issue,
    b. Characteristics of the policy to be implemented (where applicable),
    c. Characteristics of the individual involved actors,

   d. Characteristics of the group of involved actors,
   e. Structure and organization of the intervention,
   f. Factors of external conditions and support,
   g. Factors for interventions that include the marketing of products and/or services (where applicable),
   h. Other factors (to be able to include further factors not yet included in the analytical scheme),
5. Evaluation of the success of the intervention.

For some of the success factors in the analytical scheme, it might make sense to capture them in a differentiated way. For example, there might be trust and pre-existing relations between some types of actors but not between others. Therefore, instead of trying to capture overall trust and existence of relations, the evaluation of these aspects can be differentiated in relation to the actors. For this, a fitting actor typology would have to be chosen (e.g. if one chose to differentiate between state actors and non-state actors, one would measure the trust among state actors, among non-state actors and between state and non-state actors). Likewise, high and widespread trust between the involved actors from the outset of the intervention is certainly supportive of a successful outcome. However, the initially high trust might decrease for any reason in the course of the intervention. Such a development could possibly surpass the effect of the initially high trust and the intervention could end as rather unsuccessful. On the other hand, despite a lack of trust during most time of the intervention the involved actors could come to trust each other in the very end of the intervention and lead it a successful outcome. Therefore, also a chronologically differentiated evaluation of some factors should be considered.

## 4. Conclusions

In this paper, the development of an analytical scheme for the evaluation of factors that support or hinder the success of collaborative interventions with the objective of improving the sustainability of agriculture was developed. As a first step, a case definition was established in order to set the scope of the analytical scheme. Furthermore, the dependent variable ‘success’ was defined and operationalized to be able to integrate it into the analytical scheme. Thereafter, a review of related literature was conducted in order to identify factors that potentially influence the outcome of the collaborative interventions to which the analytical scheme applies. For the verification of our findings, the potential success factors found in the reviewed literature was compared with the results of a qualitative analysis of five test cases. Many of the factors proposed in the reviewed literature had an impact also in the test cases; for some factors the significance was very different in the test cases and in the reviewed literature. Apart from (partially) confirming the applicability of the factors obtained through the literature review, the comparison with the results of the qualitative analysis of the test cases also yielded some further factors, which were added to the collection of potential success factors. In a last step, we presented the whole analytical scheme and made suggestions regarding the evaluation of certain factors.

The fact that many of the success factors obtained through the review of related literature did determine the performance of the interventions in the five test cases leads to the preliminary conclusion that these factors are indeed relevant for collaborative interventions that aim at the im-

provement of the sustainability of agriculture. What is more, as there were only two factors of policy design that appeared to be important in one of the test cases and that had not been included in the list of potential success factors so far, the collection of aspects that might influence success or failure of a collaborative intervention appears to be of a high degree of completeness. In any case, through the inclusion of the possibility to capture qualitatively further success factors and to integrate these factors into the analytical scheme allows the analytical scheme to develop into an even more complete analytical scheme in the course of its application.

However, to finally confirm the applicability of the whole analytical scheme to collaborative interventions aiming at a more sustainable agriculture, a more systematic test with a greater number of such cases will have to be conducted. Additionally, through such a more comprehensive test further success factors might come up and thus the analytical scheme would either become more complete (if additional success factors were found) or be confirmed in its completeness (if no additional factors were found).

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**Conflict of Interest**

The authors declare no conflict of interest.

**References and Notes**

1. Underwood, E.; Baldock, D.; Aiking, H.; Buckwell, A.; Dooley, E.; Frelih-Larsen, A.; Naumann, S.; O'Connor, C.; Poláková, J.; Tucker, G. *Options for sustainable food and agriculture in the EU*: *Synthesis report of the STOA Project 'Technology Options for Feeding 10 Billion People'*: London/Brussels, 2013.
2. Tait, J.; Morris, D. Sustainable development of agricultural systems: competing objectives and critical limits. *Futures* **2000**, *32*, 247–260.
3. Lemke, H. *Politik des Essens*: *Wovon die Welt von morgen lebt*; transcript: Bielefeld, 2012.
4. Ogaji, J. Sustainable Agriculture in the UK. *Environ Dev Sustain* **2005**, *7*, 253–270.
5. Peters, K.A. Creating a sustainable urban agriculture revolution. *Journal of Environmental Law and Litigation* **2010**, *25*, 203–247.
6. Legg, W.; Viatte, G. Farming systems for sustainable agriculture. *OECD Observer* **2001**, 21–24.
7. Good, A.G.; Beatty, P.H. Fertilizing nature: a tragedy of excess in the commons. *PLoS Biol.* **2011**, *9*, e1001124.
8. Goodland, R. Environmental sustainability in agriculture: diet matters. *Ecological Economics* **1997**, *23*, 189–200.
9. Koohafkan, P.; Altieri, M.A.; Gimenez, E.H. Green Agriculture: foundations for biodiverse, resilient and productive agricultural systems. *International Journal of Agricultural Sustainability* **2012**, *10*, 61–75.

10. Rockström, J.; Steffen, W.; Noone, K.; Persson, A.; Chapin, F.S.; Lambin, E.F.; Lenton, T.M.; Scheffer, M.; Folke, C.; Schellnhuber, H.J.*; et al.* A safe operating space for humanity. *Nature* **2009**, *461*, 472–475.
11. Declerck, F. Harnessing biodiversity: from diets to landscapes. In *Diversifying Food and Diets*: *Using Agricultural Biodiversity to Improve Nutrition and Health*; Fanzo, J., Hunter, D., Borelli, T., Mattei, F., Eds.: Taylor and Francis: Hoboken, 2013, pp. 17–34.
12. Ceccarelli, S. GM Crops, Organic Agriculture and Breeding for Sustainability. *Sustainability* **2014**, *6*, 4273–4286.
13. Giovanucci, D.; Scherr, S.; Nierenberg, D.; Hebebrand, C.; Shapiro, J.; Milder, J.; Wheeler, K. *Food and Agriculture: The future of sustainability*: *A strategic input to the Sustainable Development in the 21st Century (SD21) project.*: New York, 2012.
14. Robinson, G.M. Towards Sustainable Agriculture: Current Debates. *Geography Compass* **2009**, *3*, 1757–1773.
15. Elzen, B.; Barbier, M.; Cerf, M.; Grin, J. Stimulating transitions towards sustainable farming systems. In *Farming Systems Research into the 21st Century: The New Dynamic*; Darnhofer, I., Gibbon, D., Dedieu, B., Eds.: Springer Netherlands: Dordrecht, 2012, pp. 431–455.
16. Mills, J.; Gibbon, D.; Ingram, J.; Reed, M.; Short, C.; Dwyer, J. Organising Collective Action for Effective Environmental Management and Social Learning in Wales. *The Journal of Agricultural Education and Extension* **2011**, *17*, 69–83.
17. Prager, K.; Reed, M.; Scott, A. Encouraging collaboration for the provision of ecosystem services at a landscape scale—Rethinking agri-environmental payments. *Land Use Policy* **2012**, *29*, 244–249.
18. Cobb, D.; Dolman, P.; O'Riordan, T. Interpretations of sustainable agriculture in the UK. *Progress in Human Geography* **1999**, *23*, 209–235.
19. Measham, T.G.; Lumbasi, J.A. Success factors for community-based natural resource management (CBNRM): lessons from Kenya and Australia. *Environ Manage* **2013**, *52*, 649–659.
20. Lauber, T.B.; Decker, D.J.; Knuth, B.A. Social networks and community-based natural resource management. *Environ Manage* **2008**, *42*, 677–687.
21. Mountjoy, N.J.; Seekamp, E.; Davenport, M.A.; Whiles, M.R. The best laid plans: community-based natural resource management (CBNRM) group capacity and planning success. *Environ Manage* **2013**, *52*, 1547–1561.
22. Mburu, J.; Wale, E. Local Organizations Involved in the Conservation of Crop Genetic Resources: Conditions for their Emergence and Success in Ethiopia and Kenya. *Genet Resour Crop Evol* **2006**, *53*, 613–629.
23. Ayer, H.W. Grass roots collective action: Agricultural opportunities. *Journal of Agricultural and Resource Economics* **1997**, 1–11.
24. Oerlemans, N.; Assouline, G. Enhancing farmers' networking strategies for sustainable development. *Journal of Cleaner Production* **2004**, *12*, 469–478.
25. Agrawal, A. Common Property Institutions and Sustainable Governance of Resources. *World Development* **2001**, *29*, 1649–1672.
26. Totin, E.; Leeuwis, C.; van Mierlo, B.; Mongbo, R.L.; Stroosnijder, L.; Kossou, D.K. Drivers of cooperative choice: canal maintenance in smallholder irrigated rice production in Benin. *International Journal of Agricultural Sustainability* **2014**, *12*, 334–354.

27. Markelova, H.; Mwangi, E. Collective Action for Smallholder Market Access: Evidence and Implications for Africa. *Review of Policy Research* **2010**, *27*, 621–640.
28. Ramdwar, M.N.A.; Ganpat, W.G.; Bridgemohan, P. Exploring the Barriers and Opportunities to the Development of Farmers' Groups in Selected Caribbean Countries. *International Journal of Rural Management* **2013**, *9*, 135–149.
29. Gyau, A.; Takoutsing, B.; Franzel, S. Producers' Perception of Collective Action Initiatives in the Production and Marketing of Kola in Cameroon. *JAS* **2012**, *4*, 117–128.
30. Shiferaw, B.; Hellin, J.; Muricho, G. Improving market access and agricultural productivity growth in Africa: what role for producer organizations and collective action institutions? *Food Sec.* **2011**, *3*, 475–489.
31. Lamprinopoulou, C.; Tregear, A.; Ness, M. Agrifood SMEs in Greece: the role of collective action. *British Food Journal* **2006**, *108*, 663–676.
32. Lubell, M.; Fulton, A. Local Policy Networks and Agricultural Watershed Management. *Journal of Public Administration Research and Theory* **2007**, *18*, 673–696.
33. Isaac, M.E. Agricultural information exchange and organizational ties: The effect of network topology on managing agrodiversity. *Agricultural Systems* **2012**, *109*, 9–15.
34. Newman, L.; Dale, A. Homophily and Agency: Creating Effective Sustainable Development Networks. *Environ Dev Sustain* **2007**, *9*, 79–90.
35. Sabatier, P.A. An advocacy coalition framework of policy change and the role of policy-oriented learning therein. *Policy Sci* **1988**, *21*, 129–168.
36. Schlager, E. Policy making and collective action: Defining coalitions within the advocacy coalition framework. *Policy Sci* **1995**, *28*, 243–270.
37. Dyer, J.C.; Leventon, J.; Stringer, L.C.; Dougill, A.J.; Syampungani, S.; Nshimbi, M.; Chama, F.; Kafwifwi, A. Partnership Models for Climate Compatible Development: Experiences from Zambia. *Resources* **2013**, *2*, 1–25.
38. Azadi, H.; Hoseininia, G.; Zarafshani, K.; Heydari, A.; Witlox, F. Factors influencing the success of animal husbandry cooperatives: A case study in Southwest Iran. *Journal of Agriculture and Rural Development in the Tropics and Subtropics* **2010**, *111*, 89–99.
39. Wadsworth, J. Keeping the co-op candle burning. *Rural Cooperatives* **2001**, *68*, 19–21.
40. Bhuyan, S. The "People" Factor in Cooperatives: An Analysis of Members' Attitudes and Behavior. *Canadian J Agric Econ* **2007**, *55*, 275–298.
41. Carlberg, J.G.; Holcomb, R.B.; Ward, C.E. *Success Factors for Value-Added New Generation Cooperatives*: *Selected Paper prepared for presentation at the Southern Agricultural Economics Association Annual Meeting, Mobile, Alabama, February 1-5, 2003*, 2003. Available online: http://ageconsearch.umn.edu/bitstream/35095/1/sp03ca02.pdf.
42. Yin, R.K. *Case study research*: *Design and methods*, 4th ed; SAGE: Los Angeles, c 2009.
43. Shkedi, A. *Multiple case narrative*: *A qualitative approach to studying multiple populations*; Benjamins: Amsterdam, Philadelphia, 2005.
44. Yin, R.K.; Heald, K.A. Using the Case Survey Method to Analyze Policy Studies. *Administrative Science Quarterly* **1975**, *20*, 371.
45. Larsson, R. Case Survey Methodology: Quantitative Analysis of Patterns across Case Studies. *The Academy of Management Journal* **1993**, *36*, 1515–1546.

46. Newig, J.; Fritsch, O. *The Case Survey Method and Applications in Political Science*. Paper presented at the APSA 2009 meeting: Toronto, 2009.
47. Bullock, R.J.; Tubbs, M.E. The Case Meta-Analysis Method for OD. *Research in Organizational Change and Development* **1987**, *1*, 171–228.
48. McConnell, A. Policy Success, Policy Failure and Grey Areas In-Between. *J. Pub. Pol.* **2010**, *30*, 345–362.
49. Venot, J.-P.; Andreini, M.; Pinkstaff, C.B. Planning and corrupting water resources development: The case of small reservoirs in Ghana. *Water Alternatives* **2011**, *4*, 399–423.
50. Burandt, A.; Lang, F.; Schrader, R.; Thiem, A. Working in Regional Agro-food Networks – Strengthening Rural Development through Cooperation. *Eastern European Countryside* **2013**, *19*.
51. Clark, J. The institutional limits to multifunctional agriculture: subnational governance and regional systems of innovation. *Environ. Plann. C* **2006**, *24*, 331–349.
52. Horlings, I. Policy conditions for sustainable agriculture in the Netherlands. *Environmentalist* **1994**, *14*, 193–199.
53. Cocklin, C.; Mautner, N.; Dibden, J. Public policy, private landholders: perspectives on policy mechanisms for sustainable land management. *J. Environ. Manage.* **2007**, *85*, 986–998.
54. Levidow, L.; Price, B.; Psarikidou, K.; Szerszynski, B.; Wallace, H. Urban Agriculture as Community Engagement in Manchester. *Urban Agriculture Magazine* **2010**, 43–45.
55. Psarikidou, K.; Szerszynski, B. Growing the social: alternative agrofood networks and social sustainability in the urban ethical foodscape. *Sustainability: Science, Practice, & Policy* **2012**, *8*, 30–39.
56. Psarikidou, K.; Szerszynski, B. The Moral Economy of Civic Food Networks in Manchester. *International Journal of Sociology of Agriculture and Food* **2012**, *19*, 309–327.
57. Orlando, G. Sustainable Food vs. Unsustainable Politics in the City of Palermo: The Case of an Organic Farmers' Market. *City & Society* **2011**, *23*, 173–191.
58. Hagemann, N.; Heyn, N.; Prager, K.; Schuler, J. Policy Measures Encouraging Soil Conservation in Agriculture - A Case Study from Brandenburg (Germany). In *ECOMIT, Proceedings of the 5th International Scientific Conference on Sustainable Farming Systems*; Lehocka, Z., Klimekova, M., Sukkel, W., Eds., 2008, pp. 157–160.
59. Prager, K.; Schuler, J.; Helming, K.; Zander, P.; Ratinger, T.; Hagedorn, K. Soil degradation, farming practices, institutions and policy responses: An analytical framework. *Land Degrad. Dev.* **2011**, *22*, 32–46.
60. Prager, K.; Hagemann, N.; Schuler, J.; Heyn, N. Incentives and enforcement: The institutional design and policy mix for soil conservation in Brandenburg (Germany). *Land Degrad. Dev* **2011**, *22*, 111–123.
61. Vercauteren, L. *Marketing Sustainable Agriculture: An analysis of the potential role of new food supply chains in sustainable rural development*: *Biomelk Vlaanderen*. Case Study Report, 2005.
62. Simoncini, A. *Marketing and communication strategies of alternative food supply chains: a comparative analysis between Belgium and Italy*. Tesi di laurea specialistica: Pisa, Italy, 2006.
63. Vuylsteke, A.; Simoncini, A.; van Huylenbroeck, G. Farmers' search for sustainable chain alliances to market quality food products. In *Empowerment of the rural actors, A renewal of*

*Farming Systems perspectives*; Dedieu, B., Zasser-Bedoya, S., Eds.: INRA SAD: Thiverval-Grignon, France, 2008, pp. 267–276.

64. Rytkönen, P.; Gratzer, K. When do trademarks create new markets? Entrepreneurship, brands and growth - experiences from small scale cheese production in Austria, Spain and Sweden. In *Building sustainable rural futures*, *The added value of systems approaches in times of change and uncertainty*; Darnhofer, I., Grötzer, M., Eds.: BOKU, 2010, pp. 1661–1670.
65. Borg, E.A.; Gratzer, K. Collective Brand Strategy, Entrepreneurship, and Regional Growth: The Role of a Protected Designation of Origin (PDO). *JWER* **2013**, *2*, 26–38.
66. Gratzer, K. Gailtaler Almkäse - Regional Development through Protected Denomination of Origin. In *From local champions to global players*: *Essays on the history of the dairy sector*; Rytkönen, P., Garcia Hernandez, Luis Arturo, Jonsson, U., Eds.: Acta Universitatis Stockholmiensis: Stockholm, 2013; Volume 61, pp. 171–192.