

## Article

# SDG Performance in Local Organic Food Systems and the Role of Sustainable Public Procurement

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**Abstract:** Alternative food systems have occupied a steady niche in the food systems transformation discourse as one of the transformative pathways capable of addressing many of the United Nations Sustainable Development Goals (SDGs). Being one of the alternative approaches, organic food systems are often in the spotlight of transformation discussion. While their outcomes and, to a lesser extent, potential to address the SDGs have been documented, the attempts to provide empirical evidence for the latter contribution are largely lacking. The study aimed to close this gap by assessing the performance of SDGs in local organic food systems with the territorial approach. For this purpose, a mixed methods research design and actor-oriented approach have been used. The research employed a multiple-case study design to examine three European territorial organic food systems to uncover their contribution to SDGs and thereby their role in food systems transformation towards enhanced sustainability. Analysis at the target level revealed the central role of SDG 12, responsible consumption and production, addressed by the highest number of targets manifested through corresponding outcomes of all three analyzed case studies. The analyzed systems uncovered a leverage potential of sustainable public procurement to unfold other SDG targets through synergetic interactions of the respective outcomes.

**Keywords:** sustainable public procurement; SDG 12; SDGs; organic food systems; food system outcomes; food systems transformation



**Citation:** Stefanovic, L. SDG

Performance in Local Organic Food Systems and the Role of Sustainable Public Procurement. *Sustainability* **2022**, *14*, 11510. <https://doi.org/10.3390/su141811510>

Academic Editor: Lewis Holloway

Received: 16 July 2022

Accepted: 31 August 2022

Published: 14 September 2022

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## 1. Introduction

Our modern world is confronted with unprecedented challenges—climate change with accompanying weather extremes, natural disasters, under- and malnutrition, epidemics, and pandemics, just to name a few. The continuously growing global population with its changing consumption patterns inevitably leads to steady overconsumption of natural resources, which poses an immense pressure on ecosystems leading to the situation when one and a half planets are currently required to satisfy the ever-growing humanity's demand [1–4]. Many of the health-related and environmental problems are directly or indirectly linked to our food system, making it evident that the contemporary food system is unsustainable in terms of environmental, social, and economic externalities it generates [1,2,5–9]. Against this background, various scenarios are being offered on how to transform the food system, all of which, regardless of the exact transformation pathway aim at creating a more resilient, just and accountable food system capable of feeding the growing global population within the planetary boundaries [2,3,7,10–13]. Another similarity shared by a multitude of transformation approaches discussed in the literature is that the assessment of current food system sustainability performance would be pivotal for any transformation efforts to occur, in order to identify the areas where the food system currently underperforms [11,14–16]; this brings the food system outcomes into the spotlight of the transformation discourse, since these are the outcomes that make up the food system performance determining the degree of its (un)sustainability [7,12,14,17]. One of the many approaches offered in terms of their potential to improve the food system sustainability

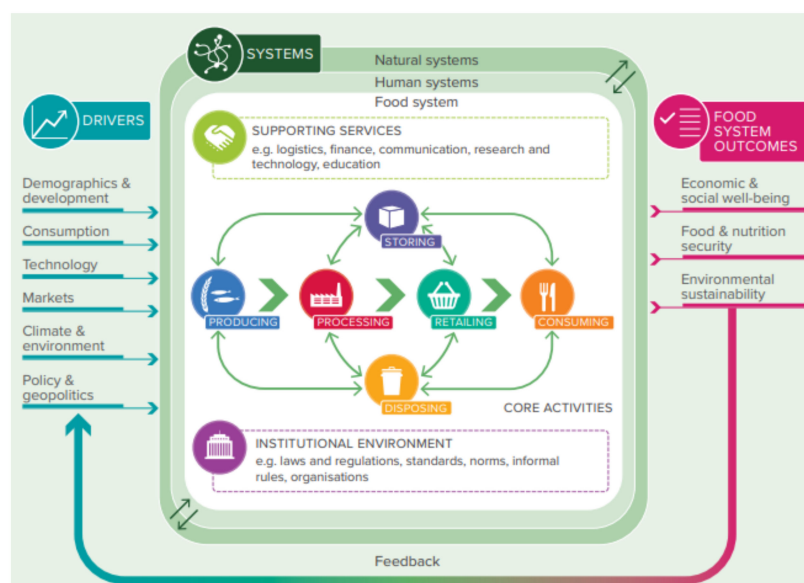
performance is that of the alternative food systems [18–20]. Some of the approaches put forward as transformative engines are, for instance, alternative food networks, local food system initiatives and short-food supply chains, community-based initiatives, city region food systems and organic agri-food systems [18–31]; this paper will focus on local organic food systems as one of the alternative food systems approaches to view their potential contribution to the food systems transformation through the prism of outcomes. Embarking on this mission, the outcomes are approached through the United Nations Sustainable Development Goals (SDGs), both at goal- and target-levels. Beginning with discussing the role of food system outcomes in the food systems transformation discourse and performance metrics, the paper then bridges the concepts of local and organic food systems using a food systems approach. Afterwards, materials and methods are introduced, and research findings are elucidated presenting three European case studies of local organic food systems and their respective SDG-related outcomes. In so doing, the emphasis will be placed on the SDG target 12.7, sustainable public procurement, and its role in activating further outcomes through synergetic interactions with other SDG targets. Finally, the findings are discussed, and conclusions drawn.

## 2. Setting the Scene: The Outcomes of Local Organic Food Systems

This section will first focus on the role of food system outcomes in the food systems transformation towards increased sustainability. Afterwards, to set the boundaries for the present study, the concept of local food systems will be bridged to that of the organic food system. For this purpose, first local food systems along with their outcomes will be viewed to then turn attention to the organic food system alongside its outcomes described in the literature.

### 2.1. Food System Outcomes and Their Role in the Food Systems Transformation Discourse

The food system contains the following elements, based on the food systems approach: a broad range of value-adding core activities from production to consumption and disposal of food along with the corresponding actors performing these activities; outcomes of the activities; natural, political, societal and economic domains embedding the core activities; interactions within and between the food system and its environmental and human environments (see Figure 1) [32–35]. Furthermore, drivers, food system activities and outcomes are connected through feedback loops (see Figure 1).



**Figure 1.** The food system and its elements based on the food systems approach. Source: Woodhill et al. [36], p. 17.

A sustainable food system would be capable of nourishing people and contributing positively to the social and economic dimensions of sustainability, while having neutral to positive environmental impacts [32]. The food systems transformation discourse looks at transition pathways towards enhanced food system sustainability performance in order to enable access to culturally appropriate and healthy diets for all people in a way that would respect the planetary boundaries [3,17]. Regardless of the exact approach or starting point of the transformation, all of the proposed trajectories are united by a common strive for optimizing the food system outcomes to render the unsustainable ones imposed by negative externalities of food system activities to sustainable outcomes in line with the United Nations Agenda 2030 [7,11,12,16,37–40]. Indeed, food system outcomes could be viewed as a mirror, reflecting the functioning of food systems and the consequences of its activities, whereby food insecurity, nutrition disbalance, environmental degradation and burden of disease could be all seen as indicators of a dysfunctional food system [1–3,9,12].

Since the normative goal of any food system should be seen in feeding and nourishing the people, food and nutrition security was unanimously conceived of as the primary food system outcome [9,10,38,41,42]. Aside from that, the food system outcomes can further be attributed to the three dimensions of sustainability, namely environmental, social, and economic [17]. Ideally, a sustainable food system would nourish everyone in an equitable way, in order to contribute to good human health and well-being as well as resilient ecosystems, climate change mitigation and social justice while simultaneously empowering communities [7,12,37,39,43]. In this context, one speaks of “desired”, “emergent” or “expected” outcomes [10,12,16,39]. Since these are the food system outcomes usually being referred to when attempting to lay down the attributes of sustainable food systems, the outcomes, therefore, make up a core of the performance metrics used to assess food systems (sustainability).

Due to the fact that the sustainability assessments often aim at guiding such a complex system as the food system towards a more sustainable trajectory, a wide range of aspects essential for “human existence and nature” would need to be incorporated into the respective metrics [44] (p. 132). The ultimate challenge of such assessments is to take into account of the systemic complexity “without breaking it down into its different parts, which would cause it to lose its interaction characteristics” [45] (p. 200). The food system sustainability metrics does build on individual outcomes to be measured and/or achieved, which are made up of single individual indicators—“simple measures, most often quantitative that represent a state of economic, social and/or environmental development in a defined region” [46] (p. 499). Not only should such indicators represent a sound science-based measure, while allowing for comparisons across different food systems—their selection process should be guided by the parameters desirable to be measured as opposed to selecting the readily available ones [47].

Indicators that are aggregated in a certain manner would result in an index [46]. As assessing food system sustainability inevitably implies taking into account different dimensions, scales and temporal boundaries, multicriteria assessment approaches based on expert-led processes and backed by participatory procedures have been called upon [45,47]. Examples of such attempts include, for instance, studies by Allen et al. [48] and Prosperi et al. [44] applying a Delphi approach for consensus building to select a final set of indicators for food systems sustainability assessments. A sustainable food system framework used in these studies relies on the food systems approach and builds upon the vulnerability and resilience framework following the causal-factor approach.

Another sustainability assessment approach seeking to embrace all the sustainability dimensions, while simultaneously addressing the “good governance” is the framework offered by the Sustainability Assessment of Food and Agriculture Systems (SAFA) Guidelines [49]. With a total amount of 116 default indicators allocated to 21 themes within the four assessment dimensions (encompassing the governance and three sustainability dimensions) the tool offers quantification based on a 0–100% scale allowing to identify the areas of best to unacceptable performance, displayed through the traffic light color

system [49]. The framework was used in different studies for assessing sustainability at an operator level as well as the performance of food system governance vis-à-vis sustainability outcomes [50–52]. For instance, assessments by Landert et al. [50] and Curran et al. [52] draw on the SAFA approach aiming at evaluating the performance of urban food systems and farms, correspondingly. Finally, Hebinck et al. [14] offer a sustainability compass as an assessment tool, enabling to quantify sustainability scores attributed to four societal goals—clean and healthy planet; just, ethical and equitable food systems; healthy, adequate and safe diets for all; economically thriving, robust food value chains. If supported by data allowing for quantification, the tool is capable of providing a reflexive evaluation and facilitating multi-stakeholder discussions centered around trade-offs and synergies between the areas of concern, which the instrument can visualize [14].

## 2.2. *The Context of Local Organic Food Systems*

Notions of “local” and “organic” can both be found within a broader discourse of alternative food networks. Structurally differing from a global supply chain, alternative food networks encompass short supply chains, with up to one intermediary between producers and consumers thereby enabling direct contact between the two parties [19,20]. Organizational structures within alternative food networks include community-supported agriculture (CSA), collective farmers shops, farmers’ markets, community gardens and producer cooperatives as well as organic clusters [19].

This section will view two concepts entrenched in the alternative food networks discourse, namely local food systems and organic food systems, aiming to bridge the two in order to provide the foundation for the unit of investigation used in the present study.

### 2.2.1. *Local Food Systems and Territorial Approach*

The notion of local food systems, despite the term’s ambiguity attributed to the lack of a universally accepted definition, is generally linked to a particular geographical area within which food production, processing, retail and consumption take place [53–55]. Central to local food are the notions of place and space, with the first one encompassing cultural aspects such as traditions and know-how, thereby linking the concept to that of terroir [30]. Regardless of certain degree of subjectivity when it comes to defining and setting the boundaries for the “local” scale, there are certain distinctive characteristics that can be associated with foods originating from the local food systems, namely traceability to a particular origin paired with specific quality characteristics such as freshness, no to mild degree of processing and relational proximity (close relationship between the actors within such systems) [53,54]. Furthermore, significant fluctuations albeit, the scale of geographical proximity is determined to lie within a range between 20–100 km and 100 miles radius [53–55]. Being rooted in particular places, local food systems aim at attaining economic viability for farmers and consumers alike, enhancing food democracy and social equity for all community members, while following environmentally sound production and distribution practices [56]. Market arrangements and distribution channels within local food systems typically include community-supported agriculture (CSA) and farmers’ markets, (roadside) farm stands, U-pick operations, food hubs, specialty food processors, farm-to-table restaurants, local bakeries and breweries and similar [57,58]. Types of foods offered within the local scale might include cottage foods and regional foods [58].

The food produced in local food systems, as well as such systems themselves, are often being conceived of as sustainable, with an arguable notion of enhanced environmental sustainability performance, majorly associated with decreased food miles resulting in reduced greenhouse gas emissions [53,59]; this argument, however, does not necessarily hold true as it was proven that the methods of production along with the mode of transportation have more implications for the environmental sustainability of foods than the food miles alone do [59,60]. The positive contribution of local food systems to the environmental dimension is rather attributed to the fact that local systems tend to foster overall environmentally

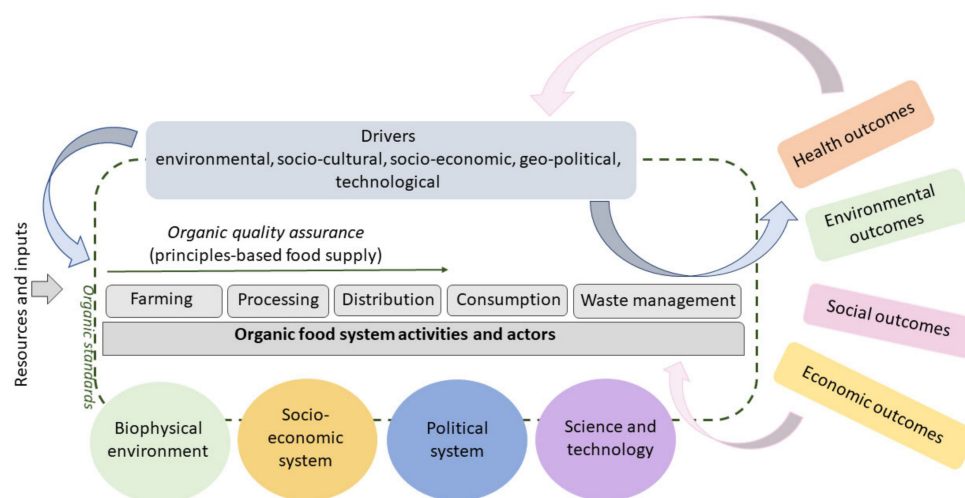
friendlier production practices, with individual farms being engaged in ecologically sound modes of production, oftentimes through organic farming [53,54]; moreover, local food systems usually entail shorter supply chains making the information vis-à-vis the mode of production and products' origin more readily available for consumers enabling them to make an informed choice [54,60]. Not only do local food systems support the decision-making of consumers and foster environmentally friendly production methods—there is a number of socio-economic effects resulting from the local scale as well. The core aspects of local food systems rendering them to pathways towards more sustainable future are seen in building ties between local producers and consumers through strengthened and harmonious rural-urban linkages, connecting urban residents to people from local farms so as to create one community [22,56]. Another aspect of the revitalization of rural areas is linked to non-agricultural activities (e.g., agritourism) often taking place in local food systems and leading to additional revenues [53–55]. Consumers participating in local food systems tend to benefit from the increased access to predominantly fresh unprocessed food coupled with a feel-good aspect from the re-established connection to own food [53,54,58].

### 2.2.2. The Organic Food System and Its Outcomes

The organic food system can be defined as a value-driven food system that aims at “feeding people organically” so as to contribute to human health, wellbeing and ecosystem stability [29,61,62]. Unlike organic farming which focuses on the agricultural side only, the organic food system bridges organic production to organic consumption, including all the value-added activities in between and up to disposal along with other elements, their interactions as well as broader natural, societal, economic, and political realms surrounding them [16,29,32–34,62]. Specifics of the organic production system are laid down in the Guidelines of Codex Alimentarius on organically produced foods, according to which this production method is holistic in its nature aiming at promoting agroecosystem health and biodiversity while enhancing biological cycles along with the biological activity of the soil [63]. The EU Regulation dedicated to organic production and labelling defines organic agriculture as “an overall system of farm management and food production that combines best environmental and climate action practices, a high level of biodiversity, the preservation of natural resources and the application of high animal welfare standards” [64]. The organic movement that had initially started from teachings and philosophy centered around observations of the laws and cycles of the natural world has, over time developed into clearly formulated principles-based farming practices backed by organic standards translating “principles into practice” [61,65,66]. The four principles of organic farming are at the “heart” of the organic movement prescribing the way in which the organic practices are to be carried out while outlining the developmental pathways for organic agriculture to pursue [67]; these four principles are the principle of health, principle of ecology, principle of care and principle of fairness [68]. The principles reflect the holistic nature of the organic system deeply entrenched in working with natural cycles and maintaining ecological balance, safeguarding animal welfare and equitable and respectful relationships between the involved parties in the supply chains, while following precautionary principles vis-à-vis innovative technologies when attempting to increase productivity [68]. The principle of health also lays down a holistic understanding of health, implying inseparability of the health of individuals from that of the ecosystem, suggesting resilience, regeneration and immunity as major health characteristics [67,68].

Based on the aforementioned, the organic food system can be viewed as a sub-system of the global food system encompassing all the food system elements according to the food systems approach, but having an organic quality assurance system in the form of organic standards and regulations in place, which guarantees the organic quality from field to plate (see Figure 2). Therefore, the organic standards can be seen as boundaries of the organic food system. Based on the food systems approach, the feedback loops between the drivers, food system activities and outcomes would also be observed (see Figure 2).





**Figure 2.** The organic food system: a conceptual framework. Source: author’s own elaboration based on the conceptualization of “The Organic Food System” working group at the Department of Organic Food Quality and Food Culture, University of Kassel.

Diversified production alongside alternative weeding and pest control practices usually found on organic farms result in a higher richness of plants and associated fauna, with an increased number of soil organisms including earthworms and fungi [69–71]. Furthermore, the higher carbon content in soil along with an overall improved soil structure, as well as higher soil fertility, have been also reported [70,72]. Owing to the absence of synthetic fertilizers and pesticides in organic production coupled with alternative practices, sustainability assessments reveal better air quality, less ground and water pollution as well as lower resource depletion and positive contribution to climate change mitigation due to improved carbon sequestration in the soil attributed to humus accumulation [51,73,74]; moreover, a number of socio-economic outcomes of the organic food system have been reported as well. For instance, reduced occupational exposure and accidents due to absence of spraying pesticides and fertilizers ultimately results in safer working conditions and better health of farmers and farm workers, which is particularly critical in the countries of the Global South [72,75]. Not limited to that, increased farmers’ autonomy and economic profitability, food and nutrition security of farmers and their families due to higher diversity of harvested crops, revitalization of rural communities, with increased social interaction and participation have also been reported [75–78].

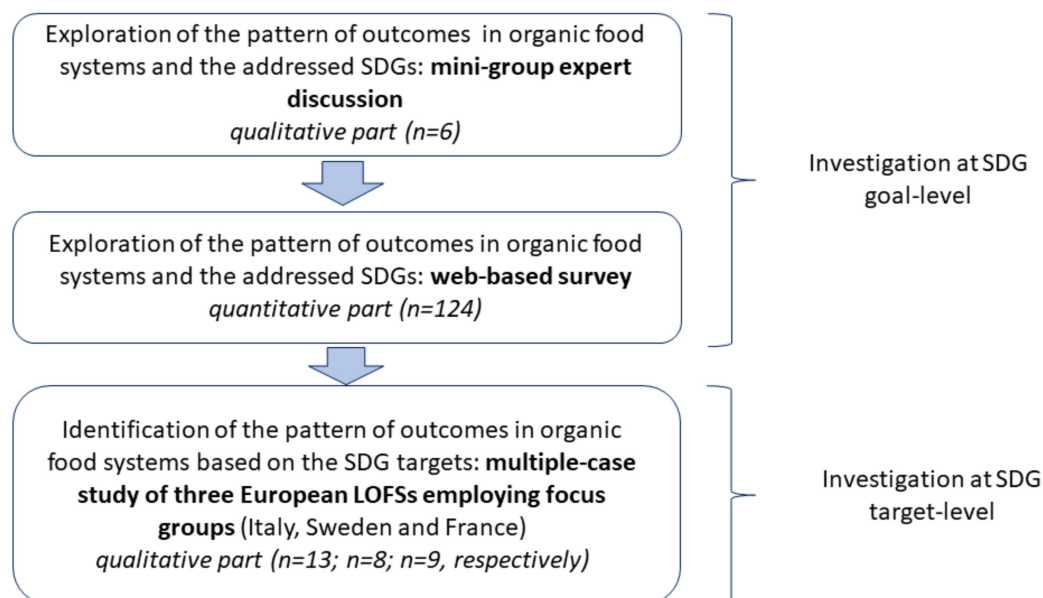
Turning attention to the consumption side, various studies have documented certain distinctive nutritional and safety-related quality characteristics of organic food, such as a more beneficial ratio of omega-6 to omega-3 fatty acids in organic milk; for organic apples, higher content of fibers and polyphenols coupled with higher technical quality, firmness of fruit tissues and taste characteristics as assessed by a trained sensory panel [79,80]; moreover, lower content of cadmium in organic cereal crops as well as no genetically modified organisms and significantly lower pesticide residues in organic foods, owing to the absence of genetically modified organisms (GMOs) and pesticides in organic production practices have been reported, too [79,81–83]. Not limited to that, organic and biodynamic cucumbers showed better resilience and vitality properties in corresponding tests [80,84]. Finally, the diets of regular organic consumers seem to be overall healthier and better aligned with nutritional recommendations [61,85,86]. Organic food consumption was reported to have an inverse association with certain diseases such as metabolic syndrome, and type 2 diabetes, as well as risk of overweight and obesity [87,88].

### 3. Materials and Methods

To investigate the outcomes of organic food systems and their potential role in food systems transformation, the present study employed an actor-oriented approach based

on actor-system dynamics (ASD) theory [89–91]; this approach allows for linking the outcomes and developments resulting from human interaction to the interaction itself thereby “bringing human agent into the picture” [89] (p. 212); moreover, since the food systems transformation involves complex and dynamic processes including consciousness and intentionality aspects as well as the ability to self-transformation on the side of human agents as co-creators of transformative change, the perspectives and perceptions of actors as co-constructors of food systems transformation haven been placed in the center of present research [89,92]. Therefore, contrary to studies aiming to provide quantification of the assessed parameters, the study at hand mainly relied on a qualitative approach placing the organic food system actors and experts of the organic movement in the center of research and relying on their judgements.

Mixed methods research design was used to determine the outcomes of organic food systems and their potential contribution to food systems transformation through the target-level performance vis-à-vis the United Nations Sustainable Development Goals (SDGs); this approach was the most appropriate to study the complex topic of food system outcomes, since it allows to combine quantitative and qualitative data collection methods within the same project so as to enable a better understanding of the complex phenomenon being investigated [93,94]. A multiphase sequential design was employed, with a combination of building upon each other quantitative and qualitative studies [95]. Furthermore, the investigation of individual outcomes of organic systems as well as their contribution to the SDGs was carried out, which was pursued in a stepwise manner: first, possible outcomes of organic food systems in general as well as potential contributions to SDGs at the goal level have been identified through expert mini-group discussion followed by a web-based survey; afterwards, concrete outcomes and corresponding SDGs at the target level have been analyzed as part of a multiple-case study in three organic food systems with a territorial/local approach (see Figure 3).



**Figure 3.** Research design consisting of a mixed methods approach. LOFSs—local organic food systems. Source: author’s own elaboration.

The first step, a mini-group expert discussion, took place on 4 October 2018, in the discussion room of the Department of Organic Food Quality and Food Culture of the University of Kassel, Germany. Six experts in organic food systems with a long-term experience in organic agriculture and research, governance, counselling and advocacy from Asian countries, Europe and the United States have been invited to participate in the discussion, which was carried out as part of the workshop dedicated to organic food

systems. The participants of this workshop have been invited to take part in a mini-group discussion (convenience sampling). The aim of the mini-group discussion was two-fold. First, it sought to formulate a pattern of organic food system-specific outcomes. The basis for this part of the discussion was laid down by the outcomes that are described in the literature on organic agriculture and food systems as well as organic food consumption (see Section 2.2.2). Afterwards, the attention was turned to formulating an organic food system-specific SDG-pattern. The starting point for the discussion was offered by the research assumptions (see Table 1) presented to the experts on a PowerPoint slide. The experts were asked to adjust and complement the statements.

**Table 1.** Research assumptions discussed with the experts in a mini-group discussion.

<b>Research Assumptions Discussed with the Experts</b>
<p>An organic food system-specific pattern of outcomes includes protection of natural resources and enhanced resilience of ecosystems, improved livelihoods, revitalized community, and improved health and nutrition security [69–78,81–83,86,87].</p> <p>The following SDGs find a greater representation in the organic food system outcomes: SDG 2, SDG 3, SDG 4, SDG 6, SDG 8, SDG 12, SDG 13, SDG 14 and SDG 15 [76,96,97].</p>

Source: author's own elaboration.

For the SDG part of the discussion, the aim was to determine the goals that might find greater representation in the organic food system based on the systems the participants were familiar with or had in mind. For this purpose, the SDG-poster from the United Nations was used, and each participant received five coloured sticky dots for pinpointing the organic food system-specific SDG-pattern. Based on the aims of this research phase a mini-group format was considered appropriate because, first, it represents a quite commonly used form of expert discussions and second, due to the lower number of participants, the format facilitates better engagement of individual experts in discussed topics while offering enough talking time per participant [98–100]. The expert discussion was audio recorded with written consent from each of the participants. Additionally, notes were taken throughout the discussion.

The second step of the study, a web-based survey, was conducted over a two-months span (end of February to end of April 2019), with worldwide experts in the organic sector (organic value chain actors, research and academia, policymaking and certification, counselling, extension services, etc.) as a target group. A combination of judgemental sampling with a snowball technique was used for the survey [101]; this approach relied on researcher's judgement as to whom to invite to participate as a representative target group (ibid.). In the context of the present study, the scope of the term "expert" embraced individuals familiar with a subject under study whose analysis of issues as well as judgements will be relied upon [102,103]. A database of the organic sector in different continents around the world was created in the form of an excel spreadsheet. For this purpose, desk research was conducted, and personal organic network of the research team at the Department of the University of Kassel was relied on. All in all, 613 organizations and private persons along with 18 multipliers have been invited to participate in the survey. 124 respondents participated in the survey, however the number of individual answers collected varied depending on the question. The survey part dedicated to the outcomes included six questions (the survey was jointly conducted by the working group "The Organic Food System" at the Department of Organic Food Quality and Food Culture of the University of Kassel and therefore included several parts). For the purpose of this paper, only three questions would be considered: a multiple-response question about the outcome categories addressed in organic food systems along with their universal or regional character and a five-point Likert scale for rating the contribution of organic food systems to 17 SDGs at the goal level (see Table 2).



**Table 2.** Survey questions dedicated to outcome categories and the SDG performance of the organic food system.

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Based on your experience in the organic sector, in which of the following areas do you see organic food systems making a contribution?

Food and nutrition security

Food sovereignty

Ecosystem stability

Improved livelihoods

Revitalized community

Socio-cultural well-being

Health and nutritional status

Waste and loss reduction

Food safety

Dietary diversity

Others, please specify

None of the above

I would prefer not to answer

Do you think that the contributions are universally applicable (i.e., true for any OFS around the globe)?

Yes

No

To what degree (percentage) are these contributions, in your opinion, universally applicable and to what—region-specific?

Universally applicable to 100%
50% universally applicable / 50% region-specific
Region specific to 100%

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In case you consider the contributions to be mostly “region-specific”, please specify what differs with regard to contributions of OFS in other regions of the world

If you consider the contributions not to be mostly “region-specific”, please leave this blank

Please rate how much organic food systems contribute to each of the 17 Sustainable Development Goals (SDGs)?

not at all  a little  somewhat  a lot  totally

For more information on SDGs please refer to: <https://sustainabledevelopment.un.org/sdgs> (accessed on 13 July 2022).

SDG 1: No poverty

SDG 2: Zero hunger

SDG 3: Good health and well-being

SDG 4: Quality education

SDG 5: Gender equality

SDG 6: Clean water and sanitation

SDG 7: Affordable and clean energy

SDG 8: Decent work and economic growth

SDG 9: Industry, innovation and infrastructure

SDG 10: Reduced inequalities

SDG 11: Sustainable cities and communities

SDG 12: Responsible consumption and production

SDG 13: Climate action

SDG 14: Life below water

SDG 15: Life on land

SDG 16: Peace, justice and strong institutions

SDG 17: Partnerships for the goals

What could, in your opinion, serve as a benchmark (e.g., some already existing index, indicator like specific indicators of life cycle assessments, quality of life index, etc.) to monitor these contributions in organic food systems?

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Source: author’s own elaboration.

For the final, third, step, namely a multiple-case study, three European case studies of local organic food systems with a territorial approach have been selected. The selection process was guided by several predetermined criteria. Firstly, it was essential that both organic production and organic consumption would take place within one system, and the system itself would have clear geographical and jurisdictional boundaries. Next,

there had to be an organic quality assurance system in place—either through third-party certification or via participatory guarantee system (PGS). Regarding the production side, it was considered important that the range of organic production is diverse enough to fill a food basket. Furthermore, in order to facilitate studying the SDG-related outcomes resulting from local organic food systems over a longer period of time, it was crucial that the case study would be represented by a well-established system no younger than ten years. Finally, to study the system, data availability and accessibility had to be safeguarded, which also implied the willingness on the side of the systems' key actors to participate in the research.

Based on the selection criteria, three European case studies were chosen: the bio-district Cilento (Italy), the Södertälje municipality (Sweden) and the municipality of Mouans-Sartoux (France). Aside from fulfilling all the criteria these three organic food systems shared a similarity in that they all have had their starting point in the area of sustainable public procurement; this was considered as another important parameter to allow for a certain degree of homogeneity between the focus groups in each of the case studies.

The three organic food systems have been first studied based on the available literature including academic publications, project reports and the cases' documentation phase preceding the present study [104–106]. Afterwards, in-situ focus groups in the case studies' locations were conducted. In preparation for focus group sessions and for the purpose of structuring the discussion, a questioning route was developed, which contains a sequenced list of questions to be discussed [107]. The questioning route incorporated an introduction in the form of a retrospective view of the organic food system under question followed by five outcome categories—ecosystem stability, food and nutrition security, improved livelihoods, inclusive economic growth and, finally, governance and partnerships (see Table 3). Each of the categories incorporated individual outcomes, which were represented by a shortened version of SDG targets. The researcher initially selected 72 out of the total amount of 169 targets, which were considered to have either direct or indirect link to food systems. The outcome categories with corresponding outcomes were presented to the focus groups' participants in the form of PowerPoint slides when discussing the respective dimension. For focus groups in Italy and France, the outcome categories along with the respective outcomes have been translated into Italian and French, respectively.

**Table 3.** Questioning route with themes and their sequence.

Themes Addressed in the Focus Groups
1. Retrospective view: the establishment of the organic food system under study; main goals and objectives of the inception phase.
2. Sustainable public procurement as the first apparent effect of the organic food system: have there been other effects observed in the first phase?
3. Zooming in on outcome categories and their respective outcomes:
3.1. Outcome category "Ecosystem stability";
3.2. Outcome category "Food and nutrition security";
3.3. Outcome category "Improved livelihoods";
3.4. Outcome category "Inclusive economic growth";
3.5. Outcome category "Governance and partnerships";
4. Concluding remarks, prospective objectives and future goals.

Source: author's own elaboration.

The participants have been selected in such a way that all the major stakeholder groups within the case study would be represented, while at the same time safeguarding the homogeneity between the groups. At the same time, each of the focus groups can be considered homogenous in that all participants are the key actors of the respective case studies and heterogenous in terms of the range of professions and individual roles within the systems. The latter aspect is valuable for focus groups as it facilitates the exploration of different perspectives in a group setting allowing for contrasting answers [107,108].

Focus group sessions were carried out in each of the areas between end of January and mid-February 2020. The participants were not made aware of the SDG-related character

of the outcomes discussed; they were asked to select any of the displayed outcomes if they thought these were addressed in the organic food system under question and provide a concrete example for this outcome. Additionally, the possibility to discuss any other outcomes not being displayed has also been given. For the Italian focus group session, simultaneous translation was performed by a professional interpreter from a local translation bureau. The French session has also been translated, however due to the inability to find a professional interpreter locally, one of the focus group participants who was a municipality's employee actively involved in international projects and therefore fluent in English and familiar with the terminology, took over the simultaneous translation. Afterwards, the French transcript was rounded off by a professional translation bureau. The Swedish session was performed in the English language since all the participants were fluent enough, and one of them being an English native speaker, ensured that in case of any difficulties the correct expressions will be found. All the sessions have been audio- and video-recorded in order to facilitate 1:1 transcription process preceding data analysis.

Data analysis procedure was carried out as follows. For the expert mini-group discussion, a detailed protocol was created, and the results summarized. The survey was analysed using SPSS, version 27.0. Frequency distributions have been computed for the outcome categories and mean values—for the SDGs. Data from the focus groups have been analysed using MaxQDA, version 2020, using a reconstructive approach, whereby participants' expressions served as a basis for the reconstruction of an interpretive guiding knowledge basis [109]. A stepwise thematic coding following the sequence of questions in the questioning route was performed as recommended by Krueger and Casey [107]. SDG targets provided the basis for thematic coding, whereby all 169 targets have been consulted for the analysis to ensure the inclusion of additional aspects addressed by the participants. For the purpose of the present article, the relationship between the establishment of a sustainable public procurement system and the realization of other SDG targets was investigated based on thematic analysis applying a realist approach to causality [110,111]; this was followed by the analysis of other SDG targets-related outcomes of the organic food systems' activities not linked to sustainable public procurement.

#### 4. Results

The organic food system-specific pattern of outcomes agreed upon by the experts in a mini-group discussion is largely in line with the pattern identified through the survey (see Table 4). One category that has not been addressed in the survey, but explicitly outlined by the experts in the discussion was inclusive governance, also referred to by the participants as "good governance". As one of the experts explained: "It's not like you get a good governance if you have organic, but it allows for it". The survey also attempted to find out whether the outcome categories would be universally applicable or region-specific. The majority corresponding to 81 respondents (65%) indicated a universal character of the selected outcome categories, while 43 respondents (35%) opted for a region-specific character of outcomes, whereby the preference was given to a 50% universal/50% region-specific distribution.

**Table 4.** Organic food system-specific pattern of outcomes and the SDG-pattern identified through mini-group expert discussion and a web-based survey.

Category	Mini-Group Expert Discussion ( <i>n</i> = 6)	Web-Based Survey ( <i>n</i> = 119 . . . 122) <sup>1</sup>
Organic-specific outcomes pattern	Protection of natural resources, enhanced resilience of ecosystems, improved livelihoods, revitalized community, inclusive (good) governance, improved health, food and nutrition security	Ecosystem stability, health and nutritional status, food and nutrition security, dietary diversity, improved livelihoods, food sovereignty, revitalized community <sup>2</sup>
Universal applicability of outcome categories	n/a	65% (81 respondents)—universally applicable
Organic food system-specific SDG-pattern (at the goal level)	SDG 13; <b>SDG 12</b> and SDG 15; SDG 3 and SDG 17; SDG 2; SDG 1 and SDG 8 and SDG 11; SDG 14	<b>SDG 12</b> ; SDG 3; SDG 15; SDG 13; SDG 6; SDG 8; SDG 11; SDG 17; SDG 14; SDG 2; SDG 1; SDG 16; SDG 9 <sup>3</sup>

Source: author's own elaboration based on own data. <sup>1</sup>—the fluctuating number of responses is due to the fact that the question offered a multiple response option, with a possibility of not answering for each of the answer options. <sup>2</sup>—listed outcomes represent only those outcome categories that were selected by more than 50% of the survey respondents. <sup>3</sup>—only SDGs that scored above 3,20 on a five-point-Likert scale are displayed.

Coming to the multiple-case study, all three European local organic food systems with territorial approach shared a similarity in that the inception of each of them had been characterized by the establishment of sustainable public procurement systems, which has served a starting point for each of the systems and the respective focus group rounds. Each of the case studies will be briefly described and their respective SDG targets-related outcomes discussed in the following subsections; it is worth stressing that there have been more SDG targets revealed in the focus group sessions compared to what the present article discusses; however, due to the scope of this manuscript only the targets directly associated with the establishment of sustainable public procurement as well as the selection of targets related to other activities within the analyzed organic food systems are presented.

#### 4.1. The Cilento Organic Food System and Its SDG-Related Outcomes

The Italian case study—bio-district Cilento—stretches over the territory of 3196 km<sup>2</sup> in total encompassing a large coastland beside the Tyrrhenian sea, the area of Alburni mountains and narrow plains of Valle di Diano [112–114]. The organic district is encased in the National Park of Cilento [104]. Cilento bio-district, or bio-distretto in Italian language, dates back to 2009 when it was officially established as a result of the public process of its constitution initiated earlier in 2004 [113,115]. The inception of the organic district, the first of its kind in Italy and worldwide, was the result of a bottom-up participatory approach to promote organic food and farming of Cilento as well as the territory as a whole—an attempt originating in the struggle of organic farmers to market their produce and reach the consumer [112,116]. The objectives behind this territorial initiative were multifaceted and included creating access to market, while simultaneously promoting organic producers, providing fresh organic and local produce with transparent information vis-à-vis production practices and products' origin to consumers, offering attractive destinations and new approaches for tour operators, and safeguarding food security and elaborating new pathways of meeting the needs of local communities [116]. The initial phase of the bio-district has established the market for organic small-scale producers, which was accomplished through public procurement via school canteens, hospitals and tourism establishments [104].

Following the initial series of workshops and meetings initiated by ten municipalities, with an active support of the Italian Association of Organic Agriculture (AIAB), a variety of actors, including public administration, tour operators, canteens, restaurants worked

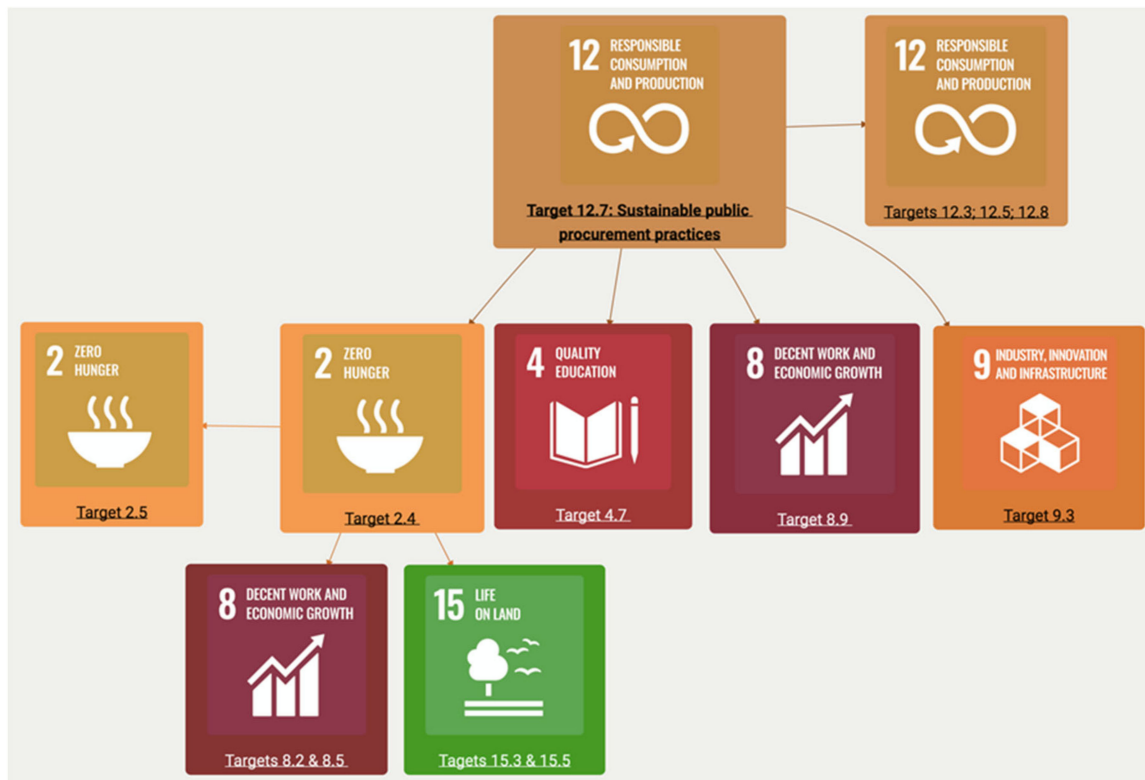
out the strategy to promote the territory and the organic food along with its producers, underpinned by the organic principles [114,116]. Finally, in 2012, an official definition was introduced according to which a bio-district is “a geographical area where farmers, citizens, tourist operators, associations and public authorities enter into an agreement for the sustainable management of local resources, based on organic production and consumption (short food chain, purchasing groups, organic canteens in public offices and schools)” [117] (p. 2); this definition already lists the main actor groups of the Cilento organic food system, but a few more are also worth mentioning—the Cilento National Park, the Italian Association for Organic Agriculture, local training and research centers, a civic membership association of volunteers Pro Loco Ceraso working together with other actors on the promotion of the area and, finally, Campus Mediterraneo center supporting territorial development [104,114,117]. Organic products of the bio-district represent almost entirely the Mediterranean food basket and include vegetables, fruits, pulses, anchovies, the Cilento white fig (specialty), chestnuts, olives and extra virgin olive oil, multiple types of cheese (including goat cheese and Buffalo mozzarella), black pork and black goat products, honey and wine (DOC product) [104,114,117]. The bio-district is characterized by short supply chains with predominantly direct distribution channels (on-farm sales, farmers markets, e-commerce, etc.) followed by distribution through HORECA (hotels, restaurants, canteens) [113,114]. Organic producers are certified either through third-party certification or via participatory guarantee system (PGS), with the latter scheme becoming increasingly popular due to costs reduction for the small producers [104,113,114].

The establishment of sustainable public procurement in the bio-district Cilento through school canteens and agritourism establishments activated some further outcomes, as the focus group session revealed. First, it resulted in the promotion of sustainable food production systems and resilient agricultural practices (target 2.4, see Figure 4), accomplished through organic farming. As one of the participants explained:

There’ve been a lot of businesses ( . . . ) that slowly have begun to change their way of farming to the organic way. And that is because ( . . . ) the consumers were already asking for organic products.

Resilient agricultural practices centered around organic farming, in turn, helped to revert soil degradation, while restoring degraded land and gradually increasing soil fertility (target 15.3, see Figure 4); moreover, genetic diversity of seeds (target 2.5, see Figure 4) was safeguarded, too. As explained by one of the participants: “Thanks to the bio-district, they recuperated the farming of a lot of antique products that would have been lost otherwise: wheat, legumes, soft wheat ‘Carosella’”. Not limited to that, socio-economic outcomes have been unfolded, too, namely employment and decent work (target 8.5) and a higher level of economic productivity through diversification (target 8.2, see Figure 4). As one of the focus group participants put forward: “The agro-food system is an engine . . . it’s an engine that stimulates the economy, and it permits people to find a job, to be able to work”. Another participant added that organic products have become more economically viable and profitable, while the production itself has increased as a result of the enhanced soil activity due to organic farming practices.





**Figure 4.** SDG target 12.7, sustainable public procurement practices, as leverage for unfolding other SDG-related outcomes in the Cilento organic food system. Source: author’s own elaboration based on data from focus group session in Italy.

Next, education and awareness-raising (targets 4.7 and 12.8, see Figure 4) through sustainable public procurement have also been brought to attention, with the example of consumers being educated about the seasonality of food; moreover, the importance of agritourism establishments of the bio-district in the promotion of local culture and sustainable tourism (target 8.9, see Figure 4) was put forward by one of the participants. As he explained referring to the organic beaches:

It was done with respect for the eco-sustainable model. And not only that—the products that were ordered for the consumption of the users themselves were also organic.

Referring to the same aspect, another participant stressed that the Cilento food culture was also promoted through the bio-district-centered agritourism so that the visitors who had previously spent their holidays in the area were afterwards requesting organic products from the small-scale farmers of Cilento; moreover, sustainable public procurement channels and fairs organized within the bio-district enabled better integration of small-scale enterprises into value chains and markets (target 9.3, see Figure 4). Access to relevant information and awareness for sustainable development and lifestyles in harmony with nature was pointed out, too. Here, for instance, schools and their procurement play a vital role, as was elucidated by one focus group participant: “We’ve definitely seen effects in various ways in schools . . . spreading information in families, but also in organized meetings that people can attend for free”. Schools have also been stressed in the context of food waste and loss reduction, which was explained to be two-fold—through intelligent orders on the side of school canteens and through educating students and parents about waste prevention strategies, e.g., purchases adjusted to needs and appropriate portion sizes.

Aside from the SDG targets-related outcomes linked to the area of sustainable public procurement, there have been other activities carried out within the Cilento organic food

system, which contributed to the achievement of socio-economic and environmental outcomes as well as governance and partnerships outcomes related to SDG 1 (no poverty), SDG 7 (affordable and clean energy), SDG 8 (decent work and economic growth), SDG 11 (sustainable cities and communities), SDG 14 (life below water), SDG 15 (life on land), SDG 16 (peace, justice and strong institutions) and SDG 17 (partnerships for the goals) (see Table 5).

**Table 5.** SDG-related outcomes of the Cilento organic food system stemming from activities other than sustainable public procurement.

SDG Target	Example of Outcomes
<i>Socio-economic outcomes</i>	
Goal 1—Target 1.5: Resilience-building for poor and vulnerable groups	Agriculture-based work programs for prison inmates
SDG 7—Target 7.2: Increased share of renewable energy	“Organic beaches” as an eco-sustainable model, with wooden structures and solar panels on the roof. A competitive from an economic standpoint model with profitable advantages.
SDG 8—Target 8.2: Higher levels of economic productivity through focus on high-value added and labor-intensive sectors	
SDG 11—Target 11.4: Protection of the world’s cultural and natural heritage	Safeguarding the territory for future generations.
<i>Environmental outcomes</i>	
SDG 14—Target 14.2: Sustainable management and protection of marine and coastal ecosystems	No beach erosion due to the maintenance of a natural balance between the sea and the rivers and streams.
Target 14.4: Restoring fish stocks through regulating fish harvesting and prevention of overfishing	Market opportunity for small-scale fishermen not using any overfishing methods.
Target 14.5: Conservation of coastal and marine areas	“Organic beaches” with structures built on a stilt system allowing crushed waves to go under the establishment in a natural settling of the sand.
SDG 15—Target 15.a: Mobilization and significant increase in financial resources for conservation and sustainable use of biodiversity and ecosystems	Projects on biodiversity attracting politicians’ attention to the importance of funds’ allocation for maintenance of biodiversity.
<i>Governance and partnerships outcomes</i>	
Goal 16—Target 16.7: Responsive, inclusive, participatory and representative decision-making at all levels	Effect of the Cilento organic food system on the concept of participation due to the increased involvement of businesses and participation beyond governmental level.
SDG 17—Target 17.16: Global and multi-stakeholder partnerships for Sustainable DevelopmentTarget 17.17: Effective public, public-private and civil society partnerships	Opening the doors for collaboration with the aim of creating a network.

Source: own compilation based on data from focus group session in Italy. Shortened version of SDG targets is used.

#### 4.2. The Södertälje Organic Food System and Its SDG-Related Outcomes

Located in the east-central part of Sweden and only 35 km away from the country’s capital, Stockholm, Södertälje municipality encompasses an area of 694 km<sup>2</sup>, which consists of Södertälja city and four municipal districts—Järna, Enhörna, Vardinge-Mölnbo, and Hölö-Mörkö [118]. The year 2001 marked the inception of the Södertälje organic food system since it was in this year that concerted action was taken by the City Council—to render purchase of food for public meals to an instrument of enhancing sustainability [119,120]. In Sweden, school lunches are free by law, which provided an inspiration for the Södertälje municipality to highlight the role of food choices in tackling environmental and health problems using organic food in public procurement as a tool for promoting healthy eating and enhancing environmental sustainability [118,121]. In Södertälje, the municipality’s section called Diet Unit is responsible for all public meals being served within the municipality’s borders, including schools, kindergartens as well as elderly care homes [122]. In 2010, the City Council adopted the Diet Policy—the document elaborated by the Diet Unit laying down the guidelines for an overall strategy in the realm of public catering [119,122]. The Diet Unit took the lead in the conceptualization and implementation of “Diet for a clean Baltic”—the concept arose as part of the BERAS (Baltic Ecological Recycling Agriculture and Society) Implementation project focused on establishing sustainable food societies through the focus on organic and ecological recycling agriculture (ERA) farms in the Baltic Sea region [119,122,123]. Over time, the concept “Diet for a green Planet” has emerged out of the ancestor and sought to provide healthy and environmentally sustainable public

meals [122]. The criteria formulated in the concept include seasonal and sustainably produced organic food as the basis for a diet, with preferably local sourcing, whereby up to 250 km distance between consumer and producer can be tolerated; waste minimization throughout the entire chain; reduction of meat and increase in consumption of vegetables and whole grains [122].

The production range within the organic food system of Södertälje includes organically and/or biodynamically produced cereals and vegetables (both open land and greenhouse grown), herbs, legumes, berries, fruits, meat, eggs and milk [124,125]. The key actors represent a broad variety of stakeholder groups—from the municipality’s Diet Unit, individual farms, vegetable gardens and orchards, complementary farming establishments for rehabilitation, education and social integration, through processing actors (mill, slaughterhouse) to a wholesaler, individual stores, CSA, school canteens, restaurants, research and academia along with international organizations and networks [105,119,124,126]. Distributions channels are characterized by direct marketing through farmers markets, farm shops and CSA and indirect channels through HORECA, wholesalers, retail outlets including national food chain shops [105,119,124]. Organic quality assurance is guaranteed through third-party certification via a national certification scheme called KRAV and Demeter biodynamic certification [105,124].

The political decision of 2001 to use municipal public procurement as a tool to promote sustainability, which was accomplished through integration of organic as well as local and region food in public catering, has yielded multifaceted outcomes. First, sustainable food production systems and resilient agricultural practices (target 2.4, see Figure 5) have received due attention, which was done through the focus on ecological recycling agriculture (ERA), pursued in collaboration with the BERAS Implementation project. As one of the focus group participants further explained referring to the outcomes of ERA, as evaluated by the BERAS project, reduction of marine pollution (target 14.1, see Figure 5) was achieved, “with 50% reduction of leaching of nitrogen to the sea”. At the same time, reduction of air, water and soil contamination and pollution (target 3.9), restoration of degraded land and soil (target 15.3) as well as enhancement of biodiversity (target 15.5, see Figure 5) have also resulted from sustainable production systems with resilient agricultural practices based on ERA. Not limited to that, the biodynamic complementary farm establishments in Järna being part of the Södertälje organic food system contribute to resilience-building for vulnerable groups (target 1.5, see Figure 5) through the integration of people with disabilities into farming and food-related activities. As one of the participants stressed: “The story of Järna was . . . taking care of people that were a little bit outside of the mainstream . . . and letting them have the possibility to work, in nature, with farms”. The decision of 2001 has also stimulated the process of knowledge-creation, awareness-raising and better involvement of the kitchen staff (targets 4.7 and 12.8, see Figure 5). According to one of the participants:

When we started to educate the staff, the knowledge came, and they started to create relation with the farmers, with the people working in the food chain. So, then they realized that . . . there is something else. Well, we started to involve them.

This observation was reinforced by another participant:

The recruitment process would change, the profile of recruitment changed . . . and that made one of the biggest impacts—bringing new people in, giving them new functions, new roles, giving them higher status.



**Figure 5.** SDG target 12.7, sustainable public procurement practices, as leverage for unfolding other SDG-related outcomes in the Södertälje organic food system. Source: author's own elaboration based on data from focus group session in Sweden.

Consequently, employment and decent work have also resulted from the establishment of sustainable public procurement in Södertälje (target 8.5, see Figure 5). As was stressed by one focus group participant: “According to this system, we have people who’re participating here . . . and we can employ with a certain amount of funding from the state”. What is more, the decision of 2001 enabled to link a more rural Järna district to a more urban Södertälje city (target 11.a, see Figure 5). As one participant put forward:

This meeting between the Järna society and Södertälje society has been a very interesting thing because it’s been a little bit closed before, like a bubble (. . . ) In a broad scale you can say that this kind of interaction between two kinds of systems—the Södertälje system that was more conventional system and the Järna system that was more an island of organic thinking people.

Finally, sustainable public procurement practices in Södertälje have triggered yet another important dimension of outcomes—waste and loss reduction (targets 12.3 and 12.5, see Figure 5). The concrete strategies to achieve this have been multifaceted. For one, to reduce losses and waste along the food chain, new products and recipes have been developed in collaboration with the Diet Unit to incorporate the foods that would have otherwise been lost or wasted. Examples of this include, for instance, a new dairy product developed out of low-fat milk commonly not consumed in Sweden, or cooking meat from egg laying hens and, finally, a fish burger developed in school canteens from bream fish—the fish species normally not eaten in Sweden. Another strategy to reduce food waste was practiced in a biodynamic lunch restaurant in Järna, which included the reduction in portion size through smaller sized plates in a buffet coupled with no self-serving for warm meals; this way, the smaller size of the plate would prevent restaurant guests from overfilling their plates, and the restaurant staff would halve the portion size of warm meals to avoid waste due to unreasonable portion size; this measure helped to significantly cut food waste of consumption: “Food waste from the guests . . . it’s less than 1% food waste from customers. Before, we had, maybe, 10 or something like that”; this same restaurant has also opted for collaborating with regional, local, and biodynamic farmers and growers

to buy off foods that are about to be thrown away and incorporate them into the menu; this enabled the restaurant to use high-quality food at a lower price while improving resource efficiency of consumption and production (target 8.4, see Figure 5).

There was a number of activities initiated by the Södertälje organic food system over the years following the political decision of 2001, which are attributed to the municipality's projects such as the already mentioned before BERAS-Implementation as well as a European Union-funded project MatLust aiming at establishing a regional knowledge hub and a meeting venue for food and sustainability in Södertälje. And an ample number of additional outcomes have been released by these projects'-related activities, which can be attributed to socio-economic and governance and partnerships outcomes linked to SDG 2 (zero hunger), SDG 9 (industry, innovation and infrastructure), SDG 10 (reduced inequalities), SDG 11 (sustainable cities and communities), SDG 16 (peace, justice and strong institutions) and SDG 17 (partnerships for the goals) (see Table 6).

**Table 6.** SDG-related outcomes of the Södertälje organic food system stemming from activities other than sustainable public procurement.

SDG Target	Example of Outcomes
<i>Socio-economic outcomes</i>	
SDG 2—Target 2.1: Access of all people to safe, nutritious and sufficient food all year round	Increased share of organic food in a coop shop.
Target 2.3: Doubled agricultural productivity and incomes of small-scale producers, including through secure access to land and other productive resources, and opportunities for value addition and non-farm employment	“The farming strategy”—the decision of the first early stage that grew and developed ever since.
SDG 9—Target 9.5: Enhanced scientific research	Evaluation of the organic recycling farms compared to conventional agriculture. Constant activities of the MatLust project attracting people from the whole food chain from all over Sweden.
SDG 10—Target 10.2: Promotion of social, economic and political inclusion of all	Better integration of small villages such as Järna into Södertälje policy through the organic food system.
SDG 11—Target 11.4: Protection of the world's cultural and natural heritage	Countering the loss of local knowledge and monocultures.
<i>Governance and partnerships outcomes</i>	
SDG 16—Target 16.7: Responsive, inclusive, participatory and representative decision-making at all levels	Better representation of Järna in the Södertälje decision-making.
SDG 17—Target 17.11: Significant increase in exports of developing countries	Supporting 2000 families with the import of organic and fair trade bananas.
Target 17.16: Global and multi-stakeholder partnerships for Sustainable Development	People coming to Södertälje for first-hand experience.
Target 17.17: Effective public, public-private and civil society partnerships	Cooperation and the dialogue between the decision-making, the experts, and the management. Other municipalities and regions are reaching out to Södertälje for advice.

Source: own compilation based on data from focus group session in Sweden. Shortened version of SDG targets is used.

#### 4.3. The Mouans-Sartoux Organic Food System and Its SDG-Related Outcomes

The municipality of Mouans-Sartoux is located in the Alpes-Maritimes county of the Grasse district, Provence-Alpes-Côte-d'Azur region in south-eastern France [127,128]. Contained between the sea and the mountains and lying in the center of a tripled agglomeration Cannes-Grasse-Antibes, the municipality occupies the total area of 13.52 km<sup>2</sup> [127,128]. The trigger for the inception of the organic food system in Mouans-Sartoux was the outbreak of a mad cow disease, which has drawn attention of local authorities towards the food-health-environment nexus [106,128]. The solution was found in serving exclusively organic



beef in Mouans-Sartoux's school canteens, and, at the same time, equipping schools with own kitchens [129,130]. After that, efforts have been undertaken to innovate the school catering system and gradually increase the share of organic food in school canteens, with the municipality having initiated its own territorial food policy while joining several national nutrition- and health-oriented national programs [129]. In 2010, the municipal farm Domaine de Haute-Combe was established, which enabled Mouans-Sartoux to fully cover its public canteens' demand for organic vegetables [128,129]. Finally, the municipality was able to reach the 100%-mark share of organic foods in public procurement [106,129]. The "Observatory for Sustainable Canteens" was then founded to keep track of the evolution of consumption patterns in children's families [106,129]. Later, in 2016, a Center for Sustainable Food Education, MEAD (from French *Maison d'Éducation à l'Alimentation Durable*) was founded aiming to create a space for conducting projects, learning and sharing ideas so as to expand the scope beyond the realm of public catering [106,129]. In collaboration with the University of Côte-d'Azur the Center started offering a University degree program "Management of Sustainable Food Projects for Territorial Collectivities" [106,129].

The key actors of the Mouans-Sartoux organic food system include municipal administration and municipal farm, Centre for Sustainable Food Education MEAD, school canteens and parents' association, the Gardens of the Siagne Valley, family gardens, CSA cooperative AMAP, bulk grocery store and solidarity social grocery store, the Fair Trade Center, University of Côte-d'Azur and University of Nantes as well as various networks [106,128,129,131]. Locally grown organic produce in Mouans-Sartoux is comprised of tomatoes, cucumbers, bell peppers, onions, carrots, greens and herbs, artichokes, corn, beans and peas [106]. To supply public catering with organic foods that cannot be produced locally, regional sources and neighboring outside areas (e.g., Italy) are used, following the rule of not exceeding 200 km distance within the supply chain [106]. The organic system in Mouans-Sartoux is characterized by a significant share of distribution through school canteens complemented by direct channels through farmers' market, CSA and solidarity baskets as well as indirect distribution through wholesale and retail outlets including social and bulk grocery stores [106,128,129]. Organic quality assurance is guaranteed through third-party certification [106]. While individual organic producers within the municipality are part of the national certification scheme *Agriculture Biologique* (AB), the municipal farm and school canteens are certified through Ecocert [106,129]. For biodynamic products of Mouans-Sartoux, Demeter certification is used [106].

The territorial food policy of Mouans-Sartoux laid down its food system's key principles—increased self-sufficiency for fresh, seasonal, organic produce coupled with short supply chains [128,130]. The municipality's long-term vision implies the increase of farmers in the area to safeguard access to locally produced sustainable food, while further developing locally based short supply chains that would contribute to employment creation and unlock further sustainable development-centered activities [128].

The establishment of sustainable public procurement in Mouans-Sartoux approached through 100% organic meals in school canteens backed by short supply chains activated a multitude of accompanying outcomes. First, similarly to the previous case studies, a sustainable food production system with resilient agricultural practices (target 2.4) was achieved, which, in turn, unfolded further outcomes linked to the environmental and socio-economic dimensions (see Figure 6). Likewise, access to safe, nutritious and sufficient food (target 2.1) was safeguarded. As was put forward by one of the focus group participants:

One of the effects of the work that has been done in the area of childhood, on organic meals, has resulted in considerations in other services, and organic meals are now served in the nurseries—it's no longer just in primary and infant schools, but also in nurseries. And there is currently preparatory work being done there, particularly financial and technical, which will allow the delivery of meals to elderly people—organic meals.



**Figure 6.** SDG target 12.7, sustainable public procurement practices, as a leverage for unfolding other SDGs in the Mouans-Sartoux organic food system. Source: author's own elaboration based on data from focus group session in France.

Moreover, it was stressed that access to the same quality of school meals is being also guaranteed for lower income families thereby enabling the inclusion of all groups:

Children in Mouans-Sartoux benefit from a meal price with 100% organic meals without increasing the costs and with rates that allow this access to the canteen, including for families that do not have a high income. There is therefore an established price based on family incomes, which allows everyone to have access to 100% organic meals in the canteens.

Organic farming practiced on the municipal farm, in municipal gardens and CSA of Mouans-Sartoux have reduced contamination and air, water and soil pollution (target 3.9, see Figure 6):

There are no longer any pesticides or insecticides in children's service or the green space maintenance service . . . But the main sensitive issues . . . I mean household products have been without pesticides and insecticides for some time.

Not limited to that, organic farming activities have allowed for integrating vulnerable groups (target 1.5, see Figure 6), which was accomplished in partnership with another organization. As one of the participants explained:

A few years ago ( . . . ) there was an organization ( . . . ) which employed disabled people—lots of disabled people—as organic farmers, to distribute their produce to the people of Saint-Jeannet, and did it; it was 5–6 years ago and it lasted several years.

It was further explained that maintenance of biodiversity spots with meadows and wild flowers (target 15.5, see Figure 6) is being practiced in communal gardens; furthermore, restoration of degraded soil and land (target 15.3, see Figure 6) was observed thanks to the municipal farm that over time has increased in size from 40 to 112 hectares. As one of the participants put it: "So, land that was otherwise workable, fertile, becomes it again". Furthermore, the municipal farm has contributed to job creation providing full and productive employment and decent work (target 8.5, see Figure 6). Aside from that, according to the focus group participants, active actions were undertaken by a mobilized group of people to protect land for farming (target 2.3, see Figure 6), which was done in

collaboration with organic farmers association and other organizations. The municipal farm has also been mentioned as an important actor in educational activities for creating knowledge on sustainable development-related topics (target 4.7):

There is a whole range of education that is extremely important. There are visits to Hautes Combes, the schools regularly go to visit the municipal farms.

The aspect of social and economic inclusion of all (target 10.2, see Figure 6) was brought to attention, with the work being done by the Siagne Valley gardens:

There's a communal structure there, which welcomes the long-term unemployed, and to reintegrate them Siagne Valley gardens association offers them market gardening work. And so, there's also an objective to produce vegetables, to integrate in a real economic context.

Reinforcement of rural-urban links (target 11.a, see Figure 6) has also been addressed, through collaboration with an urban area of Grasse and inland farmers, with "growth in the relationships, interactions" occurring over the years; moreover, responsive, inclusive, participatory and representative decision-making at all levels (target 16.7) was mentioned highlighting that:

It's an ongoing work. There's a long history. For example, all the work that was done with the schools at the time of the local education plan and then afterwards with respect to territorial food policy. That was a major work of collaboration.

Finally, as the focus group session revealed, school canteens have played a vital role in the reduction of food loss and waste, while simultaneously raising awareness towards sustainability-related issues (targets 12.3, 12.5 and 12.8, see Figure 6). Likewise, waste reduction efforts on the side of Mouans-Sartoux municipality in collaboration with school canteens have been stressed:

We ourselves have been working on the waste from canteens and in partnership with the teams making the meals, specifically to waste as little as possible because there were not just purchases or municipal management—there was also initially a huge amount of waste. The waste from the canteens has therefore been reduced more and more, the work we've done with children on consultation, on the impact of waste sorting, on all sorts of workshops . . . The workshops offered by the facilitation teams worked so well that the children went home with a desire also to progress on how they eat and how they behave for the environment.

Awareness-raising and knowledge dissemination on the issues of waste and sustainability (targets 12.8 and 4.7, see Figure 6) have been brought up in connection to municipality's food waste reduction strategies yet in another example:

The municipality tried also to teach people outside the canteens—not only the kids, but normally also other citizens to get involved in reduction of waste ( . . . ) a positive eating family challenge that was created. That the families can take part in this challenge, and they learn how to reduce the food waste, for example, or cook a bit differently using more organic products.

Aside from the activities around the establishment of sustainable public procurement, the Mouans-Sartoux organic food system was actively involved in various projects contributing to education and sustainable food systems, consumer information for sustainable consumption and production and sustainable lifestyles. The outcomes of these activities stretch from reduction of inequalities and resilience-building for vulnerable groups over education, awareness-raising campaigns and increased research through water efficiency to integration of climate change measures into policies and partnerships (see Table 7).

**Table 7.** SDG-related outcomes of the Mouans-Sartoux organic food system stemming from activities other than sustainable public procurement.

SDG Target	Example of Outcomes
<i>Socio-economic outcomes</i>	
SDG 1—Target 1.5: Resilience-building for poor and vulnerable groups	Social and community food shop, with 30–40 families benefiting from accessible food at discounted prices.
SDG 4—Target 4.7: Knowledge and skills to promote sustainable development	University diploma for sharing the practices of Mouans-Sartoux.
SDG 6—Target 6.4: Increase in water use efficiency	Subsidies from the local council to encourage farmers to responsibly use water on the condition that they farm organically.
SDG 9—Target 9.5: Enhanced scientific research	Increased use of research, research-based work and developments. Researchers reviewing the work done in Mouans-Sartoux.
SDG 10—Target 10.2: Promotion of social, economic and political inclusion of all	The biodiversity atlas containing constructed elements or living and natural elements at risk of development. Everyone makes suggestions on how to improve the list.
Target 10.3: Equal opportunity and reduced inequalities	Mouans-Sartoux as a fair trade area since 2009. The town buys fairly traded products, with criteria on the public procurement for certain products.
SDG 11—Target 11.4: Protection of the world’s cultural and natural heritage	A list of heritage elements, which are of interest to the town. The hope to further develop it with the people.
<i>Environmental outcomes</i>	
SDG 13—Target 13.2: Integrate climate change measures into policies, strategies and planning	Conservation of biodiversity vis-à-vis climate
Target 13.3: Education and awareness-raising on climate change mitigation, adaptation and impact reduction	change, and how it can help people to live better in an urban setting.
SDG 15—Target 15.9: Integration of ecosystem and biodiversity values into local planning and development processes	A local biodiversity atlas created in a participatory way raising awareness to the topic of climate change and the biodiversity in an urban environment.
<i>Governance and partnerships outcomes</i>	
SDG 16—16.7: Responsive, inclusive, participatory and representative decision-making at all levels	Local group for sustainable food and citizens groups ensuring representation of all citizens and taking part in the town’s policymaking.
SDG 17—Target 17.3: Mobilizing additional financial resources for developing countries	Local authorities supporting developing countries to help them access water through helping to dig wells.
Target 17.16—Global and multi-stakeholder partnerships for Sustainable Development	Rural training center in Togo is attempting to draw on Mouans-Sartoux’s work and create a catalogue of local agricultural resources to make them available for healthy and regular meals for students.
Target 17.17—Effective public, public-private and civil society partnerships	GLAD (local group for sustainable food) aiming to disseminate information and knowledge on sustainable development and sustainable food. The group involves different partners: parents’ association, bulk grocery store, the Fair Trade Center.

Source: own compilation based on data from focus group session in France. The shortened version of SDG targets is used.

The three case studies at hand uncovered the transformative potential that the establishment of a sustainable public procurement system (SDG target 12.7) might bear in local organic food systems. Not only is this target connected to other targets of SDG 12, but it also tends to unfold further outcomes related to targets of other SDGs. Many of them are addressed through target 2.4, sustainable production systems and resilient agricultural practices, which, for the three systems described in this article, are pursued through organic practices. Furthermore, the case studies shed light on the potential of food waste and loss reduction through sustainable public procurement initiatives, which can stretch well beyond the canteens resulting in awareness-raising towards waste reduction strategies, healthy eating and other sustainability-related topics on the side of individual households.

## 5. Discussion

The present study relied on a mixed-methods research design and actor-centered approach to investigate an organic food system-specific outcomes pattern as well as the

SDG performance of local organic food systems. The SDG performance was analyzed first at goal-, and afterwards at the target level. The results revealed that despite the level of investigation (goals versus targets), SDG 12, responsible consumption and production, appeared to be the goal addressed to a high extent in organic food systems. Unlike SDG 12, for other goals the level of investigation seems to play a vital role when considering the contribution of organic systems to SDGs. Examples of that include SDG 3, good health and well-being, and SDG 13, climate action, for which a contribution was identified through the mini-group expert discussion and web-based survey at the goal level, the target-level, however, revealed certain discrepancies. Likewise, the mitigation effects attributed to the organic practices and addressed in the literature and focus groups, could not be allocated to any target of SDG 13, climate action, since this goal covers processes towards climate outcomes rather than the outcomes themselves [132]; moreover, the defined scale, for instance, national scale within the target 13.2, posed another challenge since it did not allow for capturing corresponding contributions at local level. For the effective achievement of SDGs, however, it is essential to build upon the activities taking place on local scales [133]. Regarding SDG 3, good health and well-being, the individual outcomes attributed to a broader conception of well-being (e.g., resilience and vitality) addressed both in the organic literature and in the focus groups could not be assigned to any target of SDG 3 due to the fact that the targets of this goal focus rather on absence of disease, decreased mortality, health coverage and safety as well as improved prevention and treatment.

The multiple-case study of the present research uncovered an important role played by SDG 12 in the analyzed organic food systems, with a multitude of synergetic interactions revealed between its target on sustainable public procurement (target 12.7) and the targets of other SDGs. Although not applied to food systems specifically, a similar observation was made by Le Blanc [134], who identified the presence of potential synergies between SDG 12 and other goals, which was accomplished through a network analysis based on targets' wording. In a food systems-related context, Fassio and Tecco [135] analyzed 40 case studies implementing a circularity approach within the food supply chain realm vis-à-vis their SDG contribution and identified SDG 12 to have the highest representation. A systematic literature review by Jacob-John et al. [136] analyzed the interactions of SDG 12 with other goals in food supply chains and revealed the existing synergetic interrelations between SDG 12 and the other 16 goals, largely in line with the findings of the present study. In particular, the study identified synergies between targets 12.3, food waste and loss reduction, and 2.4, sustainable production systems and resilient agricultural practices [136]. Slightly differently, the present study uncovered the synergetic relationships between target 2.4, sustainable food production systems with resilient agricultural practices, and target 12.7, sustainable public procurement, whereby a link to food waste and loss reduction was established as well, however rather through public procurement, due to the study's scope (food loss reduction of farming has not been accounted for). Furthermore, considering that sustainable public procurement holds potential for facilitating the dietary changes alongside the highlighted in the present study role in tackling food waste and loss, these outcomes can play a vital role for activating other SDGs. Indeed, according to Caron et al. [7], these realms can be seen as a core of the SDGs. Furthermore, these areas are highlighted as transformative strategies for achieving sustainable food systems [2,3,7] suggesting that local organic food systems can be part of the solution to transform the food system; however, it is worth stressing that the type of local area and, more specifically, proximity to urban spaces seem to play an important role in activating the outcomes of local organic food systems, which might be explained by the co-benefits of the enhanced rural-urban links [7,26].

The attempts to compare the present findings vis-à-vis the SDG performance of organic food systems specifically to the existing literature reveal the lack of empirical studies addressing this aspect. Investigations based on literature reviews do, however, exist. Likewise, Koerber and Carlsburg [137] connected organically produced food to SDG 1 (no poverty), SDG 2 (zero hunger), SDG 3 (good health and well-being), SDG 6 (clean water and sanitation), SDG 8 (decent work and economic growth), SDG 12 (responsible consumption



and production), SDG 13 (climate action) and SDG 15 (life on land). In specifics, the authors highlighted the targets also revealed in the present study—targets 2.4, 2.5, 3.9, 8.4, and 15.5. Based on the empirical evidence of the benefits of organic agriculture reported in the literature, De Schaetzen [96] disclosed potential contributions of organic to SDG 2, SDG 3, SDG 6, SDG 8, SDG 12, SDG 13, SDG 14 and SDG 15. The author addressed systemic issues alongside the interrelated character of the goals leading to synergetic effects, many of which have also been observed in the present study (e.g., soil quality, absence of pesticides in organic production). The contributions to other SDGs attained through the targets of SDG 12 disclosed in the present research are largely in line with the goals discussed by De Schaetzen [96].

The findings of the study at hand shed light on possible SDG-related outcomes of local organic food systems when considered beyond the focus on production side only. At the same time, the results illustrate the potential held by the sustainable public procurement realm, which, if properly managed, could help achieve multiple SDGs contributing to food systems transformation towards enhanced sustainability. Since the study conducted a first of the kind and rather explorative investigation of the SDG performance in local organic food systems at the target level, which was accomplished using an actor-oriented approach, it would be vital that future studies deepen the investigation through measurable indicator-based assessment tools. Imaginable would be to take advantage of the synergetic interactions between the goals at the target level to then focus on the essential variables for food systems transformation [138]. Based on the findings of the present study, the targets 12.7 and 2.4 could be seen as viable candidates for building such essential variables for food systems transformation towards enhanced sustainability. Aside from that, since this study covered the countries of the Global North only, it would be of pivotal importance to investigate other countries and continents to compare the SDG performance of organic systems in different contexts and geographical and economic settings. Finally, similar investigations should be done to analyze other alternative food systems, in order to get comparable results vis-à-vis the sustainability performance of these systems; this could help to reveal the areas where different alternative food systems could complement each other, in order to balance the outcomes and result in a broader SDG coverage.

**Funding:** This research was funded by the Software AG Foundation within the framework of the project “How can organic/biodynamic food systems contribute to the societal transformation towards sustainability?” (ID8333).

**Informed Consent Statement:** Informed consent was obtained from all subjects involved in the study.

**Data Availability Statement:** Data cannot be publicly disclosed due to privacy reasons and based on a confidentiality agreement.

**Acknowledgments:** The author expresses her gratitude to the informants of the case studies, who provided access to the cases. Special thanks go to the experts who participated in a mini-group discussion as well as the survey respondents and focus group participants. The author further acknowledges methodological guidance and expert advice from Bettina Langfeldt and Manuela Pötschke from faculty of social sciences of the University of Kassel, Germany. The author also expresses her gratitude to Jostein Hertwig, coordinator of the Organic Food System Program, for his assistance with the organizational matters related to setting up focus groups. Special thanks go to the Steering Committee members and partners of the Organic Food System Program for their support vis-à-vis the organic network for distributing the survey invitations. Finally, the author thanks the reviewers for their valuable comments and remarks that helped to improve the manuscript.

**Conflicts of Interest:** The author declares no conflict of interest.

## References

1. Westhoek, H.; Ingram, J.; van Berkum, S.; Hajer, M. *Food Systems and Natural Resources*; United Nations Environment Programme: Nairobi, Kenya, 2016; ISBN 978-92-807-3560-4.
2. Willett, W.; Rockström, J.; Loken, B.; Springmann, M.; Lang, T.; Vermeulen, S.; Garnett, T.; Tilman, D.; DeClerck, F.; Wood, A.; et al. Food in the Anthropocene: The EAT–Lancet Commission on healthy diets from sustainable food systems. *Lancet* **2019**, *393*, 447–492. [[CrossRef](#)]
3. Rockström, J.; Edenhofer, O.; Gaertner, J.; Declerck, F. Planet-proofing the global food system. *Nat. Food* **2020**, *1*, 3–5. [[CrossRef](#)]
4. WWF. *Living Planet Report 2020: Bending the Curve of Biodiversity Loss*; World Wildlife Fund: Gland, Switzerland, 2020; ISBN 978-2-940529-99-5.
5. Steffen, W.; Richardson, K.; Rockström, J.; Cornell, S.E.; Fetzer, I.; Bennett, E.M.; Biggs, R.; Carpenter, S.R.; De Vries, W.; De Wit, C.A.; et al. Planetary boundaries: Guiding human development on a changing planet. *Science* **2015**, *347*, 1259855. [[CrossRef](#)] [[PubMed](#)]
6. Vermeulen, S.J.; Campbell, B.M.; Ingram, J.S.I. Climate Change and Food Systems. *Annu. Rev. Environ. Resour.* **2012**, *37*, 195–222. [[CrossRef](#)]
7. Caron, P.; de Loma-Orsorio, G.F.Y.; Nabarro, D.; Hainzelin, E.; Guillou, M.; Andersen, I.; Arnold, T.; Astralaga, M.; Beukeboom, M.; Bickersteth, S.; et al. Food systems for sustainable development: Proposals for a profound four-part transformation. *Agron. Sustain. Dev.* **2018**, *38*, 41. [[CrossRef](#)] [[PubMed](#)]
8. Rockström, J.; Steffen, W.; Noone, K.; Persson, Å.; Chapin, F.S., III; 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. [[CrossRef](#)] [[PubMed](#)]
9. High Level Panel of Experts on Food Security and Nutrition. *Nutrition and Food Systems: A Report by the High Level Panel of Experts on Food Security and Nutrition of the Committee on World Food Security*; High Level Panel of Experts on Food Security and Nutrition: Rome, Italy, 2017.
10. Béné, C.; Oosterveer, P.; Lamotte, L.; Brouwer, I.D.; de Haan, S.; Prager, S.D.; Talsma, E.F.; Khoury, C.K. When food systems meet sustainability—Current narratives and implications for actions. *World Dev.* **2018**, *113*, 116–130. [[CrossRef](#)]
11. Bortoletti, M.; Lomax, J. *Collaborative Framework for Food Systems Transformation: A Multi-Stakeholder Pathway for Sustainable Food Systems*; United Nations Environment Programme: New York, NY, USA, 2019; ISBN 978-92-807-3753-0.
12. Eakin, H.; Connors, J.P.; Wharton, C.; Bertmann, F.; Xiong, A.; Stoltzfus, J. Identifying attributes of food system sustainability: Emerging themes and consensus. *Agric. Hum. Values* **2016**, *34*, 757–773. [[CrossRef](#)]
13. Gordon, L.J.; Bignet, V.; Crona, B.; Henriksson, P.J.G.; Van Holt, T.; Jonell, M.; Lindahl, T.; Troell, M.; Barthel, S.; Deutsch, L.; et al. Rewiring food systems to enhance human health and biosphere stewardship. *Environ. Res. Lett.* **2017**, *12*, 100201. [[CrossRef](#)]
14. Hebinck, A.; Zurek, M.; Achterbosch, T.; Forkman, B.; Kuijsten, A.; Kuiper, M.; Nørrung, B.; Veer, P.V.; Leip, A. A Sustainability Compass for policy navigation to sustainable food systems. *Glob. Food Secur.* **2021**, *29*, 100546. [[CrossRef](#)]
15. Jacobi, J.; Mukhovi, S.; Llanque, A.; Giger, M.; Bessa, A.; Golay, C.; Speranza, C.I.; Mwangi, V.; Augstburger, H.; Buergi-Bonanomi, E.; et al. A new understanding and evaluation of food sustainability in six different food systems in Kenya and Bolivia. *Sci. Rep.* **2020**, *10*, 19145. [[CrossRef](#)]
16. Ruben, R.; Verhagen, J.; Plaisier, C. The Challenge of Food Systems Research: What Difference Does It Make? *Sustainability* **2018**, *11*, 171. [[CrossRef](#)]
17. Stefanovic, L.; Freytag-Leyer, B.; Kahl, J. Food System Outcomes: An Overview and the Contribution to Food Systems Transformation. *Front. Sustain. Food Syst.* **2020**, *4*, 546167. [[CrossRef](#)]
18. Mastronardi, L.; Marino, D.; Giaccio, V.; Giannelli, A.; Palmieri, M.; Mazzocchi, G. Analyzing Alternative Food Networks sustainability in Italy: A proposal for an assessment framework. *Agric. Food Econ.* **2019**, *7*, 21. [[CrossRef](#)]
19. Kessari, M.; Joly, C.; Jaouen, A.; Jaeck, M. Alternative food networks: Good practices for sustainable performance. *J. Mark. Manag.* **2020**, *36*, 1417–1446. [[CrossRef](#)]
20. Brinkley, C. The Small World of the Alternative Food Network. *Sustainability* **2018**, *10*, 2921. [[CrossRef](#)]
21. Zoll, F.; Specht, K.; Siebert, R. Alternative = transformative? Investigating drivers of transformation in alternative food networks in Germany. *Sociol. Rural.* **2021**, *61*, 638–659. [[CrossRef](#)]
22. Feenstra, G.; Campbell, D.C. Local and Regional Food Systems. In *Encyclopedia of Food and Agricultural Ethics*; Thompson, P.B., Kaplan, D.M., Eds.; Springer: Dordrecht, The Netherlands, 2014; pp. 1345–1352. ISBN 978-94-007-0929-4.
23. Béné, C. Resilience of local food systems and links to food security—A review of some important concepts in the context of COVID-19 and other shocks. *Food Secur.* **2020**, *12*, 805–822. [[CrossRef](#)]
24. Doernberg, A.; Piorr, A.; Zasada, I.; Wascher, D.; Schmutz, U. Sustainability assessment of short food supply chains (SFSC): Developing and testing a rapid assessment tool in one African and three European city regions. *Agric. Hum. Values* **2022**, *39*, 885–904. [[CrossRef](#)]
25. Blay-Palmer, A.; Knezevic, I.; Andree, P.; Ballamingie, P.; Landman, K.; Mount, P.; Nelson, C.; Nelson, E.; Stahlbrand, L.; Stroink, M.; et al. Future Food System Research Priorities: A Sustainable Food Systems Perspective from Ontario, Canada. *J. Agric. Food Syst. Community Dev.* **2013**, *3*, 227–234. [[CrossRef](#)]
26. Blay-Palmer, A.; Santini, G.; Dubbeling, M.; Renting, H.; Taguchi, M.; Giordano, T. Validating the City Region Food System Approach: Enacting Inclusive, Transformational City Region Food Systems. *Sustainability* **2018**, *10*, 1680. [[CrossRef](#)]

27. King, C.A. Community resilience and contemporary agri-ecological systems: Reconnecting people and food, and people with people. *Syst. Res. Behav. Sci.* **2008**, *25*, 111–124. [[CrossRef](#)]
28. Rööös, E.; Bajzelj, B.; Weil, C.; Andersson, E.; Bossio, D.; Gordon, L.J. Moving beyond organic—A food system approach to assessing sustainable and resilient farming. *Glob. Food Secur.* **2021**, *28*, 100487. [[CrossRef](#)]
29. Strassner, C.; Kahl, J. Understanding a Food Systems Approach. In *Organic Food Systems: Meeting the Needs of Southern Africa*; Auerbach, R., Ed.; CABI: Wallingford, UK; Boston, MA, USA, 2020; pp. 51–59. ISBN 9781786399625.
30. Vittersø, G.; Lieblein, G.; Torjusen, H.; Jansen, B.; Østergaard, E. Local, organic food initiatives and their potentials for transforming the conventional food system. *Anthr. Food* **2005**, *4*. [[CrossRef](#)]
31. Vittersø, G.; Jansen, B.; Lieblein, G.; Torjusen, H.; Østergaard, E. Organic food initiatives and their transformative power on the conventional food system. In Proceedings of the 6th European Symposium of the International Farming Systems Association, Vila Real, Portugal, 4–7 April 2004.
32. FAO. *Sustainable Food Systems: Concept and Framework*; FAO: Rome, Italy, 2018.
33. iPES Food. *The New Science of Sustainable Food Systems: Overcoming Barriers to Food Systems Reform*; iPES Food: Santa Cruz, CA, USA, 2015.
34. McDonald, R.; Reitmeier, C. *Understanding Food Systems: Agriculture, Food Science, and Nutrition in the United States*; Academic Press: London, UK, 2017; ISBN 9780128044452.
35. Van Berkum, S.; Dengerink, J.; Ruben, R. *The Food Systems Approach: Sustainable Solutions for a Sufficient Supply of Healthy Food*; Wageningen Economic Research: The Hague, The Netherlands, 2018.
36. Woodhill, J.; Hasnain, S.; Griffith, A. *Farmers and Food Systems: What Future for Small-Scale Agriculture?* Foresight4Food, Environmental Change Institute: Oxford, UK, 2020.
37. Lindgren, E.; Harris, F.; Dangour, A.D.; Gasparatos, A.; Hiramatsu, M.; Javadi, F.; Loken, B.; Murakami, T.; Scheelbeek, P.; Haines, A. Sustainable food systems—a health perspective. *Sustain. Sci.* **2018**, *13*, 1505–1517. [[CrossRef](#)]
38. Gustafson, D.; Gutman, A.; Leet, W.; Drewnowski, A.; Fanzo, J.; Ingram, J. Seven Food System Metrics of Sustainable Nutrition Security. *Sustainability* **2016**, *8*, 196. [[CrossRef](#)]
39. Whitfield, S.; Benton, T.; Dallimer, M.; Firbank, L.; Poppy, G.M.; Sallu, S.; Stringer, L. Sustainability spaces for complex agri-food systems. *Food Secur.* **2015**, *7*, 1291–1297. [[CrossRef](#)]
40. Allen, T.; Prosperi, P. Modeling Sustainable Food Systems. *Environ. Manag.* **2016**, *57*, 956–975. [[CrossRef](#)]
41. Ingram, J.S.I. A food systems approach to researching food security and its interactions with global environmental change. *Food Secur.* **2011**, *3*, 417–431. [[CrossRef](#)]
42. Ericksen, P.J. Conceptualizing food systems for global environmental change research. *Glob. Environ. Chang.* **2008**, *18*, 234–245. [[CrossRef](#)]
43. Schipanski, M.E.; MacDonald, G.K.; Rosenzweig, S.; Chappell, M.J.; Bennett, E.M.; Kerr, R.B.; Blesh, J.; Crews, T.; Drinkwater, L.; Lundgren, J.G.; et al. Realizing Resilient Food Systems. *BioScience* **2016**, *66*, 600–610. [[CrossRef](#)]
44. Prosperi, P.; Allen, T.; Cogill, B. Building consensus on sustainable food system assessment: Applying a Delphi survey. In *Sustainable Food System Assessment*; Blay-Palmer, A., Conaré, D., Meter, K., Di Battista, A., Johnston, C., Eds.; Taylor & Francis: New York, NY, USA, 2020; pp. 130–156. ISBN 978-0-429-43989-6.
45. Esnouf, C.; Russel, M.; Bricas, N. *Food System Sustainability: Insights From DuALLne*; Cambridge University Press: Cambridge, UK, 2013; ISBN 978-1-107-03646-8.
46. Ness, B.; Urbel-Piirsalu, E.; Anderberg, S.; Olsson, L. Categorising tools for sustainability assessment. *Ecol. Econ.* **2007**, *60*, 498–508. [[CrossRef](#)]
47. Blay-Palmer, A.; Conaré, D.; Meter, K.; Di Battista, A.; Johnston, C. (Eds.) *Sustainable Food System Assessment*; Taylor & Francis: New York, NY, USA, 2020; ISBN 978-0-429-43989-6.
48. Allen, T.; Prosperi, P.; Cogill, B.; Padilla, M.; Peri, I. A Delphi Approach to Develop Sustainable Food System Metrics. *Soc. Indic. Res.* **2018**, *141*, 1307–1339. [[CrossRef](#)]
49. FAO. *SAFA Guidelines: Sustainability Assessment of Food and Agriculture Systems: Version 3.0*; FAO: Rome, Italy, 2013.
50. Landert, J.; Schader, C.; Moschitz, H.; Stolze, M. A Holistic Sustainability Assessment Method for Urban Food System Governance. *Sustainability* **2017**, *9*, 490. [[CrossRef](#)]
51. Schader, C.; Stolze, M.; Niggli, U. How the Organic Food System Contributes to Sustainability. In *Assessing Sustainable Diets within the Sustainability of Food Systems, Proceedings of an International Workshop, 15–16 September 2014, CREA, Rome, Italy*; Meybeck, A., Redfern, S., Paoletti, F., Strassner, C., Eds.; FAO: Rome, Italy, 2015; pp. 27–36.
52. Curran, M.; Lazzarini, G.; Baumgart, L.; Gabel, V.; Blockeel, J.; Epple, R.; Stolze, M.; Schader, C. Representative Farm-Based Sustainability Assessment of the Organic Sector in Switzerland Using the SMART-Farm Tool. *Front. Sustain. Food Syst.* **2020**, *4*, 554362. [[CrossRef](#)]
53. Enthoven, L.; Van den Broeck, G. Local food systems: Reviewing two decades of research. *Agric. Syst.* **2021**, *193*, 103226. [[CrossRef](#)]
54. Kneafsey, M.; Eyden-Wood, T.; Bos, E.; Sutton, G.; Venn, L.; Schmutz, U.; Balázs, B.; Trenchard, L.; Blackett, M. *Short Food Supply Chains and Local Food Systems in the EU: A State of Play of Their Socio-Economic Characteristics*; Publications Office: Luxembourg, 2013; ISBN 978-92-79-29288-0.

55. Martinez, S.; Hand, M.; Da Pra, M.; Pollack, S.; Ralston, K.; Smith, T.; Vogel, S.; Clark, S.; Lohr, L.; Low, S.; et al. *Local Food Systems: Concepts, Impacts, and Issues*; U.S. Department of Agriculture, Economic Research Service: Washington, DC, USA, 2010.
56. Feenstra, G.W. Local food systems and sustainable communities. *Am. J. Altern. Agric.* **1997**, *12*, 28–36. [[CrossRef](#)]
57. Hinrichs, C. Embeddedness and local food systems: Notes on two types of direct agricultural market. *J. Rural Stud.* **2000**, *16*, 295–303. [[CrossRef](#)]
58. Palmer, A.; Santo, R.; Berlin, L.; Bonanno, A.; Clancy, K.; Giesecke, C.; Hinrichs, C.C.; Lee, R.; McNab, P.; Rucker, S. Between Global and Local: Exploring Regional Food Systems from the Perspectives of Four Communities in the U.S. Northeast. *J. Agric. Food Syst. Community Dev.* **2017**, *7*, 187–205. [[CrossRef](#)]
59. Stein, A.J.; Santini, F. The sustainability of “local” food: A review for policy-makers. *Rev. Agric. Food Environ. Stud.* **2021**, *103*, 77–89. [[CrossRef](#)]
60. Shindelar, R. The Ecological Sustainability of Local Food Systems. *RCC Perspect* **2015**, *1*, 19–24.
61. Strassner, C.; Cavoski, I.; Di Cagno, R.; Kahl, J.; Kesse-Guyot, E.; Lairon, D.; Lampkin, N.; Løes, A.-K.; Matt, D.; Niggli, U.; et al. How the Organic Food System Supports Sustainable Diets and Translates These into Practice. *Front. Nutr.* **2015**, *2*, 19. [[CrossRef](#)]
62. Kahl, J.; Strassner, C.; Hertwig, J.; Gould, D.; Bügel, S.G.; Paoletti, F.; Lairon, D. Learning from the organic food system as a model for sustainable food systems: The Organic Food System Program. In *Sustainable Value Chains for Sustainable Food Systems: A Workshop of the FAO/UNEP Programme on Sustainable Food Systems*; Meybeck, R., Ed.; FAO: Rome, Italy, 2016; pp. 295–302.
63. FAO; WHO. *Guidelines for the Production, Processing, Labelling and Marketing of Organically Produced Foods*; Codex Alimentarius Commission: Rome, Italy, 1999.
64. EU. Regulation (EU) 2018/848 of the European Parliament and of the Council of 30 May 2018 on organic production and labelling of organic products and repealing Council Regulation (EC) No 834/2007. *Off. J. Eur. Union* **2018**, *61*, 1–92.
65. Kahl, J. From vision to metrics: Lessons from the organic food system. In *Assessing Sustainable Diets within the Sustainability of Food Systems, Proceedings of an International Workshop. Mediterranean Diet, Organic Food: New Challenges, 15–16 September 2014*; Meybeck, A., Redfern, S., Paoletti, F., Strassner, C., Eds.; FAO: Rome, Italy, 2015; pp. 13–17. ISBN 978-92-5-108825-8.
66. Lampkin, N. Organic food system—An agro-ecological perspective. In *Assessing Sustainable Diets within the Sustainability of Food Systems, Proceedings of an International Workshop. Mediterranean Diet, Organic Food: New Challenges, 15–16 September 2014*; Meybeck, A., Redfern, S., Paoletti, F., Strassner, C., Eds.; FAO: Rome, Italy, 2015; pp. 49–53. ISBN 978-92-5-108825-8.
67. Lutikholt, L. Principles of organic agriculture as formulated by the International Federation of Organic Agriculture Movements. *NJAS Wagening. J. Life Sci.* **2007**, *54*, 347–360. [[CrossRef](#)]
68. IFOAM. The Four Principles of Organic Agriculture. Available online: <https://www.ifoam.bio/why-organic/shaping-agriculture/four-principles-organic> (accessed on 13 July 2022).
69. Bengtsson, J.; Ahnström, J.; Weibull, A.-C. The effects of organic agriculture on biodiversity and abundance: A meta-analysis. *J. Appl. Ecol.* **2005**, *42*, 261–269. [[CrossRef](#)]
70. Niggli, U. Sustainability of organic food production: Challenges and innovations. *Proc. Nutr. Soc.* **2014**, *74*, 83–88. [[CrossRef](#)]
71. Simon, S. Biodiversity and organic farming—strengthening the interactions between agriculture and ecosystems. In *Organic Food and Farming: A System Approach to Meet the Sustainability Challenge*; Kölling, A., Ed.; IFOAM EU Group: Brussels, Belgium, 2010; pp. 11–15.
72. Seufert, V.; Ramankutty, N. Many shades of gray—The context-dependent performance of organic agriculture. *Sci. Adv.* **2017**, *3*, e1602638. [[CrossRef](#)]
73. Gattinger, A. The role of organic agriculture in meeting the climate challenge. In *Organic Food and Farming: A System Approach to Meet the Sustainability Challenge*; Kölling, A., Ed.; IFOAM EU Group: Brussels, Belgium, 2010; pp. 8–10.
74. Schader, C.; Stolze, M.; Gattinger, A. Environmental performance of organic farming. In *Green Technologies in Food Production and Processing*; Boye, J.I., Arcand, Y., Eds.; Springer: Boston, MA, USA, 2012; pp. 183–210. ISBN 978-1-4614-1586-2.
75. Reganold, J.P.; Wachter, J.M. Organic agriculture in the twenty-first century. *Nat. Plants* **2016**, *2*, 15221. [[CrossRef](#)]
76. Kilcher, L. *How Organic Agriculture Contributes to Sustainable Development*; University of Kassel at Witzenhausen JARTS: Witzenhausen, Germany, 2007.
77. MacRae, R.J.; Frick, B.; Martin, R.C. Economic and social impacts of organic production systems. *Can. J. Plant Sci.* **2007**, *87*, 1037–1044. [[CrossRef](#)]
78. Brigance, C.; Mas, F.S.; Sanchez, V.; Handal, A.J. The Mental Health of the Organic Farmer: Psychosocial and Contextual Actors. *Work. Health Saf.* **2018**, *66*, 606–616. [[CrossRef](#)]
79. Bickel, R.; Rossier, R. *Sustainability and quality of organic food, Dossier No. 4*; Research Institute of Organic Agriculture (FiBL): Frick, Switzerland, 2015.
80. Andersen, J.-O. *Vitality—From Soil to Stomach*, 1st ed.; Books on Demand: Norderstedt, Germany, 2019; ISBN 9788743008903.
81. Hansen, B.; Alrøe, H.F.; Kristensen, E.S.; Wier, M. *Assessment of Food Safety in Organic Farming*; DARCOF Working Papers No. 52; DARCOF: Sønderjylland, Denmark, 2002.
82. Mie, A.; Andersen, H.R.; Gunnarsson, S.; Kahl, J.; Kesse-Guyot, E.; Rembiałkowska, E.; Quaglio, G.; Grandjean, P. Human health implications of organic food and organic agriculture: A comprehensive review. *Environ. Health* **2017**, *16*, 111. [[CrossRef](#)]
83. Barański, M.; Średnicka-Tober, D.; Volakakis, N.; Seal, C.; Sanderson, R.; Stewart, G.B.; Benbrook, C.; Biavati, B.; Markellou, E.; Giotis, C.; et al. Higher antioxidant and lower cadmium concentrations and lower incidence of pesticide residues in organically grown crops: A systematic literature review and meta-analyses. *Br. J. Nutr.* **2014**, *112*, 794–811. [[CrossRef](#)]



84. Andersen, J.-O. Vitalität oder Zerfall? *Der Gurkentest—Eine neue Methode. Leb. Erde* **2019**, *6*, 35–38.
85. Baudry, J.; Touvier, M.; Allès, B.; Péneau, S.; Méjean, C.; Galan, P.; Hercberg, S.; Lairon, D.; Kesse-Guyot, E. Typology of eaters based on conventional and organic food consumption: Results from the NutriNet-Santé cohort study. *Br. J. Nutr.* **2016**, *116*, 700–709. [[CrossRef](#)]
86. Eisinger-Watzl, M.; Wittig, F.; Heuer, T.; Hoffmann, I. Customers Purchasing Organic Food—Do They Live Healthier? Results of the German National Nutrition Survey II. *Eur. J. Nutr. Food Saf.* **2015**, *5*, 59–71. [[CrossRef](#)]
87. Baudry, J.; Lelong, H.; Adriouch, S.; Julia, C.; Allès, B.; Hercberg, M.D.P.G.; Touvier, M.; Lairon, D.; Galan, P.; Kesse-Guyot, E. Association between organic food consumption and metabolic syndrome: Cross-sectional results from the NutriNet-Santé study. *Eur. J. Nutr.* **2017**, *57*, 2477–2488. [[CrossRef](#)]
88. Kesse-Guyot, E.; Rebouillat, P.; Payrastra, L.; Allès, B.; Fezeu, L.K.; Druesne-Pecollo, N.; Srouf, B.; Bao, W.; Touvier, M.; Galan, P.; et al. Prospective association between organic food consumption and the risk of type 2 diabetes: Findings from the NutriNet-Santé cohort study. *Int. J. Behav. Nutr. Phys. Act.* **2020**, *17*, 136. [[CrossRef](#)] [[PubMed](#)]
89. Burns, T.R.; Baumgartner, T.; Deville, P. Actor-System Dynamics Theory and Its Application to the Analysis of Modern Capitalism. *Can. J. Sociol.* **2002**, *27*, 211. [[CrossRef](#)]
90. Burns, T.R. The Sociology of Complex Systems: An Overview of Actor-System-Dynamics Theory. *World Futur.* **2006**, *62*, 411–440. [[CrossRef](#)]
91. Burns, T.R.; Devillé, P. Socio-economics: The Approach of Social Systems Theory in a Forty Year Perspective. *Econ. Sociol.* **2017**, *10*, 11–20. [[CrossRef](#)] [[PubMed](#)]
92. Kondrat, M.E. Actor-Centered Social Work: Re-visioning “Person-in-Environment” through a Critical Theory Lens. *Soc. Work* **2002**, *47*, 435–448. [[CrossRef](#)]
93. Kuckartz, U. *Mixed Methods: Methodologie, Forschungsdesigns und Analyseverfahren*; Springer: Wiesbaden, Germany, 2014; ISBN 978-3-531-17628-4.
94. Creswell, J.W.; Plano Clark, V.L. *Designing and Conducting Mixed Methods Research*; SAGE Publications: Thousand Oaks, CA, USA, 2007; ISBN 1412927927.
95. Creswell, J.W.; Clark, V.L.P. *Designing and Conducting Mixed Methods Research*; SAGE Publications: Thousand Oaks, CA, USA, 2011; ISBN 9781412975179.
96. De Schaetzen, S. *Organic Agriculture and the Sustainable Development Goals: Part of the Solution*; Nature & More: Tokyo, Japan, 2019.
97. Scialabba, N.; Hattam, C. *Organic Agriculture, Environment and Food Security*; Food and Agriculture Organization of the United Nations: Rome, Italy, 2002; ISBN 9251048193.
98. Kepper, G. *Qualitative Marktforschung: Methoden, Einsatzmöglichkeiten und Beurteilungskriterien*; Deutscher Universitätsverlag: Wiesbaden, Germany, 1994; ISBN 978-3-663-14563-9.
99. Kühn, T.; Koschel, K.-V. *Gruppendiskussionen: Ein Praxis-Handbuch, 1. Aufl.*; VS Verl. für Sozialwissenschaften: Wiesbaden, Germany, 2011; ISBN 978-3-531-16921-7.
100. Sreejesh, S.; Mohapatra, S.; Anusree, M.R. *Business Research Methods: An Applied Orientation*; Springer International Publishing: Cham, Switzerland, 2014; ISBN 978-3-319-00539-3.
101. Kothari, C.R. *Research Methodology: Methods & Techniques*, 2nd ed.; New Age International (P) Ltd. Publishers: New Delhi, India, 2004; ISBN 9788122415223.
102. Cooke, R.M. Procedures for Using Expert Judgment in Risk Analysis. In *Reliability Data Collection and Analysis*; Flamm, J., Luisi, T., Eds.; Springer: Dordrecht, The Netherlands, 1992; pp. 193–211. ISBN 978-94-011-2438-6.
103. Perera, A.H.; Drew, C.A.; Johnson, C.J. *Expert Knowledge and Its Application in Landscape Ecology*; Springer: New York, NY, USA, 2012; ISBN 978-1-4614-1034-8.
104. Agbolosoo-Mensah, O.A. Documentation of the Organic Food System in Italy-Bio-District Cilento, a Case study. In *Organic Food System Cases around the World—A Documentation Project*; Kretschmer, S., Jamil, T., Stefanovic, L., Eds.; Kassel University Press: Kassel, Germany, 2021; pp. 152–185. ISBN 978-3-7376-0938-8.
105. Khaliq, M.U. Documentation of the Organic Food System Case in Södertälje, Sweden. In *Organic Food System Cases around the World—A Documentation Project*; Kretschmer, S., Jamil, T., Stefanovic, L., Eds.; Kassel University Press: Kassel, Germany, 2021; pp. 186–204. ISBN 978-3-7376-0938-8.
106. Umarishavu, F. Documentation of the Organic Food System in Mouans-Sartoux, France. In *Organic Food System Cases around the World—A Documentation Project*; Kretschmer, S., Jamil, T., Stefanovic, L., Eds.; Kassel University Press: Kassel, Germany, 2021; pp. 122–151. ISBN 978-3-7376-0938-8.
107. Krueger, R.A.; Casey, M.A. *Focus Groups: A Practical Guide for Applied Research*, 5th ed.; SAGE Publications: Thousand Oaks, CA, USA, 2014; ISBN 978-1-4833-6524-4.
108. Kitinger, J. Focus Groups. In *Qualitative Research in Health Care*; Pope, C., Mays, N., Eds.; Blackwell Publishing Ltd: Oxford, UK, 2006; pp. 21–31. ISBN 9780470750841.
109. Meuser, M. Rekonstruktive Sozialforschung. In *Hauptbegriffe Qualitativer Sozialforschung, 4., vollst. Überarbeitete und Erweiterte Auflage*; Bohnsack, R., Geimer, A., Meuser, M., Eds.; Verlag Barbara Budrich: Opladen, Germany; Toronto, ON, USA, 2018; pp. 206–209. ISBN 978-3-8252-8747-4.
110. Nowell, L.S.; Norris, J.M.; White, D.E.; Moules, N.J. Thematic Analysis: Striving to Meet Trustworthiness Criteria. *Int. J. Qual. Methods* **2017**, *16*, 1–13. [[CrossRef](#)]



111. Jensen, R. Exploring causal relationships qualitatively: An empirical illustration of how causal relationships become visible across episodes and contexts. *J. Educ. Chang.* **2021**, *23*, 179–196. [[CrossRef](#)]
112. Favilli, E.; Ndah, T.H.; Barabanova, Y. Multi-actor interaction and coordination in the development of a territorial innovation project: Some insights from the Cilento Bio-district in Italy. In Proceedings of the 13th European IFSA Symposium, Chania, Greece, 1–5 July 2018; pp. 1–9.
113. Stotten, R.; Bui, S.; Pugliese, P.; Schermer, M.; Lamine, C. Organic Values-Based Supply Chains as a Tool for Territorial Development: A Comparative Analysis of Three European Organic Regions. *Int. J. Sociol. Agric. Food* **2018**, *24*, 135–154. [[CrossRef](#)]
114. Pugliese, P.; Antonelli, A.; Basile, S. *Full Case Study Report: Bio-Distretto Cilento—Italy. HealthyGrowth: From Niche to Volume with Integrity and Trust*; CIHEAM: Bari, Italy, 2015.
115. Cuoco, E.; Basile, S. *Bio-Districts to Boost Organic Production: The Best Practices of BioDistretto Cilento*; Practitioners’ Track; IFOAM Organic World Congress Building Organic Bridges: Bonn, Germany, 2014.
116. AgriSpin. *Space for Innovations in Agriculture*; AgriSpin: New York, NY, USA, 2017.
117. Basile, S.; Cuoco, E. *Territorial Bio-Districts to boost organic production*; Innovation for Development and South-South Cooperation: Rome, Italy, 2012.
118. Södertälje kommun. *Our Södertälje: A Magazine about the Municipality of Södertälje—2016 Edition*; Municipality of Södertälje: Södertälje, Sweden, 2016.
119. URBACT; Södertälje kommun. *Growing Together Södertälje: Creating a Sustainable Future through Food: Södertälje Agri-Urban Integrated Action Plan*; Södertälje Municipality: Södertälje, Sweden, 2018.
120. Larsson, M. Towards a Sustainable Food System in the Baltic Sea Region. In *Environmental Challenges in the Baltic Region*; Bali Swain, R., Ed.; Springer International Publishing: Cham, Switzerland, 2017; pp. 15–52. ISBN 978-3-319-56006-9.
121. Nordlund, H. *Diet for a Green Planet—An URBACT Pilot Transfer Network December 2013–March 2015, Final Report*; European Union and European Programme for Sustainable Urban Development: Brussels, Belgium, 2015.
122. Södertälje kommun. *Food—The Key to a Better Future*; Södertälje Municipality: Södertälje, Sweden, 2014.
123. Södertälje kommun; MatLust. *BERAS Implementation 2010–2013*. Available online: <https://dietforagreenplanet.se/en/projects/beras/beras-implementation-2010-2013-english/> (accessed on 13 July 2022).
124. Haden, A.; Helmfrid, H. Järna, Sweden—Community consciousness as the base for a learning local ecological food system. In *Local and Organic Food and Farming around the Baltic Sea*, 40th ed.; Seppänen, L., Ed.; SLU: Uppsala, Sweden, 2004; pp. 10–26.
125. Granstedt, A. *Farming for the Future: With a Focus on the Baltic Sea Region*; Södertörns högskola, COMREC: Huddinge, Sweden, 2012; ISBN 9789197501750.
126. Södertälje kommun; URBACT. *Norrbyvälle: An Agri-Urban Case Study*; Södertälje Municipality: Södertälje, Sweden, 2016.
127. Map-France. *Mouans-Sartoux: City of Mouans-Sartoux*. Available online: <https://www.map-france.com/Mouans-Sartoux-06370/> (accessed on 13 July 2022).
128. MEAD. *Local Farmers for a Sustainable Planet: Integrated Action Plan: Agri-Urban Local Food in Urban Forks, Mouans-Sartoux, France*; City of Mouans-Sartoux, Center for Sustainable Food and Education: Mouans-Sartoux, France, 2018.
129. MEAD. *Eating Organically and Sustainably in Mouans-Sartoux*; Municipality of Mouans-Sartoux, Center for Sustainable Food and Education: Mouans-Sartoux, France, 2017.
130. Perole, G.; Cornuau, G. *The Supply of Completely Organic Food to School Canteens in the Town of Mouans-Sartoux*; Journal RESOLIS: Paris, France, 2014.
131. MCE. *Découverte: Le Commerce Équitable, qu’est ce que c’est?: Quel est le rôle de la MCE?* Available online: <https://mceequitable.fr/content/6-decouverte> (accessed on 13 July 2022).
132. Campbell, B.M.; Hansen, J.; Rioux, J.; Stirling, C.M.; Twomlow, S.; Wollenberg, E. Urgent action to combat climate change and its impacts (SDG 13): Transforming agriculture and food systems. *Curr. Opin. Environ. Sustain.* **2018**, *34*, 13–20. [[CrossRef](#)]
133. Ilieva, R.T. Urban Food Systems Strategies: A Promising Tool for Implementing the SDGs in Practice †. *Sustainability* **2017**, *9*, 1707. [[CrossRef](#)]
134. Le Blanc, D. *Towards Integration at Last? The Sustainable Development Goals as a Network of Targets: DESA Working Paper No. 141. ST/ESA/2015/DWP/141*; United Nations Department of Economic and Social Affairs: New York, NY, USA, 2015.
135. Fassio, F.; Tecco, N. Circular Economy for Food: A Systemic Interpretation of 40 Case Histories in the Food System in Their Relationships with SDGs †. *Systems* **2019**, *7*, 43. [[CrossRef](#)]
136. Jacob-John, J.; D’Souza, C.; Marjoribanks, T.; Singaraju, S. Synergistic Interactions of SDGs in Food Supply Chains: A Review of Responsible Consumption and Production. *Sustainability* **2021**, *13*, 8809. [[CrossRef](#)]
137. Von Koerber, K.; Carlsburg, M. UN-Ziele für nachhaltige Entwicklung: Der Beitrag der Ernährung. *Ernährung Im Fokus* **2020**, *1*, 34–41.
138. Reyers, B.; Stafford-Smith, M.; Erb, K.-H.; Scholes, R.J.; Selomane, O. Essential Variables help to focus Sustainable Development Goals monitoring. *Curr. Opin. Environ. Sustain.* **2017**, *26–27*, 97–105. [[CrossRef](#)]