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Is Community-Supported Agriculture a case of real utopia? The case of Germany

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Abstract

In the global debate about agri-food systems transformation, community-supported agriculture (CSA) has received attention. CSA is based on a critique of the prevailing industrialised agri-food system, and seeks fair, direct partnerships between consumers and producers, jointly carrying risks and rewards of farming. The aim of this paper is to study the potential of CSA in Germany to move out of its niche position. The concept of real utopia by Erik Wright is applied to determine whether CSAs in Germany can be understood as real utopia and what role they can play in a transformation that challenges capitalist structures. The analysis is based on secondary literature of CSA and follows Wright's four-step approach, whether CSA fulfils the criteria of a desirable, viable, and achievable alternative. Results show that CSA, as implemented in Germany, can be understood as real utopia, but the CSA concept itself and its implementation face limitations hindering CSA growth.

Key Words

Erik Olin Wright, agri-food system transformation, institutional innovation, Sustainability Assessment of Food and Agriculture Systems (SAFA), alternative economic system

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1. Introduction

Many agri-food system actors agree on the need for an essential transformation, due to economic, ecological and ethical concerns, and that the agri-food system cannot continue in its current form (e.g. Food Systems Summit of the United Nations, 2021, German commission for the future of agriculture, 2021). One transformation approach is agroecology. It aims for a system change towards an ecologically, economically and socially sustainable agri-food system in which practices are shaped by direct relationships between producer and consumer (Gliessman 2016). The debate about transformative agroecology is centred around a critique of the current agri-food system calling for a system's reallocation of power relations and its political economic structures (Méndez, Bacon and Cohen 2013). According to Gliessman (2016) and Méndez et al. (2013) community-supported agriculture (CSA) as institutional or social innovation contributes to the transformation process as one alternative to the current system (Mert-Cakal and Miele 2020).

In a CSA producers and consumers form a direct partnership (Bîrhală and Möllers 2014) and mutual commitment, that allows for local agricultural production and supply and risk sharing between members (Blättel-Mink, Rau and Schmitz 2015). CSA is a fitting alternative as it goes beyond the current power relations in production and consumption, and builds a local agri-food system aiming for fair and sustainable practices (Hvitsand 2016). Globally, the number of CSAs and their members is increasing (Bîrhală and Möllers 2014). CSA can be seen as an alternative movement to current industrial agriculture, driven by the emergence of various economic, social and ecological crises resulting from industrial agriculture (Blättel-Mink et al. 2015). Both consumers and producers face challenges: small-scale family farms struggle to hold up their businesses competing with large farming companies that dominate the industrial farming system while on the other side of the production chain, consumers loose trust and contact with food producers while simultaneously being dependent on industrial agriculture (Bîrhală and Möllers 2014). As one alternative movement, CSA tackles this situation in a collective and solidary manner (Blättel-Mink et al. 2017).

Thus far, the concept of CSA has been subject of a range of studies, each focusing on various aspects, including: organizational structures (Stapleton 2019), economic, social and environmental aspects (Savarese, Chamberlain and Graffigna 2020; Wellner 2018), consumers' motivation (Diekmann and Theuvsen 2019; Yu et al. 2019) and the producer's perspective (Samoggia et al. 2019; Wellner and Theuvsen 2018). Nevertheless, in the current debate the question of what role CSA will play in the agri-food system transformation remains unanswered. Is it an exemplary solution that can direct the transformation, or only a rough inspiration or niche phenomenon? Does the concept of CSA have the potential to grow to a realistic model for future systems? Or in terms of the approach by Erik Olin Wright, is it a "real

utopia"? With the concept of real utopias, Wright provides an approach to analyse alternatives and transformation processes of capitalist structures, considering the change in power relations (Wright, 2012). Wright defines utopias as institutions that "embody emancipatory ideals" (Wright 2010, p.10), that are real if they "attempt to formulate viable institutional designs" (Wright 2006, p.110).

This article uses real utopias as a conceptual basis and Wright's four-step analysis of finding real utopias as an analytical framework. As moral principles against which alternatives can be judged, Wright suggests, among others, the concept of sustainability, which according to him is closely connected to other moral principles such as democracy and equality (Wright 2006). Therefore, the analysis is grounded in a commonly agreed sustainability concept, the comprehensive sustainability assessment of food and agriculture systems (SAFA) guidelines, published by the Food and Agriculture Organisation of the United Nations (FAO).

Building on the questions mentioned above, this paper aims to analyse CSA based on its representation in the literature and to answer the following research question: How far can CSA, as currently executed in Germany, be seen as a real utopia? To assess if CSA is a real utopia and can potentially move out of its niche and contribute to the transformation of the agri-food sector, the grounding of the analysis in a specific context and economic system is key. Germany provides an interesting case, as it has a long tradition of CSA compared to other European countries, except Switzerland (Volz et al. 2016). For instance, CSAs in France only started in the 2000s while in Germany, the first CSA was established in 1989 (Volz et al. 2016). Especially since the early 2010s the number of CSAs in Germany has grown exponentially (Solawi, 2021). While CSAs vary greatly within Europe and Germany, there are some general tendencies. For example, Rosol and Barbosa Jr. (2021) argue that the CSA concept in North America moved away from the European one in their core principles, in terms of long-term agreements, and direct partnerships.

Methodologically, this explorative study relies on secondary literature and evaluates the potential of CSA in Germany as represented in the literature. By reviewing the existing literature on CSA, we also highlight knowledge gaps on specific aspects of CSAs and their implementation.

2. Community-supported Agriculture

Despite a plurality of definitions of CSA, some common aspects stand out. The definition published by URGENCI, the international CSA network, provides a basic and broad understanding:

> "*[CSA] is a direct partnership based on the human relationship between people and one or several producer(s), whereby the risks, responsibilities and rewards of farming are shared, through a long-term, binding agreement." (URGENCI 2016)*

CSA has been characterised as a producer-consumer partnership based on a yearly contract, ecological cultivation practices, distribution processes, and open transparent budgets as core elements, while differences occur regarding active involvement of members, decision-making, legal form and financial contribution per share (Gruber 2020). The shared risk and reward of production allows farmers to rely on a regular income, while consumers can trust in a regular provision of regionally-grown produce (Samoggia et al. 2019). A key difference to conventional farming and consumption is that a social mechanism, instead of the price mechanism, shapes a market's dynamic (Gruber 2020). Usually, CSA members jointly agree on the types of produce, the cultivation method and a local distribution channel, and commonly base these decisions on moral and ethical aspects and on joint values like regionality (Wellner and Theuvsen 2016). To foster core values like responsible use of resources, fair conditions for all parties, seasonal and local production based on agroecological practices, transparency, communication and personal interaction, overall solidarity between CSA members and the farmers are key (Carlson and Bitsch 2019).

The rather broadly defined concept and few CSA principles allows every CSA farm and its members to be individual. Hence, various types of CSA models exist across Germany and around the world. Some scholars differentiate types of CSA. For instance, Blättel-Mink et al. distinguish between CSAs based on their ideologies, i.e. as "part of a sociopolitical change", "spiritual-communal practice" or as "a pragmatic-economic strategy" (2017:419). Bîrhală and Möllers distinguish between "subscription CSA" and "shareholder CSA", depending on whether producer or consumers initiated it (2014:15). Gruber (2020) differentiates CSA as either self-organised, participative, or service-oriented, depending on the different motivations that drive members to join. In the end, each CSA is formed according to its circumstances, the mind-set and preferences of participants, legal form, available resources and their development over time (Carlson and Bitsch 2019).

Despite different individual factors determining farmers' and consumers' decision to join CSA, an overarching core motivation is the belief that industrialised agri-food system, on the one hand, are not able to provide quality food to consumers and, on the other hand, does not lead to fair incomes for farmers (Carlson and Bitsch 2019). Therefore, the joint aim of the CSA movement is to find an alternative way to shape the relation between producer and consumer, a direct exchange allowing for a more sustainable system (Carlson and Bitsch 2019). In other words, CSA presents an alternative approach to food production, or rather an alternative

economic system (Gruber 2020) which is built on critiques of the current agriculture and economic system.

The first CSAs occurred in Japan and Switzerland in the 1970s, triggered by food scandals, lost confidence in the farming industry and the desire for local food and connection between producer and consumer (Yan 2010). The concept spread, was further developed in the US and reached Germany in the 1980s (Solawi 2021; Yan 2010). In 2023, 445 CSAs are known and additional 101 are in the founding process (Solawi 2023). Especially during the last ten years, numbers increased exponentially. However, no figures are known regarding the continued existence or termination of CSAs.

The German CSA network Solawi was founded in 2011 to enable CSAs to connect, exchange information and experiences, and to jointly promote CSA development (Solawi 2020b). Their goal is stated as: “We engage in maintaining and supporting sustainable small-scale peasant agriculture in which producers and consumers work together in a binding manner and see agriculture as a social responsibility” (Solawi 2020a, own translation). Solawi serves as exchange platform, offers advisory services and supports networking at regional, national, and international level with different initiatives (Solawi 2020a). The development of the Solawi network might have increased publicity and interest in CSA in Germany, as there has been a strong increase in the number of new CSAs between 2011 and 2012 (Wellner and Theuvsen 2018). While allowing for a variety of CSA models to develop, to save the principles and to prevent a commercialisation of the Solawi idea, the name “Solawi” stands under legal protection in Germany (Carlson and Bitsch 2019).

3. Conceptual Framework

The core motivation for the development of CSA is the critique against existing industrial agriculture as part of the prevailing economic system (Carlson and Bitsch 2019; Gruber 2020), which often implies a critique against the capitalist economy. Consequently, the analysis of CSA’s potential can be conceptualised in parallel with the idea of real utopia. Erik Olin Wright bases his concept on the criticism of capitalism and builds real utopias as potential social alternatives to it (Wright 2012).

The core goal of the real utopia idea is to think about different alternatives and transformation processes of capitalist structures, with the aim to change existing power relations in an economic system (Wright 2012). Wright argues that mechanisms inherent to capitalism itself lead to consequences which motivate searching for social alternatives, which, for example, do not deepen the difference between rich and poor, do not hinder emancipatory development, do not fail to consider environmental externalities and do not limit democracy (Wright 2006). The definition of “real utopia” intentionally illustrates the

> *"tension between dreams and practice:* utopia *implies developing visions of alternatives to dominant institutions that embody our deepest aspirations […];* real *means proposing alternatives attentive to problems of unintended consequences, self-destructive dynamics, and difficult dilemmas of normative trade-offs." (Wright 2012:3).*

Furthermore, Wright (2012) describes a process of four steps, that structures the search for alternatives in the sense of real utopias (Table 1).

Table 1: Four process steps (based on Wright 2012 p. 3)

Moral principles	• specification of moral principles as basis for judgement
Diagnosis and critique	• application of defined moral principles as standard for diagnosis and critique
Viable alternative	• finding viable alternatives that are designed to counteract the diagnosed problem
Transformation	• transformation towards the alternative situation • different theoretical approaches on how the change can be achieved

The moral principles build the basis for the following steps, as they serve as tool to judge the object of criticism (the current economic and social system), and the potential alternatives and the transformation in an standardised manner (Wright 2012). While various moral principles can be used, Wright refers to "equality, democracy, and sustainability" (2012:3). The diagnosis and critique intend to figure out the mechanisms causing problematic consequences and therefore to find an explanation of the existing system, based on a moral judgement (Wright 2006).

When focusing on the development of alternatives, three properties need to be taken into account: "desirability, viability and achievability" (Wright 2006:96). Desirability of an alternative emphasises the rather abstract moral principles and core values that should be reached (Wright 2006). Viability and achievability reflect the "real" part of "real utopia". An alternative is assumed to be viable if the desired transformation can be maintained after its implementation, especially when facing changing conditions of the surrounding context (Wright 2006). Wright (2012) further links sustainability with intergenerational justice and equity. Finally, the aspect of achievability concerns the theory of transformation, meaning how the desired social alternative can be reached in the long term. Here the power relations of the system and the contextual conditions are crucial (Wright 2006). Viability influences the assumption of achievability since limits in this context are also determined by beliefs about what is possible. Still, it is very difficult to assess whether a specific alternative is achievable, especially when focusing on the long- or even middle-term (Wright 2012).

For the final step, Wright (2012) introduces three potential strategies of ruptural, interstitial and symbiotic transformation, considering the potential of an alternative to undermine capitalist power in the future. The ruptural transformation displays a picture of a revolutionary, clear cut with the existing system, where structures and institutions are replaced within a short period of time (Wright 2012). In contrast, symbiotic transformations take place within the existing system without a radical change. In the first moment, they may counterintuitively even benefit the powerful actors of the existing system and only serve the general social aim of change in the long-term (Wright 2006). The interstitial transformation neither aims to destroy existing structures directly nor does it seek to change them from within, but rather builds a bottom-up approach that sets up alternatives in the system's niches, which may not catch direct attention by powerful actors and therefore may grow next to them. Naturally, such an approach's impact may be limited (Wright 2006). Wright (2012) proposes a mix of interstitial and symbiotic transformation strategies with occasional interruptions of ruptural character as a promising way of societal transformations.

The understanding of the socioeconomic conceptions of capitalism, statism and socialism defined by Wright is key to understanding the power-centred framework he uses to develop and classify the real utopia concept (Wright 2012). Wright (2012) states that the hybrid form of different power structures may serve as an analytical framework which can be applied to analyse different systems, including sectors and regional economies. Interpreting CSA as a specific sector and considering its origin founded in a criticism of the current capitalist market system, the concept of real utopia fits well to analyse the potential of CSA (see Cucco and Fonte 2015, for an application to local food networks).

4. Methodology

The methodology is designed regarding the four-step approach by Erik Olin Wright. First, the representation of the moral principles that underline the idea of CSA, and second, the critique against the current system on which its development is based, are identified. As there are many sources analysing the origin, background, and motivation of the CSA movement, and outlining the critique it is built on, there is no need to further investigate these aspects for the purpose of this paper. Nevertheless, the main arguments are briefly summarised. According to Wright (2006), steps one and two are the most developed in emancipatory social science while the questions of how these principles could be put into practice and how institutions could be built have been neglected. This analysis therefore focuses on the CSA concept as a proper alternative, and thus on step three.

In the third step, the extent to which the CSA concept fulfils the requirements of being a desirable, viable and achievable alternative, and therefore a potential real utopia is explored.

Following the suggestion by Wright to set the focus on an alternative's viability (2012), the central aim is to analyse whether CSA constitutes a viable alternative. As CSA is not only a theoretical concept but has been carried out in practice for many years, the existing literature about the implementation of CSA is reviewed to explore whether the desired aims of CSA persist when put into practice. Obviously, CSAs aim to fulfil and act in accordance with their principles and values. As each CSA is an individual project, setting their own structures and agreements, the analysis focuses on the CSA principles published by Solawi (2022). However, the assumption is that most CSAs move within the range of defined principles.

To respect sustainability, an aspect of the viability property (see Conceptual Framework), the analysis in step three is based on the SAFA guidelines (FAO 2013). These guidelines are recognised, comprehensive, and operationalised. They define sustainability goals and merge them into four main dimensions: "good governance", "environmental integrity", "economic resilience" and "social well-being", each further disaggregated into a total of 21 themes (FAO 2013). In this context, the themes are understood as criteria that make an alternative desirable. The criteria allow assessing whether CSA fulfils the principles when being implemented, and therefore build the basis of desirability. As an intermediate step, and to assess desirability, the SAFA themes are contrasted with the CSA principles. By applying the four-eyes principle, the authors independently assess whether each principle relates to a SAFA theme and respective sub-themes (see table A1). The juxtaposition is discussed and aligned to serve as criteria for the following step: the analysis of CSA as viable alternative.

The question of whether the criteria are fulfilled and hold after implementation is answered when considering viability. The first part of analysing viability is based on a report published by URGENCI, an actor within the CSA movement itself. The second part reviews literature on CSA addressing the SAFA dimensions and themes, and observes challenges considered relevant for assessing whether CSA can be seen as a real utopia. The focus is on empirical evidence of CSA cases in Germany, including relevant articles from other countries. Finally, as step four, the transformation strategy CSAs follow to tackle the current agri-food system as direct counterpart in the capitalist system is analysed.

Since the analysis is based on the representation of CSA in the literature, the available sources may not include all evaluation criteria to the same extent and may therefore influence which criteria may and may not be considered. Additionally, it is important to critically reflect on the fact that the criteria used in the current analysis are themes and not detailed indicators. These themes are utilised as substitutes for concrete indicators, to check whether a theme was addressed, and if so, which position the authors assume. This analysis is less precise and concrete than assessing indicators but offers a robust first exploratory assessment.

Based on the concept by Wright and the outlined concept of CSA, the following hypothesis can be stated: *Given the characteristics and current ways of implementing CSA in Germany, CSA is a desirable, viable and achievable alternative which follows an interstitial transformation strategy.*

5. Community-supported Agriculture as a Real Utopia

5.1 Morale principles, diagnosis and critique

The general, underlying critique is that the global agri-food system is failing on both the production and consumption side. It does not value and remunerate the work of farmers such that their daily work allows for a decent livelihood and does not provide consumers with high-quality food (Carlson and Bitsch 2019). Modernisation and industrialisation of agriculture, especially intensive use of agri-chemicals, have led to severe environmental consequences, such as soil degradation (Tang, Liu and Huang 2019). Furthermore, the power relations of an industrialised system emphasise profits of production chain actors such as investors, traders and supermarkets, instead of quality produce for consumers and internalising costs for the environment, society, and economy (Tang et al. 2019). While the current global food system is a major contributor to climate change, current agri-food system actors fail to transform anonymous producers into businesses that really understand consumer's needs and act accordingly (Savarese et al. 2020). Organic agriculture fails to achieve the transition to more sustainable agri-food systems as it still acts within existing economic structures, relying on monocultures and existing structures for purchase of inputs and as distribution channels (Hvitsand 2016). In fact, not just different produce, but a stronger focus on local small-scale farming is needed (Gruber 2020). Consumers and farmers seek to return to a more regional-based agriculture supporting small-scale farming (Volz et al. 2016). The German farming sector has to deal with acute problems, e.g., farmers facing structural changes and challenges in finding successors to continue the small-scale farms in the next generation and consumers asking for quality food and transparent food production processes based on ethical and environmentally friendly practices (Solawi 2020b).

CSA is a direct response to the critique mentioned above. It aims to introduce a regional, direct exchange as part of an equal and fair relationship between consumer and producer, so that ultimately, consumers are satisfied with the quality of food and knowledge about the production process, while farmers do not have to worry about their income, but can put their attention and efforts on sustainable farming practices (Tang et al. 2019).

5.2 Desirable, viable and achievable alternative

Alternatives need to be desirable, viable and achievable to be considered a real utopia, and especially the viability aspect is crucial. All three properties are analysed below.

5.2.1 Desirability

The SAFA themes can be applied as criteria that make an alternative desirable. Before doing so and to double check desirability, the SAFA themes are compared with the CSA principles. Sustainability as outlined in the SAFA themes is a core element of CSA moral principles and thus relevant for the desirability of an alternative.

The CSA principles are all represented and covered by the SAFA dimensions and themes (see table A1). The juxtaposition reveals that while not all 21 SAFA themes are covered by the CSA principles, all four dimensions are covered. This corroborates the decision to apply the themes as criteria for the analysis of CSA as an alternative in the sense of real utopia. CSAs according to the principles, build a desirable alternative as the core moral principle of sustainability is achieved.

5.2.2 Viability

To examine viability and to verify if the set of criteria based on sustainability dimensions and themes is fulfilled, the chapter about CSA in Germany in the URGENCI report 2016 is reviewed (Volz et al. 2016). Similar to the comparison with CSA principles, all four dimensions are fulfilled by CSA in Germany but not all themes are mentioned, and the criteria are disproportionately represented. A detailed summary of the analysis is provided in Table A2.

Volz et al. (2016) themselves raise challenges like decent income and access to farmland. As mentioned above, a second step of analysis based on additional studies follows to ensure a critical assessment based on secondary literature on CSA implementation.

Good governance

All good governance themes have been found in the literature on CSA. The importance of ethics has been highlighted for the CSA (teikei) movement in Japan, where farmers use teikei principles as guidance in their everyday work (Kondoh 2015). Although risk and reward sharing are core elements of the CSA concept, Paul (2019) finds that some CSA farmers in the US only feel the short-term release of risk sharing, namely the season subject to the contract, while still carrying the farm's long-term challenges on their own. Higher member shares have been associated with lower risk transfer from producer to consumers (Sproul, Kropp and Barr 2015). Similarly, Medici *et al.* (2021) report that in Italy, most smaller CSAs are not able to cover investment costs and land rents with member shares. Regarding accountability and participation, Zoll *et al.* (2021) found high degrees of both in German CSAs. Some types of legal setup of CSAs, such as investor-financed, however only allow for limited accountability (Partzsch 2019). Sproul and Kropp (2015) discuss that although principal-agent problems like information asymmetry and consequently moral hazard also exist in CSA contracts, CSA farmers might have less incentive to shirk as they want consumers to continue their

membership on a longer term. Several authors found a lack of member participation in governance or farming, in Germany (Bonfert 2022; Zoll et al. 2017; Zoll et al. 2021) and elsewhere (e.g. Delind and Bingen 2008). Some CSA farmers mention high supervision costs as limit to member participation in farming (Opitz et al. 2017). Van Oers *et al.* (2018) studied how CSAs in the Netherlands gain legitimacy - they do so internally by creating trust and social capital, and then externally, e.g. by formalizing their organisation or becoming externally certified.

Holistic management is sufficiently fulfilled, as CSAs usually aim to calculate a budget that consider all costs for farming, including the regular income for farming members involved, but explicitly do not seek to gain profit (Wellner 2018).

Environmental integrity

Criteria are only partially covered in the literature, but some CSA principles go beyond the SAFA themes. Theoretically, CSA fosters ecological integrity due to the choice of farming practices, short-distance transportation to consumers without packaging and the general awareness of members regarding environmental issues. Nevertheless, environmental impacts have not yet been measured sufficiently (Wellner 2018). Medici *et al.* (2021) report closed nutrients and water cycles and a reduction of external inputs of Italian CSAs. Samoggia et al. (2019) highlight the positive ecological effect CSAs have by cultivating different crops, protecting biodiversity, reducing water use and food miles, and increasing seasonal consumption. A simple practical example to reduce food miles is the distribution via depots in the city (Wellner 2018). Christensen et al. (2018), however, argue that food miles are only a part of the emissions of the whole production chain (see also Schnell 2013). While CSAs emit less carbon dioxide by avoiding pesticides and plastic, and reducing the use of machinery and vehicles on farms, there are still emissions caused, e.g. by electricity consumption and on-farm soil compost (Christensen et al. 2018). These parameters vary widely depending on the size of the farm, the kind of energy used, and the way products are distributed (Christensen et al. 2018). While food loss and waste are reduced through the valuation of all produce and consumer co-decide what is produced, during the harvest and holiday periods food losses still occur (Doernberg et al. 2016; Galt et al. 2016). Even though CSA farming may not be called environmentally friendly per se, and the impacts have yet to be fully analysed in depth, consumers develop a better understanding of food production processes and their impacts, and acquire awareness of sustainable consumption (Savarese et al. 2020). This ultimately may influence their general behaviour. Especially in CSA with a high level of consumers' on-farm participation, their practical commitment can be seen as a learning process about environmental and sustainability issues (Mert-Cakal and Miele 2020; Opitz et al. 2017). While some CSA members would prefer having more influence, some acknowledge their lack of

farming knowledge and would not speak up (Partzsch 2019), and CSA farmers would like to keep authority over farming decisions (Zoll et al. 2021).

CSAs in Germany have been focusing on horticulture, promoting reduced or no meat consumption, which can make livestock keeping a contentious issue (Bonfert 2022). Therefore, there are few accounts in the literature on animal welfare. In the UK and Ireland, CSAs have been shown to improve human-livestock relationships (Gorman 2018). Analogously, community-supported fisheries have been said to reduce environmental impacts of fishing, but are more limited than CSAs, due to the common-good nature of fisheries and less available alternative fishing methods (e.g. Campbell et al. 2014).

Economic resilience

All criteria of economic resilience are fulfilled. A key aspect of the CSA concept is the direct interaction between consumers and producers, allowing for economic benefits for farmers as it excludes intermediate actors (Samoggia et al. 2019). Furthermore, CSA farmers have reduced expenses for regular marketing, influence on price setting and payments in advance rather than when delivering, but at the same time, face different challenges like engaging members and farm employees, and calculating a convenient overall budget (Samoggia et al. 2019). Organising the distribution, especially the easily accessible points for consumers to pick up the produce on a regular basis, is a CSA-specific managerial task for farmers and CSA members (Samoggia et al. 2019). These challenges aside, CSA supports the local economy and fosters relation between urban and rural areas (Samoggia et al. 2019; Wellner 2018). Another specific characteristic of the CSA concept is the de-commodification of food. The single product is not directly linked to a monetary value and purchased in a normal market transaction, but the farming activity is financed for consumers to receive a share of an uncertain amount of food (Carlson and Bitsch 2019). This allows producers and consumers to act outside the general market mechanisms, which makes them less vulnerable to fluctuations. During the Covid-19 pandemic, CSAs have proven to be “resilient in times of crisis” (Mert-Cakal and Miele 2020), and consumer applications increased (Bioland 2020). Medici et al. (2021) report that trust among members, exchange and participation replaces third-party certifications and furthermore, that farming practices often go beyond organic standards in Italian CSAs.

Social well-being

The social dimension is fairly well represented in the literature and is the most critically seen. For example, Paul (2019) reveals that CSA farmers in the US do not earn enough for a living, since the agreement with consumers, which should allow for a decent income does not sufficiently value a farmer’s fulltime commitment. Although the price is “freely set and fair-minded” (Samoggia et al. 2019:14), it often does not add up to an adequate income for the farmer. Partzsch (2019) reports of a German case in which workers were not given an

insurable income, which led to high staff turnover. Galt *et al.* (2013; 2016) give reasons for self-exploitation of CSA farmers in the US, because income is not their main priority, because they feel obliged to members to provide food at low costs, and because of competition for members. Nevertheless, CSA farmers in general receive a higher and more stable and reliable income than farmers of comparable regular farms, and experience generally a better livelihood, as the capital needed for cultivation is provided in advance (Paul 2019). Wellner (2018) reasons that low farm incomes can be due to miscalculations during the budget planning and thus stresses the importance of thoughtful advance planning.

Concerning the livelihood of consumers, CSA encourages a healthy and elaborate diet (Samoggia et al. 2019), as consumers receive fresh and seasonal food that stirs creativeness in meals based around the received produce. One risk of building CSAs is that over time and due to the shared value and mindset, a rather closed homogeneous group evolves (Antoni-Komar 2018). This development can be observed in various cases of CSA, as studies present the typical CSA participant as being well educated, wealthy, in a stable employment position, living in an urban region, critically questioning the current food production system and not seeing a monetary amount as the true value of a product (Bîrhală and Möllers 2014; Blättel-Mink et al. 2017; Volz et al. 2016; Wellner 2018). Bîrhală and Möllers (2014) state that farming practices used by CSAs can lead to a high general price for CSA produce, which is not affordable when receiving a low income. Therefore, the idea of equal access to CSA can be seen critically. A common method to determine a consumer's financial contribution to the overall budget is anonymous bidding. While jointly covering the whole budget, individual payments differ, and less well-situated people can join the community (Wellner 2018). Van Oers (2023) report about two Dutch CSAs that introduced solidary payment schemes with the double aim to increase farmers' incomes and not to exclude low-income members. Another way to include low-income members is to allow to work on the farm to pay off part of the share (Wellner 2018). However, barriers remain, like the lack of capacity to cope with harvest failures (Partzsch 2019).

Due to the character of their partnership, which contradicts the classical economic concept, CSA farmers and consumers perceive their relationship to be rather equal (Savarese et al. 2020). Although, regarded objectively, the economic power lies on the side of the consumers: they provide the financial resources for the project to work (Savarese et al. 2020). This form of relation allows for a mutual exchange between producers and consumers leading to an optimal outcome (Carlson and Bitsch 2019). CSA consumers interpret their financial contribution as an investment and accordingly show active commitment to farm activities (Savarese et al. 2020). The more integrated they are in the overall process, the more they feel part of the community and are motivated to contribute to it (Savarese et al. 2020). Contradicting the idealised perception of consumer commitment, Wellner (2018) highlights that CSAs often face

a low level of solidarity and social engagement, and that CSA membership is rather motivated by personal interests and prestige. Closely linked to the question of equity is the aspect of solidarity and responsibility, which not only refers to the support between consumers and farmers, and between members in an economic sense, but also to nature as an indispensable resource (Antoni-Komar 2018; Savarese et al. 2020). The support and overall value creation for the whole community and responsible use of resources is even more valued by members than their personal benefit from the agreement (Carlson and Bitsch 2019). This sense of responsibility goes beyond a restricted communal focus and considers people outside the community and future generations (Carlson and Bitsch 2019).

In sum, most sustainability dimensions are sufficiently covered in the literature on CSA and mostly show that CSA, as currently implemented in Germany and elsewhere, are a viable alternative. Topics not sufficiently covered, but presenting challenges for viability of CSAs, are the environmental effects of CSAs (including all sub-themes), especially in view of necessary supplemental shopping (for an exception see Moruzzi and Sirieix 2015), and how sound ecological practices could be ensured. Moreover, regarding social aspects, there is a lack of knowledge on how internal power relations and conflicts could be avoided, and aspects of labour and working hours (Ekers 2019; for exceptions see Watson 2020), and gender (for exceptions see Jarosz 2011; Kondoh 2015).

The literature shows that CSAs are being implemented in diverse forms in Germany, are adjusted to different contexts and challenges are being tackled. According to Wellner (2018) the increase of CSAs and their members came with a dissolution of the original core concept, i.e. some CSAs see the concept as a marketing strategy instead of the originally appreciated values of community and solidarity. Despite the variation between CSAs and some discrepancies from the CSA principles, they hold true in a range of circumstances and hence can be interpreted as a viable alternative.

5.2.3 Achievability

Achievability deals with the long-term achievement of the alternative, namely the questions of whether and how an alternative reaches the overall goal, or the desired and viable alternative in the long run. As outlined before, it is rather difficult to assess achievability as long as the “new” desired status has not been achieved. There is a lack of literature on the exiting of CSA farms, and the dynamics of CSA farms over time, that might help to assess achievability. A few studies looking at dynamics (Feagan and Henderson 2009; Kondoh 2015) argue that CSAs adapted to local circumstances, thus become more pragmatic but maintained core principles and their transformative potential.

5.3 Transformation

Step four of Wright's approach deals with the strategy of transformation. Generally, CSA co-exists within the existing agri-food system. It does not try to destroy the prevailing market but rather represents itself as an alternative, thus the ruptural transformation strategy can be ruled out. The question remains whether it is an interstitial or symbiotic strategy, or a mix of both. CSA closes the gap between producers and consumers which is a characteristic of the current agri-food system. Producers who are aiming for sustainable small-scale farming are appreciated accordingly, and consumers who are willing to value and pay for socially, locally, and ecologically produced food meet, and jointly build a niche (Wellner 2018). A specific feature of CSA is that it reflects a mutual search for an alternative way of production and consumption alike, and that the target goes beyond the produce in trying to build a partnership (Zoll et al. 2021). As CSA is seen as a niche phenomenon (Bîrhală and Möllers 2014; Blättel-Mink et al. 2017; Paul 2019) and clearly changes the process of food production and consumption, the transformation process can be interpreted as interstitial. Critically seen, consumers and producers are still part of the overall capitalist economic system without provoking radical changes. Examples are the legal framework, and the use of inputs and infrastructure. Hence, characteristics of the symbiotic strategy are fulfilled too.

The main findings of the four-step analysis are summarized in Table 2.

Table 2: Summary of the four-step analysis

Step 1 / 2	Failure of current industrialised agri-food system and need for more regional, small-scale farming, transparent food production, and sustainable practices.
Step 3	CSA is a desirable alternative. The comparison of the German CSA core principles with comprehensive and globally-supported sustainability criteria yielded that most are fulfilled, although not all to the same extent. CSA is a viable alternative. Both internal reports and secondary literature show a diversity and growing number of CSAs in Germany. Sustainability is addressed more holistically than in other forms of agriculture and food networks, although challenges and knowledge gaps remain. Existing literature hints to long-term achievability of transformation, but there are limitations of the concept itself and real-world challenges need to be addressed.
Step 4	CSA represent a mix of an interstitial and partly symbiotic transformation strategy.

6. Discussion

The CSA concept in Germany fulfils the features of a desirable and viable alternative in the sense of real utopia. While implementation as reported in the literature, is not always carried out in perfect accordance with the theoretical concept and CSA principles, CSAs can still be considered a real utopia. This corresponds with several other authors, Schiller-Merkens (2022) suggests that through their everyday practices, which includes dealing with challenges, alternative movements like CSAs show their viability. Gruber (2020) argues that CSAs manage to balance means-end and value rationality and can therefore be a key to a transition towards a sustainable agri-food system. Cucco and Fonte (2015) conclude that local food networks are real utopia. Based on the studied literature the achievability of CSA and a truly fulfilled transformation of the current system cannot be observed yet. The hypothesis of an interstitial transformation strategy holds only partially as CSA also follows a symbiotic strategy. This corresponds to Wright's suggestion that a mix of interstitial and symbiotic transformation is most likely to lead to a successful transformation.

The real potential of CSA to grow and completely change the prevailing agri-food system as part of a capitalist economic order cannot be assessed based on the chosen approach. But as Wright (2006:121) states, "proposals, taken individually, might be considered only modest movements along a particular pathway of social empowerment, taken collectively they would constitute a fundamental transformation of capitalism's class relations and the structures of power". Hence, together with other initiatives questioning capitalist market structures, CSA contributes to the agri-food system transformation in the long run, despite lacking the power to change the system directly. One characteristic that challenges the current food system is "the unconventional organizational model […] itself" (Hvitsand 2016:347). Gruber goes beyond and stresses that CSA manages to evade capitalism as they elude the competition of capitalist markets (2020). By establishing their own local food systems CSAs move beyond existing power regimes (Hvitsand 2016). This does not mean they are autonomous, since CSAs still rely on inputs and general infrastructure and are therefore part of the economic capitalist market. The food regime literature has argued that whereas CSA and others represent a countermovement to the corporate food regime (McMichael 2009), corporations have profited by appropriating demands of alternative food networks, which in turn forces these to react and thereby create a virtuous cycle (Friedmann 2016). In Austria, direct marketing and organic pioneers had initiated an interstitial development before they were appropriated by the mainstream, a process which only few CSAs survived (Schermer 2015). For Japan, Kondoh (2015) shows that the conventional system has absorbed the teikei movement but was also shaped by it.

There are limitations within the CSA concept itself that question the potential growth of CSA. These include the fact that CSA is not able to produce the full range of products members need for their daily diet because of geographic and climatic conditions, and consumers therefore still need to use additional market channels (Doernberg et al. 2016; Wellner 2018); farming needs to reach a higher level of productivity and professionality when aiming to supply an increasing number of members (Wellner 2018); lack of access to land and its high costs (Volz et al. 2017) and governmental support (Vicente-Vicente et al. 2023). Within larger groups core values, sense of community, exchange, and trustful relationships become endangered (Carlson and Bitsch 2019). Communication is relevant for long-term commitment and behaviour change (Cox et al. 2008). Discussions within the Solawi network about the margin of how flexibly and widely the concept can be applied while still being appropriately called a CSA is an example of the dilemma (Carlson and Bitsch 2019). To hold up cooperation within a CSA and keep the social mechanism working, a certain level of moral motivation among members is crucial (Gruber 2020). Not only internal development but also consumers pose challenges to the future of CSA. For example, non-participants have been found to lack altruistic and universalistic values and fear the effort associated with CSA (Diekmann and Theuvsen 2019) and there is possible competition for members where multiple CSAs emerge in one location (Bonfert 2022; Galt et al. 2016). Additionally, as market actors start to understand CSA member's motivations and needs, they adjust their offerings by providing regional and healthy food based on environmentally friendly practices and enter into competition with CSA (Samoggia et al. 2019).

For Germany, some authors described how collaborations have overcome some of these barriers. One approach for a CSA to provision a larger community is to cooperate with other CSAs to be able to extend the range and amount of produce and use synergies between farms and thereby build so called "multi-farm CSAs" (Bîrhală and Möllers 2014:62; Bonfert 2022; Rommel et al. 2022; Volz et al. 2016). Rommel *et al.* (2022) found cooperation in seed supply, training provision and with processors like bakeries; sharing of machinery, labour and produce with other CSA farms; and with the German CSA network via food councils and intermediaries. Bonfert (2022) shows how multi-CSA networks collaborate with many other actors, including policymakers, other social and environmental movements, and activists, which helps them to increase the effectiveness and reach of CSA. Other German CSAs have been in contact with individual policymakers to discuss issues like access to land (Wittenberg et al. 2022). Generally, policymakers are advised to consider the specific features of CSA regarding regulations for food production and can even foster the process by setting relevant incentives (Carlson and Bitsch 2019; Sulistyowati et al. 2023).

Despite criticism and the known limitations, Volz et al. credit the CSA concept's real potential as a "model for a much-needed shift towards a truly sustainable economy on a human scale"

(2016:10). In Germany the change to a more professionalised and economically stable form of CSA has been achieved with the formation of a CSA cooperative (Solawi-Genossenschaft) that is referred to as a potential way to get out of the niche position without losing the core values of the original CSA concept (Solawi-Genossenschaften 2020).

This paper does face some limitations. The analysis was based exclusively on secondary literature. Although a number of thoroughly selected studies were included, the analysis is limited to what other authors have examined, so there might be bias due to omitted arguments that might have influenced the overall results. The analysis of the SAFA dimensions seems somehow disproportional in terms of their content as most studies analysed social well-being and only very few addressed environmental integrity. This reflects the status of literature and thus illustrates the issues that were subject to an in-depth study. It correspondingly highlights the issues for further analysis with in-depth case studies; for example, the environmental impact of CSAs, including effects on soil, water, air and animal welfare, covering production and consumption. There is consensus that CSA faces changes due to the increased numbers of CSAs and members and more general attention. This perceived change, its implications, challenges and development ideas discussed and tried out within the CSA, might be potential subjects for further research. One example which is already implemented in Germany and could be analysed in detail to investigate its potential to change the agri-food system is the CSA cooperative (Solawi-Genossenschaften 2020).

Another difficulty when analysing the potential of CSA is its diversity in implementation. This exploratory study considered this continuum in two ways. First, the diversity is neglected when CSA principles are theoretically examined for desirability. Second, when analysing CSA as viable alternative, diversity is acknowledged through reviewing secondary literature on implemented CSAs. The diversity can be seen as a potential for providing space to test and develop utopian elements of CSA. Tailoring to the context is seen desirable as it leads to long-lasting CSAs (Vaderna et al. 2022). Whereas some new governance models with intermediaries move away from the core principles and should be monitored, some can still be seen as valuable alternatives (Rosol and Barbosa Jr. 2021). In the same line, DuPuis and Goodman (2006) argue for promoting democratic processes rather than a perfectionist utopian vision of the agri-food system.

Further research could study specific CSA types and their individual potential, e.g. subscription versus shareholder CSAs. Max Weber's concept of ideal types could contribute, by comparing diverse CSAs to an ideal-type CSA (see e.g. Rosol and Barbosa Jr. 2021). Additional to case studies closing the current research gaps on sustainability dimensions, further studies could explicitly address the transformation potential, thus the achievability (step 4). One option is to combine a multi-level perspective assessing interactions between niches and regimes, with an

analysis of social practices, governance processes, politics and power, and the sustainability of the transitions (see El Bilali 2019).

7. Conclusion

CSA is seen as a niche within the agri-food system thus far, but the increasing number of CSAs around the world necessitate a re-evaluation of the status quo of CSA, especially regarding its growth potential. This paper applied the real utopia framework and examined whether CSA can be understood as a real utopia, along Wright's four-step approach of moral principles, diagnosis and critique, alternative and transformation. The SAFA themes were used as criteria for analysing CSA as desirable and viable alternative, based on CSA described in the literature.

The CSA concept, as envisioned in Germany, does fulfil the criteria and may be understood as a real utopia. The real utopia frame helps better understanding the solutions CSAs offer for a transformation of the agri-food system. Nonetheless, there are discrepancies regarding fair remuneration, and knowledge gaps regarding environmental aspects, among others. CSA as implemented in Germany, demonstrates one exemplary solution for the agri-food system transformation. The CSA concept and the various forms of implementation provide a possible direction to a more ecologically, economically and socially sustainable agri-food system and thereby contribute to the transformation process.

For further growth, practitioners should tackle internal and external challenges while maintaining the core CSA principles. Scholars could fill the current knowledge gaps, preferably collaborating with practitioners. Policymakers could foster conditions for establishing and maintaining CSAs. The core idea of community-based sustainable regional production and consumption, contributing to sustainable nutrition and land use, is valuable and should be further strengthened to transform the agri-food system.

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Annex

Table A1: Comparison SAFA themes and CSA principles (FAO, 2013; Solawi 2022b)

	CSA principles according to Solawi						
Dimensions and themes according to FAO	Community financing of agriculture and sharing of the harvest	Appreciation and recognition	Direct relations and consumer involvement	Transparency about annual budget and farming methods	Sustainable agricultural practice	Social security and good working conditions	Tolerance and open-mindedness
Good governance							
Corporate ethics	due diligence	due diligence	due diligence			due diligence	
Accountability	responsibility		- responsibility - transparency	transparency			
Participation	stakeholder dialogue		stakeholder dialogue				
Rule of Law							- legitimacy - civic responsibility
Holistic Management	full cost accounting						
Environmental integrity							
Atmosphere					- GHG - air quality		
Water					- water withdrawal - water quality		
Land					- soil quality - land degradation		
Biodiversity					species diversity		

Materials and Energy							
Animal welfare							
Economic resilience							
Investment	- profitability - long-ranging investment						
Vulnerability	risk management	stability	- stability - risk management				
Product quality and information			product information				
Local Economy					local procurement		
Social well-being							
Decent livelihood		quality of life	quality of life			quality of life	
Fair Trading Practices	- responsible buyers - rights of suppliers		responsible buyers				
Labour Rights		employment relations	employment relations			employment relations	
Equity	non-discrimination, support to vulnerable people						- non-discrimination - support to vulnerable people
Human Safety and Health						workplace safety and health provisions	
Cultural Diversity							cultural diversity

Table A2: Summary of analysis results based on Volz et al. 2016

Good governance	Corporate ethics	• Corporate ethics are in line with the aim to produce quality food based on agroecological practices and the overall holistic approach
	Accountability, Participation	• The criteria accountability and participation are fulfilled, as they are closely related to the core idea of CSA, namely the shared risk and reward. High consciousness about resources, transparency and active participation of all members fortifies it further
	Rule of Law	• CSA is bound to national laws and use different legal forms to run their businesses with often legally separated functions within the CSAs, namely ownership, holding and practice
Environment	Soil, water, Land, Animal welfare	• CSA focuses on fertile agricultural soils and plants, water and resource use and animal welfare
	Biodiversity, Materials and Energy	• Applied practices, especially organic farming, reduction of food waste, food miles and packaging material foster "environmental protection, climate responsibility and biodiversity" (Volz et al. 2016:43)
Economic resilience	Vulnerability	• CSAs create their own local system and are not strongly affected by general market pressures on price and practices and in addition, sharing risks, costs and responsibility further decreases the individual vulnerability
	Product Quality and Information	• If judged critically, the criterion of product information is only partly fulfilled, as CSAs do often not provide certifications and labelling for their produce • However, avoiding packaging and labelling is an intentional part of CSA and is replaced by direct interactions, i.e. the consumer's knowledge is more than sufficient as they know how and where the plant was grown
	Local Economy	• "CSAs promote the local economy" (Volz et al. 2016:42) as money is spent directly on food production in the region and rural areas are valued more highly based on better interaction and understanding
Social	Decent livelihood	• The aspect of a fair income for farmers as part of a decent livelihood is not completely fulfilled, as many farmers rely on additional sources of income • Nonetheless, the increase of agricultural diversity and close relation to consumers provokes joy for farmers

	Fair Trading Practices, Equity	• The trustful relationship between CSA members, based on risk, cost and responsibility sharing, acknowledges fair practices and equity
	Labour Rights	• The criteria of labour rights can be seen critically as “most of the producers are not formally employed” (Volz et al. 2016:42) • At the same time, farmers usually have agreements in the form of long-term contracts with CSA members strengthening their security
	Human Safety and Health	• Human safety and health are ensured as CSA cares for human health and serve not only CSA members but also non-members
	Cultural Diversity	• CSA fulfils a pedagogic role and provides members with “access to and […] responsibility for […] true food sovereignty” (Volz et al. 2016:42)

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