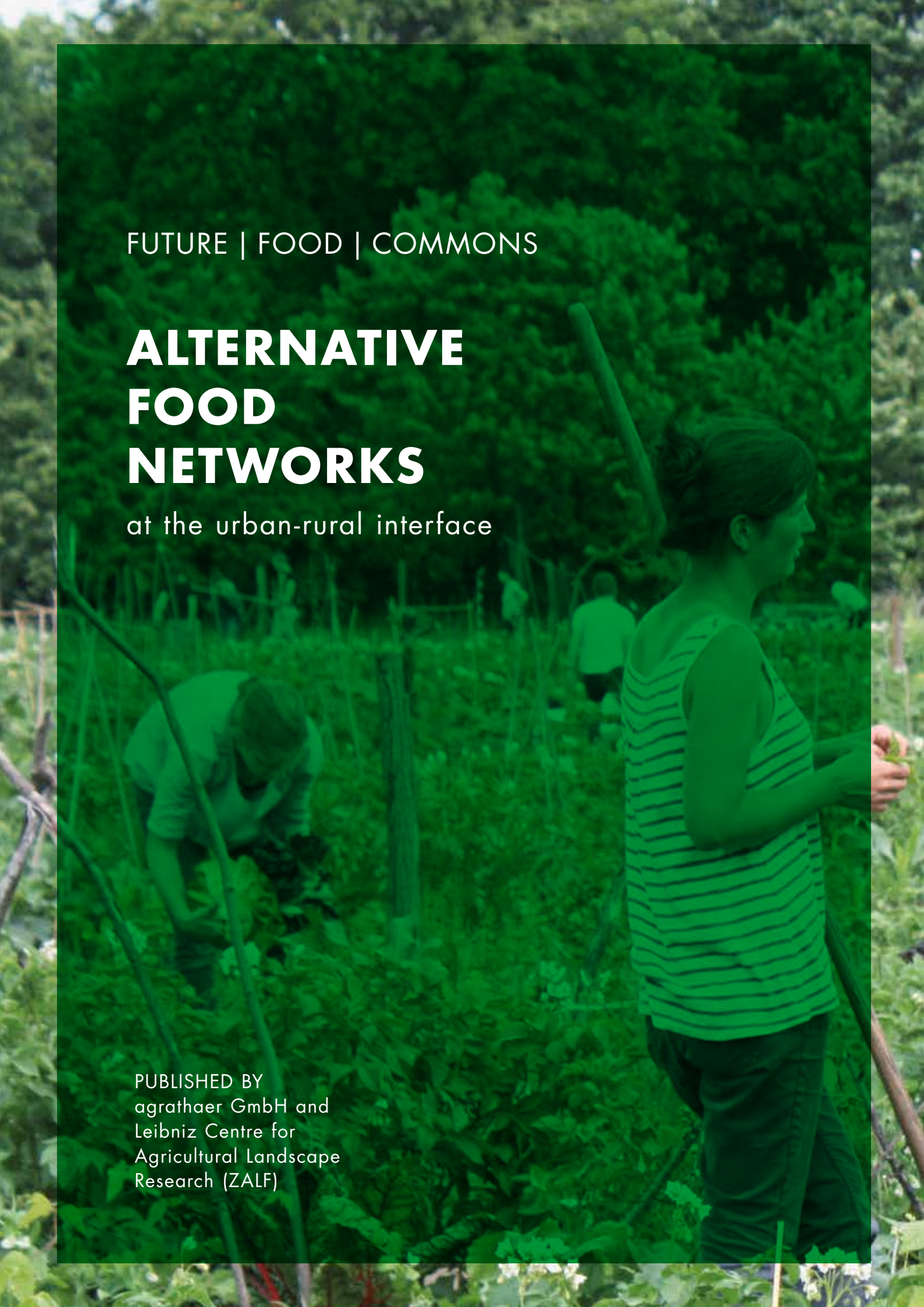

FUTURE | FOOD | COMMONS

ALTERNATIVE FOOD NETWORKS

at the urban-rural interface

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1 INTRODUCTION

Today and in the future, agriculture and the food industry are faced with a number of challenges, such as climate change and the scarcity of soil as a resource. In order to successfully meet these future challenges, it will be more important than ever to conserve natural resources along the value chain. The way that natural resources are used is determined not least by the way of consumption. That is why Alternative Food Networks (AFN) are becoming the focus of politics, science and the media in Germany.

Alternative Food Networks in Germany include projects such as community-supported agriculture, food coops, farmers' markets, self-harvest gardens, animal sponsorships, urban gardening, pick-your-own farm, and food assemblies. In such projects, agricultural producers cooperate in certain areas with consumers. They make common arrangements, work together, and learn from each other. This creates an innovative link between producers and consumers, often supported by common ideas about the environment and society.

As a result of these interactions, links between the city and the countryside that had been decoupled during the course of industrialisation, urban growth and a globalised food system are being re-established. In medieval and pre-industrial times cities were supplied from their immediate surroundings, and even agriculture within cities was widespread. In Berlin, for example, there were small farms in the backyards of tenements, where even dairy cattle were kept. This changed with industrialisation. Agricultural production was now almost entirely carried out close to the city and in rural areas. Nowadays, many farmers mainly produce for the national and global market. →

It is precisely these farming operations in areas near to the city that have found it difficult to compete globally due to the enormous competitive pressure on land. Reasons for the competition are, for instance the high land prices and the growing cities' space requirements. The need for change is increasing and innovations are being driven forward. In the process, proximity to the city is proving to be an advantage. New business or service models are emerging, together with groups of health-conscious and environmentally aware consumers, as well as consumers who are critical of mass consumption. These models include food coops or community-supported agriculture, which focus on such aspects as transparency, solidarity and resource-efficient production. The models can be understood as social innovations, i.e. as new types of social interaction and activity that address major challenges society is facing.

Correspondingly, these innovations are also driven by an altered social perception of agriculture and the increased demands it faces. Food scandals and media reports on intensive livestock farming have led some consumers to demand greater transparency all along the food chain to make it easier to trace the origins of the food. Moreover, consumers want the animals to be treated with greater responsibility and they decline genetic engineering. This is because consumers do not see ethical and ecological requirements being met sufficiently, even though agriculture in Germany generally has a good image. At the same time, farmers are struggling with the fact that there is little recognition for either their work or for high-quality food. A large share of the population mainly buys cheap food. This is precisely where Alternative Food Networks enter the picture. Their goals are to bring together conscious consumers and producers, to produce food in a more sustainable way and to give the food a value of its own.

The innovative core of these alternative models is that there is a direct interaction between producers and consumers, unlike in conventional commercial relations. Crops are exchanged or knowledge is shared. Land or resources are used jointly. Win-win situations are created through collaboration and financing models. The models therefore include practices that can also be observed for other commodities and in the sharing economy *(> more in Chapter 2).*

In the Future | Food | Commons[1] research project funded by the Federal Ministry of Education and Research (BMBF), Alternative Food Networks in Germany were studied on the basis of three models: community-supported agriculture, food coops and self-harvest gardens. The results from literature reviews, from surveys that have been conducted in three German metropolitan areas, and those from a series of workshops will be presented in the following chapters.

In the second chapter, the three models are presented on the basis of their history. The analytical concept of the six domains of interaction between producers and consumers (labour, produce, knowledge, financing/contracting, resources, and land) is explained and applied. The key question asked in the chapter is whether and how these interactions are suitable for characterising the models and for distinguishing them from each other. Commonalities and differences between the various models are illustrated for practitioners, as are the range of possible ways of getting involved.

The third chapter is concerned with the members' motives for participating in Alternative Food Networks. What are the main motives and do the motivations of members differ in the various models? Is collaboration between producers and consumers itself a motive for the participation? Information on motivations is particularly important for people who want to launch new projects.

One overall goal of Alternative Food Networks is a sustainable use of resources. The fourth chapter presents some of the results of a literature review. Opportunities and risks of community-supported agriculture for sustainable development are discussed, based on three examples. In connection with the actors' motives (Chapter 3), an interesting picture emerges for those actively involved in the networks. They can see which goals can already be implemented by participating in an Alternative Food Network and for which goals solutions still have to be developed.

The fifth chapter specifically examines what knowledge the members acquire in the three models. The key questions in the study were which are the most important learning fields and how do these differ between the models. Thus, in which areas does rural knowledge enter the city, and does an understanding develop between consumers and producers? For those interested in the models, the chapter offers a summary of the concrete learning paths that can specifically be followed.

The results of a series of workshops on future developments of the models are presented in the sixth chapter. Various scenarios of future developments have been portrayed together with practitioners and representatives from science, administration, and associations. Alongside the requirement to develop consistent scenarios, the focus was on the adaptability of the models under these future scenarios. For practitioners, it can thus be shown how stable the models are under different framework conditions and which future fields of action exist.

Many actors from Alternative Food Networks, as well as experts from academia and associations have contributed to the success of the research project by participating in surveys and workshops and by contributing their comments to this brochure. Here, we would like to take the opportunity to thank them for their support.

SOURCES

Deutscher Bundestag (2013): Schlussbericht der Enquete-Kommission „Wachstum, Lebensqualität– Wege zu nachhaltigem Wirtschaften und gesellschaftlichem Fortschritt in der Sozialen Marktwirtschaft".

Stierand, Philipp (2012):
http://speiseraeume.de/downloads/SPR-Stadternaehrungsplanung-Stierand.pdf

Wissenschaftlicher Beirat der Bundesregierung Globale Umweltveränderungen (2011): Welt im Wandel. Gesellschaftsvertrag für eine Große Transformation. Berlin.

1 Full title: Sharing Economy in der Lebensmittelversorgung – Neue Modelle der Konsumenten-Produzenten-Interaktionen (Sharing economy in food supply - new models of consumer-producer interactions, trends and impact assessment), duration: August 2015 - July 2017, funding area: Innovation and technology analyses (ITA), funding code 16I1661, consortium coordination: Leibniz Centre for Agricultural Landscape Research (ZALF), consortium partners: Fraunhofer Institute for Systems and Innovation Research (ISI Fraunhofer), subcontractor: agrathaer GmbH, www.fufoco.net

2 THREE MODELS OF ALTERNATIVE FOOD NETWORKS

Alternative Food Networks differ in their characteristics and in the history of their development. In the Future|Food|Commons research project, food networks were exemplarily examined by looking at the three models most frequently found in Germany: food coops, community-supported agriculture, and self-harvest gardens. The focus was on the different forms and topics of cooperation between producers and consumers, such as interactions in relation to produce, financing, and labour. One of the key questions of the study was whether and how these interactions are suitable for characterising the models and for distinguishing them from each other. At the same time, the description of the interactions between producers and consumers makes it possible to discuss whether the practices in Alternative Food Networks are indeed practices of sharing, so forming part of the sharing economy.

In order to clarify these questions, in a first step the distribution and number of Alternative Food Networks in Germany was determined. In addition, a large number of academic articles and project descriptions were analysed in order to elaborate on the historical background of the models, as well as the different interactions between producers and consumers. Based on this, the next step was to conduct interviews in the three metropolitan regions of Hamburg, Berlin and Munich (see Figure 2.1). The interviewees were two members and one producer per project (food coop, community-supported agriculture, and self-harvest garden). →

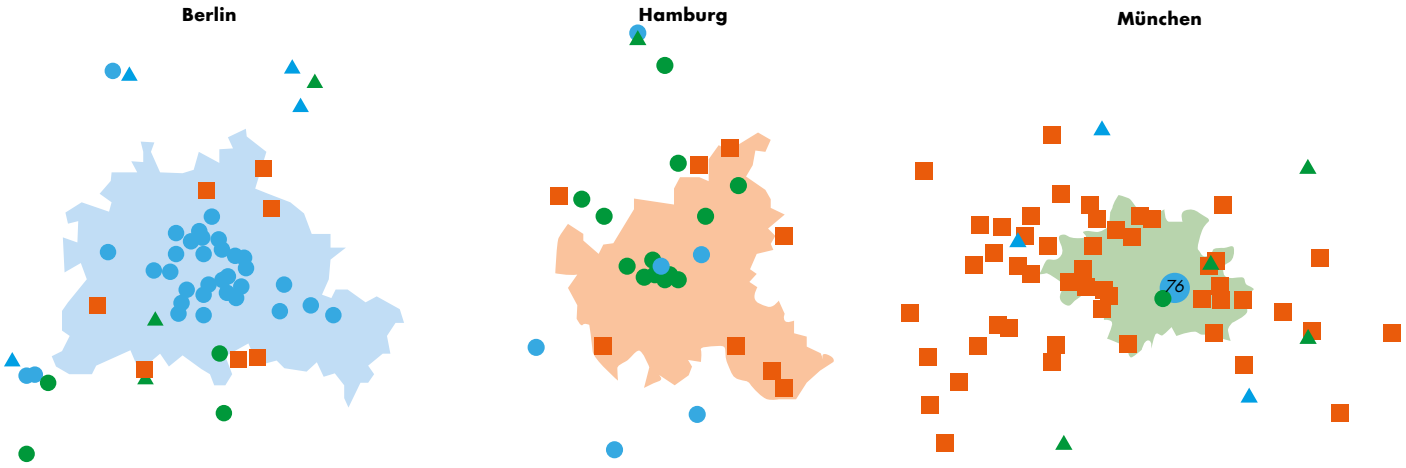

Figure 2.1: *Spatial distribution of the projects of the three models studied in Hamburg, Berlin and Munich within a 25-km radius of the city limits, as of 2016.*

The interviews have shown that in the models examined, cooperation and exchange between producers and consumers takes place in six domains:

- **Labour** (e.g. through joint harvesting activities),
- **Produce** (e.g. choosing varieties),
- **Knowledge** (for instance, the transfer of knowledge about cultivation techniques)
- **Financing and contracting** (e.g. cooperatives)
- **Resources** (e.g. the lending of gardening tools),
- **Land** (for example, the allocation of arable land or storerooms).

As the maps of the study regions show *(see figure 2.1)*, the models are based on a spatial connection between the farms located in areas close to the city, and the members who operate their picking points and storerooms mostly in central, urban locations. It is this specifically city-country connection which is an important prerequisite for the interaction between producers and consumers, which constitutes the innovative core of the models investigated.

In the following sections, the three models are presented in terms of their characteristics, history, and consumer-producer interactions. They may differ from the standard models described here in practice. This is due to the local conditions of the organisations and the requirements of the members.

FOOD COOPS

DESCRIPTION

Food cooperatives, often referred to as ‹food coops›, are self-organised associations of (urban) consumers who, collectively, either buy food directly from the producers or who purchase from wholesalers. Most of them attach great importance to the products being both organic and locally produced, or to fair trade. As the goods are directly purchased, it means they are more economical than if they had been bought from a retailer. Many food coops also pursue additional goals, such as supporting organic agriculture in the surrounding countryside and responsible consumption.

Food coops can be subdivided into three types: direct-order-coop, warehouse-coop, and membership store. In the direct-order-coop, members place weekly orders for the goods that they need. In a warehouse-coop, the members operate a warehouse that they supply with a basic stock of groceries, from which they serve themselves. A membership store is operated by staff. Members can buy products at a preferential price, while non-members pay more. The food coops' premises must be located near to the members. They can often be found spread throughout the inner cities or else in the small towns and villages adjacent to large cities *(see Figure 2.1)*.

»

As a result, we gained some independence from the big discount chains and have now become direct purchasers ourselves.

Food coop member[2]

»

Basically, the food coop idea only works in cities. But it might be something for smaller towns in the future.

Food coop producer

2 The quotations were partially shortened and grammatically adjusted.

Food coop members sort the delivered goods into the boxes of the different members.

HISTORY

Many food coops were started in Germany in the 1970s and 1980s as interest in organic food grew. Their aim was to provide those areas with organic food which did not yet have any wholefood shops or else to provide access to organic food for people who could not afford it otherwise. Since ever more wholefood shops and wholefood supermarkets have emerged, and as organic products are now even on sale at discounters, the number of food coops is decreasing again. The predecessors of food coops are the 19th century purchasing communities and consumers' cooperatives. They were generally established to provide cheaper food. There are an estimated 200 food coops in Germany. The ‹Foodcopedia› website provides an overview of some of these projects. It also provides helpful advice on how to found and organise a food coop. This includes various software solutions for organising order placement and other organisational duties. The ‹Bundesarbeitsgemeinschaft der Lebensmittelkooperativen e.V.› (Federal Association of Food Cooperatives) network represents the interests of German food coops at the national level.

FURTHER INFORMATION AND LINKS

Foodcoopedia
foodcoopedia.de.fcoop.org

Bundesarbeitsgemeinschaft der Lebensmittelkooperativen e.V. (Federal Association of Food Cooperatives):
www.foodcoops.de

CONSUMER-PRODUCER INTERACTIONS IN A FOOD COOP

Labour **Produce** **Knowledge**

Labour: Work along the value chain of a food coop is shared between producers and consumers. While the farmers do all the productive work, the consumer group takes on some of the distributive tasks. To this end, orders are shipped from a farm or wholesale store to a specific place, for example a warehouse or the food coop's own shop in the city. The distribution of unsorted and in some cases unweighed goods is conducted by members through voluntary, self-organised, and unpaid work.

Produce: In general, the decisions on the cultivation planning (e.g. vegetable varieties, cultivation range, quantities harvested) are made solely at the farms, without the food coop members becoming involved. However, the members do indirectly influence the time of harvesting and the quantities harvested through the size of the orders they place. In individual cases, these interactions permit a coordinated crop management.

Knowledge: The producers share their knowledge with the consumers of the food coop. The farms often provide information on the products and cultivation, e.g. newsletters, or they provide recipes for the processing of special vegetable varieties along with the shipment.

Boxes full of produce ordered by the food coop members, ready to be taken away.

COMMUNITY-SUPPORTED AGRICULTURE

DESCRIPTION

In the case of community-supported agriculture (CSA), a group of members based in the city and, in most cases, an organic agricultural or horticultural farm, are bound by contract to each other for one year. In the case of cooperative models, the contractual commitment may also be made for a longer period. Members pay a fixed monthly membership fee and receive their share of the harvest in return. The shares of the harvest are brought to self-organised picking points in the city every week or can, in some cases, be picked up directly at the farm as the community-supported farms are often located close to the city *(see Figure 2.1)*. Interesting regional differences can be observed. While in Hamburg and Berlin, less than ten picking points are supplied by one CSA farm on average, one finds an average of 25 picking points per farm in Munich. In Munich, this is especially due to one single CSA, which supplies more than 70 picking points in the city.

These networks characterise themselves as operating on a solidarity basis, mainly because both producers and consumers share the risk of crop failures. Producers receive the members' monthly contribution, irrespective of the size of the harvest that they have produced, throughout the entire year. Thus, if climatic events or pests lead to a poorer harvest one year, each CSA member receives a smaller basket of produce than in years with good harvests. As such consumers declare their solidarity with their producers. In classical trade channels the producers would bear the full cost of crop failures themselves. Farmers also feel solidarity with the members of their CSA. They feel personally responsible for supplying their members with high-quality products and for involving them in decision-making processes.

»
Today, I am convinced that this can really work. That it will allow the farmer to work within small farm structures, to be independent from the market and we as members of an economic union also bear the risk.
CSA member

»
It is important to me to support someone to start on a shoestring and to do the things in their own way.
CSA member

CSA farmer and members harvesting potatoes.

HISTORY

The model was developed in Japan under the name ‹Teikei› in the 1960s, and in the USA as ‹community-supported agriculture› (CSA) in the 1980s. The objectives were to obtain fresh and healthy food and to support organic farming. The concept is very widespread, especially in France, with more than 2,000 such operations. The first CSA in Germany, the ‹Buschberghof› near Hamburg, was founded in 1988. By 2007, there were eight CSAs in Germany. Meanwhile, there are around 90 of them and approximately 100 new ones are planned. Many of the CSAs in Germany are designated ‹Solidarische Landwirtschaft› (solidary agriculture). The term is intended to emphasise the value of solidarity shared by producers and consumers. At the same time, the term implies that certain criteria have been met. It does not include classical market share box models, common for CSAs in the English-speaking countries, for example.[3]

The CSAs in Germany are represented by the association ‹Netzwerk Solidarische Landwirtschaft e.V.› (Solidary Agriculture Network). The ‹association› provides a great deal of information on CSAs, including instructions for founding a project, advisory services and literature suggestions.

FURTHER INFORMATION AND LINKS

Netzwerk Solidarische Landwirtschaft e.V.
www.solidarische-landwirtschaft.org

Interactive map of CSAs in Germany
www.ernte-teilen.org

Aid (2016):
»Solidarische Landwirtschaft – Gemeinschaftlich Lebensmittel produzieren«

The CSA Research group (2016):
Overview of Community-supported Agriculture

3 Please note that in the following chapters the term CSA always refers to "Solidarische Landwirtschaft" (solidary agriculture), the type of CSA prevailing in Germany. The only exception is chapter four on sustainability effects of community-supported agriculture. This chapter deals with CSA as found in international scientific literature.

CONSUMER-PRODUCER INTERACTIONS IN A CSA

Labour: In many projects, work is shared between producers and consumers. The members take care of the cultivation and harvesting of the crops on the farm or in the garden for a specific amount of time, or they take part in jobs such as packaging and distribution to the picking points.

Produce: In CSAs, decisions on cultivation and varietal planning are often coordinated with the members at the beginning of the season. Members then receive their share of the harvest over the entire year or only during the season, on a weekly to fortnightly basis.

Knowledge: Knowledge and information are exchanged and shared between producers and consumers. For example, members receive newsletters about what is happening on the farm or cooking recipes for the vegetables that have been harvested. In many cases, members of a CSA assist the producer in the development of community processes.

Financing and contracting: The core of the model is to share the financial risk between producers and consumers. Members pay a fixed amount of money monthly in advance for a minimum of one year. This ensures a steady income for the producers.

Resources: Producers mostly share the resources with the CSA members. For example, tools or gloves are provided for working assignments.

SELF-HARVEST GARDENS

DESCRIPTION

In self-harvest gardens consumers ‹rent› a plot of land, which is previously prepared and planted by farmers or gardeners. The consumers cultivate their plot and can keep everything they harvest during the season. Self-harvest gardeners are advised and supported with horticultural expertise by the operators. The concept of self-harvest gardens primarily exists in German-speaking Europe. There are a number of different designations for it, for example: Gardens for rent, farmer's gardens, self-harvest gardens, and ‹Krautgärten›.

Self-harvest gardens are often found on the outskirts of the city or in the surrounding countryside. These are often operated on traditional farmland, but they have to be easily accessible by the mostly urban self-harvest gardeners *(see figure 2.1)*. There are a lot of self-harvest gardens in Munich, namely 51 (as of 2016), compared to Berlin and Hamburg. Nearly half of these are so-called ‹Krautgärten›, which are offered by the city authorities on arable land owned by the city.

»
What we are doing is letting people take part in a professional production operation with all that goes with it – the infrastructure, equipment, irrigation system, and the expertise.
Self-harvest garden operator

»
It's great to lend a hand instead of going to the farmer's market or wholefood shop and buy the produce in baskets.
Self-harvest garden member


CSA members assist in planting


Weeding between beetroot in a self-harvest garden

Harvesting Teltow turnips and kohlrabi in a self-harvest garden

HISTORY

The concept of self-harvest gardens was developed in Austria in 1987 as a new form of organic agriculture near the city. In Germany, it was put into practice for the first time near Kassel in 1999. Since then, an estimated 20 garden operators have been set up based on this model. Some of them only operate locally while others operate nationwide. In 2016, there were a total of 167 self-harvest gardens in Germany. The city-owned ‹Krautgärten› in Munich are a special type. At the moment, no association represents self-harvest gardens in Germany.

FURTHER INFORMATION AND LINKS

Overview of self-harvest gardens
http://gartenpiraten.net/selbsternte-gaerten

Overview of self-harvest gardens in "Felder und Gärten"
www.stadtacker.net

Bundeszentrum für Ernährung (Federal Centre for Nutrition), report and video about self-harvest gardens:
www.bzfe.de/inhalt/selbsterntegaerten-28275.html
https://youtu.be/zowZJtYlw7A

Vogl et al. (2004):
Urban organic farming in Austria with the concept of Selbsternte (›self-harvest‹): An agronomic and socio-economic analysis

Scharnigg, Max (2012):
Feldversuch – Unser Stück Land vor den Toren der Stadt

CONSUMER-PRODUCER INTERACTIONS IN A SELF-HARVEST GARDEN

Labour: The work in the garden is shared and there is a clear division of responsibilities. The garden operators are responsible for the cultivation of the soil, dividing the individual garden plots and the planting process. Sometimes, they may even offer additional services such as the automatic watering of plants. The members, on the other hand, take care of the cultivation of plants and the harvest.

Produce: While the decisions on the selection of plant varieties, the quantities of plants that will be cultivated, as well as the methods of ecologic cultivation are made by the garden operators, the members decide on the cultivation and harvesting of crops.

Knowledge: In many cases, the operators offer seminars or newsletters, in which they share expertise on the plant varieties and the recommended care. In addition, the members acquire gardening expertise by cultivating and harvesting fruit and vegetables, as well as by exchanging knowledge with each other.

Financing and contracting: The operators receive a one-off or a monthly contribution from the self-harvest gardeners for the use of the land and for the services. This guarantees a steady income for the operators.

Resources: In many cases, operators share their resources with their members. The entire gardening equipment and other resources necessary for maintenance and harvesting, such as water and irrigation technology, and seeds for reseeding, are often made available by the garden operators.

Land: The land is jointly cultivated by farmers and self-harvest gardeners. The operators either own the agricultural land themselves, or lease it and make it available to the members for one season, as well as providing a number of services.

SHARING ECONOMY AND ALTERNATIVE FOOD NETWORKS

In the Alternative Food Networks investigated, labour, produce, knowledge, financing/contracting, resources, and sometimes land are being shared between operators and network members. Does this mean that the models are further elements of the sharing economy, which is supposed to have positive repercussions on the public welfare and to include a sustainable use of goods respectively?

WHAT IS SHARING ECONOMY?

So far, there is no common definition of ‹sharing economy›. Different types and business models with regard to sharing exist that are counted as belonging to the sharing economy, including utility-oriented business models, management of common-pool resources, and the classical practices of sharing.

1. **Utility-oriented business models** are an example of the so called ‹collaborative economy›. In these models, goods are not bought and thus passed on to other owners. Instead, users only pay for the actual use of the goods, e.g. car sharing. Many new business models, such as Uber, Airbnb and TaskRabbit, have emerged in this sector over the last few years. Often payment is made via an online platform.

2. The joint use or the joint production of a good by a limited group of people according to commonly defined rules can be described as the **creation or use of a common-pool resource**. In this case the good is referred to as ‹common-pool resource›. Examples are the shared use of tools in the neighbourhood or Linux, TripAdvisor and Wikipedia.

3. **Cultural practices of sharing** also exist from an anthropological point of view. This designates extending the use of a good to an additional group of people under certain conditions: There is no expectation of an action in return and the handing over is a non-ceremonial procedure unlike presenting a gift. Instead, the building or consolidation of a community is being promoted. Examples include CouchSurfing, Kickstarter or simply inviting friends around for dinner.

THE SHARING ECONOMY AND ALTERNATIVE FOOD NETWORK MODELS

If we look more closely at food coops, CSAs and self-harvest gardens, one only finds occasional elements that can be assigned to the three forms of sharing described above. For instance, one finds elements of utility-oriented business models in relation to land in the self-harvest gardens. Here, the seasonal rent of a garden plot, including the provision of services, represents a use oriented product-service system, replacing the classical purchase of a garden plot. In all three models common-pool resources are created or used – for example, when gardening tools are shared in self-harvest gardens, or when food coops or CSAs respectively use a storage facility for food. Especially in the models that build a community between the members, elements of cultural practices of sharing can be found. For instance, members of some CSAs or food coops divide harvesting products among themselves when a member is on vacation or when a group of consumers meets up to cook together. CSAs and food coops contribute to a rise in public welfare, if they deliberately support local and sustainably operating farmers.

On balance, all three models have some elements of the sharing economy. They are, however, not sharing economy concepts in their entirety.

CONCLUSION

The three models described represent different approaches to how a network can emerge between producers located close to the city and city-dwellers, thus building a bridge between city and country. This connection becomes apparent, among other things, by the fact that the parties concerned work together and share resources with each other in many different ways. The three models differ from each other, for example, in terms of which tasks are carried out by their members, how much influence they have on the selection of plant varieties and which knowledge they acquire, whether there is cooperation with regard to financing/contracting, and whether resources and land are shared among the members. For consumers, a variety of opportunities to participate thus emerge, according to people's needs: Anyone who wants to do some gardening of their own rents a plot of land in a self-harvest garden. If you want organic food and would like to support local producers without having to go to the countryside, you become member of a food coop. Anyone who would like to show solidarity with a producer and who is willing to accept that in some low-yield years, one may receive less vegetables for the same amount of money, can get involved in a CSA. For producers, on the other hand, it is an important question as to how much interaction and co-decision with consumers is compatible with the achievement of business objectives.

From a scientific point of view, it has been shown that the six domains of consumer-producer interaction (labour, produce, knowledge, financing/contracting, resources, and land) are well-suited to describe the three models of Alternative Food Networks. In reality however, there is a wide range of how the cooperation between producers and consumers is designed in Alternative Food Networks – even within one single model. In order to carry out an empirically valid and generalizable characterisation, an empirical data base is required that exceeds the findings of the Future | Food | Commons research project.

Starting with the consumer-producer interactions while approaching the issue also provided a deep insight into the practices of swapping and sharing within Alternative Food Networks. In the debate about the sharing economy, the question about the general public welfare or the positive effects on the sustainable use of goods is a central issue. Especially in the cases of community-supported agriculture and of food coops, clear elements of an orientation towards the public welfare can be found, for example when consumer groups support local farmers.

»
In the food coop, there were certificates of participation as a way of kicking off, so that the farmers got to know their customers and the customers received their capital and interest in the form of natural goods, a tasty type of customer loyalty. [4]
Food coop member

»
In our CSA, the variety of groups ranges from ‹We are meeting up for a pick-up, we still sit together and exchange much more information and vibes than if we were merely dealing with vegetables› up to ‹We have a fixed time-frame for pick-up so that we barely meet each other.›
CSA member

»
Co-determination in the cultivation planning process only works to a limited extend since external conditions such as the team capacity, soil, weather, season and crop rotation already determine so many basic parameters that special wishes cannot generally be fulfilled. However, this is not dramatic as we have about 50 different vegetable varieties a year – the debate as such was already a bonus.
CSA member

»
Our project doesn't have an economic objective. The project is deliberately kept simple. Usually there is no water supply, no gardening tools, the farmers do not sow in advance or pre-plant. However, professional support is offered throughout the entire growing season on several levels. There are tips for beginners, expert training sessions with professionals directly in the field, herbal walking tours, as well as cooking classes, and classes on how to preserve the harvest.
Self-harvest garden member

4 The brochures' texts were presented to three different actors of the three models for comments. Excerpts from the comments are presented here and in the following chapters in orange.

3 THE MOTIVES OF THE MEMBERS

More and more consumers get their food through Alternative Food Networks. As explained in the previous chapter, the reasons why networks are founded are diverse. They differ in terms of their basic concepts, as well as in terms of the nature and variety of the interactions between producers and consumers. One key question in the Future | Food | Commons research project centred on consumers' motives for participating in the models. In addition, it was questioned whether the desire for a greater cooperation between producers and consumers was also one of the motives. In order to answer these questions, interviews with members from food coops, CSAs, and self-harvest gardens on the subject of their motivations were conducted and analysed in three metropolitan regions. In addition, findings from international academic literature were evaluated. →

MOTIVES IN ALTERNATIVE FOOD NETWORKS

»
It is a certain type of consciousness that only develops through participation, through discussions with the farmers.
CSA member

The vast majority of interviewees provided a mixture of different motives for their participation. A distinction was made between the following categories:

- **Personal motives**
  (e.g. the quality of the product or simply the joy of gardening),
- **Sociopolitical motives**
  (for example ecological reasons and political protest), and
- **Community-oriented motives**
  (e.g. social interaction and support for the farmer).

Figure 3.1 shows the categories of motives with the number of entries for each of them. As shown, personal motives were mentioned most frequently. In the specific bundle of motives featured by each individual, the desire for improving the individual quality of life headed the ranking overall. Each interviewee mentioned at least one motive from this category. Sociopolitical motives were the second most frequent answer. These refer to the overall goal of contributing to positive change in society by participating in one of the models. Central aspects in these motives are the criticism of the current agricultural system and the food industry, as well as the negative perception of the consequences for biodiversity and the security of the supply system. The third category of community-oriented motivations unites intentions aimed at self-organisation and community-based processes. The joy of spending time together is just as important as the idea that you can achieve common goals together.

Figure 3.2 shows the motives of interviewees from all the Alternative Food Networks that were examined. They are arranged according to categories of motives and dimensioned by the number of persons who have named the motives. Overall, it can be observed that a large majority of interviewees (16 out of 18 people) stated that the quality of the products available in food coops, CSAs, and self-harvest gardens was a motivation for their involvement in the project. Fourteen of the 18 interviewees also indicated that they participate in an alternative food network in order to express political protest. These two motivations are consequently the most frequent ones across all models.

Figure 3.1: Overview of the categories of motives mentioned by the interviewees from the three models in the metropolitan regions of Hamburg, Berlin, and Munich. Number of interviewees n = 18.

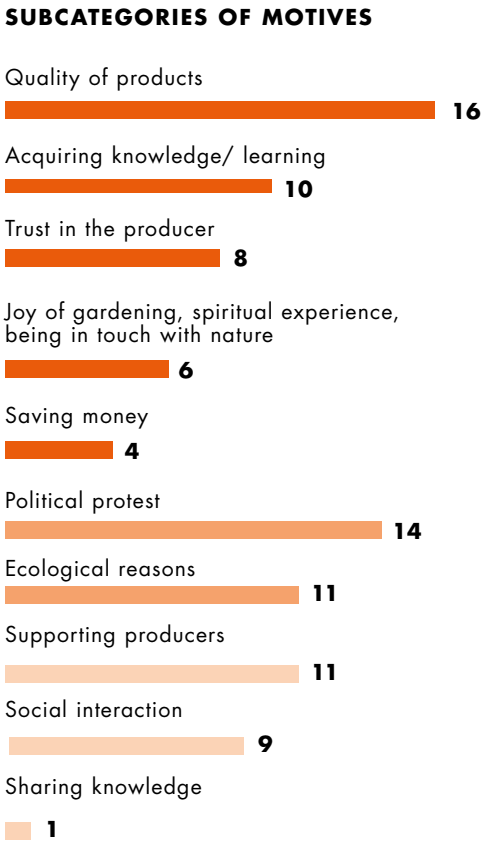

Figure 3.2: Overview of different motives that were mentioned by the interviewees. Number of interviewees n = 18.

FOOD COOP

Plenary assembly of the Park Slope food coop in New York City

Of the six food coop members who were interviewed, the following motives were mentioned most frequently:

- **Quality of the products** (personal motives)
- **Trust in the producer** (personal motives)
- **Social interaction** (community-oriented motives)
- **Political protest** (sociopolitical motives)
- **Acquiring knowledge (**personal motives)
- **Supporting producers** (community-oriented motives)

Most interviewees reported that social interaction with other members or with producers was the most important motive for participating in a food coop. The likely reason for this is the fact that the self-organisation of a group of consumers plays a more prominent role in food coops than in the other models. In general, the food coop members determine their producers and intermediaries themselves and then come to agreements with them on the terms and dates of delivery. In addition, they usually organise the distribution and storage of products *(see Chapter 2)*. A feeling of community often arises from this self-organisation. The interviewees appreciated the exchange in a community of like-minded people.

»
I really believe that we are a very good community, it's as if we were all roommates.
Food coop member

»
It is not just about having delicious milk in the fridge or the crooked cucumber, but it's also about the fact that I personally know the people who produce them.
Food coop member

COMMUNITY-SUPPORTED AGRICULTURE (CSA)

CSA members actively assist the farmer with the harvest

Of the six CSA members who were interviewed, the following five motives were mentioned most frequently:

- **Supporting producers** (community-oriented motives))
- **Quality of the products** (personal motives)
- **Political protest** (sociopolitical motives)
- **Ecological reasons** (sociopolitical motives)
- **Acquiring knowledge (**personal motives)

For most of CSA members, emphasis was on two types of motivation. On the one hand, the quality of products was a particularly important motive for participating in a CSA. For instance, interviewees appreciated the fact that the products are grown locally and are fresh. A second important motive is the support of producers. This is due to the fact that the members make a contract with the farmer and thereby agree to pay monthly a fixed amount of money over the entire year. Thus the farmer benefits from an income that is independent of yields *(see Chapter 2)*. It is important to the members that those people who are working in agriculture can benefit from fair pay and that they can produce in a sustainable and independent manner.

»
The beauty of it lies in the fact that I know exactly that the carrots that I'm taking home today were probably dug up yesterday. It is the same with the tomatoes in summer which were only picked a few hours ago.
CSA member

»
We love the fact that such a farm can be supported by 400 members. The farmers can operate independent of industrial customers.
CSA member

SELF-HARVEST GARDENS

Especially at the weekends many gardeners visit their plots to harvest, to water and to collect potato beetles

Of the six self-harvest garden members who were interviewed, the following five motives were mentioned most frequently:

- **Joy of gardening** (personal motives),
- **Quality of products** (personal motives),
- **Political protest** (sociopolitical motives),
- **Ecological reasons** (sociopolitical motives),
- **Social interaction** (community-oriented motives),

The majority of the self-harvest gardeners who were interviewed cited joy of gardening as their most important motive. For most of them, this was also the starting point for their interest in the self-harvest garden model. The interviewees enjoyed gardening in the fresh air and in harmony with the needs of the plants. They consider gardening as being a relaxing leisure activity.

»
When you drive to the field in the morning, the horses come to the paddocks and neigh and run around, the wind blows swiftly, and the poplar leaves rustle. It's just incredible if you then sit there and hoe in the field. That's a dream. Well, it really is fun.
Self-harvest garden member

»
The reason why I grow things myself has to do with my health. It's good knowing that you have high-quality vegetables.
Self-harvest garden member

CONCLUSION

The diversity of underlying reasons for the emergence of Alternative Food Networks is reflected in the variety of motives for participation of the members who were interviewed. Often, self-oriented, community-oriented and sociopolitical motivations exist simultaneously. This indicates that lifestyle aspects and political views mix for the interviewees, and that they consider participating in their model to be an opportunity to serve both their own interests and social needs at the same time. From a scientific point of view, the fact that members have community-oriented motives such as social interaction and the support of producers, is new. These have not yet been described in the existing international academic literature on the motivation of participants in Alternative Food Networks.

Despite the mixture of motives in all the models, there are initial indications that the different models attract people with different primary motives: Interviewees from the food coops referred to social interactions as the most important motives. In the case of CSAs, the quality of products and the support of producers were primary motives; for self-harvest gardens it was the joy of gardening. With these results, the actors are getting a first impression of the range of expectations that the members have of the different models. Accordingly, the projects could adapt their profile and give more emphasis to the merits that the members appear to appreciate in their respective models.

At the same time, the interviews provide a first indication that the consumer-producer interactions play a role in Alternative Food Networks. However, only in the case of CSAs has it been mentioned as an important motive by the majority of interviewees. In addition, general social interactions with other members or with the farmers are particularly important for the food coop members interviewed.

»
The motivation for the establishment of the food coop was to have greater self-determination: Knowledge about where the vegetables come from and no dependence on large structures.
Food coop member

»
Our tenants put priority on cultivating their vegetables in the most organic way possible. No mineral fertilisers or chemical crop protection are allowed. Non-contaminated vegetables have a very high priority.
Self-harvest garden member

EXCURSUS

4 SUSTAINABILITY EFFECTS OF COMMUNITY-SUPPORTED AGRICULTURE

Participation in an alternative food network often aims at a personal or socioipolitical change (see Chapter 3). Consumers hope to become healthier, to feed themselves with higher quality foodstuffs and to contribute to a more sustainable use of resources in agriculture. Alternative Food Networks are being considered by small farm producers as a way to survive and to be less dependent on the fate of the global market. But how do the real effects appear for the producers and consumers involved, and for society? The effects on healthy nutrition, fair wages in agriculture, and a more sustainable use of resources in community-supported agriculture[5] are discussed below exemplarily on the basis of internationally published studies. The studies largely refer to North American data. →

5 As already explained in Chapter 2, CSAs in North America also include related concepts, such as market share box models. That is why the results summarised here are not easily transferable to CSAs in Germany. Nevertheless, they do provide some initial indications of gaps in research, as well as potential risk areas.

RESULTS OF THE LITERATURE STUDY

HEALTHY NUTRITION

To date, no study has been able to prove a positive effect on a generally healthier diet due to participation in a CSA. A number of studies have shown that CSA members eat more fruit and vegetables after getting involved, and that the people concerned consume a greater diversity of products. However, no investigation looked at whether CSA members have been able to eat more healthily overall since participating, and whether they are consuming less sugar or fewer fats. Nevertheless, other information does indicate a healthier diet, but the question cannot be answered scientifically. Several studies have shown that CSA participants eat and cook more at home since becoming members. One can derive a healthier diet as a result if one assumes that food in restaurants, snack bars or convenience products are less healthy than cooking food at home.

SOURCES

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Perez, Jan, P. Allen, und M. Brown (2003): Community Supported Agriculture on the Central Coast: The CSA Member Experience. Research Brief, Center for Agroecology and Sustainable Food Systems 1: 4.

Wilkins, Jennifer L, Tracy J Farrell, und Anusuya Rangarajan (2015): Linking Vegetable Preferences, Health and Local Food Systems through Community-Supported Agriculture. Public Health Nutrition 18 (13): 2392–2401.

FAIR WAGES

Many studies of the income of CSA farmers paint an alarming picture. Accordingly, CSA producers earn less than the average household income in the same region. One reason is, for example, that producers do not include all their expenditure (such as insurance policies or investments) in the membership fees. In one study, half of the CSA producers queried were classed as being in the ‹self-exploitation› category according to economic principles.

These results must, however, be looked at in some specific contexts. For instance, one study showed that the socio-economic status of the CSA members significantly influences the income of the producers. Since the socio-economic status of CSA members is generally higher in cities than in rural areas, farmers who operate at the interface of urban and rural areas can generate higher incomes. In another study, the income of the CSA producers is viewed in relation to the purchase and lease prices of land. If leases are low, producers in CSAs will be able to attain higher incomes. Covering costs is thus more difficult for young farmers who need to lease or buy new land. They are either dependent on expensive areas near the cities or they have to resort to farming in areas that are cheaper but further away from the consumers.

SOURCES

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Salad, herbs and vegetables freshly harvested in a self-harvest garden.

SUSTAINABLE USE OF NATURAL RESOURCES

In contrast to the great expectations of consumers and producers for a more sustainable use of resources, very few studies have looked at the ecological effects of CSAs. In general, it can be shown that a large proportion of CSA producers cultivate according to organic farming principles or even have organic certification. It can thus be assumed that CSA operators are more concerned about such ecological aspects as soil protection and the closure of nutrient cycles. Yet these and other contexts have not been scientifically investigated so far. Therefore, it cannot be stated unequivocally as to whether one effect of being a CSA operation is an assumed more sustainable use of the operation's resources. Instead, it has to be assumed that producers who place value on issues such as the responsible use of resources are more likely to become involved in the CSA model.

There have been very few studies up to now that deal with the use of resources by CSA members. One of these studies has shown that the environmental behaviour of the members has improved overall since they began participating, while another shows that less packaging material accumulates within CSA households. On the other hand, food waste has a negative effect on resource protection. In many CSAs, members receive their shares of the harvest without being able to decide on the quantity or type of products that are delivered each week. Consequently, it may occur that members receive more produce than they can use in a week or else find produce in the box that they do not know or like. This is then thrown away. However, statistics on food discarded by CSA members have not yet been compared to figures for non-CSA members.

SOURCES

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McIlvaine-Newsad, Heather, Christopher D. Merrett, und Patrick McLaughlin (2004): „Direct from Farm to Table: Community Supported Agriculture in Western Illinois. Culture & Agriculture 26 (1 & 2): 149–63.

Oberholtzer, Lydia (2004): Community Supported Agriculture in the Mid-Atlantic Region: Results of a Shareholder Survey and Farmers Interviews. www.smallfarmsuccess.info/CSA_Report.pdf.

CONCLUSION

As discussed by using the examples of health, fair wages and the sustainable use of resources in CSAs, there is a lack of comprehensive studies that permit to evaluate the opportunities and risks of CSAs for producers, consumers and society. On the basis of the research outlined here, one might deduce that the healthy diet of CSA members and the way resources are used are more likely to represent social opportunities, while the producers' income is more of a risk area.

Overall however, the results can also be interpreted to mean that -in practice- it depends on how well the interests of producers and consumers, as well as the common values, can be anchored in the individual projects. Examples of best practices that highlight different sustainability effects could also provide additional insights..

Planting pumpkins on a CSA field

»

It should not be underestimated that a completely new spirit is arising here in relation to nutrition, to food, to personal consumption, and to a group. Even if it only represents a small percentage of food production, a new quality of social relations is arising – and maybe also the beginning of a paradigm shift?

CSA member

»

Since it is a cooperative that has looked for its own gardener, the fair pay of employees and of the management board has always been an important part of the concept.

CSA member

5 LEARNING EFFECTS

Producers and consumers cooperate in Alternative Food Networks. This leads to many different learning processes. In some cases, farmers offer seminars in which specific knowledge is disseminated, or consumer groups invite experts to discuss issues with them. Often, knowledge acquisition is also based on 'learning by doing'. Members acquire new knowledge by trying out new things and by discussing success and failure with other members. One of the tasks of the Future | Food | Commons research project was to examine the effects of participation in Alternative Food Networks with regard to learning. The following specific questions were asked: What do the members learn through being involved? Are there any differences between the three models examined? The results of a qualitative survey conducted in three metropolitan regions are presented on the following pages. →

LEARNING EFFECTS

The findings show that members reported on changes in two domains in particular: New knowledge of the subject of food, as well as insights into agricultural practices.

KNOWLEDGE OF FOOD

Most of those surveyed indicated that their participation in Alternative Food Networks had altered their dietary behaviour and/or their way of dealing with foodstuffs. It has also increased their knowledge of these fields. On the one hand, they cook more, and on the other hand they get to know some new products. That is why they collect new recipes and grapple with the principles of nutrition. In CSAs in particular, members are asked to deal creatively with what is in season, like cabbage in winter, for example.

»
Previously, I used to search for a recipe and then looked at which products I needed. Now I have the produce and I have to look for recipes.
Self-harvest garden member

Another learning field that was mentioned in the survey was seasonality and the regional nature of the crops grown. Members of Alternative Food Networks discover which fruits and vegetables grow domestically. They get to know local varieties and when these ripen naturally.

Respondents also reported that they adapted their housekeeping to their respective supply model. Over time, they get to know the shelf-life of the various produce. Since there are always periods of surplus, members learn to use storage and preservation techniques, for instance for herbs and vegetables.

KNOWLEDGE OF AGRICULTURE

Besides knowledge about food, one important topic in the surveys was awareness of agricultural operations and economic framework conditions. Through discussion with farmers, members of Alternative Food Networks are being taught about both the workflows on the farm and the steps necessary for distributing products, such as organisation, packaging and transport.

»
The farm newsletter provides weekly reports in a very nice, open and personal way on how many piglets have just been born or that they just finished setting up the new polytunnel for the new tomato greenhouse or that the farm has a new apprentice or that a new tractor has been bought.
Food coop member

Some of the interviewees said they had even been able to gain an insight into the complex economic requirements of a farm. For example, they learn details of costing and accounting on a farm or acquire knowledge about the general problem of the availability and affordability of plots of agricultural land near the city.

In particular, active participants, such as self-harvest gardeners, claimed to have learned a lot about cultivation. This includes the relationship between successful cultivation and external factors such as the weather and the quality of the seeds. Respondents reported many practical topics, such as crop rotation planning to avoid pests in the soil or techniques of sowing, fertilisation, plant protection and harvesting.

A professional gardener explains to the self-harvest gardeners the currently necessary measures to protect their plants from pests and diseases.

Figure 5.1 shows a diagram of members' learning fields as described in the text, as well as which issues were dealt with especially prominently in which models. The learning fields were weighted on the basis of the number of responses in the interview and how many of the six interviewees per model named them.

Even though the empirical basis for a final assignment of the learning fields is insufficient, it does indicate that all five learning fields play a role in all of the models, though there are particular areas of focus for each model. For example, the self-harvest gardeners who, in their model, are mainly engaged in horticulture, have their most important learning field in the area of cultivation, followed by the workflows and the economic requirements for production. The learning effects of the respondents from the three CSAs and the three food coops are somewhat more similar. Above all, they acquire a deeper insight into the work processes on the farm and the economic framework conditions. The members of the food coops questioned also have a further point of focus in the learning field of cooking and nutrition.

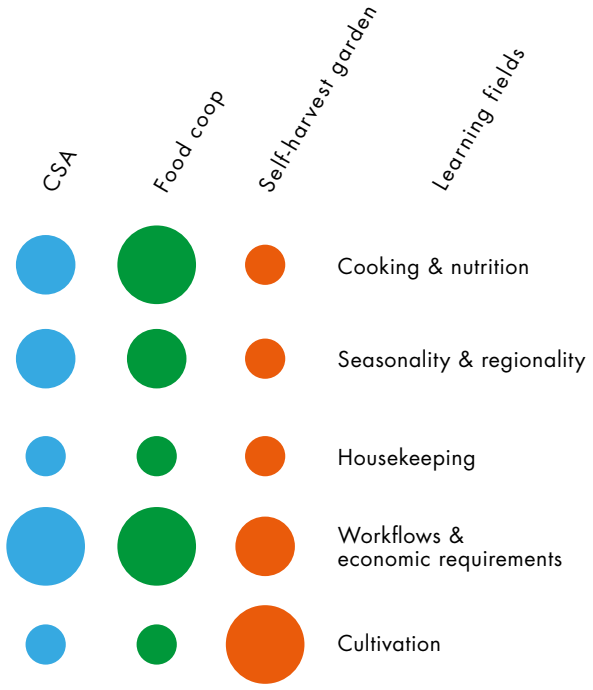

Figure 5.1 Schematic depiction of the weighting of the learning fields of the 18 respondents, divided by alternative supply models (six respondents per model).

CONCLUSION

The results show that, as a whole, members acquire very diverse and in some cases complex knowledge through participating in Alternative Food Networks. This is knowledge of agricultural practices and the situation of agriculture, as well as about foodstuffs and their use. Besides this, there are initial indications that the three models differ in terms of the knowledge disseminated. The nature of consumer-producer interactions plays a role here. For example, in the case of CSAs, in which the members declare themselves in solidarity with their farmers, information and knowledge of questions of agriculture and the organisation of the farm create the foundation for building trust.

Overall, it can be seen that rural producers in Alternative Food Networks open up specific ‹knowledge channels› to their mainly urban members. Depending on the concept the producers provide them with rural knowledge of agriculture and farming practices. This builds a bridge between city and country, permitting practical learning on the subject of food.

Practice in Alternative Food Networks also very clearly illustrates that the topic of food, especially in the context of cooperation between producers and consumers, is suitable for communicating ecological, economic and social relationships.

SOURCES

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»
Families with children, as well as kindergartens and schools are working in our gardens. The children learn about sowing and harvesting in nature's yearly cycle. The tenants become aware that not all produce is always available, that it is seasonal and only available for a limited amount of time, though then perhaps in excess.
Self-harvest garden member

»
The distrust between tenants and farmers is at least been partially dispelled because of working together in the field. If you yourself cultivate vegetables in a field, you develop a greater understanding of specific methods of cultivation. Since weed control is purely manual work for us, members are aware of the costs involved in the production of organic vegetables. Many people still underestimate the effort involved and give up after one growing season.
Self-harvest garden member

6 A LOOK INTO THE FUTURE OF THE THREE MODELS

As the preceding chapters have shown, CSAs, food coops and self-harvest gardens are developing different forms of interaction between producers and consumers and new links between cities and rural areas. They open up new possibilities for participants to develop on the personal, social, economic and ecological levels. These opportunities have the potential to contribute to a more sustainable development. So far, it is unclear what the prospects for the three models are. Do they possess a high degree of adaptability so that they can expand from out of their niches or are they, perhaps, merely secondary developments that will have little significance for society as a whole? How do consistent future-oriented scenarios look, in which the adaptability of the models can be tested? →

In order to answer these key questions, a series of workshops was held. The participants were representatives of the farms and members of the three models examined, as well as from related associations, foundations, administration and science. Together, they have developed a number of different social versions of the future, the so called scenarios. For each scenario they have discussed possible paths of development of the three AFN models.

In the first workshop, they identified the main framework conditions that would influence the future functioning and expansion of the models (for example, politics, knowledge, and way of life). They then proposed three possible directions in which each framework condition could develop. Using a computer program, it was possible to construct three different, but logically consistent, scenarios based on the individual developments of the framework conditions. In another workshop, the situation of the three models of Alternative Food Networks in these scenarios was discussed and defined. The results are brief and exaggerated descriptions of the future situation. They allow assumptions to be made as to which framework conditions are particularly favourable for growth for which model and what the potential obstacles are. From this, the adaptability of the models can be derived.

»

We have a great shortage of open spaces: That is why there is conflict about what free spaces are used for. Inevitably, they will probably be built on at some point.

Self-harvest garden operator

Discussion on the framework conditions relevant for the future of the models at the first scenario workshop.

THE FRAMEWORK CONDITIONS

Table 6.1 displays the framework conditions relevant for the models, as defined by the workshop participants. Their future development depends on the answers to the questions, which are also listed in the table.

Framework conditions	
Design freedom and capability	• Which opportunities for structuring a way of life does society offer? • Do the external framework conditions and the pace of peoples' lives permit participation in Alternative Food Networks? • Do they have the necessary skills to organise themselves?
Politics	• What are the political framework conditions? • Which objectives do policies pursue, particularly with regard to food?
Knowledge	• What do people know about food production? • Who conveys this knowledge and how is it disseminated?
Personal resources	• How great are the willingness and the opportunities to invest resources (time and money) in Alternative Food Networks?
Land/space	• Is suitable land/space available in the city and in the countryside?
Food supply chain	• What does the food value chain look like – are foodstuffs being distributed globally or regionally?
Trade	• How does the food trade behave with regard to the projects? • Which types of cooperation and conflicts exist?
Digitisation	• How has digitisation developed and how is it reflected in the food industry?

Table 6.1: The relevant framework conditions identified in the first workshop and the questions with which they are described.

»

For some people, a new car every five years is more important than their own nutrition. At least in terms of how much money they spend on it.

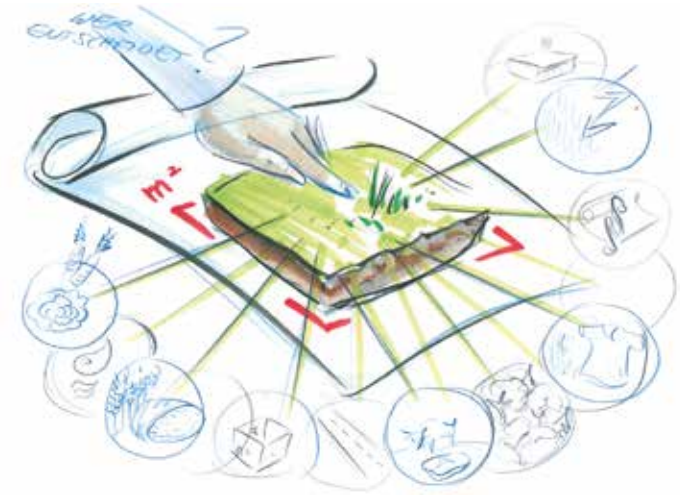
Food coop producer

THE SCENARIOS AND THE MODELS

Three different scenarios were derived from the different responses to the questions. The scenarios are 1) State-corporation (short for state - stock corporation), 2) Baysanto (a combination of the major companies Bayer and Monsanto, which are active in the food industry), and Scenario 3) a functioning open society. The descriptions of the scenarios and their assumed effects on the three models are presented in the following sections.

1. STATE-CORPORATION SCENARIO

In the state-corporation scenario, an authoritarian state would work hand in hand with major economic players. People would only have a very limited scope to shape their own lives. The ability to self-organise would not be encouraged, or would even be restricted. Policies would be nationally oriented and would support regional food supply structures. Official food production and nutrition development would be mainly driven by corporations. In parallel, however, a grassroots movement would be active in self-organised educational work. Land planning would be highly regulated, so that although land would be available, it would be awarded to large corporations by the state. Major food companies would make huge efforts to monopolise Alternative Food Networks and they would often succeed.



Competition for land use as a decisive factor of influence.
The drawings were created by Heyko Stöber during the workshop, based on the discussions.

DEVELOPMENT OF THE MODELS IN THIS SCENARIO

Self-harvest gardens would overwhelmingly be taken over by the state or by corporations providing land and resources. Through this support, they would have better access to easily accessible land. Due to laxer standards in fertilisation and pest control they could achieve higher yields. The work would be set out towards self-sufficiency, with participation in cultivation planning being restricted and with ever greater dependence on the suppliers (the state and corporations). In the long term, soil quality could be reduced by overuse of fertilisers. As regional (self-)supply would be encouraged, knowledge of food and its cultivation would be great. Awareness of alternative cultivation methods would be spread by grassroots education initiatives, but would only reach small groups of activists. Because of the authoritarian policies, the ability to act within the community and with self-determination would be low.

Because of the self-organisation and right of co-determination enshrined in their concepts, CSAs and food coops would be unable to fit into the prevailing pattern of the state-corporation scenario. Thus they would be exposed to considerable resistance (e.g. prohibitions). With a great degree of commitment numerous projects could continue to exist. They might be able to create a space in which people could acquire both practical knowledge and self-organisation skills (methods of cooperation, community decision-making, etc.). In particular, CSAs could develop into communes of drop-outs, where most work is performed on a non-monetary basis. At the same time, founding a CSA would be an alternative option for independent farms. The resources would be exchanged among the projects. For food coops there would be little scope left, because they do not offer an alternative model of life. However, they might be able to act more inconspicuously and would still be active under more severe framework conditions (e.g. a ban on CSAs).

In the state-corporation scenario the state cooperates with major economic players (Drawing by Heyko Stöber).

2. BAYSANTO SCENARIO

In this scenario, society would be characterised by a high degree of economic orientation. Policies would be overwhelmingly determined by the interests of economic actors, while the state's influence would diminish. Space would become scarce in the city and the competition for land in the country would be very high. Accordingly, small-scale farm structures would largely disappear. Education would be in the hands of large business enterprises. These framework conditions could, among other things, lead to an ever-increasing gap between the rich and poor and to significant environmental pollution. People would be under great pressure and would have a great deal of trouble in combining the different requirements of work, leisure, family. The willingness and the opportunity to invest time and money in the projects would be very low. Self-organisation would be necessary for survival; the ability to do so would not be imparted systematically. Digitisation would hardly be regulated, so that personal data would be practically unprotected. Production and trade would be non-transparent and global.

Second workshop on possible developments of the models in the three scenarios.

DEVELOPMENT OF THE MODELS IN THIS SCENARIO

The state would offer practically no support for the projects, while the other actors in the food industry would have a free hand and land prices would rise sharply. Economic survival would be a challenge for every single project. Many would be taken over by big conglomerates or simply give up. A number of players could join together. Some small farms that had no longer been able to survive on the free market could buy land together, which could also be supported by consumer initiatives or cooperatives, as is already practised in some CSAs. Many a CSA would sign supply-and-purchase contracts with food companies. The dependency would, however, restrict co-determination and so make it impossible for the CSA to continue functioning.

Self-harvest gardens would suffer particularly from the high prices for land close to the city. They would probably have to become commercialised and professionalised, and be operated as start-ups, for example. One business model would be the production of the garden's own seeds. Some self-harvest gardens could join up with big corporations and help these to improve their public reputation.

Food coops could not be operated by large corporations. Instead, they could be remaining with small-scale structures in remote regions where no major corporations are active. On the other hand, they could form online trading structures and exchange goods, like olive oil from Greece, through an international network of food coops. Payment could, for example, be made using bitcoins.

It is assumed that in the long run, the actors will also find new ways and, if necessary, develop different concepts to promote the goals of organic agriculture, healthy nutrition and sustainability.

Pace of life is high and it's difficult to find the time for work, family, friends, etc. shown as different parts of the person in the picture (Drawing by Heyko Stöber).

3. FUNCTIONING OPEN SOCIETY SCENARIO

Strongly ecologically and socially oriented policies would prevail in this scenario. The framework conditions would enable work and other activities to be adapted to people's own needs. The individuals' creative opportunities and self-organisational abilities would be very high. A ‹providing state› would make information available and promote the projects' educational activities. Citizens would be in a good position to contribute temporal and financial resources to the projects. Through community-oriented city planning, viable cities would be created, where conflicts of use would be solved and innovations promoted. The origin of the food would be transparent and predominantly regional. Trade would also be regionally oriented while cooperation between projects and the growing organic retail or organic farmers' markets would flourish. Online purchasing would be a fixed component of every project. Opportunities arising from digitisation would be used and encouraged, while measures would be introduced against misuse of data.

Self-determined? People take over control of their way of life (Drawing by Heyko Stöber).

DEVELOPMENT OF THE MODELS IN THIS SCENARIO

In this scenario, cooperative organisations would be strongly supported. They would possess land that they leased to farms. Agricultural work would be shared by society as a whole. The necessary competences (organisation, trust, etc.) would be widespread and the knowledge needed would be exchanged and be freely accessible (open source). CSAs would be closely linked to other social institutions and would transfer knowledge to governmental organisations and the education system. The resources would be cooperatively organised and would be used jointly by small enterprises (e.g. machinery pools). By creating platforms or the like, the state would promote the organisation of such cooperative ventures. CSAs would intensify their claim for solidarity and could introduce graduated membership fees based on income, for example. The state would promote the extension of the projects to disadvantaged social groups. Awarding CSA or food coop vouchers as part of the child allowance would be conceivable. EU funds would be allocated to agriculture on the basis of social criteria and farmers would be covered by a basic income. Any harvest surpluses would be conserved or given away.

Food coops and CSAs would work very closely with each other; the boundaries between the two would be seamless. Food coops would, in particular, be subject to the coordination of international trading between CSAs. Many people from all strata of society would be involved in the projects, due to the high level of self-determination and the many opportunities for structuring their way of life. Food coop members would support farms by working in the fields and actively promoting the integration of new fellow citizens. Often, a food coop membership would be the first step before joining a CSA. Storerooms for food would form part of the city planning and would be provided cost-effectively.

Agricultural land close to the city could be acquired and made available for self-harvest gardens through governmental investment programmes. Because of the high level of self-determination, gardeners would plan the cultivation themselves and demand more influence. This would lead to a partial reduction in the workload facing the farms. It is likely that two types of self-harvest gardens would emerge: a model similar to the allotment garden, which would be used mainly by individualists, and secondly self-harvest gardens organised in a more cooperative manner. These gardeners would organise themselves and as a group sign a user contract with a farmer. There would be frequent exchanges of knowledge and critical inquiries. Seeds would be stored in joint seed banks. Crop surpluses would be exchanged and given away. For many, self-harvest gardens would be a step towards CSAs as well.

CONCLUSION

Three consistent extreme scenarios could be developed: 1) the state-corporation scenario, in which an authoritarian state promotes particularly large enterprises, 2) the Baysanto scenario, in which the power is in the hands of major global corporations, and 3) the functioning open society scenario, in which a supportive state leaves a great deal of freedom for self-organisation.

As *Table 6.2* shows, the effects of the scenarios on the models need to be evaluated quite differently and they can also vary within one individual scenario. It should be noted that in some cases, the assumptions will lead to a considerable change in the character of the models. For example, in the Baysanto scenario, if some CSAs tied themselves to large corporations, they could lose their self-determination and possibly their solidary nature. It is nevertheless assumed that the projects could also become stabilised in niches under unfavourable conditions, as in the case of the state-corporation scenario. There, they would open refuges for both the members and for the operations, and they could thus play an important social role. In the case of strongly supportive framework conditions, for example in the open society scenario, it may even be assumed that the projects could enhance their values and thereby increase the benefit to society. Further social functions could then be assumed, such as the integration of socially disadvantaged persons or the adoption of educational functions. The models therefore have an extensive adaptability.

Only under a supporting framework could the models have a great impact, according to the workshop participants. They would become a catalyst for a change towards a more sustainable development that would include large sections of the population and even strengthen global trade structures. Direct (financial) support for the projects would then be less relevant. Rather, the decisive factor is a framework that creates free spaces and competences enabling people to take part in the Alternative Food Networks without any restrictions on access.

The risks and potentials of the models can be derived from the results, so permitting the identification of possible fields of action for the projects and the policies. These are set out in a separate brochure entitled ‹Alternative Netzwerke zur Nahrungsmittelversorgung: Handlungsfelder für Erzeuger, Verbraucher, Politik und Verwaltung› (Alternative Food Networks: Fields of Action for Producers, Consumers, Politics and Administration).

»
In our CSA, the land belongs to us.
The gardener does not rent it, instead he is employed by the cooperative.
This leads to more security, even in difficult future scenarios.
CSA member

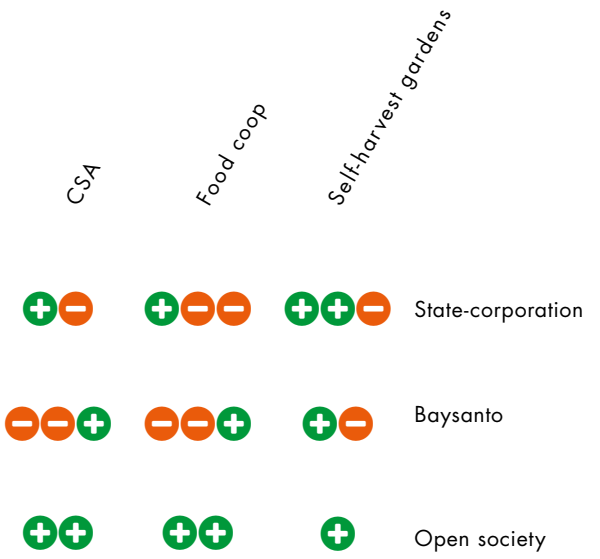


Table 6.2: Assessment of the opportunities for stabilisation and expansion of the three models in the three scenarios.

Discussion on how the different models will probably develop under the three scenarios.

7 CONCLUSIONS

In the Future | Food | Commons research project funded by the Federal Ministry of Education and Research, three Alternative Food Network models were examined in more detail: Food coops, CSAs and self-harvest gardens. All three have the common goals of using natural resources more efficiently and contributing to sustainable development. They aim to achieve this through organic cultivation, short transport distances, the building of communities, transparency of production, and a secure income for the producers. In this context, the important basic feature of all three models is the direct interaction between producers and consumers.
Direct social contacts are created and consumers get to know and understand the farmers involved, their work, and the farms.
These interactions are the links that allow for a network between city and country to grow. →

The models offer different opportunities for consumer-producer interaction. Depending on the model, these occur in different domains (labour, produce, knowledge, financing/contracting, resources, and land) and in different ways (in terms of sharing, co-determination, and frequency). It is interesting to note that the models are not just about a considerate use of natural resources. It is also about dealing with resources in general: labour, time, land, etc. There is a new way of sharing or using them differently among all those involved and thus between city and country. This impacts the economic and social situation.

The motivation to participate in the three models is both self-oriented, but also oriented in a collaborative and socio-political way. The more efficient use of resources as a motive can be found in the field of social policy in the form of political protest. The main motive, however, is access to high-quality products for all players. The study was able to demonstrate community-oriented motives for the first time, such as social interaction and support for producers. Urbanites thus show their solidarity with the producers in the surrounding countryside and their aspiration for living in a community.

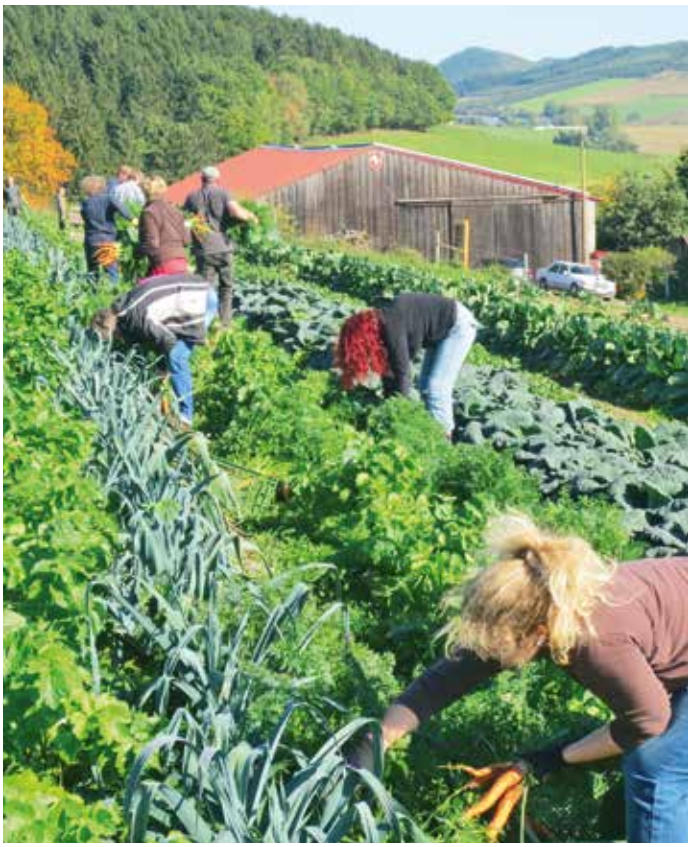
A comprehensive analysis of the existing academic literature could not conclusively prove any effects on sustainable development. Nevertheless, it can be deduced that the models do have a potential for the more sustainable use of resources.

However, it could be shown that the members of the alternative supply models learn a great deal about nutrition and agriculture. Besides cooking and housekeeping, they acquire a great deal of knowledge about agriculture and cultivation practices. Examples of topics include avoiding food waste and economical irrigation practices. A prerequisite for learning processes of this nature is the interaction between the producers and consumers, as this is the only way of giving urbanites access to knowledge of the countryside.

Whether the models of Alternative Food Networks may contribute to future resource conservation and sustainable development does remain unclear. In the three extreme future scenarios, the adaptability of the new supply models appears to differ with regard to the question of whether and in what form they can exist and possibly expand. Their potential future contribution to sustainability depends on the supportive or inhibiting framework conditions of politics, industry, and society.

Nowadays, the models are helping to bridge the gap between producers and consumers, as well as between urban and rural areas. In order to be able to meet future challenges in particular, for instance climate change, there is a need for greater integration between cities and the countryside. Here, the models can provide impulses for a new way of thinking by considering city and countryside together.

Knowledge transfer of organic plant protection in a self-harvest garden.



Harvesting carrots together at a CSA field.

FURTHER INFORMATION

Please note that most of the sources are in German only.

OVERVIEWS ON A VARIETY OF PROJECTS

Stadtacker.net
www.stadtacker.net

Gartenpiraten
http://gartenpiraten.net

Grünanteil
https://gruenanteil.net

INFORMATION ON FOOD COOPS

Foodcoopedia
http://foodcoopedia.de.fcoop.org/wiki/Hauptseite

Bundesarbeitsgemeinschaft der Lebensmittelkooperativen e.V. (Federal Association of Food Cooperatives):
www.foodcoops.de

INFORMATION ON CSA

Netzwerk Solidarische Landwirtschaft e.V. (Solidary Agriculture Network)
www.solidarische-landwirtschaft.org

Interactive map of the CSAs in Germany
www.ernte-teilen.org

Aid (2016):
Solidarische Landwirtschaft – Gemeinschaftlich Lebensmittel produzieren

The CSA Research group (2016):
Overview of Community Supported Agriculture

INFORMATION ON SELF-HARVEST GARDENS

Overviews on self-harvest gardens in Germany
http://gartenpiraten.net/selbsernte-gaerten
and the ‹Felder und Gärten›
(Fields and Gardens) project overview of
www.stadtacker.net

Bundeszentrum für Ernährung, (Federal Centre for Nutrition), report and video on self-harvest gardens
www.bzfe.de/inhalt/selbsterntegaerten-28275.html
https://youtu.be/zowZJtYIw7A

Scharnigg, Max (2012):
Feldversuch - Unser Stück Land vor den Toren der Stadt

FURTHER INFORMATION, NETWORKS AND POSSIBLE SUPPORT FOR PROJECTS

Food policy councils
Cologne: *www.ernährungsrat-köln.de*
Berlin: *www.ernaehrungsrat-berlin.de*
Hamburg: *www.ernährungsrat-hh.de*

Zukunftsstiftung Landwirtschaft (Future Foundation Agriculture):
www.zukunftsstiftung-landwirtschaft.de

Arbeitsgemeinschaft bäuerliche Landwirtschaft (Association for Peasant Agriculture):
www.abl-ev.de

Slow Food Deutschland
www.slowfood.de

Anstiftung (Foundation Anstiftung)
www.anstiftung.de

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In Germany, more and more Alternative Food Networks are emerging, such as food coops, community-supported agriculture, and self-harvest gardens. Their goal is to provide a more sustainable supply of locally, ecologically or fairly produced foodstuffs. To achieve this goal, urban consumers and producers on the outskirts of the city cooperate directly with each other. They exchange crops, share knowledge, create new financing models, and share land or resources.

In the Future | Food | Commons research project, funded by the Federal Ministry of Education and Research (BMBF), it was investigated whether it was possible to describe and compare these models on the basis of these interactions. What are the motives of the members of such networks, what knowledge can they acquire and has the collaboration an impact on sustainability after all? In a further step, we looked at the future of the models in order to assess their adaptability to future challenges.

This brochure presents the research results in a practical way.