

Alternative Agri-Food Networks in the Colchester area and their contribution to develop resilient communities

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Abstract:

Local and sustainable food sourcing initiatives in the Colchester area were surveyed to gain an understanding of the main opportunities and challenges to the development of alternative food sourcing strategies to build local resilience. A diversity of initiatives were identified and key informants were interviewed for each type of initiative. It was found that Alternative Agri-Food Network (AAFN) organisers perceive that lack of time and financial resources are the main factors limiting the promotion of AAFNs. They also believe that insufficient consumer awareness is a constraint to the spreading and deepening of AAFNs. Nevertheless, the recent development of a number of initiatives and the growing interest in local and sustainable food is promising for the future development of alternative food sourcing in the area, which is essential for developing more sustainable and resilient communities.

Introduction

Modern food production, processing and distribution is becoming increasingly centralised and dominated by a declining number of transnational corporations (TNCs) (Lang, 2004, McMichael, 2004). This is problematic for a number of reasons. Intensive large-scale food production has been associated with soil erosion, eutrophication, air pollution, declining biodiversity and high dependence on fossil fuels (Pretty, 2002). The increasing buyer power of TNCs has squeezed farmer's incomes, as farmers have become reliant on expensive external inputs to produce for low pay TNC dominated markets (McMichael, 2004). In addition, the increasing monopolisation of food trade leaves consumers vulnerable. Global market price fluctuations and manipulations can mean that consumers cannot access food, even though it is available on the market. Urban communities are now highly dependent on global agri-food chain systems and their resilience to cope with food price fluctuations is low.

The ever more evident problems of the global agri-food chain system have led to the development of alternative forms of food production and provisioning in most countries in which a centralised food system is now dominant (King, 2008). These Alternative Agri-Food Networks (AAFN) aim at resolving the impasses brought about by the political economy of global agri-food chain systems and are often considered to be a bottom-up approach to transform modern consumption patterns to develop a more sustainable society (Hinrichs, 2000, Goodman, 2004, Higgins, 2008, King, 2008).

In the UK, the preoccupation with the environmental impact of long distance food transport has led to a promotion of food consumption close to the area where it is produced, in order to reduce so called 'food miles' (Kemp, 2010). Foods consumed close to their provenience have been called "local foods" and a 30 miles radius has often been used to define "local" (Morris, 2003). However the concept "local" does not correspond to any clear territorial delimitation, and therefore is not particularly useful to make decisions about food sourcing (Hinrichs, 2003). Hence the concept "proximity-based food sourcing" has now been adopted more widely by institutions working in this field, as it allows to focus on the aim of reducing food miles, without requiring an artificial construction of "locality". Proximity-based food sourcing places the focus on reducing the distance between producers and consumers, and therefore implies that food is sourced from the producer the shortest distance away from the final consumer.

The aim of this research is to survey AAFNs in the Colchester area and to assess the potential contribution of existing networks to develop resilient local communities. The expansion of existing networks will be of particular importance to increase the contribution of AAFNs to the resilience of local communities, and therefore opportunities and constraints to the establishment of these systems will be analyzed.

Methods

The aim of this case study is to survey and examine AAFN initiatives established in the proximity of Colchester – a town in the South East of England. Agriculture in the area is dominated by large-scale arable farming. To define the study area, a radius of 30 miles around the town of Colchester was delimited.

Initially AAFN in the Colchester area were identified through web searches and snowballing. Subsequently e-mails were sent out and phone interviews conducted to complement the information found. In addition, in-person qualitative interviews were conducted with selected local experts representing the different types of AAFN initiatives. The interview focused on the organisation of the initiatives, the challenges and opportunities encountered to their development and the main activities and achievements so far. Notes were taken during the interview and content was analyzed qualitatively according to Robson (Robson, 2002). Data collection was carried out in August and September 2010. Table 1 lists the personal data sources for each AAFN initiative studied.

Table 1 – Number and type of informants from which data was collected, for each AAFN initiative type.

AAFN type	Number and type of informants
Food Cooperatives	1 Regional food cooperative coordinator, 2 food cooperative organizers
Box schemes	1 box scheme farmer, 2 box scheme clients, 1 observer
Farmer's markets	1 organizer, 1 farmer, 1 observer
Community gardens	2 community gardeners
Transition Towns	2 transition town organizers, 1 observer

Time limitations and the focus on food initiatives in general curtailed a more detailed approach involving interviews with individual producers and consumers. This case-study therefore gives an overview picture of the AAFN initiatives in the Colchester area, rather than exploring the diversity of issues raised quantitatively and in detail. Our work therefore is only a first step for understanding alternative agri-food systems in the area, and our aim is to identify key issues that need further practical and research work.

The AAFN initiatives

There are a diversity of alternative ways of food sourcing and organising around food production and consumption in the Colchester area. There are at least 12 farmer’s markets in Essex, happening usually once a month. Notice of 10 different box schemes operating in the area was found and a number of food buyers’ groups /food coops (evidence of 11 groups was found). Transition Town initiatives have been started in most places around Colchester, and all of them have a working strand on local food. There are also a number of Community gardens; details on 4 have been collected and an additional one in Colchester is to be started up soon by Colchester Transition Town.

The existing initiatives can be distinguished into those directly contributing to alternative food sourcing (food buyers’ groups, farmer’s markets, box schemes) and those where the contribution to increasing resilience is mainly through a focus on developing skills and spreading awareness on food issues (Transition Towns, Community Gardens). The community building aspect of all of these initiatives has been stressed by the interviewees.

The existing initiatives operate mainly at a voluntary basis, although some of the initiatives have been able to access grants and special funding from local councils and the lottery.

Food Cooperatives

There are two different types of food cooperatives in the area. Food buyers’ groups are more common (6 cases found) and correspond to collective orders from an organic and fair trade wholesale enterprise (*Suma Wholefoods* and *Infinity Foods* were used). The second type, that could be classified as deepened sustainability food cooperative, complements proximity-based and sustainably produced foodstuffs with orders from wholesalers (one functioning and 2 in start-up phase were found). Table 2 gives an overview of existing cooperatives.

Table 2 – Food cooperatives in the Colchester area, with information on time since establishment and membership numbers when available.

Food cooperative	Working since	Membership
Ipswich Ripple	3 years	60 members
Colchester Food Coop	5-6 years	6-10 parties
Wivenhoe buyer groups (3)	5-6 years	Ca. 30 parties
Clacton buyer group	Starting up	
Wheat (Woodbridge)	Starting up	

Stowmarket	Starting up	
Fruit and Veg together (Southend)	No data available	
Ipswich Environmental Agency buyer's group	No data available	
Witham buying group	No data available	

The internal organisation of buyers' groups was simple, thanks to the on-line ordering process that the wholesalers have in place, and a more or less formal distribution of tasks among the group members. Ipswich Ripple food coop, the deepened sustainability food cooperative example studied, was more work intensive, as individual arrangements with local farmers and producers had to be established and maintained by volunteers.

Through the cooperative consumers can access high quality foodstuffs produced in environmentally friendly ways at prices similar to mainstream food stores, therefore the advantages of high quality and low price are an important motivation for setting up these groups. However, more political reasons were mentioned as motivating factors as well, namely that *"consumers have to do more to stop the expansion of supermarkets"*.

Food coop members were highly aware of the ecological and social issues surrounding food sourcing and thus they were preoccupied with the extent to which they were actually sourcing sustainable foods. One person mentioned the difficulty and confusion of consumers to know what the most sustainable food sourcing options are. Local food may be supporting more small-scale production systems and drastically cut food miles, however it is not always possible to know what inputs are really used on the farm (such as imported animal feed) and what the ecological implications of that are. On the other hand, sourcing from certified organic and fair trade sources, such as the wholesalers delivering to the cooperatives, was found to be somewhat unsatisfactory as well, since these foods are by no means local. Several Food coop members mentioned that they would like to increase the share of local foods consumed by establishing direct contacts with local food producers. However, establishing local links was considered to be difficult and especially the workload required to source and distribute fresh food from local farmers at a regular basis had discouraged them to pursue this avenue hitherto. One Food coop organizer said *"I am already doing enough, I can't take anything more on."* Instead, most Food coop members are regular costumers of box schemes and farmer's markets.

Food cooperatives are important for community building. As like minded individuals come together to organise more sustainable food sourcing, a close link of cooperation and friendship between group members is often developed. A Food coop organiser explained that by joining the cooperative he met his first friends when he moved to the area.

The food cooperatives are rather stable initiatives. Some existed since 4-6 years and none of them was facing any threats to their continuity, despite the current recession. In fact, one of the buyers' groups was experiencing continuous growth, that was making the logistics more difficult to handle. This "problem" was solved by splitting the cooperative. In this way, 2 new buds have already emerged from

the initial food coop. The main opportunity for the expansion of food coops was seen in the growing number of Transition Town groups being established and starting working strands on sustainable foods.

Box schemes

The box schemes delivering to the Colchester area were of two types; either small-scale and farmer operated or larger and with a more entrepreneurial business structure (see Appendix I for list of schemes found in the area).

In the case of farmer operated box schemes, the number of costumers is usually small (ca. 30 costumers). Setting up a box scheme is not a particularly easy option for farmers who want to start selling locally, mainly because of the difficulty of recruiting regular and loyal box scheme costumers, who, in addition should reside in the local area, so that delivery costs do not become too high. The low number of costumers may leave the box scheme economically vulnerable, and the farmer may have to use other marketing outlets or income sources to stay in business. However, costumers benefit from small-scale operations because they make it possible for the farmer to grow and fill the boxes according to the tastes and demands of individual costumers, and a direct relationship with the farmer is more likely.

Unfortunately, consumers are not always keen to develop such a direct link with a farmer. A consumer noted that “*box schemes that do not even have a website to place the orders*” are not able to attract a sufficient amount of costumers, because they require setting up special arrangements between the farmer and the consumer, for example to order and to pay. An increasing number of consumers may be willing to substitute the source from where they purchase their foods, to acquire more sustainable foods, but only a portion of these consumers are willing to allocate more time and money to source their food directly from local producers on a regular basis.

Due to their convenience (web orders, bigger choice, delivery to door), the large-scale, entrepreneurial box schemes are more attractive as a source of high quality, normally certified organic food . They are well organised and specialized businesses that often acquire the foods that go into the weekly boxes from a number of farms, that may not be at all local or the closest possible to the end consumer. These more entrepreneurial box schemes make it easy for consumers to get on board to access higher quality, sustainably produced foods, and may therefore be an important entry point for consumers to start engaging with food sourcing issues. However, the larger-scale schemes that provide the desired convenience to the consumer, may be competing with small-scale local box schemes, an employee of the Soil Association noted. Although large-scale box schemes are providing easy opportunities for consumers to purchase more sustainably produced foods, this convenience may make costumers too accommodated to search for more sustainable local alternatives, that would also encourage the development of a personal connection to the land and the local food producing community.

The two types of box scheme contribute differently to the resilience of the local community. Clearly, farmer operated schemes give a direct positive contribution to local agro-ecosystems, reduce food miles and help making the community less dependent on the global agri-food market and fossil fuels. The more entrepreneurial box schemes still give a positive contribution to the agro-ecosystems where the food is produced and reduce pollution related to food miles significantly as they tend to have policies of proximity-based food sourcing and no air freighting.

Farmer's markets

A number of markets in which farmers sell their produce directly to consumers have been set up in and around Colchester. In Essex there are 12 farmer's markets in operation and there are 17 in Suffolk. The initiators of the markets have been diverse, including town councils, environmental organisations and individuals.

En-form, a Colchester based Environmental information service, has started the farmer's markets of Colchester and Wivenhoe after being asked by the Colchester Borough Council to restart the market in Colchester that had ceased to exist some years ago. The "*food mile issue*" was an important motivator to set up these farmers' markets, the coordinator explained.

Currently, after having experienced some expansion, these markets are facing difficulties as many small farmers and small businesses that used to sell at these markets went out of business during the recession, and consumers also find it more difficult now to purchase somewhat more expensive local foods. Only a small number of farmers' are actually attending the markets, and the organisers feel they have to allow other producers and craftsmen to have stalls on the market to make it more attractive. In spite of current difficulties, the market organisers are keeping the hope for better times to come and, although at the moment they have little possibilities to campaign and advertise to broaden their producer and customer base - due to lack of financial resources - they plan to keep the market "*as long as there are stallholders and costumers coming...*".

It is mainly elderly and retired consumers who attend the farmer's market. It is them who are most willing to take the time to go to the market and to purchase the goods of their preference from various sources. Also, the older generation still knows the vegetables and how to use them, and they remember how a certain vegetable "*used to taste*" before the globalisation of the agri-food market. Those who attend frequently describe farmer's markets as being "*an event*"; a special occasion not only for purchasing food, but also to socialize.

Farmers' markets have many advantages to farmers and to consumers, and have traditionally been the centres of food trade. Farmers who sell at local markets usually have a small-scale production, which makes the system more sustainable, even if conventional farming practices are in use. Farmer's markets encourage the direct interaction between producers and consumers and thus can lead to the establishment of relations of trust between them. When such trust is established, it serves as a guarantee for the production methods and the quality of the produce

and enhances consumer loyalty. In fact, it was reported that sustainable agriculture farmers with a direct marketing network did not lose customers during the recession. Consumer loyalty, a result of the direct connection and trust between producers and consumers, is thus important for the economic resilience of sustainable farms.

Community Gardens

There is a small number of community gardens in the Colchester area, which are gardens in which the public can participate in the gardening work, thus providing an opportunity for learning about food production, do some exercise outdoors and socialize.

There are two bigger community gardens in the area, the *Town and Bridge community garden* in Ipswich and the *Big garden* in Colchester. These gardens have been started through Big lottery grants and are dependent for their continuity on a diversity of grants, often from health services or poverty alleviation measures. The Wivenhoe Transition Town group has established a community gardening project in a tiny station master's garden. This project has received a lot of press and publicity, and was in this way an avenue to raise awareness for the importance of growing local food.

Community gardens are an opportunity for urban consumers to re-connect to food production, and thereby to re-connect to nature and the rhythm of the seasons. Community gardens increase resilience through developing a practical understanding of food production and by empowering individuals by spreading food growing skills. Also, collective work in the garden contributes to community cohesion, which can result in networks of informal exchanges and support that make the community more self-reliant.

Transition Towns

The Transition Town initiatives aim at "*building resilience in the face of peak oil and climate change*" by raising awareness, developing skills and changing habits (Hopkins and Lipman, 2009). The concept "*Transition Town*" is a very recent one (it started in 2005) and the idea of building alternative systems from the bottom-up has been spreading like a wildfire since it has been made acceptable to mainstream society, through appealing on now widespread and well recognized concerns, namely peak oil and climate change.

As Transition Town initiatives in the Colchester area are a recent phenomenon, many of them are still in the planning stage regarding their work on sustainable food sourcing. Therefore it is difficult to point out tangible achievements and challenges faced so far. However, the groups have been very active in promoting ideas and spreading information. Food related activities developed by different Transition Town groups in the area are listed in table 3.

Table 3 - Transition town groups with sustainable food sourcing activities.

Transition Town group	Food related activities
Colchester	Plan to start a community garden

Wivenhoe	Seed swap at farmer's market, community garden project, training events, wild foods gathering
Nayland	Plan to support local growers and increase local food production
Saffron Walden	Plantation of food trees, Food4Thought group raising public awareness, volunteering for local food company
Woodbridge	Set up food-coop, plan to use permaculture for local food production
Stour Valley	Permaculture training, re-skilling project, promotion of organic farming and sustainable living

It was said that Transition Town groups are attracting mainly “*low hanging fruit*”, i.e. individuals who have been interested in low-impact lifestyles before joining the initiative. However, the diversity of activities developed engages the wider community in thought provoking and sustainable activities. Transition Town groups can be an alternative spare time occupation – people learn to use their spare time in more creative ways; instead of going for a shopping spree, they help out in the community garden or organize low-impact activities. In this way, Transition Towns contribute to develop more sustainable lifestyles.

The many food related initiatives undertaken by Transition Town groups are at present mainly contributing to raise awareness regarding the importance of short and sustainable food chains. However, Transition Town groups have many plans to develop more food related initiatives in the future, and thus the potential of them coming to contribute to build local sustainable food chains is significant.

Other forms of local food sourcing

In addition to the AAFN initiatives outlined before, a number of diverse and diffuse other local food sourcing activities exist. These include farm shops, honesty box / self-service stall sales, pick your own fields, and school farms and gardens. Allotments are also clearly popular, and there are long waiting lists to access an allotment. In Ipswich there is a “*local food hall*” - a building in which a number of local food businesses have their outlets, offering consumers easy access to local produce. The sourcing of wild foods also plays a role in rural areas.

The establishment and maintenance of AAFN

Access to information on local foods

Consumers who want to source local or more sustainable foods have to find specific suppliers in a more or less complicated process, that may constitute a barrier to entry into alternative food sourcing. To facilitate the establishment of links between producers and consumers En-Form, the environmental information centre of Colchester, produced a local food directory in 2005. This directory compiled all local food producers in the Colchester area and made the information on suppliers easily accessible via a printed local food directory and the web. Unfortunately this directory is no longer updated nor available to the public, as a result of insufficient funding.

The cooperation of consumers and producers to establish a common marketing network plays an important role in reducing transaction costs for the individual and thereby extending the benefits of AAFNs to a wider number of stakeholders.

Motivations to set up AAFNs

All AAFN initiative leaders interviewed gave importance to developing sustainable patterns of consumption and reducing their ecological footprint, even though the motivating factor to start up an AAFN was in some cases mainly related to practical concerns with food sourcing for individual household needs. In most cases however, issues such as food miles, peak oil and global climate change were referred to as being of central importance for starting up alternative proximity-based and sustainable agri-food chain systems.

Leadership and internal organisation

Initiative takers are necessary to start-up AAFNs, to keep them in place and to deepen existing initiatives. People taking these initiatives are frequently people who are engaged in a number of initiatives and find it difficult to allocate sufficient time to the AAFN. Once the AAFN is started, the aim is to distribute the tasks among the interested parties, because the operation of the scheme can be rather time consuming and sometimes has physical and financial requirements too (carrying boxes, handling finances, printing leaflets, setting up stalls, etc.). The distribution of responsibilities and tasks among stakeholders is important to create an AAFN that is operational in the long term.

Challenges and opportunities to spreading AAFN

There are a number of challenges to the development of AAFNs in the Colchester area. It is not restrictive regulations or the lack of policy support for sustainable modes of production that are currently the main limiting factors to the spread of AAFNs.

The main limiting factors for the development of AAFNs appear to be:

- Competition of dispersed local and sustainably produced foods with convenient, centralised and low priced foodstuffs at supermarket chain stores;
- lack of motivation of consumers to spend extra resources to source local and sustainably produced food;
- lack of financial resources and/or human engagement to organise AAFNs.

The main challenge is related to the availability of cheap convenience foods, that have been produced with significant social and ecological impact, and that are in direct competition with lower-impact produce. As the high-input produce has externalised social and environmental costs and, in most cases, been subsidized, small-scale production for local markets is at a competitive disadvantage to start with. Local and sustainably produced food can be sold at premium prices in niche markets, and thus consumers associate sustainable food with high prices and producers tend to explore the opportunity to access a premium price, regardless of

production costs (which may be higher than in industrial farming as a result of work-intensive farming practices (Morison, 2005)).

The preferential purchase of local produce requires more thought than purchases at big retail outlets, and in addition to consumer awareness of the advantages of buying local food, they must also have the time and money to make arrangements to obtain these products. As producer-consumer relations are often inexistent, consumers need to take initiative to obtain local produce. This stands in stark contrast to the habitual and largely passive convenience of a weekly shopping trip to a big retail store.

A number of historic and cultural issues have made the average Colchester consumer rather disinclined to support AAFNs, a farmer's market organizer said. The limited attention given to cooking and eating in many British households culturally places food at a low level of priority. One interviewee explained "*in Britain we eat because we are hungry*", to underline the limited cultural importance attributed to food. Two interviewees stressed that young people may not even know how to prepare the vegetables they can get from local sellers or from a box scheme.

The region of East Anglia is famous as Britain's "bread basket" and wheat production on large-scale farms is now typical for this region. Producing vegetables for local markets would imply a downshifting and restructuring of the farms, and this could make past infrastructure investments redundant. However, the squeeze on farmers' income is a reason for some of them seeking alternative income opportunities, and they see AAFN as an option to "*get out of the rat race*" - according to a farmer's market organizer. Often when these farmers get into producing food for local markets they are not practiced in marketing and may find it difficult to present their produce in appropriate ways and to generate income above production costs. Support for farmers to make the transition from conventional sales to sales to local markets may be important to encourage farmers to make this shift and increase their success rates.

Local councils do have specific staff working on environmental issues, such as climate change and waste officers. However the policy agenda is very broad and does not detail or prioritize action on sustainable food sourcing. Therefore the employees, in spite of being personally interested in promoting local food, do not find the time to focus on these issues in their work. Clearly, policy-makers are not aware of the multiple benefits of developing local sustainable food systems, else these would be higher up on their list of priorities.

It is increasingly difficult for consumers to know what foods correspond to the most sustainable purchasing option. The term 'local food' was not clearly understood by the generality of consumers interviewed in the West Midlands (Faiza, 2010). Consumers are becoming sceptical and somewhat put-off from engaging more deeply with the complex nature of sustainable food sourcing, as widespread claims of conventional foods being "local", "sustainable" or "healthy" have watered down these concepts (Gilg, 1998). However, many consumers do associate 'local food' with authenticity, better quality and better taste. Knowledge

of the food producer adds trust and possibly nostalgia of a rural past. A farmer reported that his produce is so sought after that he is unable to satisfy local consumer demand.

The main opportunities for the expansion of AAFNs are related to a growing consumer demand for 'local food' (Clonan, 2010) and increasing support for sustainable agri-food systems resulting from a growing awareness of the problems of the global food chain, mainly as a result of past food scares and in relation to food miles' contribution to climate change. Mass media have contributed to this increasing awareness in the past few years.

The potential of AAFN in the Colchester area: contribution to increasing resilience and future prospects

Contribution to increasing resilience

It was found that in the Colchester area there is a big diversity of alternative agri-food networks. However, most initiatives are of a very small scale (individual level) and not formalised and thus assessing their current contribution to resilience in the local area would require extensive quantitative research, which was beyond the scope of the present exploratory case study.

The AAFNs existing in and around Colchester contribute to resilience in a variety of ways. Sourcing locally and/or sustainably produced foods lowers the ecological footprint of the community and helps develop sustainable and biodiverse agro-ecosystems. Sustainable food sourcing initiatives also contribute to raise awareness and to develop practical skills, such as those related to sustainable food growing and processing. The community building aspect of AAFN initiatives was mentioned repeatedly. The construction of community around sustainable food sourcing encourages individuals to pursue more sustainable choices and maintain them in the long term. Community building is important to increase resilience; where the social network is more developed, more options exist to re-arrange people's interaction so as to use existing skills and resources for mutual benefit, especially in the face of new challenges and opportunities.

Future prospects

The emotional disconnection from the local area, and in particular from local landscapes and food producers is far advanced and much effort will be needed to re-establish connections – intellectual understanding and feeling for the advantage of a proximity-based sustainable food network. Although much has been written about the non-economic advantages of AAFN, economic rationality plays an important role in their viability (Hinrichs, 2008). Gilg and Battershill have discussed the difficulties of farmers to make a living from these systems in France, as there is still a lack of discerning consumers (Gilg, 1998). Raising consumer awareness for the importance of sourcing local and sustainably produced foods is therefore a very important first step, to which Community Gardens and Transition Towns may be able to make a significant contribution.

To spread and develop AAFN in the Colchester area under current circumstances, it is likely that the Food Coops are most suited as an entry point to attract consumers into more sustainable food sourcing habits. Food buying groups are relatively easy to manage thanks to the on-line ordering process wholesalers have in place, and the foods purchased have prices similar to mainstream retailers. The distribution of work among volunteers also allows for increasing local linkages without overburdening the individual. Food coops are an opportunity for consumers to access foodstuffs with low environmental impact, that they may not be able to access or to pay otherwise. Thus consumers have many advantages in setting up or joining a Food coop.

Box schemes have an element of convenience that is also able to attract new consumers into AAFNs. However, box schemes demand that consumers cook and eat largely in accordance with the seasons. This requires a shift in the behaviour of many consumers, that they may not be too willing to make at present. Consumers who do not want to commit to weekly orders and prefer to choose the produce they wish may prefer farmer's markets.

Conclusion

This case-study has shown that there is a diversity of alternative food sourcing strategies in place and in development in the Colchester area, however, limited financial resources and lack of consumer awareness are making the grounding and deepening of existing initiatives difficult.

What is most needed at the moment therefore is:

- raising consumer awareness and willingness to buy sustainable foods;
- supporting producers to make the transition to sell on local markets;
- simplifying the organisation of AAFNs to widen participation;
- deepening the sustainability of existing AAFNs, by developing more linkages to local and sustainable food producers.

In order to help these changes to happen, more research may be helpful, in particular to address the following questions:

- What is motivating consumers to engage/not engage in sustainable food sourcing?
- What help do farmers need to make the transition into selling local?
- What are the most effective forms of organisation of producer-consumer linkages, that would increase participation in AAFNs?

When consumers take their own food provisioning in hands, they reduce the dependency of their communities from the global agri-food system and thereby become more resilient to shocks on the global food market, while at the same time increasing their skills and social connections and improving the ecological resilience of their local environment.

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Appendix I

Table 4 - List of box schemes operating in the Colchester area found during this study.

Type	Box scheme	Location	Website
Entrepreneurial	Abel and Cole	Wimbledon	http://www.abelandcole.co.uk
	River Ford	Devon	http://www.riverford.co.uk
Farmer managed	The organic box	Sudbury	www.theorganicbox.co.uk
	Attitude organics	Ipswich	http://www.attitudeorganics.co.uk
	Desmond Duncans	Suffolk	http://www.organicsforall.co.uk
	Growing places	Ipswich	http://www.growingplacesuffolk.co.uk
	Walden local food	Saffron Walden	http://waldenlocalfood.co.uk
	Hillside nurseries	Ipswich	www.hillsideorganicfarmshop.com
	Local leaves	Bramford	http://www.gardenandchicken.co.uk