



Danish Research Centre for Organic Farming

Urban Areas - Rural Areas and Recycling - The organic way forward?

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Copenhagen, Denmark 20-21 August 2001**

Jakob Magid, Artur Granstedt,
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Editors

Jakob Magid, Artur Granstedt, Ólafur Dýrmundsson,
Helena Kahiluoto & Theo Ruissen

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Research Centre Foulum

P.O. Box 50

DK-8830 Tjele

Tel. +45 89 99 16 75, fax +45 89 99 16 73

E-mail: foejo@agrsci.dk

Homepage: www.darcof.dk

Local food supply chain: A case of rural food processing firms and catering business in Finland

*Sari Forsman & Jaana Paananen
MTT Agrifood Research Finland
Economic Research, P.O. Box 3
FIN-00411 Helsinki, Finland
E-mail: sari.forsman@mtt.fi*

Introduction

The subject of this paper is the integration of food production and processing, distribution, and consumption on local markets in rural areas. We approach this integration from the point of view of an alternative food supply chain, a local food system as an example. Alternative, especially shorter food supply chains represent the new patterns of food governance and rural development (Marsden & Arce, 1995; Marsden, 2000, Marsden et al., 2000). Supporting alternative food systems at the local level is a way to promote the viability of rural areas and sustain the national food strategy. It is evident that large food companies will grow bigger and bigger and become more global. This means that the significance of national food markets is on the decrease. We assume, however, that the more global the food markets are, the more demand there will be for local food. The fact is that regional and local characteristics such as certain raw materials and dishes, taste, as well as food traditions and food culture will always be closely tied to particular regions and provinces creating and maintaining their identity (Askegaard & Madsen, 1998, Nygård & Storstad, 1998). Moreover, consumers nowadays are more interested in environmentally, economically, and socially sustainable food systems. This has

resulted, for example, in the success of farmers' markets in many European countries (La Trobe & Acott, 2000).

One of the main objectives of supporting local food supply chains is to transfer more value to the beginning of the food chain in rural areas (Finnish Rural Policy Committee 2000). Based on this, our first starting point in this paper is that locally produced raw materials and food products may be produced value added and that especially farms and small rural firms could take advantage of this. In the current situation the fact is that many farms and rural small-scale food processing firms face difficulties in getting their products into traditional marketing channels at the national level. For instance, access to the retail channel often requires highly differentiated products according to particular product characteristics (Forsman, 1999). Many farms and small-scale processors, however, offer products that are not highly differentiated food specialities but, rather, products whose added value is based largely on the way they are produced, such as a short supply chain, environmentally sound, organically produced, or a special customer-seller relationship. By focusing on local markets and taking better advantage of locality in their product development and marketing initiatives, farms and firms with this kind of

offerings could create efficient and long-term contacts with local customers. This promotes the viability of rural areas by keeping more of the value and cashflows of rural small-scale production and processing circulating within the particular area.

The second starting point in our paper is that among the most important potential customer groups for local food suppliers are local catering businesses, especially institutional food service units (e.g. schools, day nurseries). Some pioneers among the institutional food service units have taken the initiative in purchasing raw materials, semi-finished products, or finished products directly from local producers. Commercial restaurants have also shown some interest in food products offered by local actors. For many catering units it would be natural to increase the use of local raw materials and food products since many of them are already used to purchasing certain specific raw materials or additional foodstuffs directly from farms or rural small-scale food processors (Markula, 1999). In addition to local products, some food service units are also interested in providing meals that are based on organic products.

Based on our starting point, the objective of the paper is to examine the possibilities and preconditions of local food systems as an alternative supply chain in rural areas. The focus is on the local food systems between rural food suppliers and catering businesses. The theoretical foundation for the study lies both in the value-based theories and supply chain management. A special focus is on the modelling of the value creation of local food products from a rural firm to a catering business. We have set the following research questions: 1) What kind of values are created as a result of the use of local food and operating in a local food system from the viewpoint of different chain actors? 2) What kind of ex-

periences do chain actors have from a local food system? 3) What benefits, risks, and sacrifices catering businesses relate to the use of local food? 4) What are the reasons not to prefer local food in catering businesses? 5) What are the future development needs to make a local food system more functioning and sustainable?

Following the Finnish Rural Policy Committee (2000), "local food" is defined in this paper as food produced and consumed by exploiting the raw material and production inputs within the region, promoting the economic development and employment of this particular area, which may be a municipality, province, or economic area. "Local food system" is defined as a local food supply chain based on the exploitation of the local or regional products and short supply chain. That is, the physical and temporal distance between the production, distribution, and consumption is as short as possible.

The paper is based on the empirical study that was carried out as a qualitative case study focusing on the relations between rural food suppliers and catering businesses. This paper presents some results of the case analysis. The study is part of a three-case study, where the two other parts will concentrate on the local food chains between rural food processors and rural tourism enterprises and rural food processors and retail stores. The study was partly financed by the Finnish Ministry of Agriculture and Forestry.

The paper is organised as follows: the theoretical background is reviewed and briefly discussed in Chapter 2, and the input data and methods are described in Chapter 3. The most important results are examined in Chapter 4, and Chapter 5 presents a discussion and the conclusions. The study is presented in more

detail in the research report by Paananen and Forsman (2001).

Theoretical background

The theoretical foundation for the study lies both in the value-based theories and supply chain management. "Local food" is looked upon as the potential source of value for the different actors in the food chain. "Local food system", in turn, is considered as an alternative pattern of food supply for the more conventional industrial type of food supply (see Marsden, 2000). Following Marsden et al. (2000), in the alternative food supply chain approach, a great deal of emphasis should be laid on the type of relationships between the producer and customer rather than the product itself, as well as on the role of this relationship in creating value. Consequently, we combine the ideas of the value-based thinking and supply chain management in order to see how a small local food supplier could establish a favourable position on the local food markets.

Customer value creation is a prerequisite for competitive advantage (Slater & Narver 2000). In this paper, the local food product and local food system is seen as a potential source of competitive advantage for a small rural firm. However, to base their business on locality, local food, suppliers need resources and competencies, one of the most important of which is an understanding of customer value. Customer value, in this context, refers to the value that customers perceive to get when using local products and purchasing products through a local food chain instead of using non-local national and imported products acquired through conventional supply chains. Of utmost importance in today's value-based thinking is that producers should have a deep understanding of customers' own value creat-

ing activities (see Ravald 2001). Accordingly, trying to exploit local food as value added, rural food processors should understand and learn those benefits and consequences the use of local food will have in catering units. In this study, we approach customers' value creation on the basis of Woodruff's (1997) customer value hierarchy model and Kemperman and van Engelen's (1999) customer value mix model. In the customer value hierarchy model customer satisfaction is divided into attribute-based satisfaction, consequence-based satisfaction, and goal-based satisfaction (Woodruff 1997). In the customer value mix model by Kemperman and van Engelen's (1999) customer benefits, customer sacrifices, and customer risks are combined to result in a more holistic view of customer value.

In this study the understanding of customers' value creation is connected to the supply chain management. Supply chain management aims at the integration of balancing supply and demand across the whole supply chain, where efforts are made to bring suppliers and customers together in one simultaneous business process. Broadly defined, it covers all the value-adding activities in the entire chain (Omta et al. 2001, Tan 2001). The objective of supply chain management is to generate most value, not solely for a firm but for the whole supply chain network, including the end-user (Lambert & Cooper 2000).

In conventional food supply chains, the interdependence between different chain actors is usually organised sequentially; one actor's output is another actor's input. The value created from managing these transactions derives typically from reductions in transactions costs and logistics optimisation (Lazzarini et al. 2001). However, the distance from the producer to the ultimate end-user is often long (Nygård & Storstad 1998), both in space and time. Although the pursuit of transparency in

the entire food chain is accepted as a common goal in conventional food chains also, this transparency such as the knowledge of product origin may be obscured when the product goes through several links before reaching the end-user.

In a local food system the chain is usually shorter in terms of number of chain actors or members, and the physical and temporal distances are considerably smaller compared to the traditional food chain. Moreover, we wish to emphasise explicitly the different kinds of interdependencies between the actors. Although the transactions between the actors in

an alternative food chain are also vertical and thus imply sequential interdependencies, more important is the reciprocal interdependence between the different actors (see Lazzarini et al. 2001). This interdependence relates particularly to knowledge co-specialisation, which means that one actor is strongly dependent on the knowledge of another actor (Lazzarini et al. 2001). Therefore, we assume that to establish a functioning and sustainable local food system, the ties between chain actors should be strong and mutually dependent. Based on these ideas, Figure 1 presents a simplified illustration of an alternative way of viewing the food supply chain.

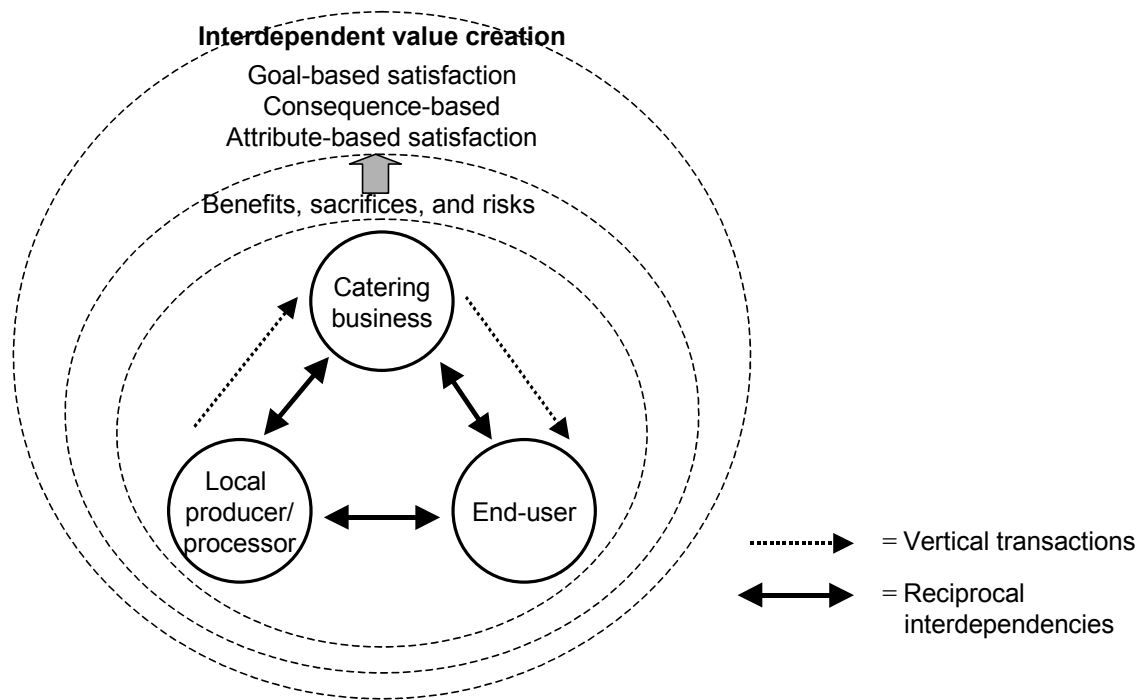


Figure 1 Alternative way of viewing the food chain

To conclude the theoretical discussion above, we assume that each participant in the supply chain benefits both from the local food per se and from the local food system between rural food processors and catering businesses.

Straight and short food supply chains or networks are assumed to have a positive impact on the characteristics of a local firm's offerings and the buyer-seller relationship.

Methods

The study was conducted as a qualitative case study. A case study approach was chosen because the contemporary "local food" thinking is quite a new phenomenon in Finland and, owing to this, there are no scientific research results available. The study in this field is only getting started in Finland. Experiences from the use of local food have mainly resulted from are mainly the result of single local rural development initiatives and projects organised by local actors. Consequently, the case study approach (see Yin 1994, Stake 1995) makes it possible to take a closer look at the 'local food' phenomenon and consider it from a wide range of different perspectives in order to study its unique features and commonalities. The qualitative method was chosen largely for the same reason as the case-study approach. Especially, the understanding of the customer value hierarchy concerning the benefits of using local food would not have been possible without deep and detailed "why" questions and interactive interview situations.

The data were gathered through semi-structured interviews with 12 entrepreneurs and 9 representatives of institutional food service units and restaurants in Eastern Finland. Catering business actors to be interviewed were selected based on discretion. Six representatives of the latter group represented non-commercial food service units and three represented commercial restaurants. The sample of the catering units included three types of units with respect to use of local food. First, three units utilised local suppliers to a significant extent in their purchases and were involved in some kind of local food system. Second, three units purchased local products to some extent, but were willing to increase the co-operation with local actors. Third, three units used local suppliers occa-

sionally depending on the available supply and had a more or less neutral position on local food, but would like to increase the use of local products if the firms were more active in providing them.

The entrepreneurs to be included in the sample were chosen among the existing suppliers of the catering business units involved in the study. The firms in the sample produce the following product groups: fresh and processed potatoes and vegetables, fresh berries and berry products, milling products, fresh meat and meat products, bakery products, eggs, and turnip rape oil. The sample included both farms and small-scale processors. Four of the firms produce organic products (fresh and processed potatoes and vegetables).

For the interviews, a theme framework based on our theoretical views as well as experiences from earlier development projects concerning local food was constructed. The theme framework for the entrepreneurs differed in certain respects from that for the representatives of catering businesses. The interviews of both actor groups were analysed separately. The data were grouped into themes following the frameworks. The main analysis was largely based on the customer value mix model of Kemperman & van Engelen (1999) and the model of customer value hierarchy by Woodruff (1997).

To ensure the reliability and validity of the research process and the results, a systematic procedure was used in the compilation and analysis of data (see Paananen & Forsman, 2001 for the details). Efforts were made to maintain the principle of the chain of evidence from conclusions back to initial research questions and from questions to conclusions (Yin 1994, p. 98) through the entire analysis procedure.

Results

This chapter presents some focal results of the case study. The interest in the use of local food in the catering units was strong. However, in the current situation, basing their meals solely on local products was not seen as realistic in many units. This is simply due to the fact that many product groups are not available in sufficient amounts by local suppliers. In many cases it is not possible, for instance, to purchase fresh meat and fish and products made of these using locality as the criterion because the supply is insufficient. Therefore, in many catering units the local firms are more or less seen as supplementary suppliers. Yet, the significance of local food and the role of local firms providing local products are expected to grow in the near future. Favourable geographical location with respect to customers, good product quality, locally well-known firm reputation, flexibility in adjusting the production or processing to meet the customers' needs, and strong customer relations are seen as general competition factors that help a firm to turn local foods into marketable products. This, however, requires that local firms are more active in offering their products on a more regular basis to the potential customers.

The meaning and value added of the concept "local food" for the rural firms and catering businesses were analysed. The use of local products has many economic (e.g. low delivery costs) and non-economic advantages (e.g. maintenance of regional food traditions) for both chain actors. The results show that the dimensions, consequences, and value of local food is perceived in a somewhat different way by the entrepreneurs (figure 2) and the representatives of catering businesses (figure 3). It seems that entrepreneurs look at the benefits of local food more from their own perspective as well as from the social and regional

perspective than in terms of customer value creation.

The study also showed that there are many reasons not to prefer local food, which may constitute serious impediments to the realisation of local food systems from the point of view of the catering businesses. The most significant aspects are: (1) local suppliers' too small production volumes and inadequate resources to meet the demand of the catering business, (2) price level too high, (3) too much time consumed at the food service units in searching for new local products and creating new business relations, and (4) the risk relating to reliability and regular deliveries concerning the new relationships.

Based on the data, four aspects to develop local food systems from the point of view of the catering business can be brought out. First, close and active co-operation in product development between catering units and firms is an absolute prerequisite. Catering units should be more open towards the local producers about their specific needs. Long-term co-operation extending far into the future is needed. A producer needs to know in advance, for example, which potato variety should be planted in the spring, i.e. which characteristics of potatoes are important for the use in a particular kitchen. Furthermore, there is an increasing demand for pre-processed products such as peeled and sliced potatoes. Second, co-operation in storage is needed. The storage facilities of catering units are often quite limited, and thus there is a need to develop storage in the local firms. For example, there would be demand for the local or at least domestic berries all year round, but there is not enough room in catering units to freeze berries for the whole year. Third, firms should be able to guarantee the reliability of the deliveries in the long term. Catering units would purchase more local products if these

could be supplied on a regular basis. Fourth, logistic issues have to be solved. Local firms

should co-operate in product deliveries, invoicing, etc.

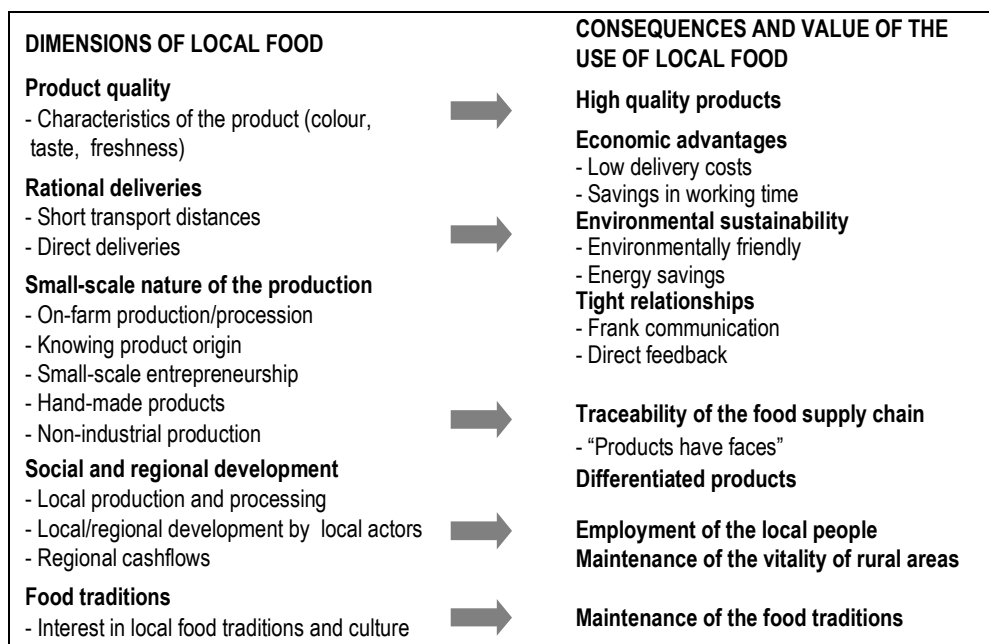


Figure 2 Dimensions, consequences, and value of the local food from the entrepreneurs' viewpoint

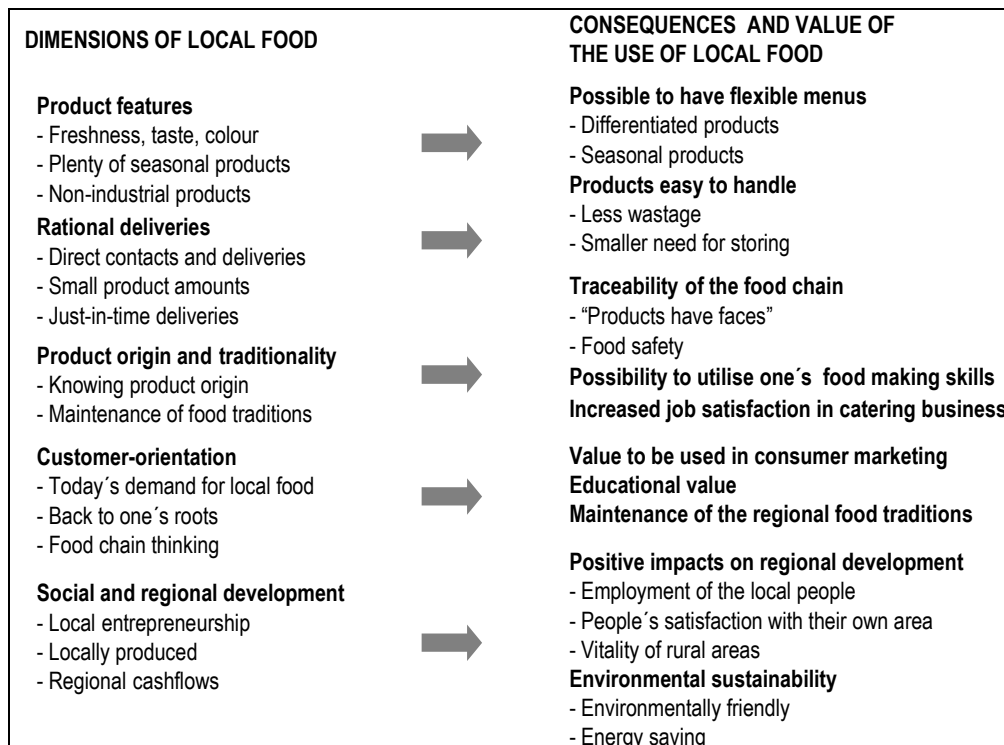


Figure 3 Dimensions, consequences, and value of the local food from the catering businesses' viewpoint

The results also revealed that in the catering units organic products were often associated with local food. However, especially the entrepreneurs not supplying organic products were somewhat confused about this issue. They feared that if the catering business units systematically considered only organic products as local foods, they would be outcompeted by other suppliers. They stressed that local food and organic food is not the same thing and the concepts should be kept apart.

Discussion and conclusions

Based on the case study results, we see that there really is potential for a systematic emergence of local food systems and shorter food supply chains in the future. In the study efforts were made to understand the local food as a phenomenon and to examine some experiences from shorter supply chains and future development needs. Because of the case study approach, the results, however, cannot be generalised to the population as a whole, but we wish that they could promote the development of local food systems in rural areas. Consequently, we hope the results will be applied widely by rural entrepreneurs in their strategic decisions, catering businesses, training and advisory organisations, as well as by national and local policy makers and other local actors.

The results support our basic assumption that both parties of the chain included in the study benefit from the use of local foods and food systems. Using local products provided by local actors may result in both economic and non-economic advantages for the catering businesses. It is noteworthy that many non-economic aspects may turn into economic advantages, at least in the long run. For instance, even if the unit price for the local vegetables would be higher compared with

vegetables purchased through conventional channels, the smaller amount of wastage due to the local just-in-time deliveries may result in lower total costs in the long term.

Still, much needs to be done to make a local food system a sustainable model. Fundamental questions, which need to be solved in this context, include how to make the small local food suppliers more customer-oriented and how to increase their willingness to cooperate. It is obvious that the farms and food processing firms should become more customer-oriented to meet the customers' needs. According to the results, the value added to local food is valued to a different extent by the local suppliers and the catering businesses. This may prevent the development of an efficient local food network between the partners. Therefore, it is important for local suppliers to be conscious of the fact that to meet the customers' needs requires a deeper understanding of the customer value creation process. Thus, it is not enough just to find out those physical product attributes that the customers expect from local products, but rather to understanding of the consequences the use of local products may have in different situations and the primary goals the customers pursue through the use of local food.

Co-operation plays a crucial role in the supply chains where the relations are mutually dependent. On one hand, co-operation is needed between a local supplier and a catering unit. Co-operation in product development is particularly important in order to produce and process products that bring satisfaction in the use situation (e.g. the best potato variety). In the co-operative product development, feedback from past transactions and joint problem solving is crucial. On the other hand, small food suppliers should be more active in co-operation with each other. Co-operation is needed especially in logistics. Customers

should have a possibility to order products from several local suppliers by the same order. Also, joint deliveries and invoicing should be used. Improvements in logistics would help to eliminate the non-value-added costs as well as to decrease the time spent on orders and deliveries at the catering unit. This, however, calls for the establishment of joint ventures or other forms of co-operation between local suppliers.

The difference between the concepts of local food and organic food should be highlighted to all actors within a local food supply chain. It goes without saying that only locally produced organic food is local food, but in general local food does not need to be organic. However, to combine local and organic dimensions, an "organic local food" label could be created and locally produced organic food could be marketed under this concept. Whether this would lead to even more confusion is another question.

Local actors, including policy makers, representatives of the private and public sector, media, etc. also have a great responsibility in

promoting the emergence and development of alternative food chains. A positive attitude towards local food and seeing its broader meaning for the local society is likely to result in more sustainable development projects concerning local food. Moreover, changes in the official purchase tender practices are definitely needed. In the catering units kept up by the public sector, official purchase tenders that are largely based on price offers by potential suppliers should be replaced by a wider range of purchase criteria, allowing the purchases to be based on aspects other than price alone (e.g. locality, environmental considerations).

Finally, we would like to stress that we do not associate the conventional supply chain with 'bad' and the local one with 'good'. Instead, we wish to emphasise that today there is demand and room for different models of food supply chains, where both the conventional industrial type of food chains and alternative food governances are needed, and both of them can benefit and find support from their co-existence.

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