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**The Evolution of Organic
Agriculture in Denmark**

OASE working paper

**Jan Holm Ingemann
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Preface

In this working paper it is the intention to outline the evolution of organic agriculture in Denmark. The paper do not claim to be a total presentation of the history but is aiming to present important milestones, actors involved, intentions and reflections of the actors, and especially to illustrate interaction between the sector labelled as “organic agriculture” and the social surroundings. Simultaneously, the paper does only intent to present *descriptions* while it is the intention to present explanatory analysis in successive papers. However, in the present paper¹ we present a suggested cut off of epochs based on our first search for patterns in the evolution.

A crucial question for such an outline of evolution is where and when to start. This question has been discussed among the members of the research group and was also discussed very intensely with actors related to the organic sector. One could argue that we had to start in philosophical reflections a couple of centuries ago, or start with bio-dynamic agriculture and its philosophical reflections, or start with World War II as organic agriculture could be seen as a show down with the materialistic considerations that followed the war, etc. The problem facing us then tend to be one that can be characterised as infinitely regress and the only way to escape that is to take a decision and give the arguments. So we did and did it considering our limited resources. We decided to give a brief outline of the general evolution from 1870 to the 1970s and then concentrate our efforts from then, because that was the decade where organic agriculture began its existence in Denmark as a real pioneering movement. However, we do not contest the essential importance of genetic origin of social movements and hope to be able more carefully to reconsider these in successive efforts to explain the evolution of organic agriculture in Denmark.

The structure of the present paper is based on our findings – that are description of milestones. We have searched for patterns and for shifts in patterns and directions. Further we have searched for groups of actors related to agriculture and are aiming at describing their intentions, incentives, and actions besides their interplay with social surroundings. In our research we have concentrated our efforts on the following actors and categories:

Within organic agriculture

- Farming-pioneers in search for an organic way of farming
- Pioneers seeking for methods to process and distribute organic foods
- Pioneers aiming at promoting organic agriculture as a comprehensive notion
- Institutions to promote methods and interests related to organic agriculture

In the surroundings

- The agro-political complex (Ministry of Agriculture and conventional farmers’ organisations)
- The agro-industrial complex (farmers, processing, and distribution)
- Education and research related to agriculture
- National politicians (parliament, political parties)
- Public opinion and discourse

¹ The paper is a result of research carried out in the OASE project. It has been discussed in the research group and parts of it have been discussed at seminars for researchers and practitioners related to the sector. Some findings are based on interviews carried out by two students attached to the research group. I am grateful to all who have contributed to the basis of the present paper.

Each chapter represents a period where both the characteristics for conventional and organic farming are presented. As organic agriculture increase importance and magnitude over the years described, the balance between conventional and organic agriculture change from chapter to chapter.

The chapters are structured so that each describes an époque. The cut off of époques is based on our findings briefly described below.

Époques used to structure the description

<i>Year</i>	<i>Milestone</i>	<i>Characteristic</i>	<i>Supplementary characteristics</i>
1970s	The first organic farms are established	Grassroots (pioneering)	Huge idealism. The dawning movement is founded as a reaction towards the mainstream evolution and it is in general excluded from the establishment. The movement is characterised by various notions about the ideal direction and core values/principles. Initial efforts to make organic farming work in practice.
1981/82	The association for organic agriculture and the national school for organic farming established	Rallying by means of separation (Expansion)	The actors who especially focus on farming management gather around the association and the national school; other actors who put more stress on social and political issues gradually experience decreasing power to set the agenda.
1987	Governmental authorisation scheme, followed by the Red Ø label (1990)	Inclusion (Expansion)	Organic farmers establish companies to manage processing of organic foods – however, the period is characterised by a gradual inclusion in the established food-system (including the agro-political and agro-industrial complex) and focus on farm management and how to get more farmers to convert. By the governmental authorisation scheme organic farming is put on the authoritative agenda.
1992	Supermarket chains increase marketing to expand sales of organic foods	Absorption, consolidation (Decreasing rate of expansion)	Until now organic foods have almost “sold themselves”. The period is marked by some tendencies towards stagnation in consumer demand but a successful kick-start is obtained through marketing. Organisational consolidation around the organic sector including two organisational lines (one is the association taking care of general interests; the other is an organisational set-up to facilitate production branches and marketing). The two organisational lines are in accordance with the tradition in Danish agro-political and agro-industrial complex.
2002???	???	Funky Business??? New separation and new organisational innovations	Innovation concerning means related to marketing and cooperation among and between producers and consumers, which again delimit (a part of?) the organic food system from the conventional???

Source: Ingemann 2003

Chapter 1: Danish agriculture 1870s to 1970s

Until the 1870s, Danish agriculture primarily produced cereals for export with the UK as the major importer. Besides export of cereals, Danish farmers exported live cattle to Germany. However, the prices of cereals began to decrease dramatically when the new world became able to dump cereals on European markets. This caused a serious economic crisis in European nations like Denmark, which depended on export of cereals, and it was hereby impossible for Danish farmers to make a living producing as hitherto. Here, it is essential to underline the economic importance of agriculture to Denmark as indicated in table 1. Most other trades depended directly on agriculture as sub-suppliers, so when Danish agriculture was in crisis, so was the Danish economy. That is why a major restructuring to enable a new trajectory was obviously needed [Ingemann 1997].

Table 1: Relative importance of agriculture around 1870²

<i>Agricultural share of:</i>	<i>per cent</i>
National labour force	52
National exports	92
National GFI	50

Based on [Hansen, 1976]

In response to the crisis in the 1870s, Danish farmers began to increase the production of milk and pigs, but this increase was not enough: The favourable markets didn't demand produce, but processed foods. In other words, it was necessary to process milk and pork. From milk, the primary commodity then became butter, while the primary commodity from pigs became bacon. There were many Danish farmers at that time, but most of them were rather poor, and they were unable, in general, as individuals to form the necessary financial basis to start a dairy or a slaughterhouse. On the other hand, their experience told them not to rely on the urban capitalists, while the latter might be attempted to abuse the former [Hansen, 1976]. As an escape from this double-binding problem, the ideas of co-operatives were founded. The co-operative way of organising production could compensate for the lack of financial assets to establish the necessary manufacturing plants. At the same time, this mode could ensure the farmers control and minimise the risks of exploitation by other sections. The ideas implied that the members undertook joint liability for the loan raised for the building. The operational profits were divided among the farmers according to each farmer's contribution. In this way, the co-operatives were founded to manage manufacturing of farm produce and to supply raw materials to the farms.

The first agricultural co-operative was founded in 1882 and during the following years, co-operative dairies exploded in number. In 1888 alone, a total of 244 new dairies were built on co-operative basis. But the farmers didn't stop here: From early 1880s, the British demand for bacon drew attention to this interesting market and the possibility to strengthen the Danish pork production, which was then modest. Skimmed milk returned from the dairies could be used as pig feed and, in combination with the expanding market for bacon in UK, an intensification of this enterprise seemed very prosperous. In 1887, a local farmers' union founded a

² Share of labour force and of GFI counts the primary sector only, while share of exports includes manufactured, agricultural produce.

co-operative slaughterhouse. Three years later, ten co-operative slaughterhouses were founded and in 1900, 26 slaughterhouses were established around Denmark [Bjoern, 1992].

It is essential to point out that the co-operatives were not invented by the market or by the state, but by ordinary farmers in co-operation with “mind-workers”,³ such as clergymen and teachers. The co-operative ideas were already developed and implemented in relation to consumers’ retail shops; the first consumers’ retail co-operative was in 1866 founded by a clergyman, and in 1880 more than 100 were established in rural areas [Hansen, 1976]. So here was a basic concept that the mind-workers could adjust and develop to agricultural purposes. Besides, the farmers had the willingness to unify and to co-ordinate their efforts through discourse and action.

The smallholding movement

The foundation of co-operatives became an essential part of Danish history with a certain collaboration that has called for respect among Danes and among international agricultural economists. However, there is another part of the story just as important but forgotten by most Danes and not mentioned in international literature: the parcel out communities and the transformation of the rural proletariat to family farmers.

The villeinage of peasants was abolished in the 1790s, but for smallholders it was maintained until 1850 when they got the opportunity to carry on as tenants and copy holders. So in the mid-19th century, the concept ‘smallholder’ covered day labourers and craftsmen who either rented or owned a house. They could do some gardening and perhaps they owned a cow and a few hens, but only if they were relatively well off. The more unfortunate rented a house without any land at all. Craft and gardening could not support the families, so they constituted a labour reserve for farmers and landowners, especially in seed and harvest time on a day-to-day basis. On the other hand, craft and gardening provided a sufficient supplement to support the families in seasons with limited needs for supplement labour on farms and estates. It was then a mutual financial interest of farmers and landowners to preserve this labour reserve and to do it in a way that the families could provide for themselves when their labour was not needed [Skrubbeltrang, 1954].

However, from the late 1870s, the farm workers and rural craftsmen were caught in a social squeeze. Due to the above mentioned decreasing prices on plant commodities, the farmers and land owners were unable to hire labour. This was very serious for the rural proletariat, because they needed the income as hired workers to stay alive. Roughly speaking, they could choose among three alternatives: 1. emigrate to the new world which implied giving up their way of life and cutting family and social ties. About one third chose this way out; 2. move to the relatively small cities which did not seem very prosperous at that time. About one third chose that possibility; 3. stay in the countryside and try to do their best with their very limited means, such as gardening and production of eggs. The last third chose that possibility and formed the basis of a large expansion of smallholdings with intensive livestock production.

The ideas of smallholdings were introduced to enable the farm workers to provide on their own for their families. By help from several clergymen and teachers, they managed to establish local and regional associations. At the founding of a regional association covering the Danish main island, Zealand, an important resolution was carried in 1902: the so-called

³ The concept ‘mind-workers’ might sound odd and old fashioned. However, the famous Danish philosopher N.F.S. Grundtvig, among other things founder of the Danish Folk High School, made a distinction between working by hand and working by mouth (meaning mind) [Wahlin, 1990].

“Koege-resolution” which expressed the core of the smallholding movement, for instance a morally determined recognition of the legitimate rights and the worth of fellow men and future generations. It also expressed that everybody should have equal opportunities and that this should be obtained by organised collaboration. The notion is a social-liberal statement of democratic equity rather than individual liberty. The resolution consequently states that the dignity of the individual should be ensured by the provision of means to support him self and then obtain an ability to contribute to social economy. They ask for the opportunity to prove their worth by equal opportunities, and that social caused profits on land and real estate are taxed instead of labour. The resolution states too that every generation is obliged to avoid collection of short-term profits at the expense of future generations [Ingemann, 1997].

In the 1890s, the smallholders’ movements tried, in collaboration with their mind-working supporters, to induce the Danish government to implement a parcel out through legislation and various positive measures. The result was an act passed in 1899, providing very limited loans for parcel out ends, but the act induced no means at all to provide the land needed. After several initiatives from the movements, the act was revised in 1904, but there were still no initiatives to provide land. So the small farmers’ movements lost patience and grabbed the spoon themselves. They founded parcel out communities by the same means used to form co-operatives. These communities bought bigger farms, for instance after a fire, parcelled out the land and sold the parcels to farm workers who could then be established as smallholders on family farms⁴. Through nation wide co-operation, the parcel out communities provided loans, budgets, architect-designs, etc. The efforts of the parcel out communities resulted partly in set up of smallholdings and partly in provision of supplement land to holdings too small to provide for a family. In the 1920s alone, the communities established about 10,000 smallholdings and provided supplement land to about 2,000 holdings enabling them to be established as family farms [Skrubbeltrang 1954].

The parcel out communities became an economic and social catalyst created, not by market or state, but by ordinary people in co-operation with progressive mind-workers, who did not have personal, financial gain as their objective, but where driven by social indignation and an idea of a better society. Besides, they believed that indignation combined with positive ideas leads to an obligation to act.

Collaboration between trade and government

The restructuring and change of the trajectory of Danish agriculture outlined above was, of course, a huge operation of essential importance to a small country with an economy based on agriculture. The government also became a useful collaborator in this shift, as several actions were taken in collaboration with the government to ensure the success. Two examples should be mentioned:

- The veterinary control was operated and financed by the government and used as a governmental guarantee concerning the quality to the importers (primarily in the UK);
- the Danish butter-brand “LURPAK” was stated by law, but administered by the private association that co-ordinated trade, marketing, etc., among Danish dairies. The brand assured that the butter was of high quality and could provide a higher price. At

⁴ Note that the Danish concept ‘house-man’ (a man in a house) was - and is - still used, but now the substance of the concept has changed to cover a small family farm, typically with a limited area of land but an intensive livestock production.

the same time, the brand meant that small dairies could participate in export-initiatives by use of the brand [Bjoern 1982].

So, at the beginning of the new century, Danish agriculture had already founded a tradition of collaborating and co-ordinating their efforts in the market through the co-operatives and, at the same time, using governmental regulations and subsidies to create a strategy for running and developing Danish agriculture. Here, it is important to emphasise that the subsidies were seen only as means to becoming self-supporting. Thus, mixed administration was introduced where the private sector became able to use governmental institutions to secure commercial interests.

Table 2: Economic performance of agriculture 1875 - 1910

	1875	1910
Amount produced, index	100	250
GFI agriculture, DKK mill. kr.	335	582
Labour force, agriculture	486,000	527,000

Based on [Hansen 1976].

1920 to 1972: The efficient farm and negotiated economy

The span of years from around 1920 to around 1950 could be labelled as the classical period when the livestock producing sector (farms and co-operatives) strengthened the business, although hard times emerged in the early 1930s and, to some degree, during World War II⁵. In these years the two main associations (Farmers' Union and Family Farmers' Association) typically represented the middle size farms and the smallholdings. The latter still founded their beliefs on the main points of the Koege-resolution, while the former fought to consolidate their farms in a more business-oriented spirit. The contradicting beliefs surfaced in relation to social questions, but also when it came to securing a part of the strictly limited factor of production, namely land. On the other hand, the trade was characterised by certain stability, and the conflicts didn't change the trajectory into fundamental new directions.

However, in the 1950s, Danish farmers found themselves in an income squeeze. Partly due to increasing protectionism on major export markets, because several nations aimed at self-sufficiency when it comes to foods, but also due to the neglected fact that satiety was emerging in the wealthy part of world. The decreasing market potential meant decreasing prices to the farmers, and thus an income squeeze. In this atmosphere, where the dominance of agriculture in the Danish economy and way of life was threatened, the farmers' associations began to suppress their conflicting beliefs and unite their efforts. First, they appealed to government to consolidate the sector and to provide the farmers attractive standards of living. The focus on standards of living stems from the fact that the crisis emerged when the farmers observed that other sections of the population attained material goods of the industrialised society, such as cars, radios, televisions, laundry machinery, etc. The farmers wanted to acquire these goods too, but were not able to do it on their own. That is why the farmers' associations appealed to

⁵ When times were not really hard during the war, it was because Danish agriculture was able to continue production at a high level and at high prices. The problems were primarily caused by very limited possibilities to reinvest.

the government to ensure farmers an income on a level similar to that of other sections in Denmark. As a matter of fact, the main associations commonly formulated the aim as to ensure farmers an income equal to that of skilled workers. They formulated demands based on moral judgements and, at the same time, in spite of traditional, liberal values, they interfered in the distributional demands from other social groups, for instance by strongly advocating income policy⁶. This change in beliefs was remarkable when it comes to the smallholders who made a break with the ideas of the Koege-resolution [Ingemann, 1997].

Government showed a positive attitude to the farmers' demands. Several measures were intended to meet the specific problems confronting Danish agriculture and, to some extent, the nation through collaboration between government and agriculture throughout the 1950s. Among the formulated means were [Bjoern, 1982; Ingemann, 1998]:

- Join the EEC as soon as possible.
- In collaboration with the government, speed up the use of modern marketing in the export markets.
- Establish a large subsidy-system.
- Speed up R&D efforts and the Danish advisory-system.
- The notion of "The Effective Farm".

It was expected that Denmark - along with the main market the UK - could soon join the EEC, and membership was seen as a key to a fundamental solution: it would ensure admittance to a comprehensive market and to enjoy the benefits from the EEC's agricultural policy means. Though it was not said out loud, it was somehow implicitly stated that when Denmark became a member of the EEC, the farmers could produce as much as they liked, and the EEC would guarantee the prices and buy the surplus. Once Denmark became a net beneficiary of the EEC, other countries would be paying the bill.

In the meantime, the use of modern marketing should be implemented in the export markets to increase the market shares. To create the financial basis, government granted subsidies and furthermore by law enabled the associations to levy a duty on farmers' produce when brought to manufactories. The duty was then transferred to national funds for marketing purposes controlled by the farmers' associations.

The farmers' demand for a certain income level was from 1958 ensured through massive governmental subsidies. The idea was that the subsidies would be formed as mechanisms similar to the EEC agricultural policy means. Originally, the subsidy scheme was introduced as a temporary solution, and the Danish agricultural policy was labelled as the "waiting room policy". Farmers were waiting for EEC membership, after which the European community could assume subsidising and policy measures in general according to Danish agriculture. The national Danish subsidy system, where the Danish government provided the financial security for the trade, had to continue until 1973 when Denmark finally became a member. The system inferred that the farmers' associations took part in collective bargaining with the government, parallel to the bargaining on the labour market.

⁶ On one hand, the farmers wanted to secure their own level of consumption through a redistribution of wealth provided by government and then, to some degree, transform themselves into wage earners. On the other hand, they were, to some degree, employees through their collective ownership of co-operatives.

Another method was to make farm production more effective by introducing new, industrial farming technology, such as chemicals and automated systems in livestock production. The farmers' associations received governmental subsidies for advisory-centres, where specialists in a vertical system were - and still are - linked closely to Danish R&D institutes for agricultural technology. This system was meant to ensure a quick transformation of R&D results in to practicable use on the farms.

In addition to using public finances to secure their income, farmers formulated the notion of the effective farm [Ingemann, 1998] with the following chain of arguments: Farmers must be secured an income similar to that of other sections of the population. When the income from farming is limited, then it is necessary *first* to limit the number of farmers. Farmers who must leave the trade can get jobs in the urban areas, and in that way automatically obtain a level of income similar to that of other sections. This means that fewer farmers stay in business and they can share the total income of the sector. *Second*, every farmer must - by means of real capital and swallowing up the less effective farmers' property - increase production. When fewer farmers stay in business, and each produces more, they can increase their level of income. Or, to put it the cannibal way: Eat your neighbour or be eaten.

From the late 1950s, Danish agriculture was designed to stay in business by means of a strict vertical co-ordination within the sector, by subsidies and by increasing productivity. Besides, the notion of the effective farm was supplemented by the notion of the effective co-operative, which implied concentration. The agricultural policy was formed to fit the notion of the effective farm covering a wide spectrum of policies, such as governmental provision of R&D, favourable tax depreciation schemes related to investment in machinery and buildings, besides governmental security for loans to investment purposes.

The described change of trajectory implied that, from 1950 to 1995, Danish agriculture more than doubled production, but at the same time the aggregated GFI (in fixed prices) of the sector was almost halved. Simultaneously, Danish agriculture has experienced a dramatic decline in value added. In 1951, value added came to about 88 per cent of the production value, compared to 44 per cent in 1994. Furthermore, the value added in slaughterhouses is, in these years, only 27 per cent and in dairies only 21 per cent, compared to Danish manufacturing industry where the aggregated value added comes to 44 per cent [Ingemann, 1998].

Table 3: Relative importance of agriculture 1910 - 1996

	1910	1951	1996
Number of farms		206,000	65,000
Share of GFI	30	19	4
Share of exports		64	15
Share of labour force	42	23	7

[Hansen, 1976; Ingemann 1998]

Chapter 2: Grassroots pioneering (1972 to 1981)

1972 is the year where a majority of the Danish voters agreed to join the EEC to a high degree on behalf of Danish farmers who wished to get a huge share of the heavy agricultural subsidies attached to CAP. 1972 is also the year where IFOAM (International Federation of Organic Agriculture Movements) were founded. The first incident reflected to a high degree the wish of the political authorities and of majority of the voters to continue the current industrialisation of agriculture. The latter incident reflected that critical reflections on current industrialisation of agriculture (re chapter 1) were an international phenomena. 1972 can be seen as a milestone marking a new era where industrialisation of agriculture and attached critical reflections on alternatives speeded up and the latter reflections were translated into alternative practices.

The critical reflections concerning environmental issues including agricultural aspects was brought to the agenda by individual scientists and the dawning environmental movement. A Danish organisation NOAH (attached to Friends of the Earth) was established in 1969 and increased their activities heavily in the early 1970s [Madsen, 1997]. Besides, some water work managers and a national angler association tried to put their worries about the negative effects of contemporary farming on the agenda [Ingemann, 2002].

Based on these critical reflections a few hippies most of them from the big cities moved to rural areas and started alternative farming and experiments with way of life as a reaction to post-war industrial society and its foundation on material values [Christensen, 1998, Holmegaard 1997]. The new “settlers” were in need for information and know-how. They could provide some general information from the biodynamic farmers but demanded also more practical know-how. As a reaction to that need, an organic farmer introduced in 1973 a magazine labelled “Bio-information” where he in brief articles provided practical know-how. Besides, he offered courses for a week or two where he trained the new or potential organic farmers [Holmegaard, 1997; various nos. of Bio-Information]. Further, some biodynamic farmers and their organisations started to act as consultants to the new organic farmers [Claus Loehr-Petersen, interview].

Such initiatives were looked upon with shaking heads from the established society including agriculture and its consultants and scientists. In 1973 an agricultural advisor wrote that biodynamic and organic methods would ruin the soil. As late as in 1980 an associated professor at The Agricultural University expressed that biodynamic farming belongs to exorcists, ghosts, and witches – and in the most positive case to gnomes [Holmegaard, 1997].

However, the grassroots pioneers continued their efforts with experiments aiming at more sustainable way of life. The experiments included also renewable energy. The experiments and critical reflections related to farming were also carried on and new knowledge was provided and distributed. In 1975 the environmental organisation NOAH published a book about industrialisation of farming and the related consequences to environment and human health. In 1977 a handbook on rural settlement was published by a group of students and teachers from the architect school in Copenhagen. The handbook provided practical information on how to live a sustainable life [Freja 1977]. In 1979 a book about the cultivated nature was published and that book can be seen as the first comprehensive lecture on why organic farming is needed, and the author found a great deal of his inspiration in farming methods practiced in early 1950s [Christensen 1998, 67].

Simultaneously, another practical and symbolical milestone was reached, when Svanholm manor (at Zealand, close to the Danish Capitol Copenhagen) was bought by a group of people to be established as a – seen in Danish perspective – new kind of cooperative where families could live in a collective way – a part of them could work on the manor and a part outside. The invention in Danish perspective was that Svanholm tended to be a community more than mere housing. The Svanholm cooperative was established in 1978 and the belonging farm (about 350 hectares) was by the founders declared to be cultivated by use of organic methods. [Bjerre 1997b, 9]. Through the following 15 years the Svanholm Cooperative succeeded in converting the land to organic methods. Svanholm was then for several years the biggest organic farm and became in general known as a pioneering force in the evolution of organic agriculture in Denmark. In this connection it should be mentioned that several individual persons also managed to establish pioneering farms in the 1970s but Svanholm was a very visible actor because of magnitude and the explicit aims for in general to change way of living.

The founding of Svanholm was related to the discourses raised by the so-called “Agricultural Study Group” in late 1970s. The group consisted of a mix of persons like agricultural students (both from farming schools and the agricultural university), young farmers, persons involved in the alternative housing groups (cooperative movement), academics occupied with alternative technology and alternative ways of living, and political activists around gender and general critique of capitalist society [Lynnerup 2003]. Several of the attending persons would fall into several of the categories. However, their common basis was a critical attitude towards conventional agriculture although they founded their critique on different grounds:

- Critique of industrial methods in farming especially due to environmental externalities
- Critique of industrialisation of agriculture especially due to its effects on rural ways of living (pressure on family farms, dis-embedding agriculture in rural cultural and economic life)
- Critique of capitalist society especially due to its effects on property rights to land and slavery for financial institutions and/or restricted possibilities for women in agriculture. [Holmegaard 1997, Hedeboe 1995, Lynnerup 2003]

By way of establishing Svanholm as a cooperative with organic farming all three critical grounds was to some degree considered. By employing organic methods in farming the environmental externalities could be diminished. By means of founding a big cooperative, a cultural and economic community could be established and maintained. By organising the property as a cooperative, the members only had to buy the manor once and avoid financing of generational shifts.

Parallel to the discussions in the Agricultural Study Group, discussions occurred in biodynamic groups and in groups founded in natural scientific perspectives. The biodynamic groups were marked by internal disagreements on how rigid the biodynamic rules should be interpreted [Claus Loehr-Petersen, interview]. These disagreements implied that the biodynamic agriculturists were split into two organisations from 1974 and can be seen as one possible explanation of why the biodynamic movements influence on the evolution of organic agriculture in Denmark was limited. Simultaneously, the groups founded in natural scientific perspectives deliberately wanted to draw distinct demarcation lines to the biodynamics. The former wanted to state organic farming as a technology based on solid scientific grounds and to through away the mysterious reputation attached to biodynamics. To underline these aims and especially to signal scientific foundation, the groups introduced the special Danish name for organic farming: “ecological farming”. [Østergaard 2003, Hedeboe 1995, 6]

Primary production and economy

For this period there are no valid data concerning production at farm level and concerning the economics of organic production. As mentioned biodynamic farms had been in business since the 1930s but there were only a few and they typically sold produce directly to a small, stable group of interested consumers or to conventional processing companies.

Of organic farms there were only about a couple of handfuls and most of them were part-time or hobby farms.

Distribution and sales

Production of organic foods was limited in the 1970s and so was of course also distribution and sales. Organic foods were only supplied through health stores, markets, and at the stable door. However, the discourse among critics of conventional farming methods and the difficulties to buy organic foods implied the establishment of wholesale societies on a private, decentralised basis. Svanholm managed to establish an arrangement with Danish consumers' retail cooperative (FDB, the major retail company in Denmark) about deliveries of organic vegetables.

Measured at traditional parameters of quality (especially looks) the organic produce could not meet the expectations of the consumers and simultaneously the organic produce was rather expensive compared to conventional [Bjerre 1997(a), 19; Bjerre 1997(b), 13]

Conventional agriculture

In the span of years described in this chapter, the conventional agricultural sector was marked by the fact that Denmark became a member of the EEC. That fact gave rise to a great deal of optimism because the sector then could benefit from the Common Agricultural Policy and the admittance to the EEC markets. The optimism for instance showed in 1977 where a governmental white Paper (primarily provided by hands of the farmers' organisations) claimed that contemporary problems with unemployment and deficits of the Danish balance of payments could be solved by means of expanding the agricultural production [Ingemann 1998].

The environmental discourse did not affect the conventional sector. In 1971 the governmental Pollution Board pointed out that there were negative environmental effects of contemporary farming. However, the trade denied any pollution and when the Danish Environmental Protection Act passed in 1973 the parliament refused to impose any restrictions to agriculture referring to the claim that no environmental harm could be ascribed to the trade. [Ingemann 2002]

Summary

Increasing political and public awareness of human impact on environment marked the era from 1972 to 1981. In that connection some segments pointed at conventional agricultural practices as unsound for the environment. However, the authoritative interpretation was still that conventional farming was harmless to environment. A few grassroots pioneers then grabbed the spoon themselves and established experiments with organic methods and established alternative ways of obtaining and distributing experience through courses, books and magazines. The most spectacular experiments were attached to the manor Svanholm, where the cooperative by means of magnitude gained great importance and influence.

Simultaneously a few segments among consumers started to buy organic partly through the formation of wholesale societies.

Thus, a certain interest for organic methods and products was dawning but the magnitude of organic production and consumption was still very marginal.

Chapter 3: Rallying the organic way (1981 to 1987)

This span of years marks an époque where organic agriculture evolves from experiments made by a few pioneers to an institutionalised part of Danish agriculture. Simultaneously, conventional agriculture is beginning to run into trouble due to rather spectacular problems in aquatic environments – these problems are immediately met with a non-decision strategy which in the long run seemed impossible to maintain – the environmental effects of industrial farming were put on the authoritative agenda together with animal welfare. Organic agriculture seemed to have an answer to both problems which could rally the alternative and gradually institutionalise it.

Institutionalisation by means of organisation

The Agricultural Study Group, that as described in chapter 2 consisted of a mix of persons with alternative views on agriculture, invited in January 1980 to a public meeting at the cooperative manor Svanholm. The purpose of the meeting was to consider the establishment of a national organisation for organic farming. The participants welcomed the initiative and recognised the need for such an organisation. At the meeting the participants agreed to prepare the establishment, and in 1981 The National Association for Organic Agriculture (LØJ) was established.

Opposite to the conventional farmers' organisations (Danish Farmers Union and Danish Family Farmers), LØJ was established as an organisation for both farmers and consumers and in that way an expression of a holistic approach. On the other hand it is claimed [Ingemann 2003] that the formation of LØJ obviously was an expression of strengthening the organisational basis by means of excluding parts of the organic movement focussing more on a more general critique of capitalism and of the loss of rural way of life as it was expressed by parts of The Agricultural Study Group (see chapter 2). The fact is that consumers played an unobtrusive part in LØJ and that LØJ focussed more on the mere farming aspects of organic agriculture. This focus on farming approach was underlined in 1982 when the National School of Organic Farming was established to ensure the supply of a professional education of organic farmers.

There were two main tasks for LØJ in the first years. One was to establish rules and standards and the other was to establish an inspection system and an attached label. By establishing rules and standards LØJ had to substitute the former vague fluffy understanding of organic farming with a more clear-cut definition. In doing so, LØJ put focus on the abandoning of chemicals and the necessity to respect the ecological logic of biological processes. However, they also stressed a more holistic approach in the rules and standards by underlining cooperation with consumers, conventional agriculture, and research- and educational institutions as a goal [Christensen 1997, 68 f.]

Also the task concerning the establishment of an inspection system was completed, so in the early 1980s the consumers were able to choose organic foods labelled with the LØJ logo. LØJ also registered the brand “økologisk” (ecological), so farmers who wanted to sell organic foods had to join LØJ and its inspection system [Geer & Jørgensen 1996, 9]. The communication was in the first years facilitated by means of a newsletter that until 1988 was rather unambitious and with focus upon internal communication only.

1981 was also the year where the periodical “Praktisk Økologi” (practical ecology) started. A company that was specialised in publications about nature and biology published it and the

editor (who had an academic degree in natural sciences) was one of the pioneers in organic farming. The periodical contained articles describing how to practice organic farming and gardening, and it propagated national and international knowledge and experience in the field. It was characteristic that the articles were knowledge based but simultaneously organic methods were looked upon as small scale and simple technology. *Praktisk Økologi* became in this rallying period the most important source of practical, knowledge based information for the established – and especially the new coming – practitioners.

In 1982 the next crucial milestone was reached when the National School for Organic Farming (DØJ) was established. In Denmark farmers are traditionally educated at Farming Schools. These are founded and governed by farmers' organisations on a regional basis but mostly financed by government. DØJ was founded at the same legal basis but as a national school. The foundation of DØJ was an answer to the increasing demand for education and know-how among the increasing number of organic farmers and a few conventional farmers that showed interest in organic methods. More symbolically DØJ was also a signal about aims of professionalizing the organic sector. DØJ was like the other farming schools able to offer the official Danish Farmers' education but determined to organic methods only. Besides, as is the case with conventional schools, DØJ was able to offer in-service courses. [Jubilæumsskrift; Christensen 1997, 68;]

The steps towards professionalizing the organic way carried on and in 1984 LØJ, the two biodynamic organisations, and the family farmers' organisation reached an agreement after which organic and biodynamic farmers were offered advising from the family farmers' advisory service. The necessary financial support was secured by means of the green majority in the Parliament [Holmegaard 1997, 7; Landbrugsmagasinet nr 38 1986]. Co-operation with the Danish family farmers was obvious why organic farming contemporary was looked upon as a typically small scale technology. Simultaneously, the family farmers' organisation was squeezed in the increasing amalgamation that followed industrialisation of farming especially from the 1960s. So part of the actors inside the family farmers' organisation saw organic agriculture as a possibility to slow down amalgamation and to revitalise small and medium size farms.

In 1985 biodynamic farmers and consumers established their own inspection system under the brand "Demeter". The biodynamic way didn't however get the same proportion of public attention as the organic.

Pressure on conventional agriculture

The organic sector was rallying and did so with certain interest from mass media. The latter primarily laid down a consumer-perspective and interpreted the organic way as an opportunity to provide better, more authentic foods, better animal welfare and less harm to the environment. However, this public interest didn't in the beginning imply similar interest from the political authorities. As mentioned in chapter 2, the Danish parliament refused to impose restrictions on agriculture when the environmental protection law was passed in 1973. The argument was that it had not been conclusively documented that a pollution problem existed that could be ascribed to the trade. The non-decision strategy thus succeeded, as environmental issues were excluded by definition from the agricultural policy field [Ingemann 2002]. In 1980 the American ministry of agriculture published "Report and recommendations on organic farming". In that report organic farming was defined and several arguments in favour were presented. That report was important to Danish organic agriculturists because they here could refer to authoritative sources in a show down with the mysterious label that some actors

in Denmark tried to put on the organic way [Holmegaard 1997, 19]. Neither the American report did affect the Danish authorities.

1984 marked a turning point. The background was an increasing number of reports about deoxygenation and fish kill and of cases where the values for nitrate in drinking water were significantly unacceptable. After this, the Danish Environmental Protection Agency (EPA) found it impossible to ignore agricultural pollution and initiated a research project to document this. A steering group for the project was formed, in which representatives from the Ministry of Agriculture participated. In the report, the latter tried to hold on to the non-decision strategy, for example by claiming that the pollution was caused by wastewater from households, not agricultural fertilisers. The EPA proposed a green tax on fertilisers, while the Ministry of Agriculture found that information to the farmers would suffice. The report clearly exposed the disagreement between the EPA and the Ministry of Agriculture. Subsequently, the Minister for the Environment ordered the EPA to prepare an action plan in co-operation with the agricultural organisations. The plan demanded storage capacity for manure and economic support to establish such plants, but it didn't indicate any goals for reduction. During the implementation stage, the agricultural organisations used their influence to further dilute the plan via negotiations with the EPA and the National Association of Local Authorities; the latter because the municipal authorities would be in charge of inspection at the farms. From the complex point of view of agricultural policy, the outcome was successful because taxes were avoided and replaced by limited regulation and new subsidies.

However, experience dictated that it probably would not be possible in the long run to keep environmental problems out, so the Ministry of Agriculture decided to include it in the agricultural policy field on its own terms. In 1984 it formed a commission for the structural development of agriculture and environmental issues. Trade representatives dominated the commission, and the environment was not represented. The commission issued a report in 1986, and its conclusions on the environment agreed with the Ministry of Agriculture's policy in connection with the 1984 action plan [Betænkning nr. 1078]. [Ingemann 2002]

The ink in the report was hardly dry before the agro-political community lost control for a while. Environmental organisations had pointed out that the 1984 plan was inadequate. In 1986 there were new severe cases of deoxygenation in Danish waters, and intensive media coverage forced the government to act. It proposed an action plan to be filled in after negotiations with the agricultural organisations (where the organic farmers' association did not count as an agricultural organisation). The then green majority in Danish parliament was not satisfied and passed a resolution that forced the government to prepare an action plan that aimed to reduce agricultural nitrogen discharge by 50% within three years. In the political negotiations, the green majority advocated a fertiliser tax in agreement with the EPA's basic recommendation. After serious pressure from among others The Danish Family Farmers' Association, the Social Liberals dropped the tax, the green majority crumbled, and in 1987 the Social Liberals made a compromise with the government about the first Aquatic Action Plan (AAP I). The plan contained the demanded reduction goal, but exclusively through soft regulatory and informative means. Furthermore, the Prime Minister decided that the Ministry of Agriculture to a large extent would implement the plan. [Ingemann 2002]

In the intermezzo described above it became obvious that it was no longer possible to maintain a non-decision strategy in relation to conventional agriculture and environment. Thus, organic farming also appeared gradually more as a relevant and obvious alternative seen from

an authoritative point of view. The ministry of agriculture published in 1986 a report from a commission [Landbokommissionen 1986] that says that organic farming can obtain increasing importance in the following years although it will only be as a niche. The report also stated that the premium prices attached to organic foods would necessitate a “conversion” of the consumers. The report defined organic agriculture [page 78] as a question of farm management only (e.g., excluding certain industrial inputs, rotation crop and recirculation of resources). Also the ministry of environment published a report in 1986 where organic farming was put on the agenda and the report advocated for public support especially to compensate conversion costs [Miljøministeriet 1986, 48]. In this report it was stated that organic agriculture is not just a matter of farm management but that the ministry delimited their considerations in accordance with the ministerial resort.

However, organic farming was brought on the authoritative agenda. In 1986 the governmental agricultural research institution started to comparative studies of conventional and organic systems and in 1987 the Agricultural University founded a position in organic farming.

Acceptance and second thoughts

Organic agriculture was becoming more accepted and was brought to the authoritative agenda. That fact raised some second thoughts among several of the pioneers. They were afraid that the movement would get stuck in the governmental marmalade and that organic agriculture would be reduced to a matter of avoiding pesticides and chemical fertilisers only [Holmegaard 1997, 34; Christensen 1997, 70-71]. This reductionism was seen in the two 1986 reports on organic farming where the definition was delimited to farm management although the report from the ministry of environment admitted that organic agriculture was more than that. However, the steps were taken and organic agriculture was put into a new trajectory.

Primary production and economy

As described in chapter 1, Danish economy was in the first part of the 20th century depending upon agriculture. That is why Danish agriculture traditionally has been very well described, which by the way still is the case. However, data are primarily provided by way of the farmers’ organisations (Farmers’ Union and Danish Family Farmers). Through their advisory services they have access to almost all farmers’ bookkeeping and then access to a broad variety of primary data at the farm level. Some of the organic (and biodynamic) farmers were members of the conventional organisations but did not (until 1984) have access to special advisory services and were not registered as organic (or biodynamic) farmers. That is one of the main reasons why there is no valid data available about the economy of organic farming in this period.

Dawning markets

In the beginning of the 1980s it became possible to buy organic vegetables in some of the consumers’ cooperatives (FDB) but only very limited quantities were available. The organic consumers were still very few and the majority of the consumers did not show any interest in organic foods. The supply was limited, prices high compared to conventional foods, and there was no or little marketing and general information [Bjerre 1997 a, 16-21].

The distribution through FDB was facilitated by a contract between FDB and LØJ. The contract stated that FDB would distribute and market organic produce and that LØJ – then the only certifier of organic products – would certify the farmers and the products. Until the second half of 1980s the assortment only consisted of vegetables. The co-operation with FDB

was seen as an important recognition of organic agriculture and it implied that it already at this early stage was possible to buy organic in supermarkets [Hedeboe 1995, 6-7].

Processing of organic foods was very limited. In 1986 a single dairy (Grindsted) began to produce organic cheese. The dairy was private and co-operated with a few organic milk farmers in Northern Jutland [Jensen og Michelsen 1991 a, 29].

Chapter 4: Inclusion and expansion (1987 to 1992)

While the period from 1980 to 1987 was marked by organisation of the organic sector and rather successful attempts to draw social attention to it, 1987 marks the year where organic farming obtained governmental recognition. The crucial milestone was reached when Danish Parliament passed a law about organic farming – the so-called “økologilov” (ecology law). That was a crucial milestone because it symbolised the authoritative recognition of organic farms as a part of Danish agriculture and because it implied the entrance to a new era where the organic movement got access to the agro-political complex and then had to undertake the role as a responsible actor.

Conventional agriculture under pressure

As mentioned in chapter 3, conventional agriculture came under increasing pressure in the mid 1980s due to problems in aquatic environment especially linked to overuse of fertilisers in farming. In spring 1986 the national TV news broadcasted a feature telling about fish kill in Kattegat (the sea north of Zealand and Funen). In the feature a fisherman showed a bunch of dead lobsters and the latter became a symbol of the battle between conventional agriculture and the surroundings. The feature symbolically revealed that action had to be taken. [Inge-mann 2002]

The farmers’ associations tried to avoid regulation, especially by claiming that the debate was a media creation intended to persecute a decent trade, crucial to Danish economy. Several protest meetings were organised by farmers’ associations against victimisation and to emphasise the obligation of national politicians to defend and protect farmers against absurd and emotional attacks, especially from the political left [Landsbladet and Landbrugsmagasinet November and December 1986].

Simultaneously a public debate about subsidies to organic farming was carried on. A former social democratic minister of agriculture was ready to support organic farming and the then present minister (liberal) would not refuse that subsidies to organic farming could be adequate [Landbrugsmagasinet no 40 and 50 1986]. The Family Farmers Organisation (that in 1984 introduced service to organic and biodynamic farmers) was also positive. On the other hand the Farmers Union strongly opposed. The president stated that “*you begin a new production if there is a commercial market – you do not run to government to ask for support to this and that*” [Landbrugsmagasinet no 38 1986]

As a basis to understand the key role of Danish Family Farmers and the Social Liberals it is necessary briefly to describe one person linking the two together. Hans Larsen Ledet was vice-president in Danish Family Farmers and MP for the Social Liberals. In the latter role he also acted as spokesman in agricultural affairs. He was a key actor in the agreement about advising service to organic and biodynamic farmers in 1984. He was also a key actor in the political negotiations prior to the ecology law. To the family farmers he explained organic farming not as competition to conventional farming but as new possibilities [Landbrugsmagasinet 40 1986]

New possibilities did however also trigger members of the Farmers’ Union at the end of 1986. In their magazine one of the vice-presidents stated that several members would like to know more about the market for organic foods and wish to become a part of the organic advisory service as established between LØJ and the Family Farmers [Landsbladet 50 1986]. That wish was granted in January 1987 [Landsbladet 4 1987]

The Socialist Peoples Party proposed in November 1986 a parliamentary decision about support to organic farming. Their proposal consisted of five points:

- Establish a governmental certification scheme and label for organic produce
- Establish an advisory board under the minister of agriculture with one member appointed by the minister of agriculture, one member appointed by the minister of environment, one appointed by the family farmers and three appointed by the committee for organic and biodynamic agriculture⁷. The board should establish rules etc., related to certification and labelling.
- Provide subsidies to innovations in organic foods
- Provide conversion subsidies to organic farmers up to five years
- Increase the number of organic advisors

The party remarked in Parliament that they would expect the expenses to amount to 25 million DKK in 1987 [Folketingstidende 1986-87, Tillæg A 1413-1422]

A few days later, Hans Larsen Ledet proposed a law about organic farming in Denmark. He stated in parliament “... *it is now the time to pass a law for organic farming. It is necessary to provide guidelines and definitions for organic farming and that we provide guarantees to the consumers that when they buy organic it really is produced with organic methods*” [Folketingstidende 1986-87, FF 1924-1925, my translation JHI].

The proposal from Larsen Ledet consisted of the following main elements:

- The aim of the law is to promote the evolution of organic farming in Denmark
- Establishment of an advisory board under the ministry of agriculture to promote, follow and evaluate the evolution and possibilities of organic farming
- The advisory board consist of one member appointed by respectively the ministry of agriculture, the ministry of environment, the biggest organisation for Biodynamic agriculture (LBF), LØJ, Farmers Union, Danish Family Farmers and the consumer board. The representative from ministry of agriculture is president.
- Governmental subsidies to promote organic farming that equals 10 million DKK in 1987, conversion subsidies for one year
- Establish certification of farming, processing, distribution, marketing, transport, etc. related to organic foods. Certification etc. will be decided by the minister of agriculture

[Folketingstidende 1986-87, Tillæg A 1499-1504]

The latter proposal was rather similar with the proposal from Socialist Peoples Party except for a couple of important differences. The proposal from Socialist Peoples Party gave more power to the advisory board for instance to decide rules related to certification. The board did not count members from Farmers Union and the consumers’ board in the proposal from Socialist Peoples Party. The board counted three members appointed by organic/biodynamic farmers in the proposal from Socialist Peoples Party but only two in the proposal from Larsen Ledet. Finally, the proposal from Larsen Ledet only contained subsidies for 10 million DKK

⁷ The committee was established to secure co-operation between LØJ and the two organisations for biodynamic agriculture. It was especially active in the establishment of advisory services.

and subsidies to conversion for one year while the proposal from Socialist Peoples Party had 25 million DKK and conversion subsidies for up to five years.

Parallel to the political debate a working group in the ministry of agriculture was elaborating on a report of organic farming in Denmark. The report was published in December 1986 and stated that yield was 10-20 percent lower in organic and that organic foods might be able to reach a share of 10 percent of the market and that there could be interesting possibilities for exports. The report also contained recommendations such as:

- Subsidies for conversion
- Establishment of a certification scheme
- Establishment of an advisory board with members just as in the proposal from Hans Larsen Ledet.

[Geer & Jørgensen 1996, 9; Medlemsblad for landsforeningen Økologisk Jordbrug 1987 no 33, 18]

LØJ was very pleased with the public exposure of organic farming and in general very content with the prospect of a law for organic farming. The organisation was lobbying to obtain maximum influence on the details [Ibid]

In parliament all parties except one right-wing protest party revealed a positive attitude towards organic farming and the need for public support. The minister of agriculture (liberal, the party traditionally representing members of Farmers Union) said for instance in one of the debates that government looked upon organic farming as an interesting and seemingly promising opportunity for Danish agriculture, so the government found it fair and right to give public support to organic producers [Folketingstidende 1986-87, FF 5058-5098]. Other arguments presented in the parliamentary debate:

- The Social Democrats would like to support organic farming but found the proposal from the Social Liberals to modest. Further they claimed that the small and medium size family farms would be the most important actors in organic farming.
- The Conservative Party found that organic farming was a niche production that might evolve to some thing bigger and more important.
- The Liberal Party was missing a discussion about what organic farming is. They also advocated for the possibility that farmers could farm a part of their land as organic and the rest as conventional.
- The Socialist Left Party criticised the proposal for operating with organic farming as a niche. According to the party-spokesman, organic ought to be the dominating way of farming. Further, he criticised that the Farmers Union should be a member of the advisory board – The farmers Union had never liked the thought of organic farming but explicitly contested it; so what kind of interest could they have in joining the board the spokesman asked.
- The Progress Party (right wing protest party) stated that they did not contest organic farming but in principle it should be a decision left to the single farmer. The parliament should neither interfere with subsidies nor regulations.
- The Social Liberal Party found the positive interest overwhelming.
- The Socialist Peoples Party pointed out that the bourgeois parties had changed their attitude. A couple of month before they had ridiculed organic farming and now they were suddenly in favour.

[Folketingstidende 1986-87, FF 5058-5098]

In the following months Parliament were working with the proposal. There were only a few changes and only a few debates. In one of them there was an argument whether the Social Liberals or the Socialist Peoples Party should be credited the fact that a new law about organic farming was soon to become a reality. In another debate the Progress Party provided a new argument against the law: it could harm the exports of conventional agricultural goods because it would signal that conventional goods are second class and unhealthy. However, May 14th 1987 the law passed with all votes in favour except the votes of the Progress Party. [Folketingstidende 1986-87, FF 11807-11809].

The content of the law

The law ended as a synthesis of the proposals from Social Liberals and Socialist Peoples Party although the result was closest to the proposal from the former [Landbrugsmagasinet 21 1987]. So the Farmers Union became represented in the advisory board, LØJ and LBF (the biggest organisation for biodynamic farmers), and the committee for organic and biodynamic farming got each a representative.

The budget became 10 million DKK the first year to cover subsidies to conversion and initiatives for developing purposes. The latter could be given to projects that were seeking to solve special starting problems related to processing, marketing, distribution, etc. of organic foods. These means could also be used to support development of materials to education and information and to experiments, including experiments at the farm level. [Jordbrugsdirektoratet 1992, 64].

However, the most crucial element in the law might be that only farmers that were inspected by the Plant Directorate (directorate under the ministry of agriculture) could sell their agricultural goods as organic. In other words, whether foods were organic or not was from now on a matter of approval from governmental authorities and no longer a private matter between producer and consumer.

Second thoughts – again

As mentioned above, LØJ was pleased with the interest from the surroundings in general and from the authorities in particular. With the ecology law (and especially through the advisory board) LØJ finally got access to the ministry of agriculture and to the exclusive agro-political complex. Just after the law was passed, it was written in the LØJ newsletter, that the law was good and considered the point of views LØJ had been fighting for in several years [Medlemsblad 37 1987]. But it was also stated that the big organisations suddenly were interested in organic farmers and that the future would show whether LØJ was strong enough to keep the ideals. It was further stated that the two conventional organisations (Farmers Union and Danish Family Farmers) from spring 1987 was in charge when it comes to organic advisory services and that government with the new law would be in charge of certification and inspection of farmers and products [Medlemsblad 36 1987]. Many members of LØJ were afraid that LØJ would get stuck in the governmental marmalade, loose influence, and forget the values and principles upon which organic agriculture was originally based. In the new governmental system, organic might be reduced to a matter of farm management practices only. That debate continued the rest of 1987 (and for that matter have continued until now), for instance reflected in the newsletter September 1987 where it was stated: *“Utopian rules that can not be practiced are not adequate, but it is still necessary to stick to our Utopian ideas; we must continue to discuss and shape the aims and principles behind organic agriculture. The pressure to compromise ... with economic and natural scientific arguments will increase in connection*

with the “governmentalisation” of the organic movement” [Medlemsblad 38 1987, my translation JHI].

The debate about the core of organic farming and the risk to lose it continued. In 1990 Troels Østergaard (one of the pioneers in the introduction of organic farming in Denmark and the key person behind the magazine *Praktisk Økologi* re chapter 3) stated that organic farming were in lack of a proper and adequate environment for research and development. He found that research and development were carried out on terms set by conventional agriculture and without any understanding for the rationale of organic methods. He argued that when you are brainwashed at the Agricultural University, and are busy doing your daily work as researcher or consultant, then it is difficult to understand the basics of organic farming. [Økologisk Jordbrug 72 1990]

The red Ø label

From 1987 a governmental certifying scheme was institutionalised to ensure consumers that produce and processed foods actually were organic. However, the authorities did not have a label to put on certified products but it was still possible (and most actors in the industry demanded) to use the LØJ logo as label. As described, the name for organic was in Denmark chosen as the Danish word for ecology (økologi) and the ministry introduced a governmental label with the Danish letter “Ø”. The system implied that the Plant Directorate (department under the ministry of agriculture) should certify and control organic farmers while the veterinary authorities would certify and inspect processing, distribution and retail sales. The certified products could then from 1990 be labelled with the red Ø [Geer & Jørgensen 1996, 9-11, Landbrugsministeriet 1992, 51-65; Landbrugsmagasinet 21 1987, Økologisk Jordbrug 58 1989]. The label was not an immediate success because the supermarkets were not prepared to market it in the beginning. [Økologisk Jordbrug 64 1990]

In 1990 the law expired. There was however general agreement in Parliament that it was still for some years necessary to give subsidies to conversion to organic farming and in March 1990 the law was prolonged till 1993.

Debate about sustainable agriculture

Around 1991 and 1992, a widespread social debate about sustainability started in Denmark. The starting point was the Brundtland-commission report [World Commission, 1987]. The debate was primarily organised through collaboration between various movements. Many private as well as public institutions were inspired to frame action plans for sustainability, for example, action plans for Danish farming provided by the ministry of agriculture and most farmers’ associations. Almost all these action plans redefined sustainability from a concept of environmental long-term survival of man to a concept of short-term economic profit for farmers and, to some extent, of social economy. The dominant notion of the plans was: consideration for the business economics and social economics of the agricultural trade implies that we must prioritise the ability to compete (infer implicitly competition on prices). It is essential to avoid restrictions regarding, e.g., the environment, unless they are applied internationally. It was also stated that no one has the right to interfere into the farmer’s property right to manage land as he finds it appropriate [Thomsen & Ingemann, 1992]. LØJ criticized the action plan from the ministry of agriculture for being without perspectives [Økologisk Jordbrug 81/82 1991]. For instance the ministerial action plan gave agriculture 8 years to meet the demand for decreasing nitrogen leaks.

However, LØJ also presented a plan in spring 1991. The main aim of the plan was to convert Danish agriculture into organic methods within 15 to 20 years. The conversion would, according to LØJ cost 2000-2500 DKK per hectare but due to other social benefits the conversion would imply an economic gain to society. The primary mean should be taxes on chemical fertilizers, pesticides, and on emission of gases. In this way it would, according to LØJ, be possible to meet the demands from World Commission on halving the use of energy.

Production, processing, and distribution

As mentioned in chapter 3, production of organic cheese started in 1986. 1988 is the year where organic drinking milk was marketed on a larger scale. In February 20 organic farmers from Jutland and Funen started a dairy in Southern Jutland and started deliveries to 15 health stores and 10 supermarkets. They also managed to get a contract with FDB (the Danish retail co-operative) but the contract was shortly after abandoned because FDB was tied to an exclusive contract with the two dominating dairy companies. The latter wanted to market organic milk themselves. [Ingemann 1999, 14, Økologisk Jordbrug 42, 1988]

In august a co-operation between organic farmers from Northern Jutland and a small private dairy (Thiese) was established. They produced drinking milk, butter and cheese. They experienced – just like the other small dairies that it was very difficult to enter the market especially due to exclusive agreements between supermarket chains and the two dominating dairy companies. The dairy was very innovative but in the first years brought in an economic squeeze due to the difficulties to market the products. [Jensen & Michelsen 1991, 22].

The organic dairy farmers tried to attend their interests and established (also in 1988) the organisation “Dansk Naturmælk” (Danish Natural Milk). The purpose was to gather all organic dairy farmers, coordinate their interests and to establish a commercial coordination of marketing. The background was especially the fear that the entrance of the two dominating dairy companies at the market would squeeze the organic farmers (as the two companies hoped that organic milk was here today and gone tomorrow). However, the initiative around Naturmælk did not evolve as planned due to internal disagreements. A part of the organic farmers found it adequate to co-operate with the two dominating dairy companies, and thus the commercial part of Dansk Naturmælk did not start until 1990. [Jensen & Michelsen 1991 a, 60-66, Ingemann 1999]

In 1987 FDB started to market organic bread in co-operation with one of the major bread factories. However, in 1988 they stated that sales had evolved catastrophic. On the contrary, vegetables sold very well from 30 tons in 1981/82 to 2.200 tons in 1987/88 [Økologisk Jordbrug 46/47 1988]. In autumn 1988, FDB decided to launch a campaign to stimulate sales of organic foods in the FDB supermarkets. The president stated that there were no scientific proofs that organic foods are better to human health but they were better to nature – and that is the reason why FDB wanted to increase its sales. [Økologisk Jordbrug 50 1988].

FDB was as mentioned doing rather well in the market for organic vegetables. The biggest private actor in groceries (Dansk Supermarked) tried to market biodynamic vegetables but with very limited luck. In November 1988 the company stated that it was losing money in the attempt because out of total sales at 600 million DKK in vegetables only 1½ was in biodynamic vegetables. [Økologisk Jordbrug 52 1988]

The market for organic vegetables was in the end of the 1980s and beginning of 1990s dominated by a few actors among the producers with own packing facilities. Until the beginning of

the 1990s it was normal practice that organic vegetables were distributed in paper bags and without prior washing. The argument was that the vegetables would be fresher in that way. From the beginning of the 1990s the organic vegetables were washed and sold in plastic bags – the only visible difference between these and conventional vegetables were then the organic label but sales accordingly increased. The main distributor was still FDB and its daughter company Irma. [Jensen og Michelsen 1991 b, 9-11].

The agricultural advisory centre published in May 1989 an analysis of the costs for consumers who bought organic. The conclusion was that the average Dane should spend 161 DKK pr month if he consequently should buy organic. The figure should be compared to a monthly average spending of 862 DKK which imply that the surplus cost would equal to 18 percent. The author of the analysis pointed out that the surplus cost was rather easy to overcome, and that consumers could just spend a little less on for example cigarettes, liquor or gasoline. The consumer council – on the other hand – did not share this attitude. For a family with two children a surplus spending of about 500 DKK per month would be difficult and the council found that consumers would not be willing to stop smoking just to be able to effort organic foods. [Økologisk Jordbrug 56 1989]

An information campaign was planned to take off in the summer 1989. The plan was to address farmers, consumers, and food industry. The committee (Jordbrugsrådet) did agree to finance the campaign but the ministry of agriculture refused to accept it. The argument was that the project was too comprehensive and the ministry was then not able to trace the money spending. [Økologisk Jordbrug 59 1989]

1989 was also the year were discussions about marketing of organic meat were intensified. FDB was also in that field the market leader and increased during the year the number of supermarkets where it was possible to buy organic beef. [Økologisk Jordbrug 54 og 63 1989]. The supermarket chain Irma (owned by FDB and only operating at Zealand) experienced very positive consumer reactions to organic foods. Already in 1990 Irma could state that organic milk reached a market share at 25 percent in the chain and that the chain would like to include more organic foods in the product line. [Økologisk Jordbrug 64 1990]

In the beginning of the 1990s a handful of new processing and distribution companies were established. The organic farmers had current discussions concerning whether to try to convince existing co-operatives to include organic foods in their product line or to establish new companies (in some way organised as new co-operatives⁸) with only organic foods in the product line. Roughly speaking most of the newly converted farmers did put stress on being a part of Danish agriculture (which includes close ties to the cooperative sector) and wanted organic foods to be a supplementary product line in the existing agro-industrial complex. On the other hand, organic farmers who rather had the wish to radically change agriculture and its relation to surroundings, did not thrust the existing agro-industrial system and found it necessary to establish alternative systems from scratch. Another heavy argument for new companies came from experience with organic meat as described below.

Until the 1990s most of the organic products marketed were vegetables and drinking milk while the other major product group in Danish agriculture, meat, was almost non-existing in the market for organic foods. FDB started in 1989 to market organic pork in co-operation with the association of Danish slaughterhouses (Danske Slagterier) and several organic farmers

⁸ Some were organised as corporate firms but then with the farmers as shareholders.

with pigs. A large-scale marketing campaign launched the new initiative and the costs (2.5 million DKK) were covered by FDB, Danske Slagterier and the Ministry of Agriculture by way of the committee. The analysis of the market showed that FDB would be able to sell around 30,000 organic pigs per year. However, the project was a failure and FDB was only able to sell less than 2,000 organic pigs per year in spite the fact that organic pork was marketed in the FDB supermarkets with the biggest market share for organic products. Already in May 1990, FDB decided to stop the project and gave the farmers notice that the agreement would be terminated. In the term of notice, FDB sold the organic pork as conventional. [Michelsen 1992, 15-22] FDB stated that organic pork was too expensive which refrained consumers from choosing the organic variety. [Økologisk Jordbrug 68 1990]

The termination of the FDB project implied that a major part of organic farmers with pigs were left without channels for distribution. Thus, the farmers had to find alternatives if they would stay in business. In the spring 1990 a new company Øko-kød (eco-meat) was founded to market and coordinate sales of organic beef and pork. The company was founded as a sort of cooperative with organic farmers as organisers and owners [Økologisk Jordbrug 70 1990]. In 1992 Øko-Kød was reorganised as a joint-stock company under the name Friland Foods A/S (free-range foods ltd.). The farmers in Øko-Kød got well about half of the stocks in the new company, and Øko-Kød was from then reduced to an association of organic meat producers. Friland Foods was established to market both organic meat and non-organic free-range pork and should give advisory service to the farmers and secure them high profits by coordinating the amounts produced and marketed. [Michelsen 1992, 41-52]

As mentioned above Øko-Kød entered the market for organic meat in spring 1990. Already in fall same year, a competitor entered the market. The new company Naturens Venner (friends of nature) was organised as a joint-stock company with the attached producers as shareholders. The aim of the company was to market organic beef and pork and to shorten the distance between producers and consumers. [Michelsen 1992, 55] The company for instance stressed that the consumers should be informed about the producer and his farm when consumers bought a piece of meat. Naturens Venner was only in business hardly a couple of years before it was closed down due to lack of liquidity.

A third company for organic meat was also founded in 1990. The company BioKød (bio-meat) was part of a company for organic vegetables founded to deliver organic vegetables to a supermarket chain (Irma) owned by FDB. BioKød got in 1991 an agreement with FDB that secured the former was the only supplier of processed meat to the latter. BioKød stated that they would concentrate their business to supply big supermarket chains because they found it do difficult to distribute their products to small shops and to restaurants. [Michelsen 1992, 61 ff].

In fall 1990 the national grain cooperative entered the organic market. Till then a smaller private grain company at Funen was the only one at that market. [Økologisk Jordbrug 72 1990]. The national grain cooperative (DLG) did not succeed in entering the organic market and decided after about a year to withdraw.

As mentioned in the previous chapter, two small dairies were established as important actors in the market for organic milk and cheese. These Dairy had a broad product line while Grindsted Dairy concentrated its efforts on cheese. In the late 1980s Thiese found itself in an economic squeeze because it was difficult to get access to the big chains; FDB was tied to the biggest dairy cooperative that preferred to deliver organic milk themselves. However, in the

beginning of the 1990s These succeeded to establish effective channels of distribution and in 1990/1991 the business was so profitable that the dairy decided to invest in a doubling of production capacity for drinking milk. They also made an agreement with Grindsted (both dairies located in the Northern part of Jutland) to “borrow” some of their producers to enhance deliveries of milk to be worked up to drinking milk. [Jensen & Michelsen 1991 a, 22]

In February 1991 organic beer was marketed by one of the smaller Danish breweries. They cooperated with the supermarket chain Irma that sold the beer. In the beginning production was very limited because it was difficult to get the necessary produce in organic quality. Simultaneously with the introduction of organic beer, Irma could state that the key to sell organic potatoes was found. Instead of brown paper bags, Irma introduced organic potatoes in transparent plastic bags and the potatoes were washed (and then looked just the same as conventional potatoes). According to Irma washing was also able to solve a quality problem. When the potatoes were washed it was easier to sort out potatoes of poor quality and in general Irma found that consumers wanted uniform products. [Økologisk Jordbrug 79 1991].

Organisations for organic agriculture

LØJ was founded in 1981; after nine years the number of members had been steadily increasing and in 1990 LØJ counted 1251 members. The number covered farmers, consumers, processing industry, and subscribers on the LØJ magazine. However, in 1989 LØJ could for the first time experience a slight decrease in the number of active farmers among its members. [Økologisk Jordbrug 64 1990].

The traditional way to organise agriculture in Denmark is a 2-string system. The first string is general organisations (primarily Farmers’ Union and Danish Family Farmers) where the organisations attend general interests of farmers such as agricultural policy, general business policy, advisory service, general information, etc. The second string is special organisations which again can be divided into two sub-groups, that is organisations attending input, processing, marketing, and distribution (the agricultural cooperatives) and organisations attending interests of special producers (breeding societies, milk producers, pig producers, vegetable growers, grain producers, etc.). The coordination between the two strings is carried out through the Agricultural Council where general and special organisations are represented.

The organisational scheme in organic agriculture differed in the beginning because LØJ was the only organisation when you exclude the biodynamic organisations. The general picture has always been that the agricultural organisations only include farmers (as producers or as cooperative owners of firms) while LØJ included farmers, consumers, processors, and distributors. However, in late 1980s the organisational picture of organic agriculture approached the general because a 2-string system was introduced. In 1988 – after the law about organic agriculture and attached subsidies was introduced – a special organisation, BKU (industry coordination committee) was founded. BKU was founded as an umbrella organisation and simultaneously seven associations for special branches were founded. The seven branches were:

- Milk
- Beef
- Pork
- Grain, fodder, and seed
- Vegetables
- Fruit and berries
- Eggs and poultry

BKU should take care of practical functions as secretariat, information, and coordination of supply. BKU was funded by the ministry of agriculture and could not deal with sales and marketing. [Landbrugsministeriet 1992, 70]

In February 1990 the LØJ general assembly concluded that LØJ should be more powerful and co-operate with organisations in organic industry and also increase co-operation with general environmental organisations. [Økologisk Jordbrug 66 1990] The general assembly also stated that LØJ should still carry on its own certification. As a reaction to these conclusions, a student at the national school for organic farmers wrote a statement in the LØJ magazine where she advocated that LØJ rules and certification was very close to the governmental. Government had taken over the LØJ monopoly on organic rules and certification and it was thus inadequate that LØJ would carry on with its own rules and certification scheme. Instead, she advocated, LØJ should evolve as an organisation concentrating its efforts on ideological and principal themes. [Økologisk Jordbrug 64 1990].

Although other members supported the call for leaving special rules and certification and turn LØJ into a more ideological course, LØJ prolonged its agreement with FDB in 1990. The agreement implied that FDB would only distribute produce certified by LØJ. [Økologisk Jordbrug 76 1990].

In 1991 LØJ made an agreement with the Danish Plant Directorate, the ministerial authority certifying and inspecting organic farms. The agreement implied that the Plant Directorate would carry out inspection at farms certified by LØJ according to the LØJ rules. [Økologisk Jordbrug 83 1991]. However, already in February 1992 FDB denounced the agreement with LØJ. This implied that FDB would no longer demand that produce was certified by LØJ. [Økologisk Jordbrug 85 1991]. In consequence LØJ decided temporary to suspend its own rules, and the argument was that the governmental rules now were so good that LØJ did not need its own rules and certification scheme. [Økologisk Jordbrug 88 1991].

Besides the debate about certification, some of the LØJ members advocated that LØJ only took care of the interests of big farmers and forgot small and middle size farmers. [Økologisk Jordbrug 66, 1990 & 88 1991].

Chapter 5: Absorption (1992 to 2000)

From the end of 1992 the debate about organic farming was intensified. The reason was that the law should be revised in 1993. From the ministry of agriculture it was proposed that the law should be continued with only minor changes. Among the changes was that the work for marketing should be intensified. Simultaneously it was suggested that the subsidies for conversion should be raised to 4200 DKK per hectare. The subsidies was hitherto 2600 for farms without animals and 3800 for farms with more than 0.7 animals⁹ per hectare [Økologisk Jordbrug 99 1992]

The government resigned the day where the new law should have been debated in Parliament. In March a proposal was published but LØJ was very unsatisfied with it. The proposal for instance would give 400 DKK per hectare to organic farmers for avoiding pesticides while conventional farmers could obtain 1250 DKK in environmental subsidies for reducing use of pesticides and fertilisers [Økologisk Jordbrug 103 1993] However, the law was not passed in parliament in April and it was then decided to prolong the old law for another year [Økologisk Jordbrug 105 1993].

In the following month the frames for a new law was intensively discussed. However, it was revealed that there was not a majority in parliament for the wishes from LØJ related to subsidies. The minister found that LØJ's proposal would imply unrealistic high subsidies for organic farmers [Økologisk Jordbrug 106 1993]. In June there was published a proposal from the minister [Økologisk Jordbrug 106 1993].

In December 1993 LØJ entered for the first time the debate about the general agricultural law and the concentration and specialisation of farms. LØJ stated that size of farms should be limited and a more heterogeneous production at every farm should be ensured. In that way it would be possible to slow down further industrialisation of farming and guide the agricultural production into a trajectory were organic methods are increased [Økologisk Jordbrug 111 1993].

In October 1994 a new minister of agriculture was presented. In an article in the LØJ magazine he was presented as a man in favour of organic agriculture – however in an interview in the magazine, he denied to give any promises. [Økologisk Jordbrug 130 1994]

One of the major unions also entered the debate about organic farming. It was SID (general workers union) who among others organise farmhands. In 1995 the union published a report that demanded a total conversion of Danish agriculture to organic methods in 30 years. The main argument was that Danish society could save billions of DKK because conventional agriculture leaves a bill especially for environmental damages. In organic farming this bill is internalised in the trade prices. [Specialarbejderforbruget 1995]

In connection with negotiations about the Budget for 1996, organic farming was brought to the agenda. The government wanted to double the subsidies for a three year period where a part of the increased sum should be used for research and development purposes related to organic farming. [Økologisk Jordbrug 130 1995]. In spring 1996 the government further made an agreement with the two left wing parties to use 10 million DKK to support organic pig production [Økologisk Jordbrug 137 1996]. Further they agreed to subsidise organic plant

⁹ Calculated so that one standard animal equals one cow with breed and for instance three sows with breed.

farmers with extra 36 million DKK. The argument was that it is easier to convert farms with cattle than farms without animals and it was also pointed out that there was lack of organic grain for feeding purposes. [Økologisk Jordbrug 139 & 141 1996]

Organic farming and foods was by now well known by the Danish population. The Technological Council (founded by Parliament) made in 1997 a survey about attitude to organic agriculture. The survey revealed that two out of three Danes found that Danish agriculture in general ought to be converted to organic methods. The survey also revealed that every second farmer agreed. [Økologisk Jordbrug 147 1997] Same year did the Technological Council present a report where it was stated that a total conversion of Danish agriculture was possible. The production of milk could be maintained while production of pigs would be reduced with almost one third. The report stated that it was very difficult to answer whether it from a social point of view would be economic beneficial for Denmark to carry out total conversion. [Økologisk Jordbrug 157 1997]

Related to negotiations in Parliament about the Budget, government suggested funding to promote sustainable (ecological) fishing. LØJ was against the concept of ecological fishing¹⁰. The government and an association of fishermen aiming at sustainable fishing proposed a blue Ø brand¹¹. LØJ stated that rules can not be inspected for fishing and further argued that you can not control where the fishes grow and what they eat. For that reason LØJ was afraid that a blue Ø label could harm the creditability of the red Ø label. [Økologisk Jordbrug 162 1997] In 1999 a group of experts founded by the Ministry of Agriculture suggested that fish from fish farms under certain rules and certification could use the red Ø label. The group also advocated against a blue Ø label.

In fall 1997 the government made a proposal concerning organic foods in public cantinas, kindergartens, schools, etc. The right wing parties in parliament were against because they found that the proposition would signal that conventional foods are second class. However, the conservative party found that it would be OK to buy organic foods but government should not decide it. [Økologisk Jordbrug 161 1997]

The government decided to make an agreement with the left wing Parties concerning the Budget. In relation to that agreement it was also decided to pass a new tax on pesticides and a part of the taxes should be directed to LØJ to pay for development, advisory service, information, and marketing. [Økologisk Jordbrug 163 1997] The subsidies for LØJ was finally decided in Parliament in august 1998 and amounted to 11.5 million DKK [Økologisk Jordbrug 177 1998]

In fall and winter 1997/1998 a new action plan concerning the aquatic environment was passed. Already in 1990 a report from the ministry of environment admitted that the goal from AAP I was still not reached, and in 1998 a new plan, AAP II was introduced, which preserved the goal and supplemented the means with voluntary schemes especially aimed at selecting areas for other purposes (e.g., afforestation) in return for economic compensation, and increased employment of organic production methods.

Pesticides were also subject to reduction efforts. The goal in pesticide action plan I from 1986 was a 50 percent reduction of pesticide agents as well as treatment frequency before 1997.

¹⁰ It is in this connection crucial to remember that the concept used for 'organic' in Denmark is 'ecological' (re the descriptions in chapter 2).

¹¹ Organic foods are in Denmark labelled with a red Ø (re chapter 3).

The means included demands for education (spraying certificate), various counselling and information activities, but also taxes on pesticides, which were, however, charged back to the trade. But as the goal wasn't reached in this area either, pesticide action plan II was adopted in the spring of 2000, and as in the 1986 plan, counselling and information were presented as central means. Furthermore, it points to regulation of pesticide use in particularly sensitive areas as well as an expansion of the organically cultivated areas [Ingemann 2002].

LØJ welcomed AAP II and characterised it as a break through because it explicitly made use of organic agriculture as a mean in environmental policy [Økologisk Jordbrug 166 1998] LØJ did also relate this break through to the current work with a new action plan for organic farming – the new action plan must according to LØJ give further high priority to organic farming now that it is a mean in the work for bettering aquatic environment [Økologisk Jordbrug 172 1998].

The second action plan for organic farming was launched in February 1999. One of the conclusions was that the organic grown soil would increase to 10 percent of the total farming area in Denmark. The action plan contained 85 recommendations made by the advisory committee for organic farming. According to the ministry of agriculture, the action plan should be seen as a catalogue of ideas to increase magnitude of organic farming. The major difference between the first and the second action plan was that the former put primary focus upon farming and conversion while the second put more focus upon processing and marketing which among others LØJ, Danish Family Farmers and the Agricultural Council found adequate. [Økologisk Jordbrug 188 1999]

EU and the CAP

In May 1992 the MacSharry reform was passed. In the early 1990s the EEC Commission seriously dealt with the negative effects of the increasing industrialisation of farming. The considerations resulted in the MacSharry Plan, which was based on the fact that the original aim of CAP - self-sufficiency when it comes to food inside the EEC - was achieved long ago and replaced by a surplus production causing environmental, financial, rural, and other unintended side effects. It was also pointed out that the largest and most intensive producing farmers received most of the subsidies, while farmers in general still found themselves in an income squeeze. The reaction among Danish farmers was mostly similar to the reaction to the environmental debate in the 1980's. For instance, Danish farmers burned MacSharry, then EEC commissioner, in effigy. After massive lobbying from European Farmers, in which Danish associations played a key role, and perhaps in collaboration with industrial manufacturers related to agriculture, the plan was modified so that the farmers producing the largest amount of produce still receive the largest amount of transfers. [Ingemann 2000]. However, the difference was that the 1992 reform implied that subsidies was not given to grain but as payments per hectare without any upper limit – so the more land, the more subsidies [Ingemann 2002].

In January 1993 the spokesman in agricultural matters for The Social Democratic party (who about a year later became minister himself) criticised the agricultural minister for not using the opportunities given in the MacSharry reform to strengthen organic farming. He said that farmers need an economic incentive to convert to organic farming, and it was the wish of the party that organic farming should increase from a niche to a technology of major importance to Danish agriculture. [Økologisk Jordbrug 191 1993]

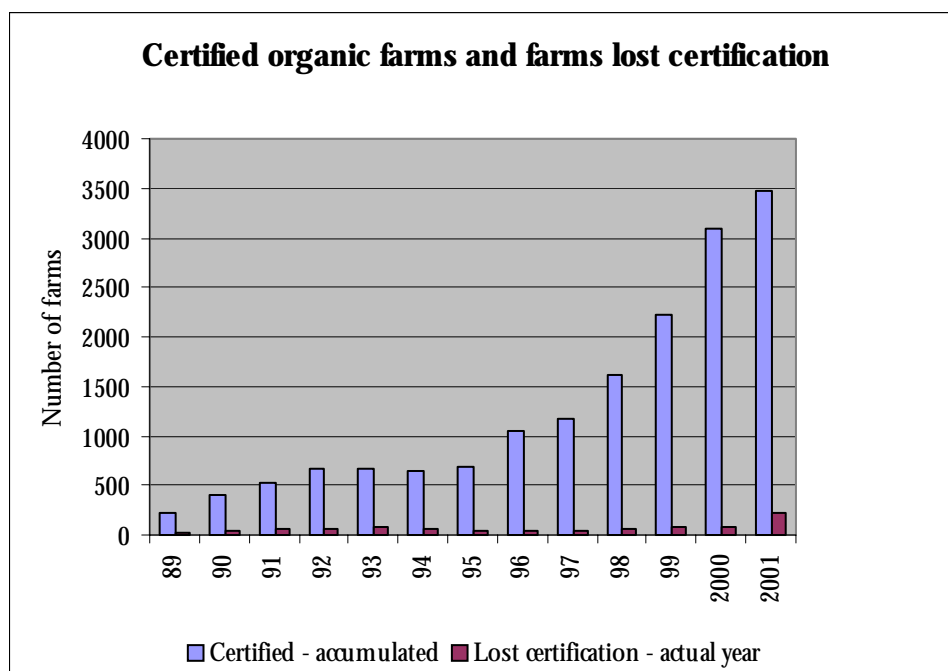
In December 1992 EU stated the possibility to use GMO's in organic foods and feed [Økologisk Jordbrug 101 1993] but in May 1997 the EU Parliament passed a moratorium for GMO's in organic production. [Økologisk Jordbrug 151 1997].

In October 1996 new common EU-rules for organic animal production was discussed. LØJ was sceptical towards the new rules because they would imply a longer conversion period than hitherto and hard demands concerning feeding and treatment of ill animals. [Økologisk Jordbrug 142 1996]. However, the rules are passed but not until June 1999. In March 1997 the minister of agriculture declared that he was ready to change the Danish rules in connection with the Ø-label. The background was that new EU rules would allow more additives in organic foods. [Økologisk Jordbrug 147 1997]

A new reform concerning the CAP was passed and presented a broader view on agriculture, especially by incorporating a multifunctional view. However, LØJ was disappointed with the new reform. They had hoped for mere support to organic farming. The president of LØJ, Bo Læssøe, stated that Agenda 2000 did not contain any major improvements for organic farmers, or for conventional farmers who would like to convert. [Økologisk Jordbrug 191 1999].

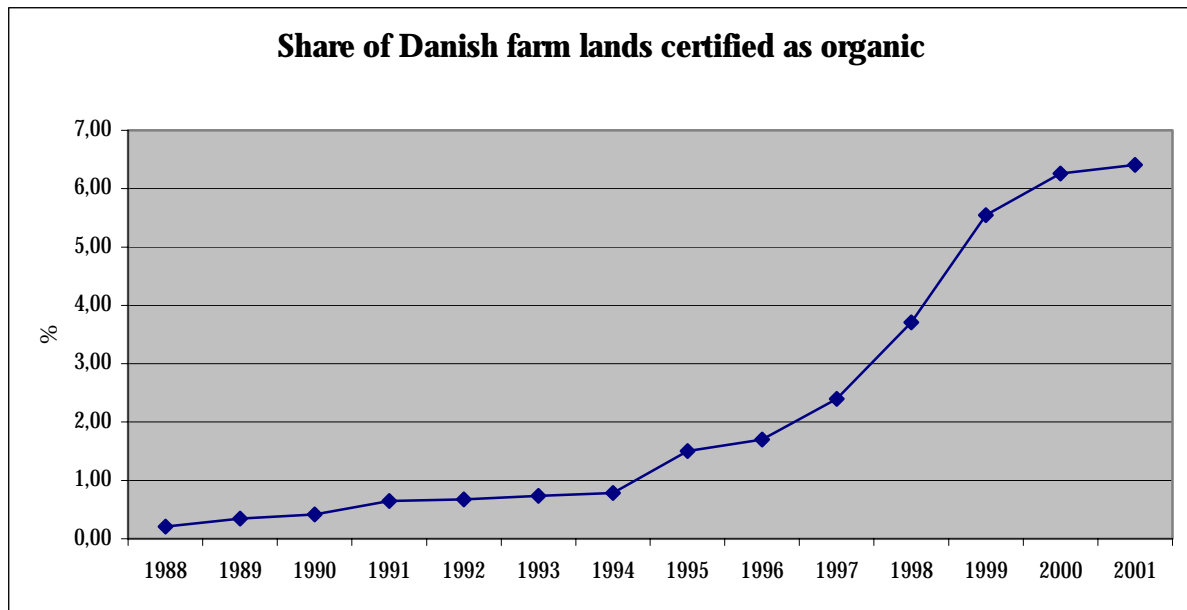
Primary production and economy

On the following pages we illustrate the evolution of organic production in Denmark for the span of years described in this chapter.



Source: Plantedirektoratet

The general picture is dominated by a remarkably rapid expansion of organic production at the farm level. This fact resulted in a relatively dramatic increase in the share of land that was farmed with certified organic methods. However, the evolution also reveals that in the end of the period described, the expansion rate dramatically decreased which could indicate that the potential for organic farming under the contemporary conditions was close.



Source: Danmarks Statistik

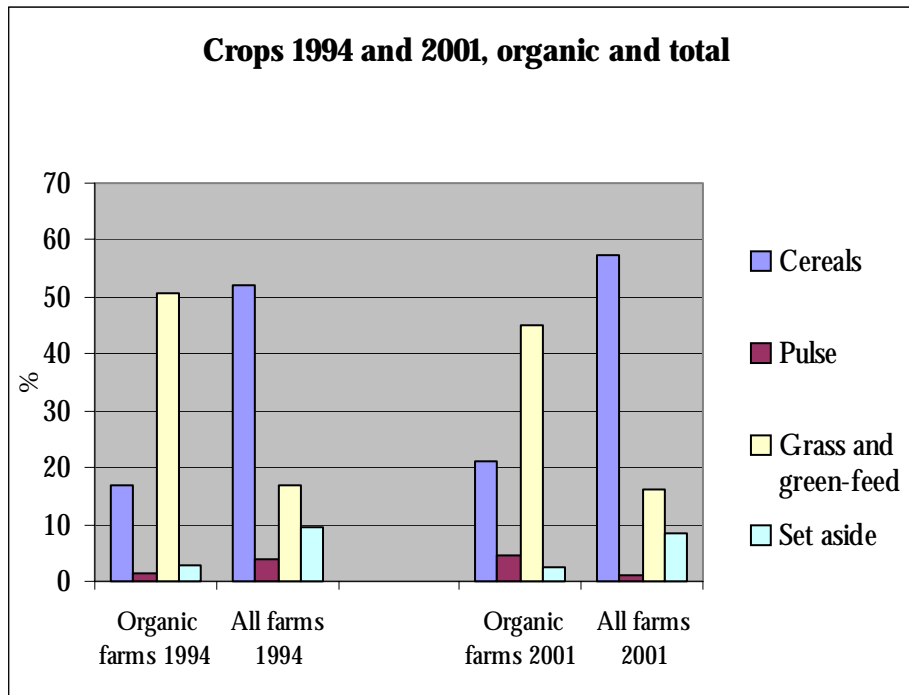
As described in the former chapters, the early birds amongst organic farmers were pioneers from outside agriculture starting on small scale farms. The table below illustrates that the share of farms engaging organic methods amongst the smallest farms was still high (figures from 2002) but it also reveals that the evolution since then inferred that the increase in farms engaging organic methods primarily took place among big scale farms which indicates that the increase took place among professional full time farmers which also indicates the tendency to commercialisation as described in the present chapter.

Size of farms (percent per category)

	< 5 ha	5-9,9 ha	10-19,9 ha	20-29,9 ha	30-49,9 ha	50-99,9 ha	>100 ha
Organic farms	11,6	14,6	18,7	10,4	11,9	18	15,3
All Danish farms	2,1	15,8	19,1	12,5	15,9	19,9	13,1

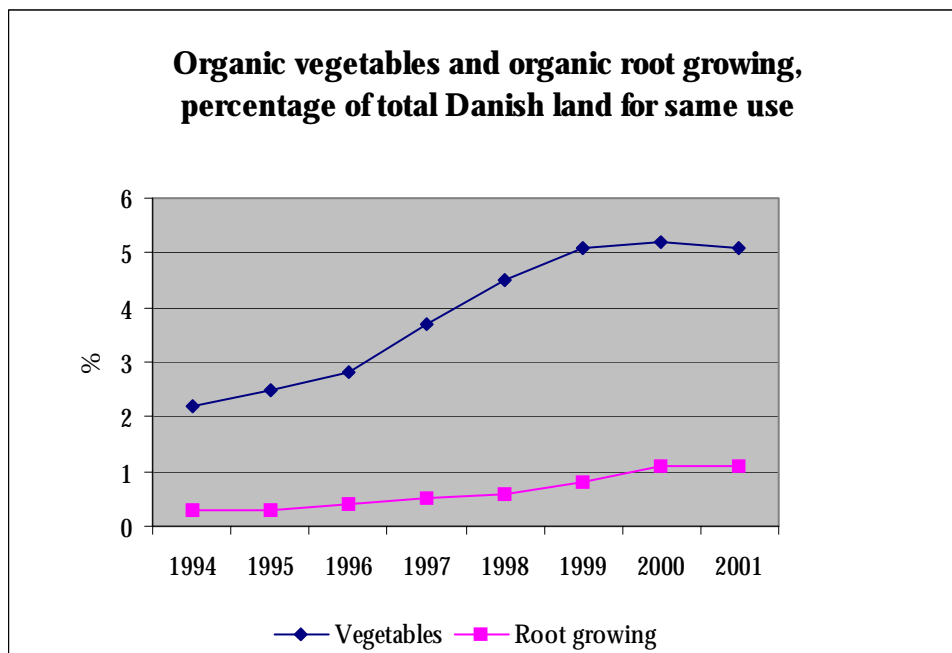
Source: Plantedirektoratet

Comparing the organic crops in the beginning and the end of the span of years described reveals that the share of cereals has been increased on the expense of grass and green-feed.



Source: Danmarks Statistik

We can also reveal that the amount of organic vegetables was increasing (and more than doubling) in the span of years described.



Source: Danmarks Statistik

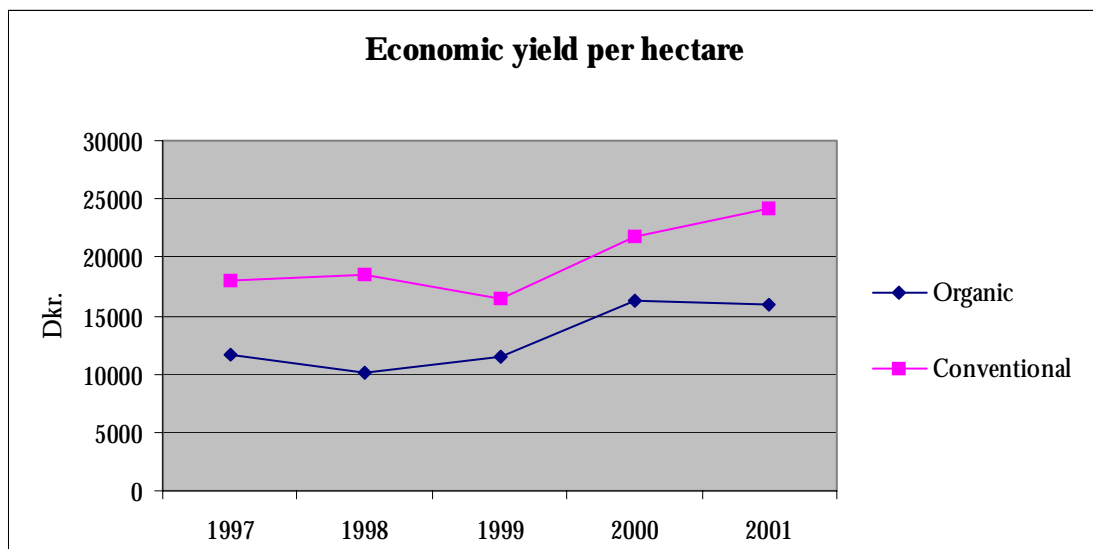
Similarly it is revealed that a dramatic increased was registered in the share of animals held by organic farmers especially when cattle and pigs is considered although the expansion was from a very low level concerning pigs.

Percentage standard animals held by organic farms

	1996	2001
Cattle	2,69	10,6
Pigs	0,1	0,5
Poultry	2,28	5,71
Others	0,67	3,11

Source: Danmarks Statistik

The only comparable indication of the economic outcome we have found for the span of years considered in this chapter is the economic yield per hectare as illustrated below. It reveals that the yield has been lower but that the fluctuations to a very high degree follows that of conventional agriculture.



Source: Danmarks Statistik

Organisation of organic agriculture

As described in chapter 4 the organisation around organic agriculture approached the conventional way in that sense that a 2-string system (general respectively special string) was introduced, i.e. BKU and the seven associations for branches were established.

In 1992 BKU was abolished and a new organisation for the second string established. The new organisation ØLC (national organic centre), got the task to provide general information about organic farming and foods and to coordinate marketing. Like BKU, ØLC should also function as an umbrella and administrative unit for the associations of branches.

In the summer 1997 the president of ØLC got a seat in the Agricultural Council [Økologisk Jordbrug 155, 1997]. The argument was that organic farmers now were a big part of Danish farmers and that the Agricultural Council coordinates the efforts of Danish farmers and decides how to allocate the common means (for instance private taxes on produce to support marketing, information, and other common purposes). So ØLC found it obvious to seek influence on common policies and matters. LØJ took another position and argued that policies for organic agriculture should be decided independently of conventional farmers and that a membership of the Agricultural Council could confuse the social surroundings and make them believe that organic agriculture was just an integrated part of conventional agriculture. While

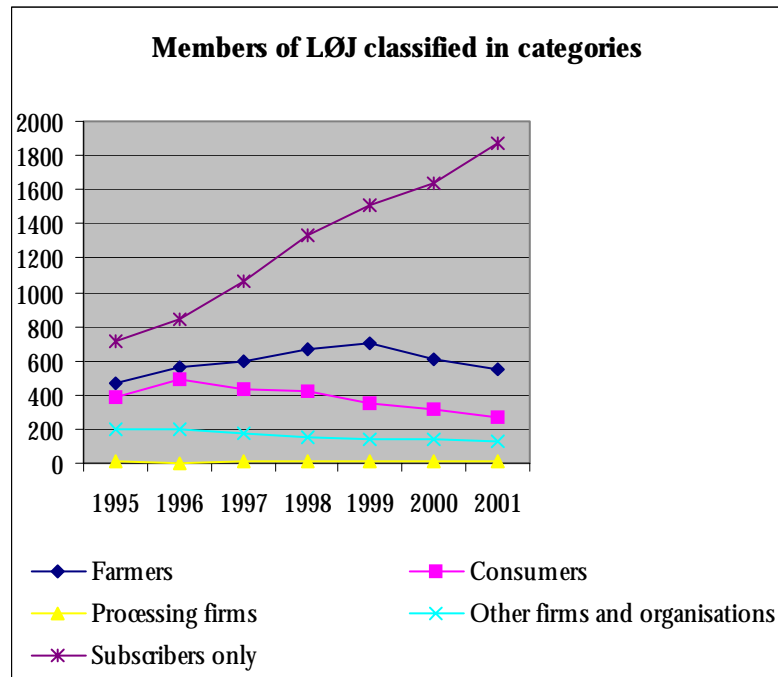
ØLC was determined to enter the Agricultural Council, LØJ decided to leave the board of ØLC to underline, that LØJ was not a part of the general agricultural establishment. [Økologisk Jordbrug 161 1997]

The intermezzo about the ØLC membership of the Agricultural Council did not stick very deep and it tended to be forgotten soon. In the end of 1997 the two strings of organic agriculture decided to go into closer co-operation. Till then they had a common domicile but from the end of 1997 they decided to have a common managing director and to establish four common departments for policy, professional matters, information and members respectively. [Økologisk Jordbrug 162 1997].

The internal discussions in LØJ were in general (and roughly speaking) marked by the fact that most members in general are satisfied with the way things are evolving. At the general assembly in 1997 the president stated that he was pleased with LØJ's possibilities to influence policies and political decisions related to organic agriculture. [Økologisk Jordbrug 162 1997]

In 1998 the discussions in LØJ were at first marked by dissatisfaction with the EU regulation concerning organic farming and foods. The Danish rules was from then to a high degree determined by EU and LØJ found that the EU system was too slow and inflexible, and that some of the EU rules were too lax. On these grounds LØJ suggested a new Danish "super brand" for organic foods with higher demands. However, government opposed the super brand because it could confuse the consumers if they should face several brands and it would simultaneously imply further bureaucracy. [Økologisk Jordbrug 160 1997 & 183 1998]

From 1998 internal discussions in LØJ also became marked by the fact that an increasing part of the organic farmers was conventional farmers that converted especially due to the possibilities to economic gain. A former president of LØJ (Henrik Kloppenborg) generally stated that this would not imply any problems because first they start to convert their lands, and then they will start to convert their minds. However, in 1998 new converters more explicitly attacked the policy of LØJ. The first attack came in the spring where several local presidents from Farmers' Union, who were simultaneously organic farmers threatened to leave LØJ because they found that the latter took the side of the Family Farmers in the general agricultural discussion about agricultural cannibalism. [Økologisk Jordbrug 166 1998] Later the same year new organic farmers stated that LØJ was showing a much too negative attitude towards conventional farming and they found LØJ's principal aim concerning 100 percent organic farming in Denmark as inappropriate and an expression of power-seeking. [Økologisk Jordbrug 185 1998]



Source: Økologisk Landsforening

Reactions from conventional organisation

As described in former chapters did the Danish Family Farmers at a relatively early stage acknowledge organic farming as an interesting opportunity. This attitude was not at least underlined by the fact that the vice-president of Danish Family Farmers, who was also MP and spokesman in agricultural matters for the Social Liberals, was a key person in the preparations for a law about organic farming and thus authoritative acceptance of the organic way. This fact did not imply that Danish Family Farmers *per se* was in favour of organic farming or in general an opponent to conventional farming. It was merely the case that a part of progressive members of the organisation saw an interesting opportunity for small and middle size farms in the organic market. Small and middle size farms were squeezed in the agricultural treadmill and cannibalism (Ingemann 1998) due to a market for foods dominated by satiety, decreasing prices per unit produced and rapidly increasing prices on land.

The Farmers' Union was slower to accept organic agriculture. It was Danish Family Farmers that founded co-operation concerning advisory services with LØJ and Farmers' Union joined later. Danish Family Farmers was also the first organisation to form a special section for organic farmers among their members. Besides, Danish Family Farmers was the first among the conventional organisations to elect an organic farmer as vice-president which was the case in 1993. [Økologisk Jordbrug 102 1993]

In 1996 a report was published from the Danish Association of Cooperatives. The aim of the report was to analyse perspectives for Danish cooperatives till 2010. Among the conclusions was that increasing production and sales of organic foods would necessitate changes in the way cooperatives are organised. For instance it might be adequate to divide the cooperative shareholders in different divisions with divided responsibility and right of voting. [Økologisk Jordbrug 141 1996]

The attitude to organic farming became gradually more positive. A survey made for Farmers Union in 1997 revealed that 10 percent of the Danish farmers considered conversion and 16

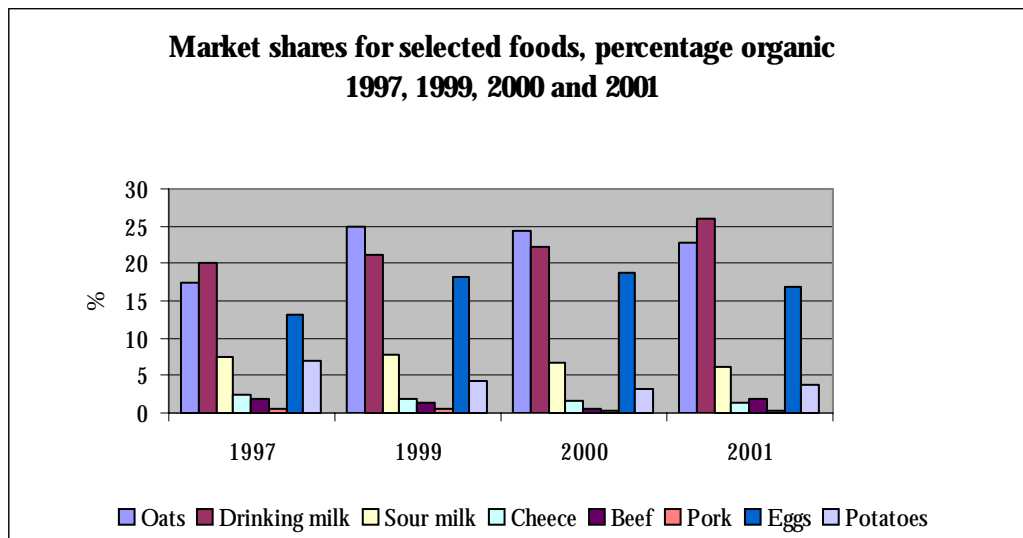
percent agreed (in total or partly) that Danish agriculture should aim at organic methods. This result is however quite different from the result in the survey mentioned above from the Technology Council, that revealed that every second farmer was in favour of total conversion of Danish farming. The manager of the survey made for Farmers' Union explained the difference as caused by oral answers (in their own survey) and answers in writing (in the survey from the Technology Council). The president of Farmers' Union stated based on the organisations survey that farmers are willing to change but you should not force changes. The survey also revealed that farmers with small and middle size farms showed the most positive attitude towards organic farming which is in line with the comments mentioned above concerning the Family Farmers. The president of the Family Farmers also stated in that connection that you should not force changes and that he did not believe in total conversion of Danish agriculture. [Økologisk Jordbrug 152 1997]

As mentioned above did a part of the members of Farmers' Union, who were newly converted organic farmers, take a critical stand towards LØJ in 1998 and threatened to leave LØJ. However, the same year did the president of the Agricultural Council (who traditionally is also the president of Farmers' Union) state, that organic farming was no longer just a passing vogue as conventional farmers believed in the beginning of the 1990s. He stated that it would be realistic to evolve 15-20 percent of Danish farming as organic in 10-15 years and he simultaneously revealed that he himself might be organic farmer in some years. [Økologisk Jordbrug 174 & 184 1998] A couple of months later, the chairman of the Farmers' Unions' committee on economy stated that conversion to organic methods might save conventional grain producers from economic ruin. He especially advised small producers to convert and stated that he himself was ready to do so. [Økologisk Jordbrug 185 1998].

In 1999 the chairman of Danish Family Farmers' section for organic farmers warned organic farmers against tendencies to industrialise organic farms. He found that the trajectory had changed from farming adapted to natural and local conditions to organic industrial farming. [Økologisk Jordbrug 188 1999].

The positive attitude towards organic farming did however not imply parallel critical attitudes towards conventional farming. For instance did Farmers' Union and Danish Family Farmers in 1999 invite to a common meeting with the press to tell that stop for use of pesticides would be a catastrophe for Danish farmers and Danish economy. [Økologisk Jordbrug 190 1999] The occasion was that a governmental committee (the so-called Bichel-committee) in a report stated that Danish farmers could decrease use of pesticides with 31 to 43 percent with no special economic consequences. Further, the committee evolved scenarios for at total conversion of Danish agriculture. [Bichel-Udvalget 1999]

Production, processing, and distribution



Source: Aktionsplan II og Økologisk Landsforening

The distribution of organic foods was especially from the late 1980s taken care of by the traditional supermarkets with the consumer owned FDB as the key-actor. Organic foods were then sold as a variety of the assortment but in spring 1992 a young business man from Aarhus (the second biggest city in Denmark) announced that he was ready to establish the first organic supermarket in Denmark and that the Ministry of Agriculture had accepted to subsidise with 300,000 DKK. The organic supermarket should aim at minimising the use of packing and wrapping. For instance consumers should be able to bring their own bottles and tap milk from a big container in the supermarket. It was also the idea to buy as much as possible directly from producers. [Økologisk Jordbrug 90 1992]. However, the organic supermarket did not become any success and was closed down briefly after the establishment.

As stated in chapter 4, sales of meat ran into trouble in the early 1990s. However, in 1992 there was evidence that demand for organic beef was increasing. Øko-Kød introduced a new strategy; they would sort beef with poor traditional quality out and sell it as conventional, so it was only top-quality (measured on traditional parameters) that was sold as organic. [Økologisk Jordbrug 93 1992]. In general the demand for organic meat was still at a very low level; in October 1992 an account revealed that organic meat held a market share below one percent and that around 40 percent of organic beef was sold as conventional and then without premium price. [Økologisk Jordbrug 98 1992]

In July 1993 the biggest supermarkets in FDB introduced organic foods at discount prices. They permanently lowered prices on 40 organic products 15 to 20 percent. This strategy gave immediate pay off and the supermarkets increased sales especially in milk and vegetables. The discount strategy also implied that other supermarkets decided to follow a similar strategy. [Økologisk Jordbrug 107 1993]. The strategy further implied that supermarket chains that had hitherto avoided to market organic foods began to do so. [Økologisk Jordbrug 109 1993] At the top of the success, Irma announced in the fall 1993 that the chain would stop sales of conventional carrots and only market organic. [Økologisk Jordbrug 110 1993]. A survey in the fall revealed that the discount strategy implied that organic consumer prices in two years had decreased 15 percent and simultaneously the demand had markedly increased. The

survey also revealed that 40 percent of organic products had a surplus price of 30 percent which was the level consumers were willing to pay. [Økologisk Jordbrug 111 1993]

The discount strategy turned pessimism among organic farmers to optimism. Around 1992/93 the evolution of demand slowed down and simultaneously there were rumors that FDB would close down the Irma chain. This would be hard to organic farmers because Irma had been the most important pioneer in marketing of organic foods and sold relatively big amounts. Simultaneously organic farmers felt squeezed by light green conventional produce (integrated production). On these grounds some of the organic firms agreed to deliver at lower prices to FDB hoping in that way to increase sales and stay in business. A part of the deal was that FDB should increase their efforts in advertising. As mentioned the strategy was successful. [Hedeboe 1995, 8f]

In the summer 1994 a survey was carried out by Gallup. It revealed that three third of the consumers would choose organic if there was no premium price and that about half of the consumers were willing to pay a premium price for organic foods. About one half of the consumers stated that they were not absolutely convinced that organic foods always were produced according to the rules but only six percent found that this was a general problem. [Økologisk Jordbrug 118 1994].

As mentioned above, Irma introduced an organic beer but it was not any success. In 1995 one of the smallest Danish Breweries (Thisted Bryghus) introduced an organic beer that is still (2006) on the market and supplemented with special organic brews (export quality and beers for special seasons). Another middle-size brewery also introduced an organic beer same year. Also one of the major actors in the Danish deep freeze market began to supply organic varieties of deep freeze vegetables and several bakeries introduced organic bread. [Økologisk Jordbrug 124 125 127 1995] However, frozen vegetables did not turn up as any success. In 1996 the company decided only to market organic pees and explained the decision due to the fact that the production costs attached to organic deep freeze were three times the costs of the conventional and that consumers were only willing to pay a 20 percent premium price. [Økologisk Jordbrug 135 1996]

1996 was not in general a bad year for the organic market. FDB announced that the sales had increased 68 percent compared to the year before were sales also increased. [Økologisk Jordbrug 138 1996] However, the optimism only lasted until December where stagnation in the sales of organic vegetables was recorded. Organic farmers and companies accused FDB to have neglected marketing of organic foods and to have increased margins markedly. FDB rejected the accusations and asserted that their margins on organic foods were lower than on conventional and that they were still optimistic concerning future sales. Simultaneously, a survey from Danish Technical University revealed that two out of three bakeries making organic bread considered only making conventional in the future. One of the researchers explained that a major cause was that the bakeries used prepared mixes and then did not make the bread from scratch. The latter possibility ensured a high quality measured by traditional quality parameters and that was what the consumers expected when they were buying organic. [Økologisk Jordbrug 144 1996]

In spring 1997 the demand for organic vegetables were increasing again. The managing president of one of the major companies owned by organic farmers (Biodania) announced that sales had increased 30 percent compared to a year before. [Økologisk Jordbrug 150 1997]. The new optimism also implied that FDB again introduced organic meat by means of a cen-

tral slaughterhouse and by means of that also small supermarkets without slaughter would be able to sell the meat. [Økologisk Jordbrug 151 1997] According to FDB sales evolved much better than stipulated. [Økologisk Jordbrug 157 1997] Sales of organic meat were also expanding in other supermarket chains, although these sales did not increase as fast as in FDB. [Økologisk Jordbrug 158 1997] In general FDB could in the end of 1997 announce a 21 percent increase in sales of organic foods in the first three month and 33 percent in the following three month of 1997. This implied that the quarterly sales now were at the same level as the total sales per year in 1993 where the discount strategy was launched. [Økologisk Jordbrug 158 1997]

The increasing activity in the organic sector implied that the major grain cooperative (DLG) again entered the organic market in 1997. DLG established an organic division to coordinate and evolve sales of organic grain. [Økologisk Jordbrug 154 1997]

1997 also brought two new surveys of Danish consumers' organic shopping. The first revealed that 49 percent of the informants had bought organic foods within the last week and that result was the same as in 1996. The survey also revealed that most of the products bought were milk, eggs, and vegetables and only very few meat products and that the part of the consumers that expected to increase purchase of organic foods in the future was decreased from 41 percent in 1996 to 35 percent in 1997. [Økologisk Jordbrug 154 1997] The other survey revealed that three fourth of the consumers bought organic foods at least once from January to May 1997 which was an increase compared to the year before. It also revealed that 20 percent of the informants used more than 10 percent of their budget for foods on organic products. Finally the last survey revealed that most of the organic consumers were women and most were situated in Copenhagen. [Økologisk Jordbrug 156 1997].

Irma was still in business maintaining a high organic profile which implied that an increasing part of the assortment was only organic. That part was especially products where the premium price was limited compared to the conventional foods. Irma found that the strategy was successful and did not imply decreasing sales of products where only organic quality was offered. [Økologisk Jordbrug 159 1997].

FDB could announce increasing sales of organic foods too and they expected organic sales to cover almost 11 percent in 2001. The announced expectations was in the first three month of 1998 followed by an increase at 49 percent compared to the same three month of 1997; the increase also comprised organic meat where the quantity tripled – despite that fact, organic meat only had a market share below 0.5 percent. FDB and Friland Foods found that one of the complications related to organic meat was that the supply was very limited and due to that fact it was impossible to gain sales by way of heavy advertising. [Økologisk Jordbrug 167 & 172 1998]. Following the increased sales, FDB was ready to skip conventional bread in 73 bakeries in their biggest supermarkets and in the future only sell organic bread in these. This initiative implied that the Danish market for organic flour was emptied and that the grain mills had to import flour to satisfy the demands. [Økologisk Jordbrug 182 1998]

As mentioned above, FDB and Friland Foods found that the limited supply of organic meat was a problem. In the end of 1998 the situation was the opposite while there was a surplus supply and prices were decreasing. This fact was explained as a result of very low prices for conventional pork. Based on this evolution, the managing president of one of the major actors on the market for organic meat (Hanegal) urged farmers to lower their production. [Økologisk Jordbrug 182 1998]

Despite the problems with organic meat, the general sales of organic foods still increased in 1998 and 1999. According to FDB 1998 sales increased 33 percent and they expected sales to increase 60 percent in 1999 partly due to the fact that the bakeries of the biggest supermarkets now was only producing organic bread and a part of the middle-size supermarkets expected to do the same. Also other major chains could report increasing sales in 1999, although they did not still reach the level of FDB. [Økologisk Jordbrug 186 1999] The sales of organic foods in Irma were still increasing and in January 1999 Irma announced that 12.5 percent of the sales were organic. [Økologisk Jordbrug 189, 1999].

Although sales were still increasing in 1999, the organic dairies experienced stagnation in sales. The market share was now well about 20 percent but the growth rate was decreasing. In the same year the production of organic milk increased 80 percent, so the share of organic milk marketed as organic was rapidly decreasing which also implied decreasing prices to the farmers. [Økologisk Jordbrug 193 1999]

Another problem showed up in 1999. As described above did the bakeries in the biggest FDB supermarkets only make organic bread but a part of the bakeries experienced decreasing sales especially in smaller cities while the conversion was more successful in Copenhagen and other big cities. Decreasing sales and the hard work making organic bread from scratch implied that several of the bakeries reintroduced conventional bread and the middle-size supermarkets announced that they would not introduce organic bread for the moment. [Økologisk Jordbrug 193 & 197 1999].

Chapter 6: Summary and perspectives

In brief, the evolution of organic agriculture in Denmark is a history of pioneers that especially in the 1970's by means of experiments introduced the organic way of farming. At first the pioneers were met by reluctance or a shake of the head from other actors in social surroundings in general and in agricultural spheres in particular. However, the pioneers happily went on doing their experiments and managed after all to farm although many of their products were of poor quality and low quantity. Sales were only made by the stable door and a few health stores. The dawning organic movement was marked by a holistic approach in a show down with the contemporary society in general and industrial methods of farming in particular. The show down was however not unequivocal but marked by at least three positions: a position focusing on a general critique of capitalistic society, one focusing on the loss of the classic rural way of living, and one focusing solely on the industrial methods of farming.

In the 1980's a gradual sharpening of the movement took place. First of all the national organization of organic farmers was established in 1981 and the year after the National School for Organic Farming. The new organization implied that the Agricultural Study Group, a rather vague network for organic farmers with a somehow blurred profile, was substituted by a formal organization. It also implied a much more precise and unequivocal profile focusing solely at farming and leaving the more general critique of contemporary society in the background. The new organization ensured the formation of rules and a certification scheme as the first primary tasks.

In the mid 1980's the negative environmental effects of contemporary farming was brought to the top of the social agenda. This implied that organic farming was recognized as an environmental and animal friendly way of farming and thus as a solution to the negative effects of conventional farming. Simultaneously many small and middle size farmers envisaged organic methods as a mean to increase economic performance of these farms and thus keep family farms in business. The result was a governmental certification and subsidy scheme that institutionalized organic farming as part of Danish agriculture and as a mean to meet the negative environmental effects of conventional agriculture.

Also marketing of organic foods became more professional and organic foods became gradually part of most retailers' supply of foods. However, sales fluctuated and there was a massive difference in the market shares for the various categories. The market share for daily dairy products increased rapidly to around 20 percent while the share for meat was less than one percent.

The organic sector gradually was integrated in the agro-political and agro-industrial complex. During the span of years described in the former chapters several actors in and around the organic sector have claimed that the institutionalization and integration of the organic movement has implied that the original ambition of a holistic approach and a fundamental show down with industrial farming has been set aside.

The present paper has presented a description of the evolution of organic farming and its relations to the surrounding society in Denmark. The next phase can't be described yet but in the preface we mentioned that the present trajectory perhaps can be described as "Funky Business". The background is that it's possible to trace some tendencies to new innovations concerning means related to marketing and cooperation among and between producers and con-

sumers, which again delimit the organic food system from the conventional. For further description and analysis of these tendencies we refer to Kjeldsen 2004.

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