Macro-level analysis of food supply chain dynamics and diversity: An overview for Germany

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1 The evolution of FSC in Germany

1.1 National chain characteristics and significant structural changes

1.1.1 National chain characteristics

Germany has a huge variety in food products, production and processing patterns as well as a very substantial diversity in terms of types and scales of food chains. Food exports and food imports play a major role. Agricultural structures, processing and marketing ranging from very large scale and often more specialised to very small scale and often more diversified.

Regional differences

Southern Germany tends to have smaller production, processing and marketing structures while northern and eastern Germany tends to have larger structures. In southern Germany we still find more smaller and medium-scale farms as well as processors. Smaller scale settlement and business structures are predominant and a long tradition of 'pluriactivity' exists. In some regions the proportion of farm households with income combination is above 80%. This tends to be linked with shorter food supply chains and less 'distance' between farmers and consumers. Particularly in large parts of Bavaria the 'proximity' is also expressed in the recognition of farming and rurality in society. In the north and north-east, where population densities are lower and farms larger, the situation is very different. Farmers in the north and farm-related activities are less important in the rural economy and rural concerns play a much lesser role.

Dynamics with a regional dimension

After several decades of a very pronounced overall reduction in the number of businesses, there has been more recently, maybe starting in the early 1990s, some counter movement. This new tendency is expressed above all in a significant number of producer, producer-consumer and producer-consumer-environmentalists initiatives that try to establish alternative patterns of production, processing and marketing. Again there tend to be more of this kind of initiatives in southern Germany, particularly Bavaria, Baden-Württemberg and Hessen. Only maybe half of them are strongly driven by more recent rural development policies such as Leader or Reg. 1257/99 programmes.

Another more recent feature is that large companies engaged in food processing and marketing that until now had only been mainstream, are more and more interested in the new trends towards regionalisation, environmentally friendliness, very high quality segments of the market. Characteristic of this new orientation is the rapidly increasing engagement of very large supermarket chains in the organic food market. In rural areas smaller and many medium size supermarkets also include regional products in their offer (particularly vegetables, fruits, eggs).

Subsequently the different patterns and phases of change, and dynamics are explored in more detail.

1.1.2 Developments in the conventional retail sector

In Germany the 1950s to 1970s are marked by the rising importance of supermarkets. May be even more important: The fast spreading of self-service supermarkets in towns and bigger villages changed deeply the buying and consumption habits of consumers.

Characteristic features of developments in the 1950s to 1970s are:

- small "corner" shops almost disappeared;
- consumers even in rural areas increasingly did their shopping in nearby towns;
- rural supply chains (direct selling, small village shops) were losing their importance;
- some supply chains disappeared entirely; examples are milk shops, where fresh bulk milk was served to consumers and that completely lost their market, when supermarkets started to sell cheaper milk in bottles or packs;
- food handicraft (bakeries, butchers) lost its importance in towns and largely disappeared in rural areas.

The changing of the importance of different market channels has, as well, an impact on the image of food. One of the supermarket chains predominant strategies to attract consumers is low price food. Especially beef and pork is sold at extremely low prices, and while these products had an almost luxury image in the 1950s, they rapidly became an object of everyday and ordinary consumption in the 1960s and 1970s.

Enormous concentration in the food system

The later 1980s and early 1990s are characterised by a toughened competition between the less than ten big supermarket chains in a stagnant grocery market. The food retail market showed more and more signs of a narrow oligopoly: sinking margins, price-centred competition and a fastening concentration. The gain in power of the big supermarket chains is reflected in the rising number of retail-owned trade marks and the relative decline of producer-owned brands.

In Germany, as in many other countries, the enormous process of concentration can be observed at all levels. At the level of primary agricultural production a constant decline of farm numbers and a simultaneous increase in crop production areas and herd sizes per farm can be observed at least since the 1950s. During the last decade alone, overall farm numbers dropped by one quarter, while the number of farms with more than 100 hectares more than doubled. The longer term average rate of decrease in farm numbers in approx. 4% p.a. In 2002, almost half of the utilized agricultural area (UAA) of Germany was cultivated by only 7% of all farms, while half of all farms cultivate only 11% of the UAA (VERBRAUCHERMINISTERIUM, 2002).

On the processing level, the continuously falling numbers of mills, dairies, abattoirs and breweries witness the same fact. But, with the exception of oil mills, sugar plants, dairies and abattoirs, this level still is characterised by a multitude of medium-scale firms. The 10 biggest firms hold some 10% of the market and the markets share of the top 100 is of some 40% (PRAAST, 1997; ANONYMOUS, 2003c).

On the retail level, concentration is much more advanced. Almost two thirds of Germanys grocery turnover is now realised by only five enterprises (2001 data). The ten biggest grocery retailers hold 84% of the market, and the 30 biggest retailers a quasi-totality of 98% (ANONYMOUS, 2003a). In 1995, there were still 50 enterprises to share 98% of the market (PRAAST, 1997, S.52). Within the last years, discounters grew by approx. 10% p.a., while other retail forms lost substantial market shares. Discounters' market share, which is in Germany bigger than anywhere else in Europe, is expected to grow further (from 35% in 2002 to 40% in 2007; ANONYMOUS, 2003b).

Anonymisation and industrialisation

The concentration and industrialisation on one market level incites similar processes on other market levels in a search of equal countervailing powers (PRAAST, 1997). One negative side-effect of this development is the anonymisation of food and loss of transparency for the

consumer (SCHÜMER, 1997; SEUFERT et al, 2000). Another side-effect is the decreasing influence of agricultural producers on the functioning of mainstream food supply chains and in particular on the distribution of value added along the chain.

The loss of small and medium size processing enterprises in rural areas leads to less labour alternatives for rural populations, to higher marketing costs for farmers and to less flexibility in their marketing decisions. An obvious example is the closing of many small-scaled abattoirs due to concentration processes, new technical standards and a market structures policy that actively supported - and still supports - scale enlargement and concentration. Without regional abattoirs, however, farmers have higher transport costs and less direct marketing possibilities (SCHMEH, 1997). Another typical example in this respect is the limited possibilities to process and market milk from organic farms as such, i.e. as organic milk. RUPALLA (1998) found that in Germany as little as 50% of organic milk is actually sold as 'organic'.

1.1.3 More recent developments in the conventional retail sector

While the main differentiation strategy is the 'cheapest price', retailers search for other cues to profile their image and start to take up, at first reluctantly since the early 1980s, then more significantly since the 1990s, elements from alternative food chains. 'Environmentally or ethically incorrect' products (turtle soup, among others) were eliminated from the assortments. Later, organic products were integrated in the supermarkets assortments, and most supermarket chains created their own organic food trade marks.

The retailers engagement into the selling of organic food has, since its beginnings, a strong communication and image-profiling aspect and, in most cases, no direct profitability objectives. Most organic trade marks are not cost-covering and the retailers management regards the losses as part of the communication costs.

The 1990s have led to important changes in the grocery retail. Due to several food-scandals consumers' confidence in food suffered remarkably and supermarkets where the first to suffer from the consumers reluctance. At least in the beef and meet sector, some shifting of buying habits back to handicraft outlets (butchers) who are accorded more confidence than the anonymous points-of-sale could be observed.

1.2 'New' food supply chains

1.2.1 New initiatives and forms of collaboration

Starting in the early 1990s a significant number of producer, producer-consumer and producer-consumer-environmentalists initiatives have been established. The aim is to experiment with and, if possible, establish alternative patterns of production, processing and marketing - often characterised by more direct (or explicit) linkages and shorter chains. Common to these approaches is a) that they are different from the mainstream food systems, and b) that they respond to consumer needs, as they are try to provide high quality and 'ecologically correct' food in a transparent manner (BESCH, 1999; HANF & DRESCHER, 2000).

Farmers often are key actors in these developments expecting that they can reposition themselves in the supply chain and move closer again to their customers. Through eliminating the middleman farmers are strengthening their (in conventional chains weak) position. To retain greater value added means that producers are receiving higher prices. Short supply chains (SSC) are, in this respect, an alternative for farmers who were confronted with poor remuneration for their produce from 'conventional' sources, and who are seeking ways to retain more value added. To capture a greater proportion of the total value-added in food is particularly critical at a time when a growing proportion of value is added after the farm gate. Alternative chains are also a way for small farmers who might otherwise not be able to meet

the supply requirements (particularly those relating to volume) of the multiple retailers (KNICKEL, PARROTT & ALONSO MIELGO, 2003).

Table 1 gives an overview of different types and key features of alternative marketing chains as we can find them in Germany.

Table 1: Types and key features of alternative marketing chains in Germany

Type	Description
Farmers markets and farm shops	Farmers markets and farm shops are the main forms of direct marketing by farmers. They are of particularly important for the sales of fruits, vegetables, sausages and poultry. In Germany about one third of these organic products are sold direct. Grain, milk and beef are less popular for direct marketing.
Box schemes	Involve regular (usually weekly) deliveries to peoples doorsteps or local drop-off points. Boxes can be of different sizes according to household size and can offer different levels of flexibility. Some schemes are 'farm-run'; others are run by third parties. Some box schemes are managed through the internet and mail order.
Food co-ops	Producer-consumer associations had been of some importance in the late 1970s and beginning of the 1980s, at this time as alternative-scene initiatives and totally state-independent. During the late 1990s they regained some importance with more emphasis on environmental and RD aspects and often linked with support. In the early associations of the 1970s and 1980s consumers often shared some of the financial risk with the producer.
Specialized organic stores	Typical examples are the Naturkostläden and Bioläden that sell 35 percent of organic products in Germany. Most important are fruits, vegetables and other fresh products, such as dairy, meats and fresh food preparations. Growth rates in these markets slowed down during recent years but still remain near 10 percent annually.
Health food stores	Healthier food is the main motive for these customers to buy organic food. An increase for this market channel is not foreseen. In Germany these stores were among the initiators of the organic market but have lost very substantially market shares.
Internet and mail-order	Internet and mail-order only makes sense in the high quality and high price segment, which includes organic food. Turnover in internet and mail-order systems that are often linked with box schemes increases but data about the importance of internet sales are not available.
Catering services and farm restaurants	These represent additional opportunities to add value. Until now they play only a little role in many countries but they start to develop. An increasing number is opened in areas with rural tourism and along wine and bicycle routes.

Source: Own compilation based on KNICKEL, PARROTT & ALONSO MIELGO (2003)

1.2.2 The importance of 'new' food supply chains in Germany

KNICKEL & SCHAER (2001) estimate that Germany has at least 40,000 farms engaged in quality production (incl. 7,500 farms engaged in co-operative quality production and marketing) and 35,000 engaged in short chains (incl. 24,000 farms with direct sales; 110 cooperative farm shops; 240 regional marketing projects, 200 farmers markets) (see also **Table 2** and **Annex1**).

May be even more remarkable are the dynamics of the alternative sectors. In almost all RD schemes and initiatives direct and regional marketing are perceived as central to a sustainable development of rural areas. Nature conservation groups and environmental associations in general strongly support 'new' food supply chains.

1.2.3 The development of organic retailing

Organic retailing has its roots in the 1920s, when the first health food stores of the 'reform' movement appeared in Berlin. But it was only in the late 1960s that organic and health food stores became more common in bigger cities and still they had a clear 'niche' character. Pushed by the environmental movement this supply-form spread more rapidly from the late 1970s onwards and got more and more professional. Specialized retail logistics and wholesalers appeared simultaneously (SPAHN, 2002).

In the mid 1990s, a profound re-structuring of the organic retail took place. The individual shop-keepers had to deal with the rising competition from conventional retail and with changing consumer expectations. Modernisation and more professionalism were necessary in order to keep up with the changing market conditions. New sales forms, like small organic supermarkets appeared (SPAHN, 2002).

2 General configuration of FSCs in Germany

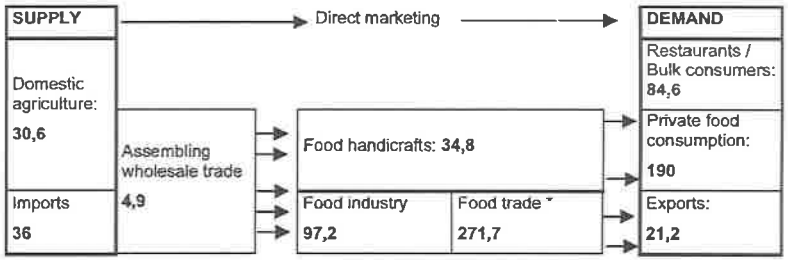
2.1 The organisational structure

Figure 1 gives a brief description of the value-added-chain of the German food sector.

The role of the assembling trade is very important for vegetable products (namely grain trade and stocking), where 40% of all products pass this intermediary. 60% go directly form farmers to mills, bakeries etc. Half of these assembling trade enterprises are farmer-owned co-operatives. Animal products are much more often marketed directly from farmers to the processing industries and handicrafts (WEINDLMAIER, 2000).

Contract farming and vertical integration have a long tradition in certain sub-sectors, as in potato and vegetable production (starch and canning industry), the sugar industry, poultry and milk production. Attempts to build efficient vertical structures in the beef and meat supply chain where driven by recent food scandals (BSE, FMD, etc.). But in comparison to other European countries (the Netherlands, France, Denmark and the United Kingdom) vertical marketing structures are much less common. In the 1990s government initiatives had tried to promote vertical systems by specials subsidies for new marketing concepts, but many of the resulting projects did not fulfil expectations (WEINDLMAIER, 2000).

Direct marketing gained importance during the last decades for some consumption-ready products like potatoes, eggs, apples, vegetables, milk and wine (WEINDLMAIER, 2000). The number of farmers engaged in direct marketing is rising and many farms start even to process products. Some 80% of organic farmers sell directly to consumers (KUHNERT, 1998).



* Food trade: wholesale trade: 154,5; retail trade: 117,2

Figure 1: **Value-added-chain of the German food sector (in mill. €)** (Source: WEINDLMAIER, 2000)

2.2 Short chains and regional / quality production

Starting in the mid 1980s but particularly since the early 1990s there has been a very substantial rise in short chains, regional / quality production and organic farming in most rural areas. **Table 2** are updated data from the IMPACT project. It illustrates the importance of relevant activities showing the total numbers of farm households involved in 2003, the proportion of 'commercial' farmers involved in 2001 (based on survey findings) and since when the activity has been significant. Particularly dynamic fields are organic farming and high quality production which is often linked with particular regional qualities and labels. More recently organic farming is very actively support through a national level organic farming programme (see Section 2.3).

Direct marketing has been popular for some decades in many rural areas, as has been said before, particularly in southern Germany (Bavaria, Baden-Württemberg, Hessen). The establishment of farmer markets has been particularly important in the past 10-15 years.

Table 2: **Importance of short chains, regional / quality production and organic farming in Germany**

Type of activity	No. of farmers (2001)		Uptake by commercial farmers (2001)*	Significant since	Present trend
	Number	% of total	%		
Short chains	37,000	8.5	19	1970	+
Quality production	44,000	9.9		1980-90	++
Quality labels			29		
On-farm processing			15		
Organic farming	14,700	3.3	5	1990	++

Source: Updated data from the IMPACT project. A more complete overview is given in Annex 1. * = survey data

2.3 Organic farming and the marketing of organic produce

Organic farming is not a temporary fashion since biodynamic farming was introduced in Germany as early as in 1924. There are also other forms of organic farming with a long-standing tradition such as organic-biological farming. For a long time, however, the number of organic farms grew only very slowly. Only at the end of the 1980s when particular support schemes started in the framework of the extensification programme growth rates were rising.

At the end of 2001 there were 14,702 organic-production holdings in Germany farming 634,998 hectares of land in accordance with the EU Regulation on Organic Agriculture. They account for 3.3 % of all holdings, managing around 3.7 % of the total utilized agricultural area. This represents an increase in the number of holdings by 15.4 % and in organically farmed land by 88,975 hectares (+16.3 %) as against the previous year.

Compared with other EU Member States, organic farming in Germany occupies a relatively strong position. Only Austria, Finland and Denmark have a larger share of holdings farming in line with organic principles. Some of the guidelines of German organic farming associations are stricter than those laid down in the EU Regulation on Organic Farming. For example, products coming from member farms must always contain at least 95 % of organically-grown ingredients, whereas the EU Regulation on Organic Farming allows indications on the packaging referring to organic production for products with an organic content of only 70 %. Pursuant to the EU Regulation on Organic Farming, a holding may under certain conditions only partly convert to organic farming, whereas the organic farming associations always prescribe a total conversion of a holding. The conversion of the entire holding is a prerequisite of support.

In Germany most organic farms have joined in associations. This includes apart from the associations of Bioland and Demeter (the largest and oldest organic associations) other associations such as *Naturland, Biokreis Ostbayern, Bundesverband Ökologischer Weinbau* (Federation for Organic Viticulture, ECOVIN), *Gäa, Ökosiegel* and *Biopark*.

The organic food industry

At the end of the 1990s food scandals contributed significantly to this and the organic boom years started. In 2001 many German companies enjoyed growth rates of 30 to 50%. In 2002 the organic industry had expected to a consolidation of turnover. However, whereas Germany's food industry had to cope with a drop in turnover of 1% to 125.4 billion Euro in 2002, organic food increased by 10% and now has a share of 2.3% of the total food market. This equates to a turnover of almost 3 billion Euro, with approx. 1.05 billion Euro for the conventional retail food trade, 1.04 billion Euro for the organic retail trade, 520 million Euro for direct marketing, 220 million Euro for bakers and butchers and 14 million Euro for 'others' like kiosks, mail order, etc. (ZMP, Zentrale Markt- und Preisberichtsstelle der Land-, Forst- und Ernährungswirtschaft).

Representatives from organic farming associations, organic food processors and organic trade founded the "*Bund Ökologischer Lebensmittelwirtschaft*" (BÖLW, Organic Food Industry Federation). The foundation board is to ensure the conduct of business as soon as possible.

Distribution channels for organic products

In Germany the pioneers of the organic movement were primarily dedicated young people (often on low incomes). Short distribution channels, which consisted mainly of direct sales, were a key feature in the 1970s. The farmers themselves built up the marketing, sometimes in partnership with their customers. The organic market developed significantly during the early 1980s although organic sales, remained confined to farm shops, 'neighbourhood' organic stores and specialist health food stores (e.g. *Naturkostläden; Bioläden*). Over the

past twenty years organic marketing in Germany has developed in many different ways starting from the early *Bioläden* to the first organic discount stores. Direct marketing and specialist shops retain their prominence though. About 4,500 to 5,000 specialised organic and health food shops still hold about one third of the share; supermarkets one quarter, direct marketing another fifth and the remainder is sold through independent high street shops. Most of the 1,600 *Naturkostläden* are independently owned and run by strongly motivated people, sometimes as a co-operative venture. Today more than 18 percent of consumers buy organic products on a regular basis and 55 percent, now and then.

Most organic sales still take place outside mainstream outlets. STALLKNECHT (2000) estimates that some 10% of German farms that are run organically sell directly to consumers (approx. 3%. Some analysts stress that this has restricted overall market development (HAMM, 1995; LATACZ-LOHMANN & FOSTER 1997; WENDT et al., 1999).

More recently supermarkets are becoming important as sales points for organic food in Germany. Twelve new organic supermarkets and specialized stores (with 200 m² or more sales space) with a total sales space of 5,480 m² have opened for business in the first half of 2003. The average store size has clearly increased compared with the previous year. The figure of around 350 m² per newly opened organic supermarket in the first half of 2002 is now 457 m² per store, an increase of more than 100 m². Only three of the stores, the Antonius store in Fulda, Bio B. in Germering and La Casa Verde in Heidelberg, are less than 300 m², whereas multiples like Alnatura and Basic ensure quantity with areas between 500 and 600 m². The "Giant 2003", however, is a "lone fighter": the store called *Fruchtbare Erde* in Dortmund holds the record with an impressive 780 m² of sales space.[3]

2.4 The sustainability of FSC

The sustainability of FSC ought to be assessed in terms of socio-economic performance and ecological sustainability. Direct and indirect effects ought to be taken into account as well as the dynamics of change in the food system and the longer term prospects (or perspectives).

2.4.1 Socio-economic performance

The socio-economic performance of FSC ought to be assessed in terms of the distribution of value added along the chain and the question whether a 'fair' share of total value added remains for farmers and rural areas. A key question for our research will be how a value judgement like 'fair share' can be dealt with in more 'objective' economic terms. In the SUSCHAIN project we ought to assess for different types of chains the distribution of value added along the chain. The key question will then be in what type of chain a 'fair' share of total value added remains for farmers and rural areas. As far as possible, the factors that determine this share ought to be identified.

The trend of the last decades is that this share decreased dramatically. Conventional food supply chains have come to be dominated by an ever diminishing number of large companies engaged in retailing, distribution and food processing. One result is the imposition of a pricing system that farmers and environmentalist argue does not take into account the real social, economic and environmental costs of food production and which impedes the establishment of fair prices for agricultural products and food (KNICKEL, PARROTT & ALONSO MIELGO, 2003).

[3] See http://www.Bio-Supermaerkte.de.

Consumer prices as an indicator?

On average the consumer prices increase from direct marketing (farm shop, farmers market, box schemes), supermarket, organic food shop to health food shop where products can be twice as costly as conventional products. SCHAER (2001) found that in Germany consumer prices in supermarkets are on average 40 percent below consumer prices in organic food shops.

The prices that can be obtained in alternative chains obviously depend a lot too on the main competitors, i.e. the conventional chains. Price premiums in specialized organic stores may be up to 40%. However, the price premium may significantly differ from product to product. In normal supermarkets prices for organic foods are lower because of the direct comparison to traditional food prices. The cut-price policy of large supermarkets (i.e. the marketing strategy to sell organic foods at low prices) is the main concern smaller retailers have. Pressure on prices in conventional marketing is enormous because of the extreme competition and consolidation in mainstream retailing. The average net-profit margin in German food retailing is roughly estimated at about 0.8 percent, well below most other European countries (USDA 1999).

Supermarkets inherently lead to an erosion of price premiums, which in turn jeopardizes the potential of the (organic) market to take proper care of environmental and ethical demands. LATACZ-LOHMANN & FOSTER (1997) refer to *"structural incompatibilities between organic farming and super-marketing."* Bioland is an organic farmers association that, because of this incompatibility is strongly committed to promote regional marketing networks and direct marketing. *"Bioland aims at a situation where consumers can be guaranteed access to locally produced organic food"* (LATACZ-LOHMANN & FOSTER 1997).

An illustrative example: The case of dairy farmers in Hessen

More recently, and for the first time in a very serious manner, discussions about the extremely low milk prices have started in Hessen. Discussions started among farmers in less favoured grassland areas and - that is remarkable and new - after some time also among the board of the farmers union. Reference is made to the fact that the proportion farmers receive from the consumer price of milk has become as little as 40%. Representatives of the farmers union even proposed a strike and not to deliver milk to the dairies. Obviously farmers had to refuse this idea because they have little financial reserves and it would have ruined many of them. Starting in Hessen the discussions meanwhile also reached the Federal level farmers union (DBV).

SSC have a better socio-economic performance?

Alternative chains and direct marketing enable farmers to access markets, to retain a high proportion of the final retail price, and to have a better profit margin (MIELE, 2001; TOVEY, 1997). The fact that there are major differences between different types of chains can be seen in **Table 3** which gives an overview of the strengths and weaknesses of alternative marketing chains.

Direct marketing gives producers more control over their business. Engaging with direct supply chains does, however, also implies a number of costs, new investment, acquisition of new skills, the need to recruit and train new staff and the possibility that engagement with activities further up the supply chain will distract from farm management. The popularity of these methods among many organic producers suggest that the benefits outweigh these disadvantages (KNICKEL, PARROTT & ALONSO MIELGO, 2003).

A particular strengths of specialized organic stores and health food stores is their small company ethos and the diversity of supply. Consumers who buy organic products from them enjoy the idea of quality control that is specific to small specialist shops. The limited size of the shops, however, means that costs of marketing and, linked to that, retail prices are high

compared to other outlets. Direct marketing schemes (boxes and farmers markets) can in this respect be much more competitive (KNICKEL, PARROTT & ALONSO MIELGO, 2003).

Particular disadvantages of the box and subscription schemes as well as the internet and mail-order systems are the demanding and expensive logistics as well as the fact that there are only indirect consumer-farmer relations. The offering of catering services and farm restaurants can be high profit for producers creating new possibilities for adding value, for synergies (for example with agro-tourism) and for creating additional jobs. Disadvantages are the high investments needed and, in some instances, the high labour demand (though in terms of RD this might be construed as a benefit) (KNICKEL, PARROTT & ALONSO MIELGO, 2003).

Table 3: Strengths and weaknesses of alternative marketing chains

	Farmer			Short distance	Consumer		
	Marketing costs	Producer price	Farmer control		Price	Convenience	Diversity of supply
Conventional chains (supermarkets)	++	–	–	- / –	- / +	++	++
Farm shops	+ / -	++	++	+ / -	++	-	+ / -
Farmers markets	+ / -	++	+	+ / -	++	+ / -	+
Box schemes	+ / -	+	++	+	+	++	+
Food co-ops	+	+	+	+ / -	+	+ / -	++
Specialized organic stores	+	+ / -	+ / -	+	-	+ / -	++
Health food stores	+	+ / -	-	-	–	+ / -	+
Internet and mail-order	+ / -	+ / -	+	–	+ / -	?	?
Catering services & farm restaurants	n / a	+	++	+	n / a	n / a	+

Source: KNICKEL, PARROTT & ALONSO MIELGO (2003)

2.4.2 Environmental performance

More and more environmentalists refer to the pricing system that does not take into account the environmental costs of food production and the fact that this is one of the main reasons for the environmental problems of low cost production systems. For the same reasons there is a substantial and rapidly increasing number of - often state-supported - projects (research, investment, qualification) that directly link and give support to SSC, higher value added chains and environmentally friendly farming (organic farming; high nature value farming; farming in conservation areas; etc.).

Direct marketing enables, and indeed encourages, the growing of a wide variety of crops for a local market (as opposed to a narrow range of crops for national or international markets). This reduces the risk of failure of a single crop to the producer and also helps enhance the agro-biodiversity of the farm unit. It permits 'minority' and unusual crops (or varieties of crop)

to be grown and sold in small quantities. Alternative marketing structures are an important factor in the marketing of sustainable agriculture.

In Saxony *"Naturmärkte"* have been established that explicitly link high nature value with the regional origin, high quality and freshness of food products.

Another example is the *"Natürlich regional"* label and competition that is being organised cooperatively by the Naturschutzbund Deutschland, the Deutsche Landschaftspflegeverband and the Umweltbundesamt. In 2002 more than 50 marketing initiatives were officially recognised and are now allowed to advertise using the *"Natürlich regional"* label.[4]

Transport and emissions is another aspect that ought to be taken into account in an environmental assessment of alternative marketing structures. The actual assessment, however, may be more complicated than at first sight. Life cycle assessments (LCA) carried out in the dairy industry indicate that the advantages of SSC may not be that straight forward (research carried out at the *Bundesanstalt für Milchforschung*).

3 Overview of the regulatory and policy environment and institutional setting in Germany

3.1 The regulatory and policy environment

Key aspects of the regulatory and policy environment are the Federal Ministry for Consumer Protection, Food and Agriculture which has been reformed (and renamed) at the beginning of 2001 (see Section 5.1), the main Federal level support framework which is the Joint Task for the Improvement of Agricultural Structures and Coastal Protection (GAK), the Organic Farming Act of 2002 and the Organic Farming Programme (BÖL),[5] and important components of agricultural legislation, particularly the Agriculture Act and the Agricultural Marketing Fund Act.

3.1.1 The GAK is supporting a sustainable development of rural areas

At national level rural policy is mainly implemented through two Common Tasks. These are the GAK[6] (Joint Task for the Improvement of Agricultural Structures and Coastal Protection) and the GRW[7] (Joint Task for the Improvement of the Regional Economic Structure). Federal policy provides an overall framework and support for the policy of the regions (Bundesländer). Both Common Tasks are important instruments too with respect to the implementation of the regional and horizontal schemes of the EU.

The GAK is the main Federal level instrument for co-financing measures of the EU Rural Development Regulation (Reg. 1257/99; RDR). The EU, the Federal Government and the Länder jointly fund the support schemes. In 2000, the financial resources of the GAK were around 1.4 billion Euro.

The main objectives of the GAK are the improvement of competitiveness and market structure of agriculture and forestry; the diversification of activities and an improved integration of agriculture into the rural economy; the improvement of compensating functions of rural areas concerning housing, economy, recreation and ecology; the support of a sustainable land use

[4] See www.reginet.de and www.regionalvermarktung.info.

[5] *Bundesprogramm Ökologischer Landbau (BÖL)*

[6] *Gemeinschaftsaufgabe Verbesserung der Agrarstruktur und des Küstenschutzes (GAK)*

[7] *Gemeinschaftsaufgabe Verbesserung der regionalen Wirtschaftsstruktur (GRW)*

adapted to local conditions by considering the demands of health, environment and wildlife protection as well as coastal protection.

At the end of 2001 the GAK has been redesigned for stronger support to sustainable development of rural areas. It is now specifically addressing the overall shift towards quality production, new activities in rural areas and the development of a more sustainable rural economy.

More support is now given to regional food supply systems

The GAK is of some importance in terms of providing a framework of planning and financial (investment) support in the fields of quality production and short supply chains (both in the context of the improvement of marketing structures and marketing). Support of regional processing and marketing has become a new component of the GAK in 2002.

Regional food supply systems are favoured in the new GAK (and in the new agricultural policy, in general; see below) because they have a range of advantages in terms of a more sustainable economy (less transport and related problems, increased transparency of shorter chains, higher value added with the farmer and rural areas, more employment opportunities in rural areas, etc.). Another decision by the GAK Planning Committee for the Framework Plan 2000 to 2003, by many considered long overdue, was to place agricultural investment promotion of part-time and full-time farms on an equal footing.

3.1.2 Support given to organic farming

In Germany organic farming is supported during the conversion period and also for the mere maintenance of organic farming. Normally support is given in the framework of agri-environmental programmes. The payments for organic farming are accepted well in society because organic farming is associated with environmental quality (less pollution, more biodiversity, more pleasant landscape), a higher level of food quality and safety as the welfare of farm animals.

While support has for a long time (since the early 1980s) focused on production support (hectare payments), it was only at the beginning of the 1990s that it was realised that this one-sided support caused severe problems on the marketing (demand) side. Since the end of the 1990s, and particularly since the overall reorientation in agricultural policy, the support given is much more diversified, including investment support for processing and marketing.

Organic Farming Act

A national Organic Farming Act was adopted by the Federal German Parliament in July 2002. In addition, the Federal Organic Farming Scheme supplements the support schemes already in place and is designed to improve the environment for a further expansion of organic farming. The aim is a sustainable growth of the organic sector based on a evenly balanced expansion of supply and demand. The measures, therefore, set in at all levels from production to consumption.

The Organic Farming Act pools specific executive functions in organic farming in Germany, whilst improving the efficiency of the implementation of the EU Organic Farming Regulation (BMVEL, 2003b). It contains the following measures: 1. Expansion of notification requirements: The Act stipulates that inspection bodies should always be required to notify the competent authority for the respective holding of established irregularities or violations laid down in the EU Regulation on Organic Farming. This shall also apply to cases where the queried produce originates from another EU Member State. It has so far been prescribed EU-wide that inspection bodies for organic products should only inform the competent authorities about established violations of the EU Regulation on Organic Farming in particularly serious cases that are expected to result in a ban on the marketing of organic produce being

imposed on the entire business. As far as the information requirements in the event of other irregularities are concerned, the Länder made their own separate arrangements within their current competence for the approval of inspection bodies.

Pooling of executive functions at the Federal Office for Agriculture and Food (BMVEL, 2003b):

- approval of private inspection bodies and withdrawal of approval,
- granting authorizations for the marketing of organic products imported from third countries.

Thus, the approval of inspection bodies and the importation of organic products will in future be guided by uniform standards. This enhances the transparency and efficiency of the execution of these tasks.

Introduction of penal provisions and provisions concerning administrative fines: Violations of the Organic Farming Regulation are liable to one-year imprisonment or a fine of up to € 30.000. This applies to improper use of indications referring to organic production methods in the labelling and advertising of organic products. The Organic Farming Act was promulgated in the Federal Law Gazette on 15 July 2002. The provisions governing the first and second paragraphs will take effect on 1 April 2003 (BMVEL, 2003b).

Federal Organic Farming Action Programme

In conjunction with the Organic Farming Act a very comprehensive Organic Farming Action Programme (*Bundesprogramm Ökolandbau,* BÖL) has been drawn up in 2002 and 2003. It is to contribute to sustainable growth based on a well-balanced expansion of supply and demand. The medium to long-term Action Program on Organic Farming is developed within a social discourse encompassing all relevant policy fields and actors. Based on the identification of problems and development potential, the scheme envisages support measures where growth can be efficiently boosted by closing gaps in support.

Bearing this aim in mind, the Federal Scheme incorporates various measures in line with a production chain concept in the following sectors:

- agricultural production,
- recording and processing,
- trade, marketing, consumers,
- development and transfer of technologies,
- accompanying measures such as research and development.

The scheme focuses on the one hand on training, educational and general information measures. A further priority is the promotion of research and the development of new technologies as well as the practical implementation of the acquired insights. The scheme fosters broad information about organic farming. To this effect, the following measures are taken, inter alia:

- Concrete support is being provided to farmers wishing to convert to organic farming, e.g. in the form of differentiated information, education and counselling opportunities. The internet, trade fairs, multipliers and seminars provide information about organic farming.
- The primary and processing stages are informed about the rules governing organic production. Here, incentives are given for innovation and competition and assistance to facilitate the exchange of information at seminars, trade fairs or on the internet.

- The trade sector undergoes intensive preparation to be able to provide sound and fair advice as requested by consumers. Further training opportunities are therefore offered to retailing staff.
- Consumers receive targeted information about the value and benefits of organic products. What matters is informed conversion advice for catering establishments as well as adaptation of the topic for day-care centres for children and general-education schools.

To implement the Federal Scheme, the BMVEL budget has earmarked around Euro 35 million for 2002. The same amount has also been envisaged for the 2003 budget. The support is given outside the Joint Task for the Improvement of Agricultural Structures and Coastal Protection (GAK).

The Federal Office for Agriculture and Food is charged with the implementation and execution of the Scheme. The Agency for the Federal Organic Farming Scheme has been set up there for this purpose.

3.2 The institutional setting of FSC

In this section only some general information is given on institutions that are important in cross-sectoral terms. Sector-specific information on the institutional setting of FSC is given in Section 4.

3.2.1 The role of regional and local level programmes

Rural districts and communes are responsible for designing and implementing region-specific measures and projects - normally within the frameworks given by the Länder. A significant number of RD measures and projects are related to regional and direct marketing.

Some regions and communal bodies are running their own schemes outside Federal and Länder level frameworks using only their own funds (regional and direct marketing, nature management, water protection, specific routes, networking, etc.).

3.2.2 The CMA

The CMA (Central Marketing Organization for German Agricultural Industries) is the main national level marketing agency in the agricultural sector. It is the German equivalent of Food from Britain, and it is funded by compulsory commodity levies.

3.2.3 Farmer-managed initiatives

By far the largest number of initiatives can be considered as being farmer-managed. Very often production and producer associations are the starting point for more comprehensive initiatives and projects.

3.2.4 The Deutscher Verband für Landschaftspflege (DVL)

The *Deutscher Verband für Landschaftspflege* (DVL) (German Association for Landcare) is the umbrella organisation of all the landscape organisations in Germany and other, similar, organisations. In early 1999, 132 landcare groups were active in twelve federal states. A number of others are currently being set up. The association was formed in 1993. It represents the landcare groups, holds conferences and supports initiatives leading to the founding of new landcare groups.

In cooperation with the local landscape associations, the German Association for Landcare carries out model projects often related to the establishment of regional marketing. Regional

diversity is seen as the basis for long-term attractiveness for tourists. Representatives of the tourist trade participate in some landcare groups, thus emphasizing the responsibility of this sector of the economy for the preservation of intact landscapes (see http://www.tpv.de/ and http://www.reginet.de/hauptframe.htm).

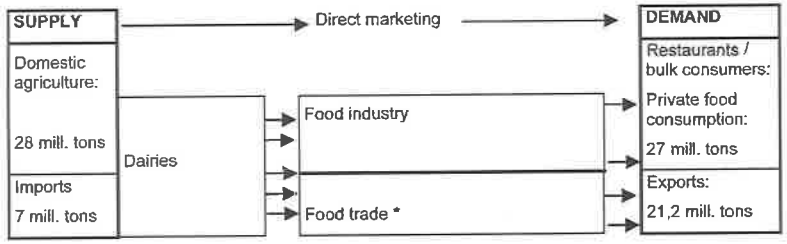
4 Sector by sector summary of FSC in Germany

The following chapter gives brief descriptions of core sectors of FSC in Germany. The sectors covered are dairy, beef, sheep meat, pigs, poultry, sheep, cereals, potatoes, sugar, fruits and vegetables.

The data given are based mainly on the relevant ZMP market reports for 2002.

4.1 The dairy sector

Overview of the milk market



Main characteristics

Per capita consumption	334 kg / capita
Part of directly marketed products	8 -10%*
Part of organic production	1.3%
Part of organic market share on retail level	3.1%
Degree of self-sufficiency	98%

Sources: BMVEL; 2002, ZMP, 2002g, ZMP 2002e. * Estimated by authors.

Delivery and processing of milk

In 2000/2001 an average organic dairy cow produced 5,007kg milk /cow for 36.60€/100kg, while an average conventional dairy cow produced 6,681 kg milk per cow for a price of 33.09€/100 kg.

Milk processing is less concentrated in Germany than in other European countries and there are still some 250 dairies (340 production sites). Foremost in the southern part of the country

a relatively large number of small and medium scale dairies can still be found, even if the concentration process accelerates. During the past 3 to 5 years many dairies paid relatively high prices to farmers in order to attach tem to the dairy and to maintain or to enlarge their production volumes.

There are, generally spoken, three types of dairy enterprises:

- family owned firms;
- farmer owned firms (co-operatives);
- public companies.

A special form of governance are farmer-owned milk assembly co-operatives on regional level. They are, by means of long-term-contracts, linked to dairies of their region and have influence on the price and volume decisions.

The milk market, prices and trends

The present situation on the milk market is difficult. During the last three years, dairies often paid milk high milk prices in order to attach farmers to their production sites. This competition for volume, that reached its peak in 2001, brought high prices for farmers during a short period, but the financial power of many small and medium scale dairies got exhausted, making them an 'easy prey' for the big players.

In 2002/2003 milk prices fell dramatically resulting in an accelerated number of milk farms being given up. The structure of the market is fragile and a rapid concentration process might lead to the closing down of production sites. This leads to a general rise of milk assembly costs, that hit organic farms, who are more dispersed, more than conventional farms. These factors could deepen the gap between conventional and organic consumer prices for milk and dairy products and, thus, render alternative FSC products less attractive.

Farmers' negotiation power is likely to be reduced. Milk production tends to concentrate in areas, where feeding stuff (domestic and imported) can easily and cheaply be procured.

One of the major bottlenecks in alternative FSC in the dairy sector is the lacking of a real 'big player' with enough weight to compete with the huge dairies of the conventional sector. At the moment, even relatively big organic dairies *Scheitz* or *Söbbeke* struggle for their market positions in conventional supermarkets.

A higher quality kind of milk that has been of some importance in Germany for some decades and that is achieving a slightly higher price is the so-called *Vorzugsmilch* which is a high quality, non-pasteurised, milk (BUNDESVERBAND DER VORZUGSMILCHERZEUGER, 2003).

Processing and marketing of organic milk

In 1999 approx. 75% of the organic milk was also sold as organic. This was 1.2% of the whole amount of sold milk. Organic milk is sold to 50% in health food shops, to 25% in conventional grocer's and to 25% to the food industry, e.g. baby food (RAHMANN, 2003) The sales of *Demeter* milk grew between 1999 and 2000 about 200%.

58 dairies are specialised on processing organic milk. Thereof only 4 dairies are processing 44% of the organic milk produced in Germany: *Andechser Molkerei Scheitz, Molkerei Rogge / Söbbeke, Küstenlandmolkerei Rostock* and *Milchwerke Berchtesgardner Land.*

Some dairies, like the *Hamelner Molkerei*, converted back from organic to conventional milk processing (REUTER, 2002, p. 4).

From June 2003 onwards the German branches of McDonald's will only sell organic milk from the dairy *Andechser Molkerei Scheitz*. The organic industry hopes to get new impulses

and to become more recognised (NATURKOST, 2003). Another new organic milk campaign has been launched in July 2003 on the premises of the Berlin organic supermarket BioCompany. The campaign is supported by Deutscher Naturschutzring (DNR), BÖLW and CMA. The consumer campaign for promoting the sale of organic milk was launched in the presence of press and association representatives and is to be run in the months of July, August and September (see http://www.aktion-biomilch.de).

Institutions, organisational forms and governance

Co-operatives are very important in Germany. About 65% of the milk brought to dairies in 2002 were from co-ops (RAIFFEISEN, 2003).

The CMA (Central Marketing Organization for German Agricultural Industries) is very important in promoting the marketing of milk and dairy products. With the slogan *"Die Milch macht's"* (the milk makes it) CMA advertises the taste and lifestyle of milk. The aim is to show to the consumers how milk can taste different and can be used for a lot of different milk recipes. CMA sponsors sport events, like the German tour 2003, the marathon of Bonn, or cultural events, such as the *Berlinale* in order to promote milk and dairy products (CMA, 2003).

The *Verband der Deutschen Milchwirtschaft* (German Association of Dairy Farmers and Processors) is an association to support and promote German dairy products. It is also the mediator between the dairy producers and the administration of the Länder (VDM, 2003).[8]

Areas that exhibit dynamism in terms of being sustainable or alternative

The fresh milk and the cheese market are considered not yet well developed by German dairies (see for example an expert study by the WISSENSCHAFTLICHER BEIRAT BEIM BML, 2000).

Particular dynamism in terms of sustainable or alternative initiatives can often be observed with regard to organic and/or regional production. The biggest German (and European) organic dairy, *Scheitz*, is a family-owned enterprise that succeeded in establishing its products in the nation-wide retail. But the processing of organic milk is not exclusively taken up by small and medium dairies. The *Müller AG*, a global player on the milk market, engages with two of its production sites in the organic sector and produces yoghurt for the British organic market as well as cheese for a regional marketing initiative in Bavaria.

A farm-level development that is characterised by particular dynamism is the farm-level processing, bottling and direct marketing of (mostly organic) milk. Very often rather small scale technologies for pasteurising and bottling fresh milk. This is then sold directly to consumers (by home delivery services) or to local (organic) food stores. Using modern delivery logistics and putting forward the regional aspect in their communication policy, they succeed in being competitive.

A promising regional marketing structure is the *Käseküche Isny*. It receives milk from 10km around the processing plant. The milk must be produced organic or environmentally friendly

[8] Many other associations are involved in dairy marketing and food supply chains related to milk: The *Deutscher Bauernverband e. V.* (German Farmers Union), the *Gemeinschaft der Milchwirtschaftlichen Landesvereinigungen* (an umbrella organisation for all Länder level associations related to milk production and processing), the *Deutscher Raiffeisenverband*, the *Verband der Landwirtschaftskammern*, the *Bundesverband der Privaten Milchwirtschaft*, the *Deutsche Landwirtschaftsgesellschaft*, the Verband für handwerkliche Milchverarbeitung im ökologischen Landbau e.V. (specifically dealing with the processing of organic milk), the *Arbeitsgemeinschaft Deutscher Rinderzüchter e.V.*, the *Milchindustrie-Verband e.V.*, the *Bundesverband der Vorzugsmilcherzeuger und Direktvermarkter von Milch und Milchprodukten*, and the *Bundesverband Molkereiprodukte und ZV Deutscher Milchwirtschaftler* (VDM, 2003).

as defined by Bioland or Demeter. The *Käseküche Isny* produces traditional, locally typical cheese - which has become a rare phenomenon in Germany (DVL, 2002; ALLES BIO-KÄSE, 2003).

The *Arbeitsgemeinschaft für Rinderzucht auf Lebensleistung* is an interesting complementary initiative because it breeds dairy cows on a life time performance basis, a criteria that, although economically and ecologically convincing, is generally not taken into account any more in conventional breeding (Zs-L, 2003).

Sustainability and transparency of the current structure

Extensive milk production forms tend to be relatively disadvantaged economically in the present economic framework conditions. Particularly the grazing of dairy cattle and extensive pasture management is less competitive than in-door-keeping and intensive feeding (maize silage; cheap feedstuffs based on cereals and imported soybeans). The result is that extensive milk production forms have considerably lost market shares in the last 3-4 decades.

The transparency of the current processing and marketing structures appears relatively limited in the milk sector. The main reason for this could be the mere complexity of the sector, the still very large number of actors (private, state and mixed), the substantial regional differences and presumably also the lack of sufficiently clear labelling rules.

A particular deficit in the organic milk sector is the lack of adequate (regional level) processing possibilities.

Interrelationships with rural development

In the last decades there has been a very significant concentration in milk processing and marketing and, simultaneously, a retreat from less favoured areas (LFAs). While farmers in LFAs receive particular support it is the lack of milk processing and effective marketing and, in addition, the continuously decreasing prices in conventional channels, that discouraged many younger dairy farmers and potential successors. A significant number of farmers have converted to suckler cows and higher quality beef production. In spite of this latter adjustment a significant decrease of income and employment in LFAs can be seen.

A model for a more sustainable development in the milk sector - particularly in LFAs - could be the *Käseküche Isny* that explicitly links milk production, processing and marketing at the regional level. While contributing to the maintenance of dairy farming in the region there can also be positive impacts on the local and regional economy identified (ALLES BIO-KÄSE, 2003).

Bottlenecks to a sustainable development of rural areas

The relative competitiveness of dairy farmers and milk processors in conventional markets is limited due to the prices of work, energy and water that are higher in Germany than in many other EU countries. At the same time Germany tends to have particularly high regulatory requirements (e.g. environmental protection).

In addition to that the WISSENSCHAFTLICHER BEIRAT BEIM BML (2000) also identified structural deficiencies in the organisation of the German dairy economy. It must be questioned, however, that the problem really is the large number of smaller dairies, as stated by the WISSENSCHAFTLICHE BEIRAT. The much more important question appears to be how smaller dairies can position themselves with new products and new forms of marketing. There appear to be many opportunities, like for example organic, controlled, ecological friendly, healthy, functional, light or Fair Trade. The big question really is how to establish new products on the German market (WEINDLMAIER & MAIDL, 2002). RAHMANN found that there must be a better infrastructure and marketing for organic dairy products to establish them on the market

(RAHMANN, 2003) - and this precisely may actually be an opportunity for the smaller, regional level dairies that still exist.

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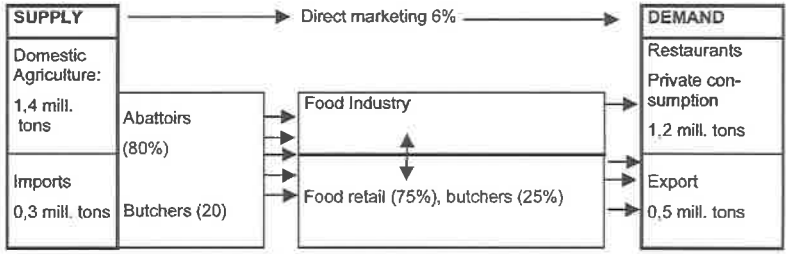
4.2 The beef sector

Overview of the beef market



Main characteristics

Per capita consumption	10,0 kg / capita
Part of directly marketed products	6%
Part of organic production	2.5%
Part of organic market share on retail level	1.5%
Degree of self-sufficiency	116%

Sources: BMVEL; 2002, ZMP, 2002g, ZMP 2002c, DFV, 2002.

Concentration in the beef market

The German beef market is dominated by huge beef and meet enterprises. The sector is highly concentrated and competition is particularly fierce on abattoir level.

Particularly the number of abattoirs has been reduced very much in the last two decades. Many small abattoirs were closed down, above all because they couldn't cope with hygiene standards any longer. In the early 1990s, just after the reunification of Germany, many abattoirs were newly built in the eastern part of the country, due to a fatal over-estimation of the beef and meet production in these regions. Consequently, there are huge over-capacities in eastern Germany.

Trends in processing and marketing

Most butchers are no longer equipped to slaughter cattle. As the hygiene regulations are very strict and as there are no subsidies for this kind of diversification any longer, only relatively few farmers invest into own cattle slaughter facilities (3% of all cattle is slaughtered on farm level). Regional, direct and organic marketing initiatives try to re-establish or to maintain small scale beef marketing structures. Partly they also succeed in modernising small regional slaughterhouses or in establishing mobile abattoirs.

Supermarkets hold almost 75% of the retail market and large discounters are continuously reinforcing their efforts in beef and meat selling - mainly through a low price policy. The remaining 25% of the market are held by 25.000 butchers.

In more and more rural areas farmers can't chose their market partner any longer, because there's only one abattoir left or because there appears to be no beef marketing possibility left at all and farmers have to deal with high transport costs for cattle.

Beef from organic farms

Beef has the highest proportion of organic or ecologically friendly produced meat, however, a significant part of beef has still to be sold as conventionally produced (WENDT et al., 1999).

Organic beef is marketed by several supermarket chains but market shares tend to be rather low. This is also related to the difficulty to enter the butcher market. In general, butchers hesitate to take up organic beef (and meet in general). They find it difficult to run conventional and organic products in a parallel manner and to differentiate the organic products without devaluating their conventional assortment.

A very substantial proportion of all organic beef is sold directly at regional level. Many organic beef (and meet) marketing initiatives, however, are lacking marketing and transformation capacities for inferior pieces (to produce organic sausages, convenience etc.). Consequently, they have to sell these pieces very cheaply on the conventional market. At the same time, they have to sell the more appreciable pieces (steaks, cutlets etc.) expensively to cover the losses, rendering them rather expensive for many consumers.

Institutions, organisational forms and governance

The CMA is promoting German meat and meat products in a special programme. This year the slogan is *"Fleisch & Wurst - Der absolute Sommerhit"* (meat and sausages - the absolute summer hit) (CMA, 2003)

In addition there are around 40 associations that promote the beef sector and work as lobbyists. The *Arbeitsgemeinschaft Deutscher Rinderzüchter e.V.* is the umbrella organisation for the segments of breeding, insemination, evaluation of breeds and efficiency tests. It also works together with the CMA in developing appropriate marketing strategies (ADR, 2003). The *Verband Schleswig-Holsteiner Fleischrinderzüchter eV* and similarly some other regional level associations try to promote direct marketing of beef and veal at regional or Länder level.

The *Gesellschaft zur Erhaltung alter und gefährdeter Haustierrassen e.V.* (society for the conservation of old and endangered livestock breeds) wants to secure old breeds that are regionally typical (SEIBOLD, 2002).

An important national level organisation is the *Verband der Fleischwirtschaft e.V.* that represents all parts of the meat sector from the producing to the wholesale and import or export. The main tasks are lobbying, training, marketing and information of all actors involved in the mainstream meat sector (VERBAND DER FLEISCHWIRTSCHAFT E.V., 2003).

Areas that exhibit dynamism in terms of being sustainable or alternative

Extensive (grazing) and organic beef production, and the related processing and marketing seem to be the main areas that exhibit dynamism. Typical initiatives are:

- *Bergisch Pur* is a rather successful quality label for regionally produced and regionally marketed beef and lamb in the Bergische Land (DVL, 2002c; see also Section 6.2.3). The same concept can be found with the *Erzeugergemeinschaft Prignitzer Weiderind e.V.* (DVL, 2002d) or *IGERO - Interessengemeinschaft Extensivrinderhaltung Osnabrück e.V.* (see Section 6.2.8). Similarly the *Erzeugergemeinschaft Junges Weiderind e.V.* that is promoting ecologically friendly produced beef in the Black Forest. Its aim is to sustain the agriculture of the region and to produce in an ecologically friendly way without long distance animal transports (DVL, 2002a).
- The organisation *Bioring der Schwarzwaldbauern e.V.* tries to re-establish the marketing of the traditional *Wälderochsen* (forest oxen) in the Black Forest again. It works together with butchers and restaurants, and it actively supports direct marketing. A main aim is to sustain region-typical breeds of cattle (DVL, 2002b).
- The *ÖRZ Ökologische Rinderzucht GmbH Seefeld* is a typical eastern German company that was established in 1992 to produce ecologically friendly veal in Brandenburg (LAB GMBH GESCHÄFTSSTELLE, 2003).

Sustainability and transparency of the current structure

Some of the beef and meet processing firms are held by farmer co-operatives, but this improves market positions for farmers only to a limited extend, given the difficult overall market conditions. Generally spoken, the sector is in a bad financial condition after the BSE crises that entailed at the same time market reduction and new investments into new slaughtering facilities and traceability systems.

The concentration of marketing structures tends to favour the concentration of cattle farming, while extensive cattle husbandry and grazing systems are constrained by this development.

Transparency and quality are very important aspect for the newly established products, chains and organisations (DVL, 2002c). Important synergy effects can be achieved in successful cooperations between the farmers and the local or regional butchers and traders (DVL, 2002b).

Interrelationships with rural development

The interrelationships with rural development are very similar to the ones described for milk production and the dairy sector. The particular additional aspect is the importance of (often imported) breeds that are particularly adapted to large scale low input ranching systems.

Large scale low input ranching systems in turn could be sufficient in terms of the maintenance of landscapes. Clearly such systems help to preserve the particular environment, landscape and wildlife of (semi-)mountainous areas (DVL, 2002d). What such systems cannot achieve, however, is to maintain the income and employment levels of the more intensive traditional systems.

More advanced model link extensive grazing with processing, marketing and possibly additional activities such as rural tourism. Particularly in such initiatives the farmers can earn more money which offers new perspective for full-time and for part-time farmers. Farmers who sells their beef under the *Bergisch Pur* label do earn around 8% more, if they fulfil the high standards of this organisation (DVL, 2002c).

Bottlenecks to a sustainable development of rural areas

The major bottlenecks and entry barriers for alternative (beef) marketing systems are the relatively high investment costs, the concentration and poor transparency of the market and its difficult overall situation. Even innovative and potentially profitable alternative projects have problems to be given credits by banks, because analysts information on the beef market is very negative.

Problems that are considered to prevent a more rapid expansion of organic beef marketing are the small structures, the insufficient marketing, the more difficult distribution and logistics and the very limited engagement of the big retailers (WENDT et al., 1999).

Traditional butcher shops have become much less important as supermarket sales were increasing. As they are often important for regional products, it is a key question whether and how this segment can find new ways in marketing (SIMONS, 2002).

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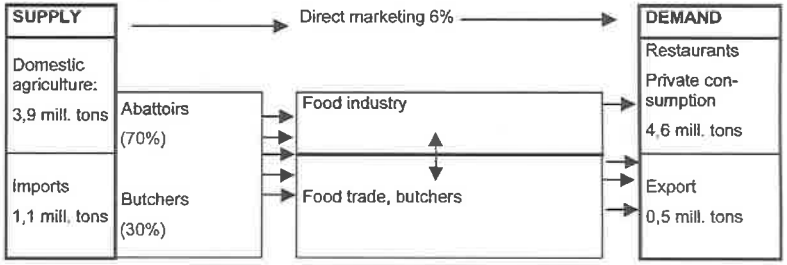
4.3 The pig and pork sector

Overview of the pig and pork market



Main characteristics

Per capita consumption	40,5 kg / capita
Part of directly marketed products	6%
Part of organic production	0.3%
Part of organic market share on retail level	1.5%
Degree of self-sufficiency	83%

Sources: BMVEL; 2002, ZMP, 2002g, ZMP 2002c, DFV, 2002.

Germany produces 84% of its total pork consumption (SCHÖNBERGER, 2003). Less than 1% is produced organic or ecologically friendly. This pork is sold directly to the consumer, to butchers or to the food retail. The shares of organic pork products to all organic food is less than the proportion of conventional pork products to all conventional food (WENDT et al., 1999). Many pig producers are organised in cooperatives (AGRAR.de, 2003).

The pork sector has a lot in common with the beef sector with respect to the abattoir level. A difference is that there are still more facilities on butcher level for slaughtering pigs than for cattle. Some 2.5% of all pigs are slaughtered on farms, a phenomenon which in the 1960s and 1970s still had been very common. On farm level, production is much more concentrated than in the beef sector: 14% of all pig farms hold almost 70% of all pigs.

The establishing of alternative marketing chains is often related to animal welfare or organic production and faces the same barriers as observed in the beef sector.

Institutions, organisational forms and governance

The main umbrella organisation is the *Zentralverband der Deutschen Schweineproduktion e.V.* (ZDS, 2003).

Apart from this national level umbrella organisation there are many regional level organisations which promote and sell piglets and pork. An example is the *Schweinezucht- und Produktionsverband Berlin-Brandenburg e.G.* which promotes and sells pork from the region

Brandenburg together with the organisation *Natürlich Brandenburg pro Agro* which is also involved in other regional food products (ZUCHTSCHWEINE, 2003).[9]

Areas that exhibit dynamism in terms of being sustainable or alternative

Overall there had been a tremendous concentration in pig and pork production in the 1970s, 1980s and 1990s. This has generally been linked with a continuous lowering of production costs as well as producer prices for pork.

Nowadays there are some smaller associations that are developing very well and that manage to obtain higher prices for their products in the market. On such example of smaller and medium size pork producers and of a very successful marketing initiative is the *Bäuerliche Erzeugergemeinschaft Schwäbisch Hall*. It was set up in 1988 to produce 'healthy' and 'natural' pork. Pork produced by their standards have their own label and it is sold regionally (BÄUERLICHE ERZEUGERGEMEINSCHAFT SCHWÄBISCH HALL, 2003).

Another sub-sector that is developing dynamically is the breeding of free range pigs, s.th. that had been very uncommon in Germany until the late 1980s. In the natural park *Brandenburgische Elbtalauen* pigs are kept since 1993. By grazing in a traditional way the pigs preserve the particular cultural landscape of the *Elbtalauen* (BELLERSEN, 1999).

Sustainability and transparency of the current structure

Often the very large pig producers have extremely high livestock densities with similarly extreme nutrient surpluses per farm and hectare. Ammonia emissions also tend to be very high.

As for transparency there is little differentiation of pork of different qualities in mainstream outlets. Smaller associations that are developing very well and that manage to obtain higher prices for their products in the market are mainly involved in regional level marketing.

Interrelationships with rural development

The associations of smaller and medium size producers that often also promote alternative regional level marketing chains might well have more favourable interrelationships with rural development. A more in-depth study on such interrelationships in the Netherlands has recently been published by COMMANDEUR (2003).

The fact that free range pigs are important for the landscape and natural vegetation is stressed in various projects in Germany (see for example BELLERSEN,1999).

Bottlenecks to a sustainable development of rural areas

One of the major bottlenecks for the development of alternative / sustainable supply chains is the very nature of the pork market and the substantial fluctuations of quantities and prices. Newly created marketing systems tend to be not sufficiently robust to cope with turbulences in mainstream pork markets.

[9] Some of the many other regional marketing organisations are: *Niedersächsische Erzeugergemeinschaft für Zuchtschweine eG* (NIEDERSÄCHSISCHE ERZEUGERGEMEINSCHAFT FÜR ZUCHTSCHWEINE EG, 2003), *Erzeugergemeinschaft für Ringferkel Oberfranken, Erzeugergemeinschaft Schwein 'Altmark', Erzeugergemeinschaft und Züchtervereinigung für Zuchtschweine in Bayern, Hannoversche Erzeugergemeinschaft für Zuchtschweine, Mitteldeutsche Zuchtschweine-Erzeugergemeinschaft, Rheinische Erzeugergemeinschaft für Qualitätsferkel, Ringgemeinschaft Bayern, Schweineerzeuger Nord-West eG, Schweinekontroll- und Beratungsring M-V, Schweinezucht- und Ferkelerzeugergemeinschaft Hessen eG* and *Thüringer Schweinezucht- und Produktionsverband e.V.* (TSPV, 2003; AGRAR.de, 2003).

On the demand side it must be taken into account that the ecologically oriented consumer tends to eat less pork than beef while the rest of the consumers do eat more pork than beef. This might explain the relatively small amount of organic pork produced as there is only a small market (WENDT et al., 1999).

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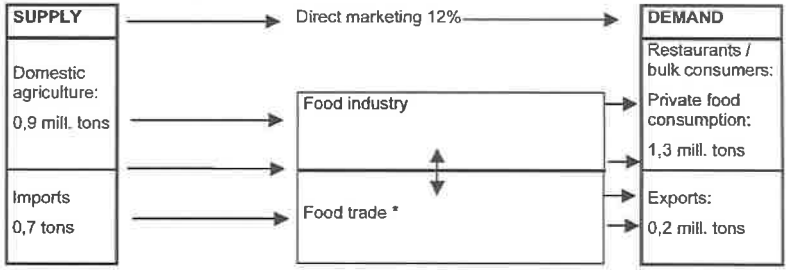
4.4 The poultry sector

Overview of the poultry market



Main characteristics

Per capita consumption	15.3 kg / capita
Part of directly marketed products	12%
Part of organic production	0.3%
Part of organic market share on retail level	1.5%
Degree of self-sufficiency	71%

Sources: BMVEL; 2002, ZMP, 2002g, ZMP 2002b, DFV, 2002.

The consumption of poultry increased in Germany in the last years. About nine kilogram of poultry are eaten per person in Germany per year. In the EU it is up to 15 kg per person (TAGEBLATT, 2002). Only 1% if the produced poultry is organic or environmentally friendly (WENDT et al., 1999).

Conventional poultry production on farm level is extremely concentrated. 90% of all broiler chicken are kept by 4% of the poultry farms. The leading enterprises often developed integrated production systems (own mills for feeding stuff production, animal production, abattoirs, sizing and packaging, shipping). They are highly efficient, produce at low costs and negotiate directly with retailers.

Alternative husbandry systems for poultry do exist as well. On a much smaller scale, they tend to build the same vertically integrated systems as the conventional sector. Their main problem are high production costs, that render their products very expensive in comparison to the extremely low-priced conventional offer.

Thus, there are very successful examples of organic chicken and turkey production and marketing. Consumer demand for poultry in general is constantly growing, and this is true for organic poultry as well.

Institutions, organisational forms and governance

The *Zentralverband der Deutschen Geflügelwirtschaft e.V.* is the main organisation to promote German poultry and to represent the interests of the poultry producers. Another important organisation is the *Bund Deutscher Rassegeflügelzüchter* which tries to improve the standards of poultry breeding (BUND DEUTSCHER RASSEGEFLÜGELZÜCHTER, 2003). And there are also regional level associations like the *Geflügelerzeugergemeinschaft Franken e.V.* (GEFLÜGELERZEUGERGEMEINSCHAFT FRANKEN, 2000). In addition to these mainstream organizations there are associations that deal with particular market segments such as the turkey farmers that are organised in the *Verband Deutscher Putenerzeuger e.V.* which is an association of over 1.000 members and that are from breeding to marketing specialised on turkey hen (VERBAND DEUTSCHER PUTENERZEUGER E.V., 2003).

The regulations to keep poultry has changed in Germany with the *Erste Verordnung zur Änderung der Tierschutz-Nutztierhaltungsverordnung* which regulates the keeping of poultry. It is considered the most animal friendly and strict in the EU (DAINET, 2003). From 2006 onwards, no cages are allowed in Germany while in the EU special types of cages will still be permitted (BMVEL, 2003).

Areas that exhibit dynamism in terms of being sustainable or alternative

The poultry sector has some special trademarks like the *KiKog* of the company Borgmeier or the *Weidehähnchen* of Wiesenhof (AMT FÜR LANDWIRTSCHAFT, LANDSCHAFTS- UND

BODENKULTUR MÜNSINGEN, 2002). *Wiesenhof* is a company with its own breeding and slaughter houses that produces a wide variety of poultry products. Around 700 farmers are fattening poultry for this company (TAGEBLATT, 2002).

The *Freiland Puten Fahrenzhausen GmbH* put its emphasis on ecologically friendly produced free range turkey (FREILAND PUTEN FAHRENZHAUSEN GMBH, 2003). Specialised on free range eggs is the union *Erzeugergemeinschaft CW Öko Ei GmbH* (ERZEUGERGEMEINSCHAFT CW ÖKO EI GMBH, 2003). And there is a number of producers of ecologically friendly produced poultry such as the members of the *Interessengemeinschaft BIO-Geflügel e.V.* (INTERESSENGEMEINSCHAFT BIO-GEFLÜGEL E.V. 2003).

Sustainability and transparency of the current structure

The organic and free range egg producers and their associations as well as some niche associations such as the turkey producers try to implement more transparency and sustainable agriculture. Particularly for eggs but also for poultry products the labelling is perceived as not sufficiently clear.

The *Interessengemeinschaft BIO-Geflügel e.V* plans to establish more integrated businesses with the breeding and fattening on one farm. The expectation is that this will lead to a better transparency (INTERESSENGEMEINSCHAFT BIO-GEFLÜGEL E.V., 2003).

Interrelationships with rural development

The conversion of a highly industrialised egg and poultry production in cages into a free range production in according to criteria of animal welfare is generally considered to have a very positive impact on the environment and on rural development (BMVEL, 2003).

Bottlenecks to a sustainable development of rural areas

Particularly for eggs but also for poultry products the labelling is perceived as not sufficiently clear. Producer prices in mainstream production and marketing are extremely low. Many consumers have become used to low prices and are hardly willing to pay more (WENDT et al.,1999).

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4.5 The sheep sector

Overview of the sheep meat market

60,000 sheep farmers are working nationwide (WIRTSCHAFTSVEREINIGUNG DEUTSCHES LAMMFLEISCH, 2003). German sheep production only covers 50% of demand. A major consumer group are the Moslems living in Germany. Most of the sheep meat is sold directly (RLV, 2002). Organic sheep meat comes up to 5% of all sold sheep products, i.e. it has the highest proportion of organic to conventional of all in Germany sold meat (WENDT et. al., 1999).

Institutions, organisational forms and governance

The *Vereinigung Deutscher Landesschafzuchtverbände* (union of the German sheep breeding associations of the Länder) is promoting the German sheep meat together with the *Wirtschaftsvereinigung Deutsches Lammfleisch* (business association of German lamb meat). They have their own trademark for in Germany produced lamb and sheep meat (WIRTSCHAFTSVEREINIGUNG DEUTSCHES LAMMFLEISCH, 2003).

The *Vereinigung der Bergschafzüchter im Alpenraum* is an international association between the countries of the Alps that has been established in 2000. Its main aim is to promote sheep meat from that region in a regional and broader perspective (GRASEGGER, 2001).

Areas that exhibit dynamism in terms of being sustainable or alternative

Similarly as in the beef sector there is a significant number of regional level associations that focus on high quality, environmental attributes and alternative marketing channels. *Württemberger Lamm* is an example. It is a new trademark for lamb produced in Baden-Württemberg which means regional produced and marketed lamb. In this initiative a number of actors are working together with the aim to re-establish and if possible expand the market for regional high quality lamb from Baden-Württemberg. The key actors are: *Viehzentrale Südwest GmbH*, *Frischlamm GmbH*, *Landesschafzuchtverband Baden-Württemberg e.V.*, *MBW Marketing- und Absatzförderungsgesellschaft für Agrar- und Forstprodukte aus Baden-Württemberg mbH* and CMA (CMA, 2003).

Besides this several other regions promote their special lamb and sheep meat - often in connection with environmental goals (landscape, biodiversity). Some examples are: *Altmühltaler Lamm, Frankenhöhe Lamm* and *Rhönschaf*. Their strategy is to expand the sales of lamb and sheep meat with a regional marketing concept and to preserve the landscape (DVL 2002a, b, c; see also Section 6.2.12).

Sustainability and transparency of the current structure

The production of sheep has become almost unprofitable in micro-economic terms. However, its importance for landscape and biodiversity, and thus also for rural and green tourism has been more and more recognised in recent years. As a result many environmental organisations and particularly landscape management associations are actively promoting sheep farming - in most cases through marketing initiatives.

Interrelationships with rural development

Sheep farming is particularly important for preserving the landscape. Particularly in tourism areas there is also a certain demand for lamb products in restaurants. The image of this high quality lamb or sheep production is also transferred to tourist attractions and accommodations. Many examples can be found in the Rhön, such as the *Rhönschaf-Hotel* (DVL 2002a, b, c).

Bottlenecks to a sustainable development of rural areas

The knowledge of the preparation of lamb and sheep meat has largely been lost in Germany which stops the consumers to buy this meat (CMA, 2003).

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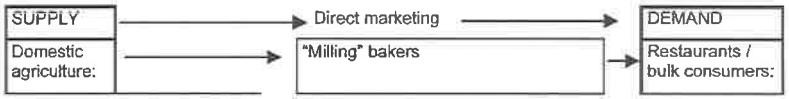
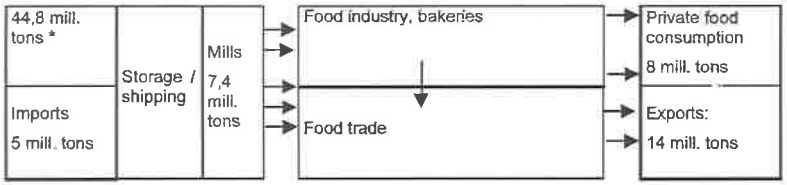
4.6 The cereal sector

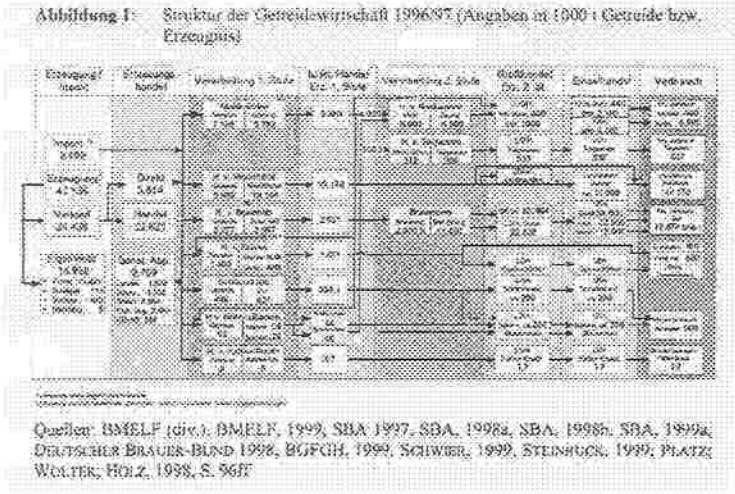
Overview of the cereal market





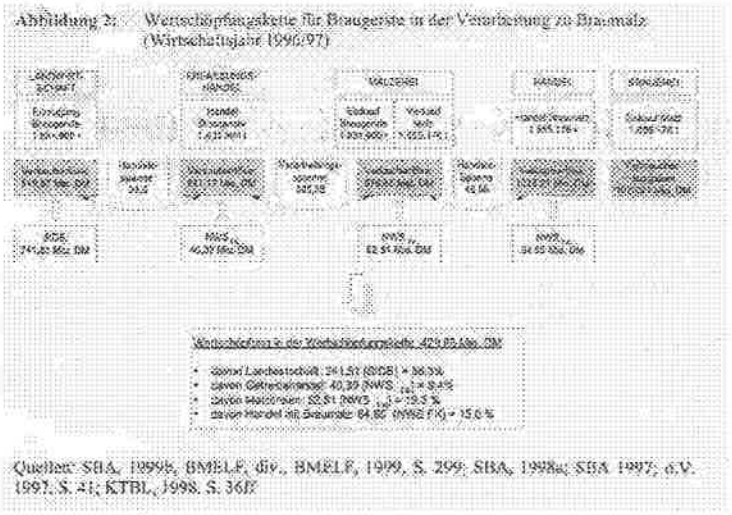
* 22 mill. tons for animal feeding

The food chain of the cereal sector in Germany is well documented. The following two illustrations show the structure of the German cereal and of the brewing barley food supply chain.



Quellen: BMELF (div.), BMELF, 1999, SBA 1997, SBA, 1998a, SBA, 1998b, SBA, 1999a, DEUTSCHER BRAUER-BUND 1998, BUFCH, 1999, SCHWER, 1999, STEINRUCK, 1999; PLATZ; WOLTER; HOLZ, 1998, S. 56ff

Source: HOLLSTEIN (1999)



Quellen: SBA, 1999b, BMELF, div., BMELF, 1999, S. 299; SBA, 1998a; SBA 1997; a.v. 1997, S. 41; KTBL, 1998, S. 36ff

Source: HOLLSTEIN (1999)

Main characteristics

Per capita consumption	76 kg / capita
Part of directly marketed products	3%
Part of organic production	0,77%
Part of organic market share on retail level	2,4% (bread)
Degree of self-sufficiency	126%

Sources: BMVEL, 2002 ; ZMP, 2002a ; ZMP, 2002f ; VDM, 2002

Processing

Around one third of the yield of wheat and one fourth of the yield of rye is processed in the mills to flour (VERBAND DEUTSCHER MÜHLEN, 2003).

The milling sector has undergone a significant concentration: In 2001 the seven biggest mills hold a market share of 57%. The total number of mills is 750. A substantial part of the processing industry is concentrated in the South of Germany (WENDT et al., 1999).

Foremost in the southern part of Germany we still find numerous small and medium scale mills, that often try to strengthen their market position by opting for products from alternative food supply chains (VDM, 2002).

Bigger mills often integrate into vertical contract systems with bakers, providing them with flour of constant and high quality. For these flour mixtures mills often use imported high

quality cereals (from Canada, Australia, South America) and additives for further improving of the flours' baking properties.

There are some 45,000 baker outlets in Germany (25,000 bakery enterprises, ZVB, 1996). Many bakers (estimation of the author: 10-15%) take up, at least partly, organic production. There are very successful examples of bakeries of all sizes (small local bakery up to internationally operating firms), that engaged into the organic market.

Organic cereals

In Germany ecologically friendly cereals and products are relatively important in the organic market. 0.8% of the cereal production in Germany is organic or ecologically friendly. Oats, rye and spring wheat have a much higher organic share than other cereals. Cereals are not commonly used as a raw product which makes it difficult to calculate the exact amount of sold organic or ecologically friendly products (WENDT et al., 1999).

Institutions, organisational forms and governance

An important national organisation is the *Verband Deutscher Mühlen*, which is the umbrella association of all German mills (VERBAND DEUTSCHER MÜHLEN, 2003).

In addition there are associations involved in marketing, lobbying and PR for specific subsectors such as the *Roggenforum e.V.* that promotes rye (ROGGENFORUM, 2003).

And again there are many regional level producer associations such as the *EZG Qualitätsgetreide und Ölsaaten Thüringen e.V.* that produces and promotes high quality cereals. The cereals are sold directly by the producers association (EZG, 2003a,b).

Areas that exhibit dynamism in terms of being sustainable or alternative

The main dynamism is associated with regional level producer associations and marketing initiatives. An example is the *Regio-Brot Bodensee* (regional bread from the lake of Constance). It is regional, registered society that includes farmers, bakeries and a mill in the region of the Lake of Constance. The ten farmers do not use any chemical pesticides. The mill uses also no chemicals and the 30 bakeries use old, traditional, regionally typical recipes. The processed cereals are wheat, rye and spelt. The bread receives the *Bodensee* label (DVL, 2002; MODELLPROJEKT KONSTANZ GMBH, 2003).

Another integrated concept can be found in the *Arbeitsgemeinschaft Qualitätsgetreide Südhessen*. This initiative produces high quality cereals, sells it directly to the regional mill which sells it products directly to the regional bakeries. The production from the seed to the final bakery product is seen as sustainable. All together 200 growers and 400 bakeries are involved in this initiative. The products are signed with the *Schloss-Korn* label (SCHLOSSMÜHLE OBER-RAMSTADT, 2003).

Sustainability and transparency of the current structure

New initiatives like the *Regio-Brot Bodensee* and the *Schloss-Korn* emphasise the high transparency and the sustainability of the food supply chain in their concepts (DVL, 2002; MODELLPROJEKT KONSTANZ GMBH, 2003; SCHLOSSMÜHLE OBER-RAMSTADT, 2003).

Interrelationships with rural development

Similarly as with the other sectors higher value added chains can - at least at regional level - increase the income base of farm households and of rural areas as a whole.

Bottlenecks to a sustainable development of rural areas

Organic cereals are, in general, of quite heterogeneous quality and in order to assemble sufficiently large charges of homogenous quality, storage companies, traders and mills need stock capacities. This makes organic milling relativeiy expensive, and, through punctual use of conventional stocks or transporters, vulnerable for cross-contamination (pesticide residues from conventional silos; see for example the Nitrofen problem; GMO etc.).

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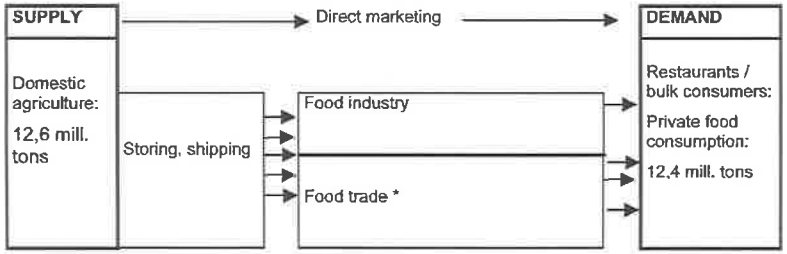
4.7 The potato sector

Overview of the potatoes market



Main characteristics

Per capita consumption	70 kg / capita
Part of directly marketed products	28%
Part of organic production	1%
Part of organic market share on retail level	4.9%
Degree of self-sufficiency	101%

Sources: BMVEL. 2002 ; ZMP, 2002a ; ZMP, 2002f ; VDM, 2002

In Germany 6 million tons of potatoes are used for food production every year and 3.5 million tons for industrial production. The import of potatoes tends to be higher than exports (AGEV, 2002).

Potato processing is rather concentrated: the 10 biggest enterprises hold 70% of the market. More than 40% of the products processed by industry are crisps, chips, powder for mashed potatoes or frozen gratin. Besides these industrial products, potatoes are also processed to schnapps, potato starch or feed. Schnapps and feed, however, become less important. 50% of all industrially used potatoes are processed into potato starch (BIOSICHERHEIT, 2003a).

Only an estimated 0.9% of total potato production is organic or environmentally friendly. One third of all potatoes is sold to producers' associations and one third directly to the consumer. The rest is sold directly from the grower to the processing industry, to health food shops or to bulk consumers. The price for organic potatoes is twice as high as the price for conventionally grown (WENDT et al., 1999).

Direct selling from farmers to consumers is still very important in the potato sector. Almost a third of all potatoes are sold at the farm gate or on farmers' markets. Many schemes for high quality, integrated and organic production exist on regional and local level.

Institutions, organisational forms and governance

The *Union der Deutschen Kartoffelwirtschaft* (UNIKA) (union of German potato growers and processors) was established in 2001 to improve German potato cultivation, production,

processing and marketing. At present it is tried to develop together with the CMA a so-called *Potato Card* which documents the chain of the potatoes from growing to the consumer. UNIKA tries to form an alliance of all people and organisations involved in this sector (WLV, 2001). In addition there is the *Bundesverband der obst-, gemüse- und kartoffelverarbeitenden Industrie e. V.* which promotes the potato processing industry (FÜNF AM TAG, 2003).

At regional level we find smaller organisations like for example the *Kartoffelerzeugergemeinschaft Magdeburger Börde* which promote regionally produced potatoes (KARTOFFELERZEUGERGEMEINSCHAFT MAGDEBURGER BÖRDE, 2002).

Areas that exhibit dynamism in terms of being sustainable or alternative

A new initiative that has been established in 2002 is the *InfoBüro Kartoffelverarbeitung*. This is an information centre established by the potato processing industry to inform the consumers about the processing of potatoes, the different products and food safety (INFOBÜRO KARTOFFELVERARBEITUNG, 2003).

And again it is mainly regional level initiatives that are involved in new forms of production and marketing and that often are developing particularly well. An example is the *Anbaugemeinschaft Speisekartoffeln östliches Münsterland e.V.* which promote integrated cultivated and quality controlled potatoes from the region Westfalen under the label *Kartoffel-Prinzessin* (potato princess) (ANBAUGEMEINSCHAFT SPEISEKARTOFFELN ÖSTLICHES MÜNSTERLAND, 2003).

Important too could become a new trend that applies to cereals, potatoes and sugar beets. Both crops are becoming more important as a renewable industrial raw material and/or a renewable source of energy. Plant breeding is important in this respect because breeds are developed that are more appropriate for industrial uses (e.g. a higher percentage of starch) than the typical breeds used for food (BIOSICHERHEIT, 2003b). A key question will be how this new trend will influence food production, the sector as a whole and markets.

Sustainability and transparency of the current structure

Mainly new mainly regional level initiatives are emphasising the sustainability and transparency aspect. Many are very consumer oriented, for example providing information about health aspects (INFOBÜRO KARTOFFELVERARBEITUNG, 2003; ANBAUGEMEINSCHAFT SPEISEKARTOFFELN ÖSTLICHES MÜNSTERLAND, 2003).

Interrelationships with rural development

Potatoes have a particular potential for farm-based processing and regional level marketing, thereby leading potentially to very substantial income and employment opportunities. Many care farms with handicapped people are involved in farm-based processing and regional level marketing. Apart from that the interrelationships with RD are similar as for cereals.

Bottlenecks to a sustainable development of rural areas

The price for organic potatoes tends to be twice as high as the price for conventionally grown products. Some analysts argue that this significantly limits total sales (WENDT et al., 1999).

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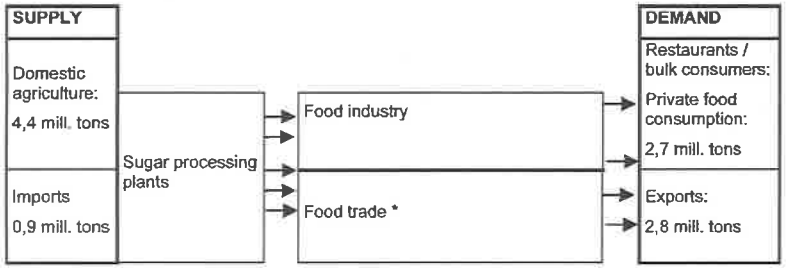
4.8 The sugar sector

Overview of the sugar market



Main characteristics

Per capita consumption	33,1 kg / capita
Part of directly marketed products	-%
Part of organic production	0.4%
Part of organic market share on retail level	-%
Degree of self-sufficiency	159%

In Germany 54.000 farms or approx. one sixth of all farms grow sugar beets. 31 refineries are processing sugar beets into sugar. In 1999/2000 only 16.9% of sugar production was used in private households. 19.8% was used in the confectionary industry, 19.0% in the beverage industry, 10.7% for the production of long life bakery product and nutriments, 6.5% for jam and canned fruit, 6.5% for the production of dairies and ice-cream and 3.2% are used in bakeries and pastry shops. 1% is used as industrial sugar for the production of pharmaceutical products and renewable raw materials (WLV, 2001).

Sugar consumption has a regional pattern. In Bavaria and Baden-Württemberg as well as in the eastern parts of Germany the consumption is significantly higher than in the western and northern parts (WIRTSCHAFTLICHE VEREINIGUNG ZUCKER, 2003a).

Institutions, organisational forms and governance

The German sugar market is dominated by the small number of some 20 firms, that run the 31 sugar refineries and hold 97% of the market (BARTENS / MOSLOFF, 2002). The biggest sugar company is *Südzucker* which produces 21.4% of the whole European sugar. It is an international company (SÜDZUCKER, 2003). A national level umbrella organisation is the *Wirtschaftliche Vereinigung Zucker*.

Organisations and associations of sugar beet producers and processors can be found at national and at regional level. The major associations are: *Arbeitsgemeinschaft zur Förderung des Zuckerrübenanbaus in Norddeutschland, the Dachverband Norddeutscher Zuckerrübenanbauer, Süddeutsche Zuckerrüben-Verwertungsgenossenschaft, Union-Zucker* and the *Verband Süddeutscher Zuckerrübenanbauer* (s. AGRAR.de 2003, GROTHAUS, H.-P. n.d. und RÜBENANBAUER- UND AKTIONÄRSVERBAND NORD n.d.).[10]

Areas that exhibit dynamism in terms of being sustainable or alternative

There are practically no concepts for extensive sugar beet growing. Organic sugar is mostly imported (cane sugar). Domestic production faces the difficulty of a lack of processing capacities for organic sugar.

Sugar beets are becoming more important in Germany as a renewable raw material for the production of paper, pharmaceutical products, detergents and ecologically friendly synthetics. Moreover it is used for renewable energy (KAUP, 1999).

Sustainability and transparency of the current structure

A better transparency of the sugar chain is postulated by the *Dachverband Norddeutscher Zuckerrübenanbauer (DNZ)*. Although the cultivation of sugar beets is based on a contract between the producers and the processing company which makes it easy to reconstruct the production, the production chain is not really transparent for the consumers (DNZ, 2002). Mainstream organisations claim that the contract system secures a high standard of environmentally friendly production and sustainability (WIRTSCHAFTLICHE VEREINIGUNG ZUCKER, 2003b).

Whether a potential can be seen in regional marketing concepts - like 'from the field of sugar beets to the jam jar' - that have not been developed yet in sugar production is uncertain (DNZ, 2002).

[10] Other important regional level associations are *Rübenanbauer- und Aktionärsverband Nord e.V., Verband Fränkischer Zuckerrübenbauer* and the *Zuckerrübenanbauerverbände Uelzen/Bremervörde* (AGRAR.de, 2003; GROTHAUS, 2003; RÜBENANBAUER- UND AKTIONÄRSVERBAND NORD, 2003).

Interrelationships with rural development

The sugar beet is a very important income source for many agricultural businesses. The sugar industry still has in some rural areas a significant economic function. It offers jobs within the processing industry as well as for suppliers to this industry (WVL, 2001).

The future of the sugar quota system will be very important for the future and regional distribution of sugar beet production. It will thus be important for RD too.

Bottlenecks to a sustainable development of rural areas

The transparency is one of the main problems as the complexity of chains in the food and beverage industry as well as in retailing is rather high. Closely related to that, many processors of sugar beet products seem not really interested in more transparency - possibly because transparency in this sector is not perceived as having an effect on market potentials (DNZ, 2002).

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4.9 The fruit and vegetables sector

In Germany around 80% of the malaceous fruits and 50 to 60% of the stone fruits are produced in accord with the guidelines of ecologically friendly, controlled and integrated cultivation (TIEMANN & GROSSGEBAUER, 2000). Market shares of organic produced fruit and vegetables are relatively high. 6% of vegetables sold is organic and 4% of fruit. The highest proportion of organic has beetroot. 40% of sold beetroot is organic.

Direct marketing is very important in the fruit and vegetables sector. Processing plays a less important role (WENDT et al., 1999).

Main characteristics

Per capita consumption	Kg / capita
Part of directly marketed products	13%
Part of organic production	4%
Part of organic market share on retail level	1.9%(fruit) 2.7% (vegetables)
Degree of self-sufficiency	-

Sources: BMVEL; 2002, ZMP 2002g.

In fruit and vegetable production we find comparatively little concentration on farm level. At the level of processing (juices, conserves, freezing), the situation is very different and the 10 biggest firms hold 50% of the respective markets.

Fresh fruits and vegetables have the highest share of organic production of all plant products and direct selling is well established. Many local and regional marketing schemes are based on sustainability aspects.

Institutions, organisational forms and governance

The *Bundesvereinigung der Erzeugerogranisationen Obst und Gemüse e.V.* is the umbrella organisation of all fruit and vegetable producers associations in Germany. Together with CMA they have established the *Deutsche Obst-Werbung GmbH* (German fruit marketing Ltd.). They, for example, sponsored the marathon of Cologne with the slogan *'Apfel mit Biss-dafür lauf ich meilenweit'* (apples with vigour - for that I run for miles) (DEUTSCHE OBST-WERBUNG GMBH, 2003).

In 2003 the *Deutsches Obst-Sorten Konsortium GmbH (DOSK)* (German fruit varieties consortium) was established by *Centralmarkt Rheinland eG, Elbe-Obst Erzeugerorganisation e.V., Marktgemeinschaft Bodenseeobst eG, Obstgroßmarkt Mittelbaden eG, VEOS Vertriebsgemeinschaft für Obst mbH* and the *Württembergische Obst- und Gemüsegenossenschaft* who together represent 80% of all organized fruit producers. Its aim is to develop new fruit varieties and promote them on the German market (BVEO, 2003).

And again there are a lot of smaller, regional-level organisations that are particularly engaged in promoting organic or environmentally friendly fruit and vegetable production. Some examples are *Bio-Vertrieb Rheinland Höfe GmbH, Handels-Speicher & Gärtnerhof GmbH* or the *Obst- und Gemüse Absatzgenossenschaft eG* (LEBENSMITTEL-PORTAL, 2003).

Areas that exhibit dynamism in terms of being sustainable or alternative

Many analysts see the future in a marketing that relates to sustainability, quality, an improved local and regional image of fruits and vegetables and in new varieties (WENDT et al., 1999).

Regional level fruit initiatives are important. An example is *Aprikosen vom Süßen See* which is an initiative that promotes apricots from Sachsen-Anhalt, the only apricot growing region in Germany. The aim is to increase the demand for regional apricots, provides regional must or jam industries and end consumes via direct marketing (DVL, 2002a).

Apples are processed and marketed on a regional level in projects like apple juice *Apfelsaft aus dem Bamberger Land, Apfelsaft aus Rechberghausen und Umgebung* or *Brandensteiner Bio-Apfelsaft* (DVL, 2002a,b,c).

A very high dynamism shows the segment of *Streuobst*, which comes from traditional orchards with lower yielding and often more tasty and less susceptible fruit tree species. These

orchards are a typical element of cultural landscapes in Germany. Some typical examples of the very large number of similar initiatives are e.g. *SILKA e.V. - Streuobstinitiative im Landkreis Kassel, Streuobstinitiative Werra Meißner, Streuobstmosterei MALUS, Streuobstinitiative des Landschaftspflegeverbands Birkenfeld e.V., FÖG / Fördergemeinschaft regionaler Streuobstbau Bergstraße-Odenwald-Kraichgau e.V., FÖS / Förderkreis regionaler Streuobstbau Hohenlohe-Franken e.V., FUS Fördergemeinschaft Unterländer Streuobstwiesen, Wörlitzer Apfeltraum and the Arbeitsgemeinschaft Streuobst e.V.* (s. DVL. 2002e, 2002f, 2002g, 2002h, 2002i, 2002j, 2002k, 2002l and ARBEITSGEMEINSCHAFT STREUOBST e.V. 2001; see also Section 6.2.6).

Sustainability and transparency of the current structure

Because of the comparatively little degree of concentration of fruit and vegetable production on production level and the importance of direct and regional marketing the transparency of the current structure can be considered rather high.

Sustainability criteria indicate that we find a range from very high intensity vegetable and fruit production systems - that often have caused environmental problems in the past - to very extensive traditional orchards with no agri-chemical use at all. Also organic production of vegetables is relatively common and often combined with direct local or regional level marketing.

Interrelationships with rural development

Preservation and re-planting of historical and regionally typical *Streuobstwiesen* as part of cultural landscapes is in many regions of Germany an important objective (ARBEITSGEMEINSCHAFT STREUOBST e.V., 2001). It also preserves biodiversity. The local markets are provided by high quality products from the region which presumably also leads to some employment effects (DVL 2002e, 2002f).

Bottlenecks to a sustainable development of rural areas

Imports of environmentally friendly or organic fruit and vegetables are relatively important, limiting the potential for more expensive domestic or local production. The problem is aggravated by the fact that producers, processors and promoters are not well integrated into one strategy (REUTER 2002, p.5). One of the main bottlenecks for the further spreading of organic fruit and vegetables production is a lack of sufficient processing (foremost freezing) capacities.

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5 Drivers of change

5.1 Political factors: The "Agrarwende" - a turning point in agricultural policy

In 2001 the Federal Ministry of Consumer Protection, Food and Agriculture (BMVEL) changed its name and its policy orientation. A main aim of the new policy is to guide the agricultural sector towards higher quality and environmental compatibility, and away from a strategy that is geared to the lowest possible production costs and increasingly higher yields. Consumers who want to have safe as well as high quality foods are the starting point. At the same time it is taken into account that for many people environmental compatibility and a good treatment of animals are important aspects of quality.

Quality instead of quantity

The main orientation and starting point of the new German agricultural policy clearly is food safety, food quality, environmental friendliness of production and animal welfare. The new watchword is *"quality instead of quantity". "Thinking should start at the shop counter"* defines the guiding principle of the new agricultural and consumer protection policy that has been announced by the newly established Federal Ministry for Consumer Protection, Food and Agriculture. Existing agricultural legislation (e.g. Agriculture Act, Agricultural Marketing Fund Act) have been reviewed and partly reformed in the light of new challenges and objectives.

The promotion of production methods in harmony with nature and the environment is the second main pillar of the new policy orientation. Ecological farming methods are understood by many actors and interest groups as the most straight forward way to achieve safe and environmentally compatible agriculture. With its new "Bio" label of quality, this trend is supported and - by means of the regulations and testing procedures that the quality label entails - a high degree of transparency and safety for consumers is ensured. Transparency in food production and the highest professional standards *"from the field and stable - to the consumer's dining table"* are the essential objectives of the new agricultural policy orientation.

Proximity between producers and consumers

The new consumer and agricultural policy aims also at proximity between producers and consumers. Regional marketing and direct marketing by farmers creates transparency for the consumers. Closer contacts between producers and consumers are particularly well suited for re-establishing the trust that consumers have lost. *"From the region for the region"*: Regional products and direct marketing serve to combine consumer protection and economic stimulus for rural areas. Food processing is located within the region. That creates jobs and provides potential for income earning. Furthermore, this partnership between farmer, regional processor and consumer can ensure that fewer transport trucks clog up the roads and that the number of animal transports is reduced.

Extreme competition among discounters seen as a major problem

At the moment approximately 80% of all food is sold in supermarkets. From that it is concluded that the new agricultural policy can only succeed *"if all retailers, particularly the major chains, no longer compete on the basis of who offers the cheapest milk, but who gives consumers the largest selection of good products"* KÖNAST (2001). Suppliers' readiness to reduce quality standards in order to reduce their prices has locked them into a *"vicious downward spiral."* Against this background, the new agricultural policy is thought to only be successful if a larger proportion of the 82 million consumers are prepared *"to pay more for higher quality products from the neighbouring region than they do today."*

In a recent press information German Minister of Agriculture (BMVEL, 02/2003) attacked the extreme competition among discounters that most often is being carried out through extremely low prices for food products. In many instances food products are sold below the price that that discounter paid when buying the product from the manufacturer. The key message of the Ministry's was press information was that there must be a fair price for food, and that otherwise no sustainable agriculture and rural development was possible. The reaction in media and society to this press information had been rather harsh, and it can be summarised with *"the lower the price, the better"*.

The *Regionen Aktiv* pilot programme

The policy for rural areas essentially focuses on the conservation and sustainable development of regions with rural character as places to live in and work and as regions fulfilling recreational and ecological functions. In future, concepts and measures will have to be more strongly aligned with an interrelationship between regionally significant policy fields. The pilot

project "Active Regions - Shaping Rural Futures" provides key impetus in this context.[11] The initiative is expected to point to new ways for safeguarding and creating secure jobs for the future so that rural areas can continue to meet their important tasks and functions. This also encompasses the development of income alternatives. Test trials of strategies concerning new technologies and improvement of rural quality of life are being run in selected rural areas in the *Regionen Aktiv* (RA) pilot programme as well as under the Community initiative LEADER+ (BMVEL, 2003a).

In the framework of the RA programme rural areas that promote their own development independently and co-operatively are to become a model for the future. A main aim is to guide the agricultural sector towards higher quality and environmental compatibility, and away from a strategy that is geared to the lowest possible production costs and increasingly higher yields (BMVEL, 2001). The urban-rural relationship is an important dimension in this pilot programme. The improved marketing of sustainable agriculture is a key idea in all 18 model regions (KNICKEL, 2003). Effective regional co-operation arrangements in the area of processing and marketing of agricultural products are an important concern that RA focuses on. The programme supports new initiatives in which various companies and business sectors within a region work together. Forms of regional co-operation, which have been demonstrated by the Agenda 21 processes, round table discussions or local action groups serve as examples to be emulated.

The RA initiative as a whole can be seen as a new future-oriented policy measure with a very high potential for policy-practice synergies (KNICKEL, 2003). Stakeholders are the farming sector, consumers, taxpayers, citizens with food safety, environment and animal welfare interests, the food industry as well as regional level decision-makers and administrators

Particular inputs are also expected for the further development of the Joint Task for the Improvement of Agricultural Structures and Coastal Protection (GAK) which is the major national support instrument to foster an integrated rural development. Alongside a reorientation of the agri-food policies, promotional principles that stipulate that funds accruing from modulation should flow back into agricultural holdings were incorporated into the GAK framework plan (BMVEL, 2003a).

5.2 Economic factors: Changes in the food system

The main trends in the agricultural sector and are inextricably linked with the changes in the food system:

- Farm growth and specialization: the monofunctional, production-oriented development path (strong links with the globalisation of markets, food industries and supply chains; driving economic concept: economies of scale and specialization; conventional, sectoral development paradigm)
- Polarisation: the concentration of production, income and employment at regional level; and, simultaneously, the marginalisation of other regions (less-favoured, mountainous areas; regions that are more distant to processing industries and markets);

Another trend that is referred to less frequently and that has gained more and more importance in the last decade, is the diversification and regionalisation of agriculture and an increasing quality orientation. The diversity of agriculture and land use across Europe and food traditions are seen as a strength. Regional-level processing and marketing, short chains and community supported agriculture are closely linked developments.

[11] For more information see (in German): http://www.modellregionen.de.

The price-cost squeeze that became more severe from the mid 1980s onwards and falling farm incomes are driving the diversification and regionalisation of agriculture and an increasing quality orientation.

Discussions about the price-cost squeeze and a necessary reorientation have intensified with the BSE crisis and beef farms especially still have to face major losses in the marketing of their produce. In December 2000 and January 2001 the consumption of beef went down by 70%. Simultaneously the consumption of poultry, fish and vegetables increased substantially. The consumption of and turnover in organic food increased in the first six months of 2001 by 37%. KUHNERT et al. (2002) stress that following these dramatic shifts we had quite a significant 'normalisation' to earlier levels of consumption thereafter. They emphasize that a professional communication of the value added of organic food and improvements in processing and marketing are necessary in order to stabilize higher levels of consumption.

5.3 Social factors

5.3.1 Consumer attitudes

Most German consumers want cheap, safe and high quality food. At present, only 10% of total household expenditures in Germany are spend for food.

For a substantial proportion of people, however, environment friendliness and a good treatment of animals are other important aspects. In an *Emnid* opinion poll that examined the purchasing criteria of consumers with respect to agricultural foods, the top priorities were "regional origin" at 39 percent and "ecological production" at 30 percent. At 30 percent "taste" landed ahead of the "price" (8.4 percent).

In more recent years health has become the prime motivating force for most organic customers, as the failings of the conventional food system (particularly in the wake of BSE) have become more prevalent and widespread. Committed consumers are far less sensitive to price differentials and more likely to adapt to the inconvenience of making special trips to farms, farmers markets or specialist shops. Occasional organic consumers are far less likely to change their shopping habits in order merely buy organics. When organic produce is available in their supermarket (or, in the south, at a local market) they may be inclined to buy it, if the price differential is not too great.

Many consumers associate a higher price with higher quality. The expectation is that quality products will be more expensive than conventional products. The same consumers are willing to pay a premium of, on average, 20 - 25% for organic products. Directly marketed products are considered to be of high quality even if they are not organic. Quality and freshness are other important criteria as indeed is the concept of 'food with a story' (WIRTHGEN, 1999, 2000).

5.3.2 Consumers perception of regional food: Some survey results

In Germany, consumers' uncertainty and bewilderment with regard to food grew during the 1970s and 1980s, but have a slight tendency to decline since the mid-1990s. Still one third of all consumers show mistrust in food security (ALVENSLEBEN, 2002). Recent surveys confirm this information: even though the part of the "worried consumers" reaches 70% during food crisis, it rapidly drops to one third once the crisis is no longer present in the media (MICHELS, 2002).

In scientific literature, the consumer behaviour towards regional and organic food is reflected since several years. BESCH & PRACHHART (1988, p.627f), by questioning a representative sample of German private households (n=1003), observe, that in 53% of the households the origin of the product is being paid attention for in the buying process. Interviewees, who pay

attention to products' origin, are described as open-minded, with a great willingness to pay and of relatively high income levels.

A conjoint-analysis (n=407, non-representative) run by SATTLER (1991) focused on a regional label in Schleswig-Holstein. SATTLER concludes that the label is of a higher importance to a specific group of consumers and that it's effectiveness in the buying decision depends on the combination with well-established brands.

Interviewing of some 1,400 private households and of some 700 farmers was done by HENSCHE et al. (1993) in Nordrhein-Westfalen. The consumer research results suggest that some 48% of the consumers are interested in the origin. Some 33% are exclusively caring for food safety.

A representative research on consumer behaviour carried out by ALVENSLEBEN & GERTKEN (1993) in the city of Kiel and in three areas in the "new" Länder (former GDR) suggests that the importance of origin is differing between the regions (from 60 to 83%). The authors conclude, that patriotism seems to play a decisive role, because the highest preferences are always accredited to the "own region". Second best origins are those of neighbouring regions, followed by region of a high tourist interest. They observe as well, that regional labels have a minor importance in the buying decision, even if they are notorious. Yet, ALVENSLEBEN and GERTKEN believe, that regional labels offer some chances for small and "unknown" brands but they are still reminding, that regional labels can also equalize the offer and are a potentially competing with established brands: The authors recommend: If a regional label is concentrating on the origin, brand-owners might do better to integrate the regional origin directly in the brand or product communication, and not to use the regional label. A second survey, which was run exclusively in Kiel (n=265), showed a slight growing of the preferences for regional products, mainly in the fresh-food sector. ALVENSLEBEN concludes that regional origin should be signalled clearly and that the emotional link between the consumer and its region should be strengthened.

WIRTHGEN et al (1999) did, in 1999, a consumer survey (n=328) in Hesse, Thuringia and Saxony-Anhalt. By means of an item-battery they studied consumer's attitudes towards regional products and specialities, confirming, that there is preference for regionally produced food. Other criteria, as "freshness", "taste" and "health" still are important purchase motifs, but especially regional food benefits from its image of "freshness and quality". This positive image results in consumers' readiness to pay a price premium for regional products, that is not yet sufficiently exploited by producers. Country-of-origin effects are especially important, when information on specific markets and prices are rare.

SCHAER (2001) did a consumer survey in southern Germany on the reciprocal importance of the quality cues "regional" and "organic" that shows that most consumers prefer food from their own region. The wish for regional origins is even stronger when buying organic products. There was evidence too for some mistrust in anonymous marketing chains (supermarkets) and a (at least declared) preference for local markets and direct selling.

RICHTER (2001) interviewed some 2,500 consumers in three regions: southwest Baden (a German region bordering France and Switzerland), the French region Alsace and the region of northeast Switzerland. In each region consumers rated regional origin as important in their food choice. In the German region most respondents rated regional origin higher than prices and appearance. The results of a cluster analysis suggest that some 28% of the consumers in Baden (Germany) can be characterised as a regional-and-environment-orientated type of customer.

5.3.3 Food scares and an increasing lack of confidence in conventional chains

Markets for high quality food and safe food are attractive in Germany. A large number of consumers who traditionally favoured conventional produce, have turned to organic meat during the BSE crisis which they now view as a safer purchase.

The Act concerning the Reorganization of Consumer Health Protection and Food Safety of 6 August 2002 marked a key step in the institutional improvement of food safety in Germany. Effective as of 1 November 2002, the Federal Institute for Risk Assessment (BfR) as well as the Federal Office of Food Safety and Consumer Protection (BVL) assumed the responsibilities assigned to them by act of law. The key mandate of BfR is the performance of risk assessments in the fields of preventive consumer health protection and food safety. This includes early briefing of policy-making bodies and the general public about existing hazards or hazards which cannot be ruled out as well as cooperation with the European Food Safety Authority (BMVEL, 2003a).

5.3.4 Changing perceptions of quality and new societal demands

Environment, biodiversity, landscape, regenerative functions, food quality, food safety and new services in rural areas have become new societal demands that have been recognised as new opportunities by many farm households.

Ever more consumers attach importance to ethical criteria, like fair trade with developing countries or animal welfare, when they take buying decisions. Animal welfare has been given constitutional rank with the amendment to the Basic Law that entered into force in August 2002, strengthening animal welfare and improving the effectiveness of its provisions. The improvement of animal welfare regulations with particular emphasis on EU legislation that regulates the transport of live animals is a closely related goal (BMVEL, 2003a).

5.4 Technical factors

Important technical factors that are related with the development of food chains are:

- The lack of appropriate small and medium scale processing technologies; technology development is mainly geared towards the requirements of larger scale structures.
- The lack of appropriate small and medium scale storage, preservation and marketing facilities; again technology development is mainly geared towards the requirements of larger scale businesses.
- The increasing influence that GMOs could have on development of food chains. The negative effects on organic farming have been well researched and documented. The *Bund Ökologische Lebensmittelwirtschaft* has created a fund for organic farming with the aim to collect donations from consumers aimed at supporting organic farmers in lawsuits over dangers to their farms from GM contamination.[12] It must be assumed that the effects could also be very negative on regional marketing and alternative chains.

5.5 Other factors

5.5.1 Lack of clear regulations on labelling

Until now there has been a lack of clear regulations on labelling. Too many unsubstantiated environmental, animal welfare, nutritional and health claims have been used on food labels.

"What's in it must be on it" demand consumer organisations.[13] To give consumers better guidance in their purchasing decisions, two new quality labels were introduced by the Federal Ministry of Consumer Protection, Food and Agriculture. The first quality mark distinguishes products from organic farms, while the second that is being prepared is to testify compliance with minimum standards in conventional agriculture (see also Section 6.1.1).[14]

[12] More information is available at www.keine-gentechnik.de.

[13] Arbeitsgemeinschaft der Verbraucherverbände.

Consumer information and the safeguarding of consumer free choice is a key consumer policy aim for the Federal Government. The new state Eco-label for organic products, that was publicly presented in early September 2001, has been successfully launched on the market. In January 2003, over 700 label users had notified the labelling of over 14,000 products with the Eco-label (BMVEL, 2003a) (see also Section 6.1.2).

With respect to the authorization, labelling and traceability of genetically modified food and feed, comprehensive provisions are being prepared at EU level. The Federal Government endorses a speedy entry into force. BMVEL had already been responsible for genetically modified food and feed. The remaining task areas associated with green genetic engineering were transferred from the former Federal Ministry of Health (BMG) to BMVEL in October 2002 (BMVEL, 2003a).

5.5.2 Regulations that are counterproductive

Short chains (direct milk sales, farm shops), on-farm processing (in particular cheese making) and farm butcheries (production and direct sales of meat and sausages) are the fields of activity that are the most severely hampered by sometimes unnecessarily demanding hygiene and food safety regulations. While the major food safety and animal disease problems of the past years (BSE, use of antibiotics, swine fever, FMD) stemmed from industrialised production systems, it is the more traditional, artisan type farm-based processing and marketing activities that are facing the most severe limitations. An example is the tightening of EU regulations on direct milk sales and milk storage that has led to a higher number of dairy farmers discontinuing than the retirement scheme for dairy farmers (*Milchrente*) (KNICKEL, 2003).

6 Catalogue of FSC initiatives in Germany

6.1 Cross-sectoral initiatives

6.1.1 Quality and Safety (QS) Label for Conventional Food

Industry at first had been critical of plans for a label for conventional food. According to industry such a label is superfluous and would generate confusion among consumers because current legislation already guarantees good quality for conventional food.

In order to avoid government action the food industry eventually gave up their opposition. Involving all steps of the production chain (from the feedstuffs industry through to farming up to meat processing and food retailing) the QS company (Quality and Safety Label for Conventional Food, QS)[15] has been formed. The aim is to assure the quality and safety of food

[14] A quality label standing for minimum standards, production methods in harmony with nature and the environment, animal friendly and land-based livestock farming as well as regional origin and no use of GMOs in agriculture. Biotechnology is a major area of debate in Germany. Strict rules governing the marketing and production of genetically modified food have been approved. The new rules include stricter labeling and monitoring of genetically altered foods, feeds, seeds and pharmaceutical products.

[15] British Embassy Bonn (2002) QS Quality and Safety Label for Conventional Food.
http://www.britischebotschaft.de/en/embassy/agriculture/Agri-Note-Quality-and-Safety-Label.htm

products from the producer to the consumer. The QS label is open to German and imported produce. It applied in a first stage to red and poultry meat. Companies wishing to participate in the QS system must be licensed under it. Companies wishing to apply for licensing will be inspected by a control institute which they will choose from a pool. If requirements are more than 80% met, the manager of the QS system will license them. The QS label will only be given to products which have been produced and handled by QS-licensed facilities throughout the food chain.

QS label based on existing assurance systems for eggs

The QS quality and safety system is largely modelled on existing quality and safety labelling systems for battery eggs: the *Gütegemeinschaft Eier* and for eggs from alternative forms of production the KAT.[16] Both systems are also managed by the manager of the QS system. Thus companies wishing to participate in the systems have to meet comprehensive requirements covering all aspects from production to the point of sale. Licensees may only use the label as long as they pass regular checks. Both systems are very successful and together cover about 80% of the market for fresh eggs. Fluid egg products are not covered by the system.

Production specifications for each level

The production specifications for each level are laid down in the QS charter (*Konzept, QS-Handbuch*).[17] The QS Charta specifies requirements for every level in the food chain i.e. feedstuff, farming, livestock transport, slaughter and cutting, processing, refrigerated transport and retail. For now in most cases the legal standards are taken to allow as many producers as possible to participate in the system. Higher standards are applied e.g. for feed: no MBM and only listed feed stuff may be used.

In the beginning the system will be applied for meat only. Guidelines for processed meat products such as sausages and requirements for non-meat ingredients in processed food products such as herbs have been developed.

QS quality and safety system based on a broad alliance

The novelty of the QS system is that it comprises all members of the production chain including retailers. Nearly all big retailers are participating in the system (*Aldi* is not). The big retailers cover 80% of total retail sales and 65% of meat sales. The butchers who have a share of 35% of German meat sales will be allowed to participate in the system at a later stage when special guidelines have been developed for them.

The part played by the CMA in the system is to award the QS label and to carry out promotional work. Important to mention is the fact that the QS system has been organised completely privately with no government funding involved.

Imported produce can use the QS label if consistent with QS specifications

The QS label is open to imports from other EU and third countries. Production specifications can be adapted to some degree to meet the specific conditions in the country involved but in principle QS specifications must be applied. In some of the cases where German manufacturers have to comply with legal requirements which exceed EU standards (such as documentation by a contracted vet of any medicine used) QS will extend the higher standards to all users of the system. QS are negotiating with companies in the Netherlands, Denmark, Belgium, France and Austria.

A detailed description of the system can be found on the Internet in English under http://www.q-s.info/englisch/index_e.html.

[16] See www.ggm-eier.de and http://www.kat-cert.de/deutsch/indexe.html.

[17] See http://www.q-s.info/index_d.html (in German).

Keeping operating costs low through a lean system

The QS system is trying to keep operating costs as low as possible by staying lean. Membership fees for licensees are still under discussion. The QS company has about 4 staff. They manage the system by ensuring that control institutes are approved, controls carried out, specifications set up, and a sanction committee appointed. QS sign the contracts with the licensees and enforce sanctions. However, all the other actual work is commissioned to outside bodies. Membership and control costs lie between €150 and €200 per farm and year.

Work commissioned to outside bodies

- Controls and inspections are carried out by EN 45011 accredited inspection institutes. Controls are threefold. The licensed company carries out self-assessment. Random controls will be carried out by QS-licensed private control institutes through employed or freelance auditors. The auditors meet certain training standards. The premises have to bear all the costs of the controls.
- It has not yet been finally decided who is to carry out the control of the control. QS would prefer government bodies to do it. Another option would be to use other control institutes from other regions.
- Sanctions are to be swiftly decided by a neutral sanctioning committee. Currently the QS has designated the same three members sanction committee which *Orgainvent* (Germany's largest beef labelling institute) is using.
- Specifications under the QS Charter are set up by an expert committee of five members. Each committee member represents one of the levels of the food chain. The CMA only has advisory powers in this body. Specifications under the charter are guaranteed characteristics.
- Documentation of the results of controls at all levels is held in a central database operated by a private service company. This database is compatible with the Official Central Cattle Tracing Database in Munich and with the databases of the farm groups (*Bündler*). Farmers do not become members as individuals but apply for group membership in a QS farming group (*Bündler*). Only if they meet the criteria are they allowed into the group.

By analogy to the German label for organic food, the *Biosiegel* (see Section 6.1.2), the QS label will also be used in parallel to existing premium labels.

After initial reservations the Farmers Union (DBV) now strongly supports the QS system and urges farmers to join. The DBV believes that there is no alternative to the quality assurance system to regain consumer confidence. Similar quality assurance systems are already practised in Denmark and the Netherlands. The DBV says that the German trade should aim to sell exclusively quality assured products.

6.1.2 Biosiegel

The *Biosiegel* is the German label for organic food. The voluntary government organic food label was introduced at the end of 2001. It may be used by itself or in addition to other logos, by all products which comply with the EU organic foods regulation. A private company (*Ökoprüfzeichen* GmbH) in Bonn has been commissioned to help the trade adopt the new label in a quick and unbureaucratic way. There is no licensing procedure. Correct use will be

achieved by punishing breaches with high fines or imprisonment. The first products that carried the label were fruit and vegetables. Other products followed.

The expectation is that the *Biosiegel* will contribute to the goal of extending organic production to 20% of farmland by 2010. Basing the label on the relatively mild EU organic standards was justified by the need first to broaden demand before "deepening" it (i.e. by toughening the standard). A national organic label that is easily recognisable by the consumer and based on Federal legislation is seen by the Ministry as an important step towards this broadening.

Substantial marketing of the new label

The introduction of the label has been supported with substantial marketing funding (7.5m Euro in 2002. A website (http://www.bio-siegel.de) provides consumers with information about the label. The new label reads "organically produced according to the EU regulation for organic farming". It is in the form of a hexagon relating to the 'magic hexagon' that stands for the alliance needed between the consumer, farmers, feed producers, the food industry, the trade and politicians in order to bring about a 'new start' for agriculture.

Shortly before the presentation of the organic label the Cabinet approved a draft 'Act on the introduction and use of a label for organic produce' defining the scope of application for the label and setting penalties. The Act also empowers the government to draw up a separate ordinance giving details of how to use the label.

Reactions to the introduction of the label

In May 2001 the German organic associations, AGÖL, Demeter and Bioland and the German Farmers' Union (DBV) criticised that the label has been based on the EU standard that is lower than German organic labels. Apart from that the approach has been supported as a first step in the right direction. In particular, the umbrella approach has commended itself as a good way of increasing transparency in the organic market with its over 100 different private logos. Memories remain of an earlier private umbrella label (the *Ökoprüfzeichen*, ÖPZ) which apparently failed because of lack of consumer awareness. Bioland concedes that the new label will reach more consumers than their traditional set of enthusiasts for organic food. AGÖL, the former umbrella organisation of organic farmer groups in Germany, supported the approach of broadening first but has set a deadline of 2003 by when "deepening" (i.e. tightening) at EU level should have followed. Otherwise standards should be tightened unilaterally. The German Farmers Union is concerned that the softer EU standards may distort competition for the farmers of German organic groups, which have tighter criteria.

The food industry wants to be involved because they recognise the publicity impact that the label and new government policy can achieve for organic produce. REWE (one of the larger supermarket chains) wants to use the new label as well as its own label (*Füllhorn*). Metro (another large chain) is still assessing whether to use labels separately or concurrently.

The agricultural ministers from many Länder governments share the worry of the farmers union that the lower standards of the organic label may put German organic farmers with higher standards out of business. Bavaria and Baden-Württemberg want to continue to operate their own organic labels.

6.2 Specific initiatives

The following presentation follows the standard format suggested by the Swiss team (WP2-Methodology-Initiatives.doc). In many instances a more in-depth analysis is necessary in order to fill the remaining gaps in information. This particularly relates to the assessment of the initiatives that must be based on a more thorough analysis.

6.2.1 *Tegut* - a supermarket chain with organic and regional food products

General Structure of the Company

Tegut is a family-owned, regional company, which has been founded in 1947. 316 outlets (ZMP, 02/03) belong to *Tegut*, which are concentrated in mid-Germany (Hessen, northern Bavaria, western Thuringia). As regional company, *Tegut* has a turnover of nearly 1 billion Euro, which results in the 23rd place in the ranking of German retail chains (FiBL, 2003).

The main targets of the company are to satisfy consumers demands in terms of high quality products and to co-operate as good as possible within the company and with other organisations and to use resources sensible. Products from sustainable and organic production are of some importance. *Tegut* strives for offering at least one organic article in each product group.

Organisation of organic product marketing

The chief of purchasing is responsible for the organic assortment in co-operation with the single category managers. The company works with a benchmarking system to improve the marketing performance of the outlets continuously.

At *Tegut* single staff members in the markets are informed about organic products. In addition the head of the market is educated. Organic production also is a topic at the basic training for all sales staff.

Turnover of organic products

Tegut has the highest market share of organic sales in Germany with 8% in 2002 (ZMP 02/03). The total turnover of organic products was EUR 80 million in 2002 (ZMP 02/03). Bread, fruits and vegetables and dairy products are the most sold items. The sales of sweets, candies and fish are expected to increase in future.

Tegut wants to increase the market share of organic products up to 15% until 2005.

Labelling and communication policy

An own organic trademark of *Tegut* does not exist, but nearly the whole organic assortment of the company consists of *Alnatura* items. *Alnatura* is both processor and retailer with own organic supermarkets in Germany.

Organic products are an important aspect in the communication of *Tegut*. PR measures, advertisement and sales promotion is used for communicating the organic assortment.

Nearly every issue of the own consumer magazine *Marktplatz* contains information about the organic assortment and reports about organic agriculture. Two times a week adds are published in different newspapers. The sales promotion is manifold: Leaflets and brochures inform about organic articles in the stores, the sales personnel is trained about organic issues and can inform the consumers, product samples are organised and the products are clearly pointed out of the conventional assortment by signs, posters and a colour and letter

system. Every price tag of organic items is marked with a green spot and a "B" for *biologisch* (organic).

Organic range and price policy

Tegut offers 1,200 organic items, evidently more than the rest of the German retail chains. Nearly half of the articles belongs to the *Alnatura* assortment. Organic bakeries and meat or meat products are produced by own subsidiaries, therefore the range and the choice are quite big within these product groups. The own bakery *Herzberger* exclusively applies organic bread and pastries (ZMP 02/03). Some special outlets offer an exceptional high number of organic products.

The products are placed both within the conventional assortment and blocked on separate shelves. Usually cereals are blocked.

The maximum price premium at *Tegut* is 40% at dairy products. Organic eggs, meat and meat products, fruits and vegetables are sold with price differences between 20-30%. Bread and pastries have the smallest price premiums with less than 10%.

Strengths and weaknesses in organic product marketing

Tegut is the most successful company in selling organic products in Germany and belongs to the market leaders in Europe. One strength of the company is the great effort in communicating organic products by connecting the image of the enterprise to the organic assortment. This attitude combined with an early start of selling organic products already in the beginning of the 1980s makes it possible for *Tegut* to get account to *Demeter* products as only retailer in Germany. Actually *Demeter* items are only available at organic shops, health food shops or at direct selling in Germany. Therefore *Tegut* attracts also consumers which would usually avoid retail chains for buying organic food.

6.2.2 Ökomodell Achental

O - General information

- Name of the initiative: Ökomodell Achental
- Type of product(s): beef products, dairy products, juice, fruit, schnapps, honey, oil, eggs, flour

A - Organisation and governance of the "new" supply chain

(1) Boundaries of the supply chain and main actors

34 producers; first processors or packers; trade /wholesalers.

The producers sell their products directly via internet. The communities, the regional farmers and regional shops are part of this initiative while the communities are the main actors.

- Geographic limits of production: regional

  Chiemgau in Traunstein/Bavaria is located near the border to Austria. The communities of Bergen, Grabenstätt, Grassau, Marquartstein, Schleching, Staudach-Egerndach, Übersee and Unterwössen. Tourism is the main economic sector.

- Size of the production in tons, value at the consumer level in Euros: ?

(2) Collective organisation of the initiative

- Type of the collective organisation: ?
- Operation structures: regional public institution (label); one director, eight mayors and five assessors representing different groups of inhabitants are at the top of the initiative. It has 75 members (2001). The main objectives are to raise the quality of rural life, to improve the income of farmers and to improve transnational activities.

(3) Social history of the initiative

- Birth: 1997; community of Schleching; Bavaria
- Main objectives and intended beneficiaries at this time: 1. Socio-territorial; 2. Economic; 3. Environmental. The Community's main aims are to improve the general situation of the region, diversify the agricultural incomes, promote regional timber and sustainable tourism.
- Main historical key events until now: In 1997 the community of Schleching made an application for INTERREG II. 1998 the other seven communities of the region joined. In 1999 the *Verein Ökomodell Achental e.V.* was founded without the community of Übersee which joined one year later. Since 2001 the label *Qualität Achental* for regional food products is invented.
- Future - main plans and intentions & bottlenecks: The aim is to sustain the quality of rural life in the region. The initiative wants to work together closer with other regional initiatives.

(4) Marketing issues

- Distribution channel: direct selling; farmers' markets
- Relevant consumer market: local, regional
- Main competitors: ?
- Labelling: regional label (Qualität Achental and Natürlich aus dem Chiemgau)

The regionality and the transparency are the main marketing strategies. The slogan *"Lebensqualität aus Bauernhand - direkt und ohne Umweg"* shows that the main emphasis is on the direct marketing of high quality products. The initiative has produced several advertising products.

B - Sustainability profile

Agri-environmental	
biodiversity of wildlife	X
preservation of specific species /races	X
soil erosion	
water quality	X
animal welfare	
food-miles	
other important aspects	X
Socio-territorial	
regional employment and preservation of rural communities	
food quality and typicity	X
preservation of landscapes	X
mountain (marginal) areas keeping	
resistance to sprawl	
agritourism	X
other important aspects	X
Economic	

producers' income	X
possible succession for farms	
farmers' quality of life	
higher net value per unit of product	
higher net value added on regional level	
other important aspects	

- ❒ Rough assessment of the performance of the initiative: ?

C - Institutional support (local, regional, sector, national, European)

The initiative was supported by INTERREG II of the EU. It also got financial support from the Bezirksregierung Oberbayern and the communities.

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Ökomodell Achental (ed.) (2003): http://www.oekomodell-achental.de/ (20.06.2003)

6.2.3 Bergisch Pur

O - General information

- ❒ Name of initiative: *Bergisch Pur - Erzeuger-Verarbeiter-Gemeinschaft Bergisches Qualitätsfleisch*
- ❒ Type of product(s): beef, cheese/dairy products, lamb, juice, trouts

A - Organisation and governance of the "new" supply chain

(1) Boundaries of the supply chain and main actors

14 producers; farms' size: 10-110ha

First processors or packers; the *Biologische Station Oberberg* as an environmental institution, 14 farmers and 6 butchers are the main actors (2001).

- ❒ Geographic limits of production: regional

The *Bergische Land* is a low mountain range between the Rhine near Cologne and the *Sauerland* with precipitation up to 1,300 mm. It is a typical dairy region close to the high populated Rhine-Ruhr-area.

- ❒ Size of the production in tons, value at the consumer level in Euros: ?

(2) Collective organisation of the initiative

- ❒ Type of the collective organisation: club (code of practices, selection of new members)
- ❒ Operation structures: cooperative; regional public institution (label); The *Biologische Station Oberberg* works as a co-ordinator. The advisory council is extended every time a new product will be offered. The initiative has guidelines (code of practices) and is mainly a marketing strategy.

(3) Social history of the initiative

- ❒ Birth: 1998; butchers, farmers, *Biologische Station Oberberg*; Bergisches Land / Nordrhein-Westfalen
- ❒ Main objectives and intended beneficiaries at this time: 1. Economic; 2. Socio-territorial; 3. Environmental. The butchers of the region wanted to improve the image of regionally produced beef after BSE and other scandals.
- ❒ Main historical key events until now: In 1998 the initiative was established to sell beef. In 1999 juice produced from fruit of "Streuobstwiesen" was included. Lamb became part of the initiative in 2000. Then followed trouts and dairy products, mainly cheese. Since 2003 the initiative opened its own warehouse "bergisch pur - Vertriebs-GmbH".
- ❒ Future - main plans and intentions & bottlenecks: The initiative wants to include more butcher's shops, but the butchers are very sceptical. New products, like pork and honey are planned to be offered.

(4) Marketing issues

- ❒ Distribution channel: direct selling; specialised stores
- ❒ Relevant consumer market: regional
- ❒ Main competitors: conventional products
- ❒ Labelling: collective brand (bergisch pur)

Henkel (chemical industry) supported and financed part of the marketing concept. To promote BSE-free beef was the first strategy.

B - Sustainability profile

Agri-environmental	
biodiversity of wildlife	X
preservation of specific species /races	
soil erosion	
water quality	
animal welfare	X
food-miles	X
other important aspects	
Socio-territorial	
regional employment and preservation of rural communities	
food quality and typicity	X
preservation of landscapes	X
mountain (marginal) areas keeping	X
resistance to sprawl	
agritourism	
other important aspects	X
Economic	
producers' income	X
possible succession for farms	
farmers' quality of life	
higher net value per unit of product	X
higher net value added on regional level	
other important aspects	

- ❒ Rough assessment of the performance of the initiative: ?

C - Institutional support: regional, sector

The *Landwirtschaftskammer Rheinland* (regional agricultural administration) gives advice. The Land Nordrhein-Westfalen supported the initiative with a marketing grant that covers 1/3 of the costs. Another 1/3 was given by the CMA.

References

BERGISCH PUR (ed.) (2003): http://www.bergischpur.de/ (20.06.2003)

BIOLOGISCHE STATION OBERBERG (2003): Regionalvermarktung. http://www.biostationoberberg.de/regional.htm (20.06.2003)

DEUTSCHER VERBAND FÜR LANDSCHAFTSPFLEGE (DVL) (ed.) (2002): bergisch pur – Bergisches Qualitätsrindfleisch und Lammfleisch. http://www.reginet.de/ri-daten/nrw37.htm (19.06.2003)

HERHAUS, F. (2002a): bergisch pur – Vermarktung regionaler landwirtschaftlicher Produkte im Naturpark Bergisches Land. http://www.reginet.de/regio_vor_bergisch_pur.htm (20.06.2003)

6.2.4 Bäuerliche Vermarktung Oberes Donautal e.G. (BODEG)

O - General information

- ❒ Name of the initiative: Bäuerliche Vermarktung Oberes Donautal e.G. (BODEG)
- ❒ Type of product(s): honey, schnapps, meat products (beef, pork, lamb), wool products, sheep's milk, apple juice

A - Organisation and governance of the "new" supply chain

(1) Boundaries of the supply chain and main actors

18 producers; trade /wholesalers; consumers; other associations

The main actors are the regional environmental protection agency, farmers, craftspeople, gastronomes and the people living in the natural park.

- ❒ Geographic limits of production: regional

The initiative is located in the natural park *Naturpark Obere Donau* which is an attractive tourism region in Baden-Württemberg.

- ❒ Size of the production in tons, value at the consumer level in Euros: ?

(2) Collective organisation of the initiative

- ❒ Type of the collective organisation: club (code of practices, selection of new members)
- ❒ Operation structures: cooperative; the natural park society, the *Fachausschuss Naturpark-Lebensmittel*, the farmers, gastronomes and inhabitants are working together to promote food that is environmentally friendly produced in the region to preserve the same.

(3) Social history of the initiative

- ❒ Birth: 1999; farmers, traders, craftspeople; Beuron / Baden-Württemberg

- ❒ Main objectives and intended beneficiaries at this time: 1. Socio-territorial; 2. Environmental; 3. Economic. Agriculture shall be ecologically friendly and landscape preserving. Moreover agriculture and tourism shall be combined. First, only apple juice was produced.
- ❒ Main historical key events until now: The *Initiative Naturparklebensmittel* was formed into BODEG in 1999.
- ❒ Future - main plans and intentions & bottlenecks: BODEG wants to improve and expand the agri-tourism part of their cooperative.

(4) Marketing issues

- ❒ Distribution channel: big retailers; restaurants; specialised stores
- ❒ Relevant consumer market: regional
- ❒ Main competitors: ?
- ❒ Labelling: regional label (*Lebensmittel aus dem Naturpark Obere Donau*)

All ecologically and landscape preserving produced food and natural products of the region are promoted with the label of *Lebensmittel aus dem Naturpark Obere Donau* and sold directly to restaurants, specialised stores or retailers that sale or process this food in the region.

B - Sustainability profile

Agri-environmental	
biodiversity of wildlife	
preservation of specific species /races	X
soil erosion	
water quality	
animal welfare	
food-miles	
other important aspects	
Socio-territorial	
regional employment and preservation of rural communities	
food quality and typicity	X
preservation of landscapes	X
mountain (marginal) areas keeping	
resistance to sprawl	
agritourism	X
other important aspects	
Economic	
producers' income	X
possible succession for farms	
farmers' quality of life	
higher net value per unit of product	
higher net value added on regional level	
other important aspects	

- ❒ Rough assessment of the performance of the initiative: ?

C - Institutional support: local

The local communities and the natural park are involved in this project with financial support.

Institutions created: The *Fachausschuss Naturpark-Lebensmittel* as an expert committee was established.

References

DEUTSCHER VERBAND FÜR LANDSCHAFTSPFLEGE (DVL) (ed.) (2002): Appetit auf Naturpark-Naturparklebensmittel. http://www.reginet.de/ri_daten/baw2.htm (19.06.2003)

KULLMANN, A. (2002): Grundlagen zur Konzeption der Dachmarke Rhön- Analyse anderer Regionalmarken. Kurzversion. http://www.zukunftsregionen.de/modellregionen/pdfFolder/kurzvers_Regionalmarken.pdf (20.06.2003)

NATURPARK OBERE DONAU (ed.) (2000): Ein regionales Vermarktungsprojekt. http://www.naturpark-obere-donau.de/lebensmittel.htm (20.06.2003)

NATURPARK OBERE DONAU (ed.) (2000): Naturpark- Apfelsaft. http://www.naturpark-obere-donau.de/apfel.htm (20.06.2003)

6.2.5 Interessengemeinschaft Enzkreis - Biobauern

O - General information

- ❒ Name of the initiative: *Interessengemeinschaft Enzkreis - Biobauern*
- ❒ Type of product(s): grain products, pasta, honey, tea, coffee, meat products, vegetable, potatoes, eggs, bakery products, cereals, wine, oil, spices, baby food, cosmetics

A - Organisation and governance of the "new" supply chain

(1) Boundaries of the supply chain and main actors

The producers sell their products directly via internet.

- ❒ Geographic limits of production: regional; Enzkreis is in the Northern part of the Black Forest.
- ❒ Size of the production in tons, value at the consumer level in Euros: ?

(2) Collective organisation of the initiative

- ❒ Type of the collective organisation: ?
- ❒ Operation structures: ?

(3) Social history of the initiative

- ❒ Birth: 1995; organic farmers; Enzkreis
- ❒ Main objectives and intended beneficiaries at this time: 1. Environmental; 2. Socio-territorial; 3. Economic.
- ❒ Main historical key events until now: The initiative was founded in 1995.
- ❒ Future - main plans and intentions & bottlenecks: The initiative wants to expand the range of products.

(4) Marketing issues

- ❒ Distribution channel: direct selling
- ❒ Relevant consumer market: local, regional

- ❒ Main competitors: ?
- ❒ Labelling: collective brand (*Interessengemeinschaft Enzkreis-Bauern*)

B - Sustainability profile

Agri-environmental	
biodiversity of wildlife	
preservation of specific species /races	
soil erosion	X
water quality	
animal welfare	X
food-miles	
other important aspects	X
Socio-territorial	
regional employment and preservation of rural communities	
food quality and typicity	X
preservation of landscapes	
mountain (marginal) areas keeping	
resistance to sprawl	
agritourism	
other important aspects	
Economic	
producers' income	X
possible succession for farms	
farmers' quality of life	
higher net value per unit of product	
higher net value added on regional level	
other important aspects	

- ❒ Rough assessment of the performance of the initiative: ?

C - Institutional support (local, regional, sector, national, European)

References

BIOBAUERNMARKT REISER (ed.) (2003a): Frisch & Natürlich. Biobauernmarkt Reiser. http://www.biobauernmarkt.de (19.06.2003)

DEUTSCHER VERBAND FÜR LANDSCHAFTSPFLEGE (DVL) (ed.) (2002): Interessengemeinschaft Enzkreis- Biobauern. http://www.reginet.de/ri-daten/baw46.htm (19.06.2003)

6.2.6 FÖG Fördergemeinschaft regionaler Streuobstanbau

O - General information

- ❒ Name of the initiative: *FÖG Fördergemeinschaft regionaler Streuobstanbau Bergstraße-Odenwald-Kraichgau e.V.*
- ❒ Type of product(s): juice

A - Organisation and governance of the "new" supply chain

(1) Boundaries of the supply chain and main actors

70 producers; first processors or packers

Owners of traditional fruit orchards (*Streuobstwiesen*), who mainly grow apple trees; two small beverage industries (*NEU's* and *Kelterei Falter*) produce juice.

- ❒ Geographic limits of production: regional
- ❒ Size of the production in tons, value at the consumer level in Euros: 2002: 108,250 litre juice

(2) Collective organisation of the initiative

- ❒ Type of the collective organisation: ?
- ❒ Operation structures: The FÖG is an association of the fruit growers of the region. They are involved in the advisory service, controlling, public relations and lobbying. The commercialisation is done by the beverage industries.

(3) Social history of the initiative

- ❒ Birth: 1989; Mannheim
- ❒ Main objectives and intended beneficiaries at this time: 1. Socio-territorial; 2. Environmental; 3. Economic.
- ❒ Main historical key events until now: ?
- ❒ Future - main plans and intentions & bottlenecks: ?

(4) Marketing issues

- ❒ Distribution channel: specialised stores
- ❒ Relevant consumer market: regional
- ❒ Main competitors: conventional products
- ❒ Labelling: private trademark (*Falter* and *NEU's*)

The regionality and the transparency are the main marketing strategies. The slogan *"Lebensqualität aus Bauernhand - direkt und ohne Umweg"* shows that the main emphasis is on the direct marketing of high quality products. The initiative has produced several advertising products.

B - Sustainability profile

Agri-environmental	
biodiversity of wildlife	X
preservation of specific species /races	X
soil erosion	
water quality	
animal welfare	
food-miles	
other important aspects	
Socio-territorial	
regional employment and preservation of rural communities	
food quality and typicity	X
preservation of landscapes	X
mountain (marginal) areas keeping	

resistance to sprawl	
agritourism	X
other important aspects	
Economic	
producers' income	X
possible succession for farms	
farmers' quality of life	
higher net value per unit of product	X
higher net value added on regional level	
other important aspects	

- ❒ Rough assessment of the performance of the initiative: ?

C - Institutional support:

National programmes first supported the clearing of the "Streuobstwiesen" instead of the maintenance.

References

DEUTSCHER VERBAND FÜR LANDSCHAFTSPFLEGE (DVL) (ed.) (2002): FÖG/Fördergemeinschaft regionaler Streuobstanbau Bergstraße-Odenwald-Kraichgau e.V. http://www.reginet.de/ri_daten/baw31.htm (19.06.2003)

FÖG (ed.) (2003): Fördergemeinschaft regionaler Streuobstanbau Bergstraße-Odenwald-Kraichgau. http://home.t-online.de/home/lothar.ela/subdomaene-foeg1/index.htm (20.6.2003)

6.2.7 Freisinger Land

O - General information

- ❒ Name of the initiative: *Freisinger Land*
- ❒ Type of product(s): bread, flour, rolls, eggs, lamb, sheep's ham/salami, honey, pasta, oil of pumpkin seeds

A - Organisation and governance of the "new" supply chain

(1) Boundaries of the supply chain and main actors

27 producers; first processors or packers; second processors; trade /wholesalers; environment associations; other associations

The main actors can be subdivided into 5 groups: the church, the consumers, the environmentalists, the agriculture and the trade. The church is represented by the Kath. Kreisbildungswerk, Kath. Landvolkbewegung, KAB, Evangelische Kirche, Kath. Landjugend and the Dorfhelferinnenschule Freising. The environmental associations are *Bund Naturschutz, Landesbund für Vogelschutz, Verband Bayerischer Bienenzüchter* and the *Landschaftspflegeverband Freising*. The mill and 12 bakeries are vitally important for the initiative. Agriculture can be subdivided into 2 egg producers, 7 grain growers, 10 beekeepers, 1 pumpkin cultivator and 6 shepherds.

- ❒ Geographic limits of production: regional

The rural district Freising is the largest hop cultivation area of the world. Two rivers (Isar and Amper), three mountains (Nährberg, Wehrberg and Lehrberg) and the hills of the tertiary are characteristic for this region.

- ❒ Size of the production in tons, value at the consumer level in Euros: ?

(2) Collective organisation of the initiative

- ❒ Type of the collective organisation: ?
- ❒ Operation structures: regional public institution (label); producers' association; certification organisation. The five groups are working together to save and improve the quality of life for men, animals and plants. It shall also support the advisory and protections of consumers. It wants to initiate new initiatives according to Agenda 21 in the region and to integrate local and regional spirits. Guidelines for any product are prepared to ensure high quality.

(3) Social history of the initiative

- ❒ Birth: 1999; the five groups mentioned above; Freising/Bavaria
- ❒ Main objectives and intended beneficiaries at this time: 1. Environmental; 2. Socio-territorial; 3. Economic. The initiative wanted to support sustainable agriculture and build up a regional marketing strategy that offers fair trade of regionally produced products.
- ❒ Main historical key events until now: In October 1999 the initiative was established and sold its first honey. In April 2000 was the first sale of lamb and in August of rolls. In March 2001 the first eggs were sold and in September 2001 pasta.
- ❒ Future - main plans and intentions & bottlenecks: The initiative wants to offer more products, e.g. milk and beer.

(4) Marketing issues

- ❒ Distribution channel: direct selling; restaurants
- ❒ Relevant consumer market: local, regional
- ❒ Main competitors: conventional products
- ❒ Labelling: regional label (*Freisinger Land*)

The regional products shall be promoted with the label *Freisinger Land.*

B - Sustainability profile

Agri-environmental	
biodiversity of wildlife	
preservation of specific species /races	X
soil erosion	
water quality	X
animal welfare	X
food-miles	X
other important aspects	X
Socio-territorial	
regional employment and preservation of rural communities	X
food quality and typicity	X
preservation of landscapes	X
mountain (marginal) areas keeping	
resistance to sprawl	X
agritourism	

other important aspects	X
Economic	
producers' income	
possible succession for farms	
farmers' quality of life	X
higher net value per unit of product	X
higher net value added on regional level	X
other important aspects	X

- ❒ Rough assessment of the performance of the initiative: ?

C - Institutional support (local, regional, sector, national, European)

References

DEUTSCHER VERBAND FÜR LANDSCHAFTSPFLEGE (DVL) (ed.) (2002): Freisinger Land. http://www.reginet.de/ri_daten/bay73.htm (19.06.2003)

FREISINGER LAND (ed.) (2003): http://www.freisinger-land.de/ (19.06.2003)

6.2.8 IGERO - Interessengemeinschaft Extensivrinderhaltung Osnabrück e.V.

O - General information

- ❒ Name of the initiative: IGERO - Interessengemeinschaft Extensivrinderhaltung Osnabrück e.V.
- ❒ Type of product(s): beef

A - Organisation and governance of the "new" supply chain

(1) Boundaries of the supply chain and main actors

40 producers; environment organisations

The farmers keep their cattle using a low intensity production and grazing system. The *Naturschutzbund Osnabrück* is the environmental organisation that is involved.

- ❒ Geographic limits of production: regional

IGERO is located in the Osnabrücker Land which is in Southern Niedersachen and Northern Nordrhein-Westfalen. It has a touristic interesting region as it includes the natural park *Teutoburger Wald/Wiehengebirge* and has several spas. A lot of species of the fauna and flora are endangered.

- ❒ Size of the production in tons, value at the consumer level in Euros: approx. 4 mill. €

(2) Collective organisation of the initiative

- ❒ Type of the collective organisation: open group (code of practices, free entry of new members)

Operation structures: producers' association; the NABU has initiated the IGERO. To control that the criteria are fulfilled a board is built up. It combines animal welfare associations, consumers' protector, NABU and members of the producers' association. The high quality of

beef produced in according to guidelines of animal welfare is the aim. The farmers are only allowed to keep Galloway or Highland Cattle.

(3) Social history of the initiative

- ❒ Birth: 1997; NABU; Landkreis Osnabrück
- ❒ Main objectives and intended beneficiaries at this time: 1. Environmental; 2. Socio-territorial; 3. Economic. The IGERO wants to keep cattle according to guidelines of animal welfare without any antibiotics, hormones and genetic manipulated animal feed. It also wants to give environmentalists and farmers a platform to discuss animal welfare and environmental issues.
- ❒ Main historical key events until now: In 1997 the IGERO was established.
- ❒ Future - main plans and intentions & bottlenecks: IGERO wants to expand so that farmers producing pork can become member as well.

(4) Marketing issues

- ❒ Distribution channel: direct selling; big processing companies (e.g. *Zimbo*)
- ❒ Relevant consumer market: local, regional, national
- ❒ Main competitors: ?
- ❒ Labelling: private trademark(s) (e.g. Zimbo)

The cattle is slaughtered only 90 minutes (maximum) from the farm and then sold directly in the region. There are now some big processing companies (e.g. Zimbo) that sell the beef outside the region. This second outlet shall be extended.

B - Sustainability profile

Agri-environmental	
biodiversity of wildlife	X
preservation of specific species /races	X
soil erosion	
water quality	X
animal welfare	X
food-miles	X
other important aspects	X
Socio-territorial	
regional employment and preservation of rural communities	
food quality and typicity	
preservation of landscapes	X
mountain (marginal) areas keeping	
resistance to sprawl	
agritourism	
other important aspects	
Economic	
producers' income	X
possible succession for farms	
farmers' quality of life	
higher net value per unit of product	X
higher net value added on regional level	
other important aspects	

- ❒ Rough assessment of the performance of the initiative: ?

C - Institutional support (local, regional, sector, national, European)

References

DEUTSCHER VERBAND FÜR LANDSCHAFTSPFLEGE (DVL) (ed.) (2002): IGERO - Grünlandschutz selbst finanziert. http://www.reginet.de/ri_daten/nds7.htm (19.06.2003)

IGERO (ed.) (2003): http://www.igero.de/ (20.06.2003)

PIEPER, B. (2000): Qualität durch Vertrauen. Das Osnabrücker NABU-Projekt Grünlandschutz selbstfinanziert. In: Naturschutz heute. 2/00. http://www.nabu.de/nh/200/osnabrueck200.htm (21.06.2003)

POPPENSIEKER, G. & W. POPPENSIEKER (2003): Das Osnabrücker Land. http://www.poppensieker.de/bi_ol.htm (21.06.2003)

6.2.9 *Neuland* - Verein für tiergerechte und umweltschonende Nutztierhaltung e.V.

O - General information

- ❒ Name of the initiative: *Neuland* - Verein für tiergerechte und umweltschonende Nutztierhaltung e.V.
- ❒ Type of product(s): pork, beef, lamb, poultry, eggs

A - Organisation and governance of the "new" supply chain

(1) Boundaries of the supply chain and main actors

producers; first processors or packers; consumers associations; environment associations; other associations.

The farmers, the Arbeitsgemeinschaft Bäuerliche Landwirtschaft (1 member), Deutscher Tierschutzbund (1 member), Verbraucher Initiative e.V. (1 member), BUKO Agrar Koordination (1 member) and BUND (1 member) are the actors of *Neuland*. They represent besides the farmers' interests, two agricultural associations, the German Union of Animal Welfare, a consumers association and environment association.

- ❒ Geographic limits of production: national

The initiative is working nationwide in Germany. The farm sizes are generally between 30 and 200 ha UAA. The majority of the farmers are located in north-western Germany that is a centre of cattle and pork breeding.

- ❒ Size of the production in tons, value at the consumer level in Euros: ?

(2) Collective organisation of the initiative

- ❒ Type of the collective organisation: club (code of practices, selection of new members)
- ❒ Operation structures: producers' association; certification organisation. The farmers are members of the *Neuland* e.V. as well as the named associations. Each of the associations has one member in the initiative. They control indirectly with a special committee the farmers according to the quality guidelines of *Neuland*. The products then are sold to special butcher's shops, gastronomy and canteen kitchens. The sales to the consumer are mainly done through specialised butchers (in the north there are about 80), the majority selling exclusively *Neuland* products. All slaughter houses are inspected, and every part of the supply chain is monitored by *Neuland* employees. In

the management of the cooperation there are representatives of the family farmers association (AbL), environmental NGOs (BUND), animal welfare (*Tierschutzbund*) and consumer organisations (*VerbraucherInitiative*).

Decentralised organisation structure: farmers establishing regional cooperatives and organizing the marketing; Neuland awarding the quality certificate and advising the farmers cooperations; *Neuland* has specific production guidelines for the diverse species; the producers are controlled by internal and external auditors according to the ISO 9002 quality standard; contracts between farmers and butchers regulate production volumes and prices (aiming at a price stabilization); guidelines for sausage production include a declaration of origin.

(3) Social history of the initiative

- ❒ Birth: 1988; cooperation between farmers and NGOs (Arbeitsgemeinschaft Bäuerliche Landwirtschaft, Deutscher Tierschutzbund, Verbraucher Initiative e.V., BUKO Agrar Koordination, BUND)
- ❒ Main objectives and intended beneficiaries at this time: 1. Environmental; 2. Economic; 3. Socio-territorial. The aim is to realize a new concept of animal welfare (against battery farming), quality (controlled premium quality) and ecologically friendly farming. Other objectives are: animal health; less breeding for high production intensities; sustainable agriculture; consumer health; only regional fodder (no soybeans); no use of antibiotics; no GMOs; short distance transport; production limits.
- ❒ Main historical key events until now: In 1988 *Neuland* was established. Ten years later in 1998 it got the right to give its own certification. Obligatory FMD test since 2000. Guidelines for turkey production since 2001.
- ❒ Future - main plans and intentions & bottlenecks: *Neuland* wants to expand the amount of butcher's shops that sell *Neuland* products. The problem is that butcher's shops are becoming less important in Germany.

(4) Marketing issues

- ❒ Distribution channel: specialised stores; restaurants; canteen kitchens
- ❒ Relevant consumer market: national; the majority of the butchers are in urban areas and conurbations like Berlin and the Ruhrgebiet
- ❒ Main competitors: conventional products; other sustainable agriculture labelled products
- ❒ Labelling: private trademark / collective brand (*Neuland*)

Neuland sells its products directly to butcher's shops, canteen kitchen and gastronomes. The farmers don not sell to supermarkets because they want to show transparency. The marketing uses advertising, posters, adhesive labels and PR. The *Neuland* label is only available if every step of the supply chain is controlled and the *Neuland* guidelines are observed.

B - Sustainability profile

Agri-environmental	
biodiversity of wildlife	
preservation of specific species /races	X
soil erosion	
water quality	
animal welfare	X
Food-miles	X

other important aspects	X
Socio-territorial	
regional employment and preservation of rural communities	
food quality and typicity	X
preservation of landscapes	
mountain (marginal) areas keeping	
resistance to sprawl	
agritourism	
other important aspects	
Economic	
producers' income	X
possible succession for farms	X
farmers' quality of life	
higher net value per unit of product	X
higher net value added on regional level	X
other important aspects	

- ❒ Rough assessment of the performance of the initiative: ?

C - Institutional support: sector, national

The association has established it own guidelines to certify "*Neuland*" beef. After the recent food crises the Federal Ministry (BMVEL) initiated various marketing efforts on quality meat products. In the Federal support programme GAK the support of animal welfare and sustainable production has been integrated, especially investments in stable building.

Institutions and regulations created by the initiative: The special *Neuland* production guidelines have set an example for successful and sustainable production that is also in line with animal welfare demands.

References

NEULAND (ed.) (2003): http://www.neuland-fleisch.de/ (19.06.2003)

6.2.10 *Tagwerk* Genossenschaft

O - General information

- ❒ Name of the initiative: *Tagwerk* Genossenschaft
- ❒ Type of product(s): meat products, dairy products, wine, bread, grain products, vegetable, detergents, cosmetics

A - Organisation and governance of the "new" supply chain

(1) Boundaries of the supply chain and main actors

80 producers; trade /wholesalers; independent stores; consumers

Tagwerk is an association of producers and consumers who want to farm environmentally friendly. They do not only produce and sell their products, but are also engaged in the management of the landscape. Butchers and bakers are processing these products. Consumers help to finance the initiative.

- ❒ Geographic limits of production: regional

The initiative is located in the districts Erding, Freising, Landshut, Mühldorf and the northern part of Ebersberg which are north and east of Munich in Bavaria.

- ❒ Size of the production in tons, value at the consumer level in Euros: ?

(2) Collective organisation of the initiative

- ❒ Type of the collective organisation: open group (code of practices, free entry of new members)
- ❒ Operation structures: cooperative and association; *Tagwerk* is a cooperative with a regional wholesale. Its products are sold to specialised shops, weekly markets, green boxes and consumers. Then there is an association that does the PR.

(3) Social history of the initiative

- ❒ Birth: 1984; ecologically producing farmers and gardeners & ecologically oriented consumers; Dorfen / Bavaria
- ❒ Main objectives and intended beneficiaries at this time: 1. Environmental; 2. Economic; 3. Socio-territorial.
- ❒ Main historical key events until now: In 1984 *Tagwerk* was build up. In 1994 it won the award "*Landwirtschaft und Naturschutz*". In 1998 it opened a centre to hold seminars and so on.
- ❒ Future - main plans and intentions & bottlenecks: *Tagwerk* wants to expand, but there are many competitors.

(4) Marketing issues

- ❒ Distribution channel: specialised stores; weekly markets; direct selling (incl. a box scheme; *Ökokiste*); restaurants
- ❒ Relevant consumer market: regional
- ❒ Main competitors: other sustainable agriculture labelled products
- ❒ Labelling: collective brand (*Tagwerk*)

B - Sustainability profile

Agri-environmental	
biodiversity of wildlife	X
preservation of specific species /races	
soil erosion	
water quality	
animal welfare	
food-miles	X
other important aspects	X
Socio-territorial	
regional employment and preservation of rural communities	X
food quality and typicity	X
preservation of landscapes	X
mountain (marginal) areas keeping	
resistance to sprawl	
agritourism	X
other important aspects	
Economic	
producers' income	X
possible succession for farms	
farmers' quality of life	

higher net value per unit of product	X
higher net value added on regional level	X
other important aspects	X

- ❒ Rough assessment of the performance of the initiative: ?

C - Institutional support (local, regional, sector, national, European)

References

DEUTSCHER VERBAND FÜR LANDSCHAFTSPFLEGE (DVL) (ed.) (2002): Tagwerk. http://www.reginet.de/ri_daten/bay53.htm (19.06.2003)

TAGWERK (ed.) (2003): http://www.tagwerk.net/ (19.06.2003)

TAGWERK (ed.) (2003): Willkommen bei der TAGWERK-Ökokiste? http://www.oekokiste-tagwerk.de/start.htm (20.06.2003)

6.2.11 *Upländer Bauernmolkerei* in Hessen

O - General information

- ❒ Name of the initiative: Upländer Bauernmolkerei
- ❒ Type of product(s): dairy products

A - Organisation and governance of the "new" supply chain

(1) Boundaries of the supply chain and main actors

74 dairy farmers in Nordrhein-Westfalen and Hessen produce organic milk; first processors or packers; trade / wholesalers; consumers; environment associations. The *Upländer Bauernmolkerei* processes 500,000 kg conventional and 1,200,000 kg organic milk every month. It has 26 employees. The dairy that had been taken over by a farmers cooperative in 1996 from the *Tuffi* company. The dairy has for a long time been considered by a tremendous success in terms of establishing a high quality, regional and organic product in the market. Rates of increase in turnover and prices paid to farmers have been remarkable.

In 2002 the dairy cooperative had 74 organic farmers as members. 15 mill. kg organic milk was processed plus 7 conventional milk. With 20 employees the dairy is the largest employer in the area. A large share of total production is sold through two smaller supermarket chains (*Tegut, Familia*). Particularly *Tegut* is known for its high share of products from organic and sustainable agriculture and for the - from the farmer's perspective - more fair price policy. The dairy is still in the hands of the farmers cooperative. The key person is Josef Jacobi, who is also on the board of the "*Arbeitsgemeinschaft Bäuerliche Landwirtschaft (AbL)*", the German family farmers association.

- ❒ Geographic limits of production: regional

  Upland is a traditional dairy region at the boarder between Nordrhein-Westfalen and Hessen.

- ❒ Size of the production in tons, value at the consumer level in Euros: 500,000 kg conventional and 1,200,000 kg organic milk

(2) Collective organisation of the initiative

- Type of the collective organisation: no formal private collective organisation
- Operation structures: Cooperative. The dairy farmers are bringing their milk to the dairy where it is processed. The whole dairy is run by the farmers. 26 other people are employed there. They want to promote the regional milk. High quality of the organic products is the objective.

(3) Social history of the initiative

- Birth: 1996; farmers, environmentalists, private and business people, the community of Willingen, Hessen; Willingen-Usseln / Hessen
- Main objectives and intended beneficiaries at this time: 1. Environmental; 2. Economic; 3. Socio-territorial. Organic dairy farmers searched for a dairy to process their milk. At the beginning only 18 farmers were involved so the dairy was not working to full capacity. Conventional milk had to be bought as well to sustain the dairy.
- Main historical key events until now: In 1998 the first dairy cooperation in the region was formed. In 1994 the old dairy closed. The restored dairy opened again in 1996 to produce organic dairy products. In 2002 the museum "*Muhmuseum*" was opened to show the dairy process to interested people. Moreover a milk café and a dairy store are opened.
- Future - main plans and intentions & bottlenecks:

(4) Marketing issues

- Distribution channel: direct selling; big retailers (e.g. Tegut); specialised stores; other (schools, wholesale).
- Relevant consumer market: regional, national. More recently the dairy gave up its regional focus and the milk prices paid to farmers have decreased substantially. During a recent survey it was even found that farmers that had converted to organic farming are re-converting (pers. comm. J. Schramek).
- Main competitors: conventional products
- Labelling: regional / collective brand (*Upländer Bauernmolkerei*). The dairy products are promoted with the slogan *"In jedem Liter Milch steckt ein schönes Stück Region"* (every litre of milk contains a beautiful piece of the region).

B - Sustainability profile

Agri-environmental	
biodiversity of wildlife	X
preservation of specific species /races	
soil erosion	X
water quality	X
animal welfare	X
food-miles	
other important aspects	X
Socio-territorial	
regional employment and preservation of rural communities	X
food quality and typicity	X
preservation of landscapes	
mountain (marginal) areas keeping	
resistance to sprawl	
agritourism	
other important aspects	
Economic	

producers' income	X
possible succession for farms	X
farmers' quality of life	X
higher net value per unit of product	X
higher net value added on regional level	
other important aspects	X

- Rough assessment of the performance of the initiative: 26 employments are created. Started with 18 farmers there are now 74 organic farmers involved in the initiative.

C - Institutional support: local, regional

Land Hessen and the community of Willingen gave subsidies to renovate and start the dairy.

References

UPLÄNDER BAUERNMOLKEREI (2003): http://www.bauernmolkerei.de/hp.html (19.06.2003)

6.2.12 Altmühltaler Lamm

O - General information

- Name of the initiative: *Altmühltaler Lamm*
- Type of product(s): wool, lamb

A - Organisation and governance of the "new" supply chain

(1) Boundaries of the supply chain and main actors

35 producers; first processors or packers; trade / wholesalers; environmental associations.

The initiative is based on a cooperation of seven districts that support shepherds in the natural park *Altmühltal* as sheep are an important part of the preservation of the landscape. The main actors are county administration, landscape conservation organisations (*Landschaftspflegeverband*; LPV), the VÖF e.V. LPV Kelheim is awarding the label and nature park administration. The initiative consist of 35 shepherds that have created this association, 11 butchers and 40 restaurants. The landlords union (DEHOGA) is an important player in disseminating the label and the products and communication with the consumers.

- Geographic limits of production: Regional. The initiative is located in the districts Donau-Ries, Eichstätt, Kelheim, Neuburg-Schrobenhausen, Neumarkt, Roth and Weißenburg-Gunzenhausen in Bavaria. The region is defined by Jurassic rocks, juniper and neglected grasslands (grassland and pasture, marginal land, nature protection area). It is a 300,000 ha large natural park that offers recreation and tourist attractions.
- Size of the production in tons, value at the consumer level in Euros: About 2,100 lambs per year; 46,2 t per year

(2) Collective organisation of the initiative

- Type of the collective organisation: relatively free entry of new members / certain selection of new members
- Operation structures: Regional public institution (label); producers' association. The coordination of the initiative is done by the *Landschaftspflegeverein (LPV) VöF Kelheim*. The districts, LPV, local nature conservation office and the local agricultural

administration are supporting the shepherds. The LPV organizes the contact between farmers and butchers, hotels or restaurants, and is responsible for the label and the marketing. The shepherds association makes the contracts with butchers and landlords. Controlling is done by a public agency responsible for the quality label *Quality from Bavaria - guaranty of origin*, the control organisation is part of the German Farmers Union (DBV). Various interregional working groups exist. Production guidelines include no use of fertilizers and pesticides, maximum livestock density, quality control by a state agency responsible for the quality program *Qualität aus Bayern*. The LPV also established a control panel to monitor all operations.

(3) Social history of the initiative

- Birth: 1997; district administrations; LPV Kelheim, LPV Mittelfranken; Altmühltal
- Main objectives and intended beneficiaries at this time: 1. Environmental; 2. Socio-territorial; 3. Economic. The initiative wanted to establish a better financial basis for the landscape preserving activity of shepherds. Other objectives: securing the cultural heritage and keeping marginal agricultural land in use to prevent undesired changes in the landscape, especially in nature parks and protection areas. Giving shepherds a chance for succession.
- Main historical key events until now: In 1997 the initiative started. Bread production and marketing since 2001; establishment of a supply chain for regionally produced wood.
- Future - main plans and intentions & bottlenecks: diversification; establishing marketing for various other regional products (fish, honey, beer, bread, game); cooperation with tourism initiatives; improved marketing of the region; building a regional supply chain and marketing initiative for beef.

(4) Marketing issues

- Distribution channel: restaurants; specialised stores; direct selling; farmers markets
- Relevant consumer market: regional
- Main competitors: conventional products
- Labelling: regional label (*Altmühltaler Lamm*); Lamb, sheep meat and wool as well as their products are sold under the label of *"Altmühltaler Lamm"* to earn money for the shepherds. Moreover this initiative tries to expand the consumption and the demand for sheep meat. Local origin, nature protection, preservation of landscape, controlled quality, transparency in the supply chain, regional cycles; high credibility through independent external controls; intensive communication between shepherds, butchers and landlords.

B - Sustainability profile

Agri-environmental	
biodiversity of wildlife	X
preservation of specific species /races	X
soil erosion	
water quality	
animal welfare	X
food-miles	X
other important aspects	X
Socio-territorial	
regional employment and preservation of rural communities	X
food quality and typicity	X
preservation of landscapes	X

mountain (marginal) areas keeping	X
resistance to sprawl	
agritourism	X
other important aspects	X
Economic	
producers' income	X
possible succession for farms	X
farmers' quality of life	X
higher net value per unit of product	X
higher net value added on regional level	X
other important aspects	

- Rough assessment of the performance of the initiative: The mentioned goals have been achieved, higher net value on farm and regional level can be measured.

C - Institutional support: local, regional, European

Subsidies are paid from the districts, Bavaria and the European Union. The initiative has its own quality guidelines, but they are only a supplement to other quality programs and standards. The label "Quality from Bavaria" is established by the Ministry of Agriculture of Bavaria and the Bavarian farmers union taking part in the programme "open stable doors". There have also been subsidies from the EU structural funds.

References

DEUTSCHER VERBAND FÜR LANDSCHAFTSPFLEGE (DVL) (ed.) (2002): Altmühltaler Lamm. http://www.reginet.de/ri_daten/bay4.htm (19.06.2003)

ALTMÜHLTALER LAMM (ed.) (n.d. a): Landschaftspflege und kulinarisches Erlebnis. http://www.altmuehltaler-lamm.de/ (19.06.2003)

7 Issues summary in Germany

7.1 Institutional changes relating to FSCs and their implications

Policy has become more aware of increasing pressures on producer prices farm households as well as forms and intensity of production and the resulting problems in rural areas (environment, unemployment, declining services). Since 2001 the increasing pressures have resulted in a reorientation of support systems. In addition the linkages with consumer information and market development are more and more recognised.

In 2001 a policy in support of defined food quality criteria, income alternatives and an ecologically compatible and welfare-oriented production was adopted. Preventive consumer health protection, supporting sustainable, ecologically compatible and welfare-oriented production and investments in additional income-earning opportunities are seen as in the interest of the vast majority of agricultural holdings. Effective food safety systems throughout the entire food chain are considered as an important contribution.

Other important elements of the new policy orientation are the promotion of organic farming and the promotion of regional processing and marketing.

Promotion of organic farming

The production of organic products is seen as environmentally-sound conserving natural resources. In the case of surplus products it is also understood in terms of easing the burden on agricultural markets, whilst safeguarding jobs especially in rural areas.

Organic farming necessitates more input and labour for production and processing sectors, new organic farms may only sell organic produce after a conversion period of two to three years and frequently they have to open up marketing channels for their produce. Therefore, Germany has been promoting the introduction of organic farming with public funds since 1989. Until 1992 organic farming had been promoted by a variant of the EU extensification scheme that banned the use of synthetically produced chemical fertilizers and plant protection products on the entire farm. In addition, animal husbandry had to meet basic rules of organic farming. Since 1994 has organic farming been promoted within the framework of the Länder agri-environmental schemes based on EU Council Regulation 2078/92 and since January 2001 under Articles 22 to 24 of EU Regulation 1257/1999. The Federal Government co-finances the promotion of organic farming if it is executed by the Länder in line with the principles governing the promotion of market- and site-adapted land management as part of the "Joint Task for the Improvement of Agricultural Structures and Coastal Protection" (GAK). In 2000, the organic farming received ca. Euro 61 million in support in Germany.

Under the 2002 framework plan of GAK, the promotion of organic cultivation methods takes the following shape under the principles for the promotion of market- and site-adapted land management:

Crop	2002 Framework plan of GAK Aids for organic cultivation methods	
	Introduction	Maintenance
Vegetable growing	€ 480	€ 300
Arable land	€ 210	€ 160
Grassland	€ 210	€ 160
Permanent crops	€ 950	€ 770

Source: BMVEL (2003b)

Support given to the processing and marketing of organic produce

The national Organic Farming Act of July 2002 and the Federal Organic Farming Action Programme supplement the support schemes already in place and improve the environment for a further expansion of organic farming. The aim is a sustainable growth of the organic sector based on a evenly balanced expansion of supply and demand. The measures, therefore, set in at all levels from production to consumption.

The GAK promotes the processing and marketing of organic produce under the *"principles encouraging the processing and marketing of organically or regionally produced agricultural produce"*. Since 2002 this principle has been divided so that organic product support will come under the scope of a specific regulation, i.e. *"the principles encouraging the processing and marketing of organically produced agricultural produce"*.

Eligible for support are start-up expenses for producer groups, the elaboration of marketing concepts and investments of producer groups and processing and marketing businesses that cooperate with them on a contractual basis.

Since 2002 public aids in this field have been substantially improved as follows (BMVEL, 2003b):

- the ceilings for support of start-up expenses were raised;
- the contractual cooperation between processing and marketing enterprises and producer groups was eased as a precondition for the granting of aid. Contractual cooperation with individual producers will also suffice in future;
- introduction and initial certification of environmental and quality management systems were included as specific eligibility criteria for support. Support covers up to 50% of the costs, amounting up to max. Euro 100,000 within a three-year period;
- the level of support for the elaboration of marketing concepts was raised;
- investment aid was increased by up to 40% to reach the EU-authorized maximum rate.

The *Biosiegel* (Eco-label)

The *Biosiegel* marks an important step in the development of the organic market. The label may be used on a voluntary basis. The underlying standard set by the EU Regulation on Organic Farming as well as the waiving of further procedural steps such as the award or licensing procedures allow a broad use of the label, also for products from other EU states and from third countries. The *Biosiegel* can be used to mark any unprocessed and processed agricultural products subject to the EU Organic Farming Regulation provided that the prerequisites regarding the indications referring to organic production methods under Article 5 (1) and (3) of the EU Organic Farming Regulation have been met. This basically means that the products are obtained and controlled in accordance with the requirements of the EU Organic Farming Regulation and that at least 95% of the ingredients of agricultural origin come from organic farming. The implementation of the inspections fall within the competence of the Länder. In December 2001, an Eco-labelling Act took effect to legally protect the Eco-label. The Eco-labelling Ordinance, that is based on the Eco-labelling Act and came into effect on 16 February 2002, lays down detailed rules regarding the design and use of the Eco-label.

An Eco-label Information Centre has been set up for interested market operators at the *Öko-Prüfzeichen GmbH* (Organic Verification Mark LLC). It is to ensure a swift and unbureaucratic launch of the Eco-label on the market.

Since the notification of the Eco-label on 5 September 2001, over 600 users of the label have informed the information centre about the labelling of over 10,000 products. It is especially businesses from the processing and trading sectors that use the Eco-label. The Eco-label establishes transparency and reliable guidance for consumers in the thicket of trademarks in the organic sector. The producers benefit from the resultant demand pressure. They face enormous growth opportunities in the German organic market which should be tapped into. The processing and trading sectors are provided with a label that does not interfere with competition and that contributes to safe supply in sufficient quantity all year round.

7.2 Areas of dynamism within FSCs

'Good wares make good markets'. The quote from the English poet Nicolas Breton who lived in the 16th century expresses that these two areas are inseparable. Under this definition, good wares and good markets belong together and are mutual conditions (KÜNAST, 2003, p.3). The fact that there are very substantial markets for high quality food products has only

been recognised recently. For a many decades low production costs had been the main criteria.

Probably the most dynamic field of development in FSCs are regional level initiatives and regional marketing. Biosphere reserves, 'model' regions and 'model' projects play a major role in this respect. In almost every sector of the food market we find very well developing initiatives that are characterised by their clear regional focus and their emphasis on the quality of products. Quality almost always is defined in a very comprehensive manner comprising the classical inner and outer product quality attributes as well as attributes related to process quality (such as environmental friendliness, landscape, social aspects and animal welfare criteria) and wider societal concerns (such as fair trade, development of rural areas).

Farmers markets and other forms of direct marketing (such as farm shops and box schemes) are rapidly becoming more important. Only partly this has to do with an increasing number of support schemes and RD programmes.

Organic farming has been more and more rapidly expanding during the 1990s and early 2000s, with real organic boom years in 2001 and 2002. The big question now is whether we will have a mainstreaming of organic food products marketing (supermarkets as the main outlet with larger scale and more centralised processing). Obviously this could be the easiest was for a further expansion of the organic farming area - that is generally considered very favourable in environmental terms. On the other hand this development paths may not be very promising in RD terms. Larger scale and more centralised processing and a more significant involvement of larger chains could very well mean a decrease in socio-economic benefits for producers and rural areas. There are some first indications that these adverse effects ought to be considered very seriously.

Another sector that is developing very well is beef production based on low intensity grazing systems. Mainly as a result of the BSE crisis butchers broadly introduced a declaration of the origin of the cattle they are slaughtering and they are looking for beef produced in low intensity systems.

A mega-trend that is in the background of these different developments that in general can be considered advantageous for farmers and rural areas is the more and more extreme concentration in mainstream processing and retailing. The competition between large discounters is a major factor in the downward spiral of food prices. Particularly problematic could be the fact that the mainstream is taking 'new markets', approaches and features on board thus potentially taking away the thin economic basis of the new and normally much smaller scale initiatives. The latter is supported by a strong growth in the convenience and health food segments.

7.3 The relative performance of FSCs on sustainability and transparency

Obviously a convincing assessment of the relative performance of FSCs on sustainability and transparency would need a more thorough analysis first. What is obvious, however, is the impressive number and variety of positive and often very innovative attempts, that are also characterised by new alliances. Clearly in many regional level marketing initiatives ways have been found to communicate the added value of products to consumers. The fact that this has had only limited impacts on the sustainability and transparency of national level food chains is discussed below.

SSC provide an opportunity for producers and consumers to maximise benefit. Alternative chains enable farmers to access markets, to retain a high proportion of the final retail price, and to have a better profit margin (MIELE, 2001; TOVEY, 1997). Direct marketing gives producers more control over their business, and it enables, and indeed encourages, the growing of a wide variety of crops for a local market (as opposed to a narrow range of crops for national or international markets).

The development of SSC is seen too in terms of its social benefits such as to health, environmental or safety benefits. In many instances specific ecological guidelines have been defined. Protecting local environments, supporting local jobs and businesses; maintain the viability of high streets in smaller rural towns (MCDONAGH & COMMINS 1999; RÄMISCH, 2000; NEBE, 1997; ZANOLI et al. 2001).

While the performance of alternative FSCs on sustainability and transparency at local and regional level may in many cases be very good, it is often rather localized / regionalized effects that can be seen with relatively limited impacts in terms of overall trends. Nevertheless, the mere fact that the mainstream is taking 'new markets', approaches and features on board already shows that there is some cross-fertilisation. Key questions will be whether the actors involved in alternative FSCs manage to convince the broad public and the consumers in particular, and whether suitable and often new forms of organisation, cooperation and communication can be developed. The SUSCHAIN project can significantly contribute to this.

Organic farming is specifically geared to sustainability

Organic farming conserves and protects natural resources to a great extent, whilst exerting diverse positive effects on the environment:

- Soil conservation: In organic fields there is usually more biomass and increased microbial activities than in conventional farming. Natural soil fertility is also higher. Losses of topsoil caused by erosion are largely avoided.
- Water conservation: Organic farming tends to be less polluting for ground and surface waters with nutrients. Since organic animal husbandry is a land-related activity, usually not more nutrients accrue from manure and slurry than can be applied to plants on the farm's own land without any difficulties. The fact that no synthetically produced chemicals are used rules out contamination with the related substances.
- Species protection: Since no synthetically produced chemical plant protection products are used in organic farming and thanks to its low level of fertilization there tends to be a greater diversity of flora and fauna.
- Animal welfare: Organic farming meets the principles of welfare-oriented animal husbandry. Animals are allowed sufficient outdoor grazing, and the housing conditions are reviewed on a regular basis.

In addition to environmental impacts the socio-economic effects of organic farming have to be examined. The test farm survey of the BMVEL produced the accounting results of 229 full-time organic farms and partnerships for the 2000/2001 marketing year. According to the Agriculture Report 2003 with the overview "Organic farms in comparison", the comparison between organic and conventional farms in the 2002/2003 marketing year shows that:

- organic farms make slightly less profit compared with conventional farms due to lower stocking density;
- organic farms continue to obtain higher product prices, higher proceeds from trade, services and part-time farms (farm shops, sales of goods) and from higher direct payments by participating in agri-environmental schemes with specific management requirements (inter alia, premiums for organic cultivation methods) than conventional farms;
- the crop yields and livestock performance are substantially lower on organic farms as they spend less on fertilizers, plant protection, purchased animals and feeding stuffs;
- organic farms have higher labour costs as they employ more paid staff.

Specific question: Where will the mainstreaming of organics lead to?

While the mainstreaming of organics will lead to the environmental benefits of organic farming on a larger area, it is unlikely to impact so positively on broader rural development objectives. There is already evidence that the multiple retailers are using their market strength to drive down prices in the organic sector - as supplies increase in the future their ability to do so is likely to be enhanced and organic producers are likely to find themselves faced with the same downward pressures on prices that their conventional counterparts are only too familiar with (SCHAER, 2001). KNICKEL, PARROTT & ALONSO MIELGO (2003) argue that if the RD potential of organic farming is to be realised then there is a case for supporting the development of effective and efficient mechanisms to enable organic producers (and other local, regional, and quality food producers) to access markets more effectively. New organisational forms for SSC may be needed, particularly on the producers' end of the chain. There may also be opportunities for developing new forms or reviving established producer-consumer co-ops.

7.4 The significance of emerging initiatives on rural development

Most importantly new marketing initiatives tend to produce additional income and employment at local and regional level that in many rural areas is vitally important. They also reduce the risk of a complete abandonment of agriculture and a related depopulation.

Many regions indicate that synergies with other RD activities are important. Very illustrative examples in Germany are the Rhön, large parts of Bavaria and many rural areas in Baden-Württemberg and Hessen. Particularly biosphere reserves and other model regions indicate that the positive interrelationships between agricultural production, environmental quality, product quality, marketing and rural tourism can be strengthened much further.

Initiatives are normally perceived as positive for the region, not only in terms of a more positive future-oriented, sustainable, quality image but also in terms of being innovative and leading to new alliances and win-win-coalitions. The more positive attitudes that key actors have towards the development of their region give an impression of future perspectives in an otherwise rather discouraging economic environment.

Many new activities are linked with *new* markets or new marketing channels which is why very often there is comparatively little substitution of already existing activities. The services and products tend to satisfy new demands and/or attract additional customers.

7.5 The significance of short FSCs, and their potential to be scaled up

Regional and local identity: Potentials for a strengthening of alternative chains

Alternative chains normally address the market for high quality, regionally embedded foods, retailed in a way, which enables consumers to feel a personal connection with the product and its producer. An increasing problem is that more and more companies currently servicing the 'mass market' (set to shrink) seek to get into this more lucrative market.

A key question will thus be how alternative chains can be strengthened and developed further. The marketing initiatives examined briefly in Section 6 indicate that if sustainable food and farming systems are to be strengthened, it will be necessary to encourage community participation and action, and to foster local and co-operative initiatives at all levels (geographically and between private, public and community organisations). The SUSCHAIN project should show how the creation of new alliances between the relevant groups and joint action can be effectively supported.

Farmers' markets in cities, very professionally managed box schemes, on-farm shops and consumer-producer associations or co-operatives are good examples of joint action. The typical organic food shops of the early days are turned today into fashionable shops that relate to younger peoples lifestyles. Farmers' markets in cities provide opportunities for urban and rural people to exchange views and to connect food consumption directly with production, processing and rural life (KNICKEL, PARROTT & ALONSO MIELGO, 2003).

The *Naturkostläden* in Germany understand themselves as an integral link between producers and consumers. They procure their products both directly from the producers and from wholesalers and processors. Strict standards of quality, authenticity and a personal shopping atmosphere are important for their success (LATACZ-LOHMANN & FOSTER 1997). The example of the *Naturkostläden* indicates that community influence and control over the food system - that has continuously weakening in the conventional system - can play a greater role again in alternative chains (KNICKEL, PARROTT & ALONSO MIELGO, 2003).

7.6 Bottlenecks and the opportunities for enhancing the performance of FSCs

From the status-quo-analysis and the particular initiatives presented in this report a few first conclusions are possible with respect to bottlenecks and the opportunities for enhancing the performance of FSCs:

- Support systems (technology development, policy support, advisory services, training) are not well targeted at the specific needs of alternative chains and the actors involved in these chains. Some progress in the last two years has been made in Germany in the course of the reorientation of Federal level agricultural and food policy.
- There is a very over-proportional support still going into mainstream production and marketing. The funds available for the CMA, for example, exceed by far the funding of a very large number of marketing initiatives all over the country. Similarly RD and marketing related support programmes still provide much more funding to mainstream activities than to new and more future-oriented and possibly also more sustainable activities. The legitimacy and sustainability of different kinds of subsidies needs to be examined in terms of RD objectives as well as in societal terms.
- Reluctance of mainstream farmers organisations and food industries (processing and retailing) still must be seen as a major bottleneck. The same reluctance and the economic interests of agro-industry are linked with the over-proportional support still going into mainstream production and marketing. The opportunity is to stress longer term perspectives, the importance of a recognition in society and the potentials of 'new' markets. The latter should also be seen in terms of countering the negative impacts of the globalisation of food markets and cheap mass production that has led to the downward spiral of prices mentioned earlier.
- Differences in (economic) interests between the major actors involved are obviously closely linked with the reluctance of mainstream farmers organisations and food industries. At regional level it appears much more obvious to create win-win coalitions and it is also easier to see the immediate returns from such coalitions.

7.7 Stakeholders' perceptions of, and involvement in FSCs

Some remarks on stakeholders' perceptions of, and involvement in FSCs have already been made in the previous section on the bottlenecks and the opportunities for enhancing the performance of FSCs. A more thorough analysis leads us to differentiate between different levels of activity and different kinds of actors.

An analysis of the key actors and stakeholders at national level has been presented in Sections 3 and 5.

Länder level

At Länder level it is necessary to differentiate. The perceptions and - to some extend - policies of the Länder administrations depend a lot on particular situation. Agricultural structures differ a lot similarly as physical production conditions, markets, the importance of environmental concerns and the position of agriculture in the regional economy. The stakeholders' perceptions of, and involvement in FSCs is often strongly influenced by Länder specific interests and the position of mainstream agriculture in the political system. Länder with larger scale and more industrialised farming, for example, tend to be less supportive for alternative chains and vice versa.

Regional / local / communal level

At regional, local and communal level the picture seems to be much more homogeneous. The general trend is that the chances of regional marketing initiatives are almost always recognised and the initiatives actively supported.

Agriculture

Mainstream agricultural organisations (DBV, DGL) and the main national level marketing agency CMA traditionally represented mainstream agriculture and mainstream marketing. Nevertheless, they too have now started to recognise the development of 'new markets' and to take 'new' approaches and 'images' on board. The effectiveness often is limited because dedication to new standards still is compromised by the still predominant production cost orientation. An example is the GMO question: While organic farmers associations, environmental organisations and probably all regional and alternative marketing initiatives are very clear that the risks related to GMOs in agriculture are too high and that it could spoil the still remaining positive image of food products, it is the mainstream agricultural organisations that are defending the use of GMOs in agriculture. Reference is made to possible advantages in production costs and in terms of potential reductions in the use of agri-chemicals. The related risks are played down.

More recently awareness about the extreme pressures on producer prices has been increasing. This resulted for the first time in questioning the concentration in the food sector and the role of agriculture as a producer of cheap raw products. Interestingly this questioning started at local and regional level, and only much later at national (functionary) level.

Important to not is the position of the German Family Farmers Association (AbL) that is very different from the position of the mainstream agricultural organisations. Here the main orientation is value added at farm and rural area level, and a good 'understanding' with the consumer.

Industry

The position of 'the' industry seems relatively clear if 'the' industry is related to mainstream agro-industry. The classical interest obviously is and has always been raw products of high quality at the lowest possible price. Obviously also interest is much more in national and global markets than in regional and local markets.

More recently and as a result of food scandals interest in industry-led quality assurance systems has increased substantially. Also environmental audits in (larger) food processing industries are relatively common.

The question of the use of GMOs in food production tends to be seen more cautiously. Awareness about the fast and sometimes dramatic reaction of consumers is high.

A more recent and very important development are strong interests in introducing sustainability criteria (Unilever / Iglo; Nestle; FRoSTA and others). The expectation is that market shares can be maintained or even increased if suitable sustainability criteria are introduced and if they can be communicated to the producer on the one side and, more importantly, to the consumer on the other side. Concentration processes in the entire food system and the resulting enormous economic pressures could be driving forces behind such developments. The IfLS is involved in a related consultancy project where the aim is to reach a proportion of 30 percent of organic products and to reach for the remaining products a level that can be characterised and communicated as being sustainable (in environmental, economic, and social terms).

Environmental groups

Environmental groups tend to be strong supporters of the kind of initiatives described in Section 6. In almost all initiatives environmental groups or actors have been involved at some stage. The are also little differences between the position of regional and local level actors and national level representatives.

The Deutscher Verband für Landschaftspflege (DVL)

The German Association for Landcare carries out model projects often related to the establishment of regional marketing (see Section 3.2.4). The landcare groups do not understand themselves any longer as being merely responsible for landscape maintenance works. Instead they want to provide incentives for economic development, oriented with ecological principles and environmentally friendly land uses. Emphasis is on the unique characteristics of each region and activates its specific strengths. A closely related goal is to provide farmers engaged in conservation work with a reliable source of additional income, and to help them market products that are typical for their respective regions.

In the long term this aim can only be achieved if extensive forms of land use can be made profitable again. The regional marketing of quality produce grown on extensively used land is seen as the main way to do so. Landcare group initiatives promoting the marketing of lamb in local restaurants have shown that sheep grazing on poor-soil pastures can thus be encouraged anew. Spreading to further products, the implementation of ideas like this can provide important incentives for the establishment of regional economies.

RD agencies

State agencies obviously are to a considerable extent influenced by the position of the particular Länder level ministry. Overall they tend to be supportive for alternative chains. A huge number of RD projects are concerned with new forms of production, marketing and the establishment of new kinds of food chains. A characteristic example is the *Regionen Aktiv* pilot programme (see Section 5.2) where 108 out of 218 projects (i.e. approx. 50%) are concerned with regional marketing (KNICKEL, 2003c).

8 Literature

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Links

Labelling of organic products with the Biosiegel *(Eco-label)*

Bundesprogramm Ökologischer Landbau *(Federal Organic Farming Scheme)*

Central Information portal on Organic Farming

Zentrale Markt- und Preisberichtstelle GmbH, *(Central Market and Price Reporting Agency)* Rochusstraße 2, 53123 Bonn

"Natur auf dem Teller" *(Nature on your plate)* is a joint project run by CMA (German Agricultural Marketing Board), the Eco-Action Days of North Rhine-Westphalia and the Agriculture Ministry of North Rhine-Westphalia with the objective of promoting the use of organic products in communal catering and catering businesses

Bundesverbände Naturkost Naturwaren (BNN), *(German Association for Natural Food and Products)* Ebertplatz 1, 50668 Köln

8.1 Annex 1: Data from the IMPACT project on the importance of relevant activities in Germany (1998/99)

	Number of Farms (N)	Actual Average VA	Range of VA	IMPACT	Employment
Organic farming					
Certified farms	9,200	9,076	1,739 - 14,674 Euro	83.5 M Euro	2,950 AWU
Uncertified farms	Bavaria: 2,500				(see text)
AGÖL farms (1/2000)	7,464 (1.74% total)				
	383,572 ha				
Sub-total	9,200			83.5 M Euro	2,950 AWU
Quality production					
Dairy products (processing)	187	61,497	+/- 15%	11.5 M Euro	> 600 AWU
Farm distilleries	14,000	595		12.5 M Euro	500 AWU
Fruit processing	1,000	2,000		2 M Euro	400 AWU
Free range eggs (large farms)	129	280,000		36 M Euro	720 AWU
Free range eggs (small farms)	(22,500)			45 M Euro	1,120 AWU
Quality vine	11,200	5,179		58 M Euro	1,660 AWU
Co-operative quality production and marketing	7,500	2,388		17.9 M Euro	716 AWU
Regional quality meat	3,500	5,139		18 M Euro	720 AWU
Regional quality crop products	2,500	3,338		8.3 M Euro	332 AWU
Regional specialities	?				
Sub-total	40,000			209 M Euro	6,740 AWU
Short chains					
Farms with direct sales	24,000	25,000	5,500-40,000 Euro	600 M Euro	
Cooperative farm shops	110 shops	75,000		8.25 M Euro	
Regional marketing projects	240 projects x 30 farms	5,000		36 M Euro	
Farmer markets	200 markets x 8 farms	15,000		24 M Euro	12,000 AWU
Meat packets	(1,100)	10,000		(11 M Euro)*	
Home deliveries / box schemes	(500)	60,000		(30 M Euro)*	
Pick-your-own fruits / flowers	2,000	5,000		10 M Euro	200 AWU
Sub-total	35,000			678.25 M Euro	12,200 AWU
TOTAL					

8.2 Annex 2: Summary of information on specific food chain initiatives

	name of initiative	bergisch pur	Ökomodell Achental	Interessengemeinschaft Enzkreis-Biobauern	Upländer Bauernmolkerei	Altmühltaler Lamm	Freisinger Land	Tagwerk	Neuland	BODEG
type of products	beef	x	x	x				x	x	x
	dairy products	x	x		x			x		
	pork	x		x				x	x	x
	lamb	x		x		x	x	x	x	x
	poultry								x	
	juice	x	x							x
	schnapps		x	x						x
	honey		x	x			x			x
	oil		x	x			x			
	eggs		x	x			x		x	
	flour		x				x			
	grain products			x				x		
	pasta			x			x			
	tea			x						
	coffee			x						
	vegetable			x				x		
	potatoes			x						
	bakery products			x			x	x		
	wine			x				x		
	wool					x				x
	spices			x						
	baby food			x						
main actors	trade	x								
	producers	x	x	x	x	x	x	x	x	x
	first percessors	x	x		x	x	x			
	second processors						x			
	trade/Wholesale		x		x	x	x	x		x
	independent stores							x		
	big retailer									
	consumers				x		x	x		x
	consumers ass.								x	
	environment ass.	x			x		x		x	
	other ass.		x			x	x		x	x
number of producers			14	34		74		27	80	16
farms' size		10-15 Ha								
geographic limits		regional	regional	regional	regional	regional	regional	regional	national	regional
size of production		n.a.	n.a.	n.a.	n.a.	1500lambs	n.a.	n.a.	n.a.	n.a.
type of organisation	no formal private collective organisation				x					
	open group							x		
	club	x				x			x	x
	producers' ass.						2	2	x	
	cooperative	x			x			x		x
	consortio									
	channel captain									
	certification organisation							3	x	
	regional public institution	x	x				1	x		
	national public institution									
	other		x society	x society				x		
	when	1998	1997	1985	1998	1997	1998	1984	1988	1999

	Birth	who	Ludchens farmers, Ökologische Station Oberberg Bergisches La	community of Schleching Schleching	organic farmers Enzkreis	farmers environmentalists, private/business people community of Wilingen, Hessen Wilingen-Ussein	Landkreises Altmühltal	five pillars Freising	ecologically producers and consumers Dorfen	AG Bäuerliche Landwirtschaft, Deutscher Tierschutzbund Verbraucher Initiative eV, BUKO Agrar Koordination, BUND Bonn	farmers, traders, craftspeople Beuron
main objectives		environmental	3	3	1	1	2	1	1	1	2
		socio-territorial	2	1	2	3	3	2	3	3	1
		economic	1	2	3	2	1	3	2	2	3
distribution		direct selling	x	x	x	x	3 x		3		
		farmers' markets		x							
		specialised stores	x			x	2 x		1	1 x	
		big retailers				x				x	
		restaurants					1 x		4	2 x	

Macro-level analysis of food supply chain dynamics and diversity: An overview for Germany

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1 The evolution of FSC in Germany

1.1 National chain characteristics and significant structural changes

1.1.1 National chain characteristics

Germany has a huge variety in food products, production and processing patterns as well as a very substantial diversity in terms of types and scales of food chains. Food exports and food imports play a major role. Agricultural structures, processing and marketing ranging from very large scale and often more specialised to very small scale and often more diversified.

Regional differences

Southern Germany tends to have smaller production, processing and marketing structures while northern and eastern Germany tends to have larger structures. In southern Germany we still find more smaller and medium-scale farms as well as processors. Smaller scale settlement and business structures are predominant and a long tradition of 'pluriactivity' exists. In some regions the proportion of farm households with income combination is above 80%. This tends to be linked with shorter food supply chains and less 'distance' between farmers and consumers. Particularly in large parts of Bavaria the 'proximity' is also expressed in the recognition of farming and rurality in society. In the north and north-east, where population densities are lower and farms larger, the situation is very different. Farmers in the north and farm-related activities are less important in the rural economy and rural concerns play a much lesser role.

Dynamics with a regional dimension

After several decades of a very pronounced overall reduction in the number of businesses, there has been more recently, maybe starting in the early 1990s, some counter movement. This new tendency is expressed above all in a significant number of producer, producer-consumer and producer-consumer-environmentalists initiatives that try to establish alternative patterns of production, processing and marketing. Again there tend to be more of this kind of initiatives in southern Germany, particularly Bavaria, Baden-Württemberg and Hessen. Only maybe half of them are strongly driven by more recent rural development policies such as Leader or Reg. 1257/99 programmes.

Another more recent feature is that large companies engaged in food processing and marketing that until now had only been mainstream, are more and more interested in the new trends towards regionalisation, environmentally friendliness, very high quality segments of the market. Characteristic of this new orientation is the rapidly increasing engagement of very large supermarket chains in the organic food market. In rural areas smaller and many medium size supermarkets also include regional products in their offer (particularly vegetables, fruits, eggs).

Subsequently the different patterns and phases of change, and dynamics are explored in more detail.

1.1.2 Developments in the conventional retail sector

In Germany the 1950s to 1970s are marked by the rising importance of supermarkets. May be even more important: The fast spreading of self-service supermarkets in towns and bigger villages changed deeply the buying and consumption habits of consumers.

Characteristic features of developments in the 1950s to 1970s are:

- small "corner" shops almost disappeared;
- consumers even in rural areas increasingly did their shopping in nearby towns;
- rural supply chains (direct selling, small village shops) were losing their importance;
- some supply chains disappeared entirely; examples are milk shops, where fresh bulk milk was served to consumers and that completely lost their market, when supermarkets started to sell cheaper milk in bottles or packs;
- food handicraft (bakeries, butchers) lost its importance in towns and largely disappeared in rural areas.

The changing of the importance of different market channels has, as well, an impact on the image of food. One of the supermarket chains predominant strategies to attract consumers is low price food. Especially beef and pork is sold at extremely low prices, and while these products had an almost luxury image in the 1950s, they rapidly became an object of everyday and ordinary consumption in the 1960s and 1970s.

Enormous concentration in the food system

The later 1980s and early 1990s are characterised by a toughened competition between the less than ten big supermarket chains in a stagnant grocery market. The food retail market showed more and more signs of a narrow oligopoly: sinking margins, price-centred competition and a fastening concentration. The gain in power of the big supermarket chains is reflected in the rising number of retail-owned trade marks and the relative decline of producer-owned brands.

In Germany, as in many other countries, the enormous process of concentration can be observed at all levels. At the level of primary agricultural production a constant decline of farm numbers and a simultaneous increase in crop production areas and herd sizes per farm can be observed at least since the 1950s. During the last decade alone, overall farm numbers dropped by one quarter, while the number of farms with more than 100 hectares more than doubled. The longer term average rate of decrease in farm numbers in approx. 4% p.a. In 2002, almost half of the utilized agricultural area (UAA) of Germany was cultivated by only 7% of all farms, while half of all farms cultivate only 11% of the UAA (VERBRAUCHERMINISTERIUM, 2002).

On the processing level, the continuously falling numbers of mills, dairies, abattoirs and breweries witness the same fact. But, with the exception of oil mills, sugar plants, dairies and abattoirs, this level still is characterised by a multitude of medium-scale firms. The 10 biggest firms hold some 10% of the market and the markets share of the top 100 is of some 40% (PRAAST, 1997; ANONYMOUS, 2003c).

On the retail level, concentration is much more advanced. Almost two thirds of Germanys grocery turnover is now realised by only five enterprises (2001 data). The ten biggest grocery retailers hold 84% of the market, and the 30 biggest retailers a quasi-totality of 98% (ANONYMOUS, 2003a). In 1995, there were still 50 enterprises to share 98% of the market (PRAAST, 1997, S.52). Within the last years, discounters grew by approx. 10% p.a., while other retail forms lost substantial market shares. Discounters' market share, which is in Germany bigger than anywhere else in Europe, is expected to grow further (from 35% in 2002 to 40% in 2007; ANONYMOUS, 2003b).

Anonymisation and industrialisation

The concentration and industrialisation on one market level incites similar processes on other market levels in a search of equal countervailing powers (PRAAST, 1997). One negative side-effect of this development is the anonymisation of food and loss of transparency for the

consumer (SCHÜMER, 1997; SEUFERT et al, 2000). Another side-effect is the decreasing influence of agricultural producers on the functioning of mainstream food supply chains and in particular on the distribution of value added along the chain.

The loss of small and medium size processing enterprises in rural areas leads to less labour alternatives for rural populations, to higher marketing costs for farmers and to less flexibility in their marketing decisions. An obvious example is the closing of many small-scaled abattoirs due to concentration processes, new technical standards and a market structures policy that actively supported - and still supports - scale enlargement and concentration. Without regional abattoirs, however, farmers have higher transport costs and less direct marketing possibilities (SCHMEH, 1997). Another typical example in this respect is the limited possibilities to process and market milk from organic farms as such, i.e. as organic milk. RUPALLA (1998) found that in Germany as little as 50% of organic milk is actually sold as 'organic'.

1.1.3 More recent developments in the conventional retail sector

While the main differentiation strategy is the 'cheapest price', retailers search for other cues to profile their image and start to take up, at first reluctantly since the early 1980s, then more significantly since the 1990s, elements from alternative food chains. 'Environmentally or ethically incorrect' products (turtle soup, among others) were eliminated from the assortments. Later, organic products were integrated in the supermarkets assortments, and most supermarket chains created their own organic food trade marks.

The retailers engagement into the selling of organic food has, since its beginnings, a strong communication and image-profiling aspect and, in most cases, no direct profitability objectives. Most organic trade marks are not cost-covering and the retailers management regards the losses as part of the communication costs.

The 1990s have led to important changes in the grocery retail. Due to several food-scandals consumers' confidence in food suffered remarkably and supermarkets where the first to suffer from the consumers reluctance. At least in the beef and meet sector, some shifting of buying habits back to handicraft outlets (butchers) who are accorded more confidence than the anonymous points-of-sale could be observed.

1.2 'New' food supply chains

1.2.1 New initiatives and forms of collaboration

Starting in the early 1990s a significant number of producer, producer-consumer and producer-consumer-environmentalists initiatives have been established. The aim is to experiment with and, if possible, establish alternative patterns of production, processing and marketing - often characterised by more direct (or explicit) linkages and shorter chains. Common to these approaches is a) that they are different from the mainstream food systems, and b) that they respond to consumer needs, as they are try to provide high quality and 'ecologically correct' food in a transparent manner (BESCH, 1999; HANF & DRESCHER, 2000).

Farmers often are key actors in these developments expecting that they can reposition themselves in the supply chain and move closer again to their customers. Through eliminating the middleman farmers are strengthening their (in conventional chains weak) position. To retain greater value added means that producers are receiving higher prices. Short supply chains (SSC) are, in this respect, an alternative for farmers who were confronted with poor remuneration for their produce from 'conventional' sources, and who are seeking ways to retain more value added. To capture a greater proportion of the total value-added in food is particularly critical at a time when a growing proportion of value is added after the farm gate. Alternative chains are also a way for small farmers who might otherwise not be able to meet

the supply requirements (particularly those relating to volume) of the multiple retailers (KNICKEL, PARROTT & ALONSO MIELGO, 2003).

Table 1 gives an overview of different types and key features of alternative marketing chains as we can find them in Germany.

Table 1: Types and key features of alternative marketing chains in Germany

Type	Description
Farmers markets and farm shops	Farmers markets and farm shops are the main forms of direct marketing by farmers. They are of particularly important for the sales of fruits, vegetables, sausages and poultry. In Germany about one third of these organic products are sold direct. Grain, milk and beef are less popular for direct marketing.
Box schemes	Involve regular (usually weekly) deliveries to peoples doorsteps or local drop-off points. Boxes can be of different sizes according to household size and can offer different levels of flexibility. Some schemes are 'farm-run'; others are run by third parties. Some box schemes are managed through the internet and mail order.
Food co-ops	Producer-consumer associations had been of some importance in the late 1970s and beginning of the 1980s, at this time as alternative-scene initiatives and totally state-independent. During the late 1990s they regained some importance with more emphasis on environmental and RD aspects and often linked with support. In the early associations of the 1970s and 1980s consumers often shared some of the financial risk with the producer.
Specialized organic stores	Typical examples are the Naturkostläden and Bioläden that sell 35 percent of organic products in Germany. Most important are fruits, vegetables and other fresh products, such as dairy, meats and fresh food preparations. Growth rates in these markets slowed down during recent years but still remain near 10 percent annually.
Health food stores	Healthier food is the main motive for these customers to buy organic food. An increase for this market channel is not foreseen. In Germany these stores were among the initiators of the organic market but have lost very substantially market shares.
Internet and mail-order	Internet and mail-order only makes sense in the high quality and high price segment, which includes organic food. Turnover in internet and mail-order systems that are often linked with box schemes increases but data about the importance of internet sales are not available.
Catering services and farm restaurants	These represent additional opportunities to add value. Until now they play only a little role in many countries but they start to develop. An increasing number is opened in areas with rural tourism and along wine and bicycle routes.

Source: Own compilation based on KNICKEL, PARROTT & ALONSO MIELGO (2003)

1.2.2 The importance of 'new' food supply chains in Germany

KNICKEL & SCHAER (2001) estimate that Germany has at least 40,000 farms engaged in quality production (incl. 7,500 farms engaged in co-operative quality production and marketing) and 35,000 engaged in short chains (incl. 24,000 farms with direct sales; 110 cooperative farm shops; 240 regional marketing projects, 200 farmers markets) (see also **Table 2** and **Annex1**).

May be even more remarkable are the dynamics of the alternative sectors. In almost all RD schemes and initiatives direct and regional marketing are perceived as central to a sustainable development of rural areas. Nature conservation groups and environmental associations in general strongly support 'new' food supply chains.

1.2.3 The development of organic retailing

Organic retailing has its roots in the 1920s, when the first health food stores of the 'reform' movement appeared in Berlin. But it was only in the late 1960s that organic and health food stores became more common in bigger cities and still they had a clear 'niche' character. Pushed by the environmental movement this supply-form spread more rapidly from the late 1970s onwards and got more and more professional. Specialized retail logistics and wholesalers appeared simultaneously (SPAHN, 2002).

In the mid 1990s, a profound re-structuring of the organic retail took place. The individual shop-keepers had to deal with the rising competition from conventional retail and with changing consumer expectations. Modernisation and more professionalism were necessary in order to keep up with the changing market conditions. New sales forms, like small organic supermarkets appeared (SPAHN, 2002).

2 General configuration of FSCs in Germany

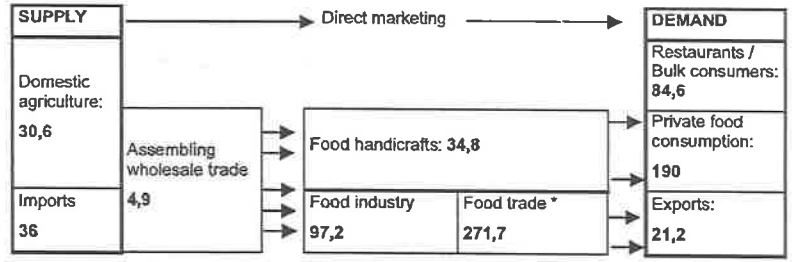
2.1 The organisational structure

Figure 1 gives a brief description of the value-added-chain of the German food sector.

The role of the assembling trade is very important for vegetable products (namely grain trade and stocking), where 40% of all products pass this intermediary. 60% go directly form farmers to mills, bakeries etc. Half of these assembling trade enterprises are farmer-owned co-operatives. Animal products are much more often marketed directly from farmers to the processing industries and handicrafts (WEINDLMAIER, 2000).

Contract farming and vertical integration have a long tradition in certain sub-sectors, as in potato and vegetable production (starch and canning industry), the sugar industry, poultry and milk production. Attempts to build efficient vertical structures in the beef and meat supply chain where driven by recent food scandals (BSE, FMD, etc.). But in comparison to other European countries (the Netherlands, France, Denmark and the United Kingdom) vertical marketing structures are much less common. In the 1990s government initiatives had tried to promote vertical systems by specials subsidies for new marketing concepts, but many of the resulting projects did not fulfil expectations (WEINDLMAIER, 2000).

Direct marketing gained importance during the last decades for some consumption-ready products like potatoes, eggs, apples, vegetables, milk and wine (WEINDLMAIER, 2000). The number of farmers engaged in direct marketing is rising and many farms start even to process products. Some 80% of organic farmers sell directly to consumers (KUHNERT, 1998).



* Food trade: wholesale trade: 154,5; retail trade: 117,2

Figure 1: **Value-added-chain of the German food sector (in mill. €)** (Source: WEINDLMAIER, 2000)

2.2 Short chains and regional / quality production

Starting in the mid 1980s but particularly since the early 1990s there has been a very substantial rise in short chains, regional / quality production and organic farming in most rural areas. **Table 2** are updated data from the IMPACT project. It illustrates the importance of relevant activities showing the total numbers of farm households involved in 2003, the proportion of 'commercial' farmers involved in 2001 (based on survey findings) and since when the activity has been significant. Particularly dynamic fields are organic farming and high quality production which is often linked with particular regional qualities and labels. More recently organic farming is very actively support through a national level organic farming programme (see Section 2.3).

Direct marketing has been popular for some decades in many rural areas, as has been said before, particularly in southern Germany (Bavaria, Baden-Württemberg, Hessen). The establishment of farmer markets has been particularly important in the past 10-15 years.

Table 2: **Importance of short chains, regional / quality production and organic farming in Germany**

Type of activity	No. of farmers (2001)		Uptake by commercial farmers (2001)*	Significant since	Present trend
	Number	% of total	%		
Short chains	37,000	8.5	19	1970	+
Quality production	44,000	9.9		1980-90	++
Quality labels			29		
On-farm processing			15		
Organic farming	14,700	3.3	5	1990	++

Source: Updated data from the IMPACT project. A more complete overview is given in Annex 1. * = survey data

2.3 Organic farming and the marketing of organic produce

Organic farming is not a temporary fashion since biodynamic farming was introduced in Germany as early as in 1924. There are also other forms of organic farming with a long-standing tradition such as organic-biological farming. For a long time, however, the number of organic farms grew only very slowly. Only at the end of the 1980s when particular support schemes started in the framework of the extensification programme growth rates were rising.

At the end of 2001 there were 14,702 organic-production holdings in Germany farming 634,998 hectares of land in accordance with the EU Regulation on Organic Agriculture. They account for 3.3 % of all holdings, managing around 3.7 % of the total utilized agricultural area. This represents an increase in the number of holdings by 15.4 % and in organically farmed land by 88,975 hectares (+16.3 %) as against the previous year.

Compared with other EU Member States, organic farming in Germany occupies a relatively strong position. Only Austria, Finland and Denmark have a larger share of holdings farming in line with organic principles. Some of the guidelines of German organic farming associations are stricter than those laid down in the EU Regulation on Organic Farming. For example, products coming from member farms must always contain at least 95 % of organically-grown ingredients, whereas the EU Regulation on Organic Farming allows indications on the packaging referring to organic production for products with an organic content of only 70 %. Pursuant to the EU Regulation on Organic Farming, a holding may under certain conditions only partly convert to organic farming, whereas the organic farming associations always prescribe a total conversion of a holding. The conversion of the entire holding is a prerequisite of support.

In Germany most organic farms have joined in associations. This includes apart from the associations of Bioland and Demeter (the largest and oldest organic associations) other associations such as *Naturland, Biokreis Ostbayern, Bundesverband Ökologischer Weinbau* (Federation for Organic Viticulture, ECOVIN), *Gäa, Ökosiegel* and *Biopark*.

The organic food industry

At the end of the 1990s food scandals contributed significantly to this and the organic boom years started. In 2001 many German companies enjoyed growth rates of 30 to 50%. In 2002 the organic industry had expected to a consolidation of turnover. However, whereas Germany's food industry had to cope with a drop in turnover of 1% to 125.4 billion Euro in 2002, organic food increased by 10% and now has a share of 2.3% of the total food market. This equates to a turnover of almost 3 billion Euro, with approx. 1.05 billion Euro for the conventional retail food trade, 1.04 billion Euro for the organic retail trade, 520 million Euro for direct marketing, 220 million Euro for bakers and butchers and 14 million Euro for 'others' like kiosks, mail order, etc. (ZMP, Zentrale Markt- und Preisberichtsstelle der Land-, Forst- und Ernährungswirtschaft).

Representatives from organic farming associations, organic food processors and organic trade founded the "*Bund Ökologischer Lebensmittelwirtschaft*" (BÖLW, Organic Food Industry Federation). The foundation board is to ensure the conduct of business as soon as possible.

Distribution channels for organic products

In Germany the pioneers of the organic movement were primarily dedicated young people (often on low incomes). Short distribution channels, which consisted mainly of direct sales, were a key feature in the 1970s. The farmers themselves built up the marketing, sometimes in partnership with their customers. The organic market developed significantly during the early 1980s although organic sales, remained confined to farm shops, 'neighbourhood' organic stores and specialist health food stores (e.g. *Naturkostläden; Bioläden*). Over the

past twenty years organic marketing in Germany has developed in many different ways starting from the early *Bioläden* to the first organic discount stores. Direct marketing and specialist shops retain their prominence though. About 4,500 to 5,000 specialised organic and health food shops still hold about one third of the share; supermarkets one quarter, direct marketing another fifth and the remainder is sold through independent high street shops. Most of the 1,600 *Naturkostläden* are independently owned and run by strongly motivated people, sometimes as a co-operative venture. Today more than 18 percent of consumers buy organic products on a regular basis and 55 percent, now and then.

Most organic sales still take place outside mainstream outlets. STALLKNECHT (2000) estimates that some 10% of German farms that are run organically sell directly to consumers (approx. 3%. Some analysts stress that this has restricted overall market development (HAMM, 1995; LATACZ-LOHMANN & FOSTER 1997; WENDT et al., 1999).

More recently supermarkets are becoming important as sales points for organic food in Germany. Twelve new organic supermarkets and specialized stores (with 200 m² or more sales space) with a total sales space of 5,480 m² have opened for business in the first half of 2003. The average store size has clearly increased compared with the previous year. The figure of around 350 m² per newly opened organic supermarket in the first half of 2002 is now 457 m² per store, an increase of more than 100 m². Only three of the stores, the Antonius store in Fulda, Bio B. in Germering and La Casa Verde in Heidelberg, are less than 300 m², whereas multiples like Alnatura and Basic ensure quantity with areas between 500 and 600 m². The "Giant 2003", however, is a "lone fighter": the store called *Fruchtbare Erde* in Dortmund holds the record with an impressive 780 m² of sales space.[3]

2.4 The sustainability of FSC

The sustainability of FSC ought to be assessed in terms of socio-economic performance and ecological sustainability. Direct and indirect effects ought to be taken into account as well as the dynamics of change in the food system and the longer term prospects (or perspectives).

2.4.1 Socio-economic performance

The socio-economic performance of FSC ought to be assessed in terms of the distribution of value added along the chain and the question whether a 'fair' share of total value added remains for farmers and rural areas. A key question for our research will be how a value judgement like 'fair share' can be dealt with in more 'objective' economic terms. In the SUSCHAIN project we ought to assess for different types of chains the distribution of value added along the chain. The key question will then be in what type of chain a 'fair' share of total value added remains for farmers and rural areas. As far as possible, the factors that determine this share ought to be identified.

The trend of the last decades is that this share decreased dramatically. Conventional food supply chains have come to be dominated by an ever diminishing number of large companies engaged in retailing, distribution and food processing. One result is the imposition of a pricing system that farmers and environmentalist argue does not take into account the real social, economic and environmental costs of food production and which impedes the establishment of fair prices for agricultural products and food (KNICKEL, PARROTT & ALONSO MIELGO, 2003).

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[3] See http://www.Bio-Supermaerkte.de.

Consumer prices as an indicator?

On average the consumer prices increase from direct marketing (farm shop, farmers market, box schemes), supermarket, organic food shop to health food shop where products can be twice as costly as conventional products. SCHAER (2001) found that in Germany consumer prices in supermarkets are on average 40 percent below consumer prices in organic food shops.

The prices that can be obtained in alternative chains obviously depend a lot too on the main competitors, i.e. the conventional chains. Price premiums in specialized organic stores may be up to 40%. However, the price premium may significantly differ from product to product. In normal supermarkets prices for organic foods are lower because of the direct comparison to traditional food prices. The cut-price policy of large supermarkets (i.e. the marketing strategy to sell organic foods at low prices) is the main concern smaller retailers have. Pressure on prices in conventional marketing is enormous because of the extreme competition and consolidation in mainstream retailing. The average net-profit margin in German food retailing is roughly estimated at about 0.8 percent, well below most other European countries (USDA 1999).

Supermarkets inherently lead to an erosion of price premiums, which in turn jeopardizes the potential of the (organic) market to take proper care of environmental and ethical demands. LATACZ-LOHMANN & FOSTER (1997) refer to *"structural incompatibilities between organic farming and super-marketing."* Bioland is an organic farmers association that, because of this incompatibility is strongly committed to promote regional marketing networks and direct marketing. *"Bioland aims at a situation where consumers can be guaranteed access to locally produced organic food"* (LATACZ-LOHMANN & FOSTER 1997).

An illustrative example: The case of dairy farmers in Hessen

More recently, and for the first time in a very serious manner, discussions about the extremely low milk prices have started in Hessen. Discussions started among farmers in less favoured grassland areas and - that is remarkable and new - after some time also among the board of the farmers union. Reference is made to the fact that the proportion farmers receive from the consumer price of milk has become as little as 40%. Representatives of the farmers union even proposed a strike and not to deliver milk to the dairies. Obviously farmers had to refuse this idea because they have little financial reserves and it would have ruined many of them. Starting in Hessen the discussions meanwhile also reached the Federal level farmers union (DBV).

SSC have a better socio-economic performance?

Alternative chains and direct marketing enable farmers to access markets, to retain a high proportion of the final retail price, and to have a better profit margin (MIELE, 2001; TOVEY, 1997). The fact that there are major differences between different types of chains can be seen in **Table 3** which gives an overview of the strengths and weaknesses of alternative marketing chains.

Direct marketing gives producers more control over their business. Engaging with direct supply chains does, however, also implies a number of costs, new investment, acquisition of new skills, the need to recruit and train new staff and the possibility that engagement with activities further up the supply chain will distract from farm management. The popularity of these methods among many organic producers suggest that the benefits outweigh these disadvantages (KNICKEL, PARROTT & ALONSO MIELGO, 2003).

A particular strengths of specialized organic stores and health food stores is their small company ethos and the diversity of supply. Consumers who buy organic products from them enjoy the idea of quality control that is specific to small specialist shops. The limited size of the shops, however, means that costs of marketing and, linked to that, retail prices are high

compared to other outlets. Direct marketing schemes (boxes and farmers markets) can in this respect be much more competitive (KNICKEL, PARROTT & ALONSO MIELGO, 2003).

Particular disadvantages of the box and subscription schemes as well as the internet and mail-order systems are the demanding and expensive logistics as well as the fact that there are only indirect consumer-farmer relations. The offering of catering services and farm restaurants can be high profit for producers creating new possibilities for adding value, for synergies (for example with agro-tourism) and for creating additional jobs. Disadvantages are the high investments needed and, in some instances, the high labour demand (though in terms of RD this might be construed as a benefit) (KNICKEL, PARROTT & ALONSO MIELGO, 2003).

Table 3: Strengths and weaknesses of alternative marketing chains

	Farmer			Short distance	Consumer		
	Marketing costs	Producer price	Farmer control		Price	Convenience	Diversity of supply
Conventional chains (supermarkets)	++	–	--	- / --	- / +	++	++
Farm shops	+ / -	++	++	+ / -	++	-	+ / -
Farmers markets	+ / -	++	+	+ / -	++	+ / -	+
Box schemes	+ / -	+	++	+	+	++	+
Food co-ops	+	+	+	+ / -	+	+ / -	++
Specialized organic stores	+	+ / -	+ / -	+	-	+ / -	++
Health food stores	+	+ / -	-	-	–	+ / -	+
Internet and mail-order	+ / -	+ / -	+	–	+ / -	?	?
Catering services & farm restaurants	n / a	+	++	+	n / a	n / a	+

Source: KNICKEL, PARROTT & ALONSO MIELGO (2003)

2.4.2 Environmental performance

More and more environmentalists refer to the pricing system that does not take into account the environmental costs of food production and the fact that this is one of the main reasons for the environmental problems of low cost production systems. For the same reasons there is a substantial and rapidly increasing number of - often state-supported - projects (research, investment, qualification) that directly link and give support to SSC, higher value added chains and environmentally friendly farming (organic farming; high nature value farming; farming in conservation areas; etc.).

Direct marketing enables, and indeed encourages, the growing of a wide variety of crops for a local market (as opposed to a narrow range of crops for national or international markets). This reduces the risk of failure of a single crop to the producer and also helps enhance the agro-biodiversity of the farm unit. It permits 'minority' and unusual crops (or varieties of crop)

to be grown and sold in small quantities. Alternative marketing structures are an important factor in the marketing of sustainable agriculture.

In Saxony *"Naturmärkte"* have been established that explicitly link high nature value with the regional origin, high quality and freshness of food products.

Another example is the *"Natürlich regional"* label and competition that is being organised cooperatively by the Naturschutzbund Deutschland, the Deutsche Landschaftspflegeverband and the Umweltbundesamt. In 2002 more than 50 marketing initiatives were officially recognised and are now allowed to advertise using the *"Natürlich regional"* label.[4]

Transport and emissions is another aspect that ought to be taken into account in an environmental assessment of alternative marketing structures. The actual assessment, however, may be more complicated than at first sight. Life cycle assessments (LCA) carried out in the dairy industry indicate that the advantages of SSC may not be that straight forward (research carried out at the *Bundesanstalt für Milchforschung*).

3 Overview of the regulatory and policy environment and institutional setting in Germany

3.1 The regulatory and policy environment

Key aspects of the regulatory and policy environment are the Federal Ministry for Consumer Protection, Food and Agriculture which has been reformed (and renamed) at the beginning of 2001 (see Section 5.1), the main Federal level support framework which is the Joint Task for the Improvement of Agricultural Structures and Coastal Protection (GAK), the Organic Farming Act of 2002 and the Organic Farming Programme (BÖL),[5] and important components of agricultural legislation, particularly the Agriculture Act and the Agricultural Marketing Fund Act.

3.1.1 The GAK is supporting a sustainable development of rural areas

At national level rural policy is mainly implemented through two Common Tasks. These are the GAK[6] (Joint Task for the Improvement of Agricultural Structures and Coastal Protection) and the GRW[7] (Joint Task for the Improvement of the Regional Economic Structure). Federal policy provides an overall framework and support for the policy of the regions (Bundesländer). Both Common Tasks are important instruments too with respect to the implementation of the regional and horizontal schemes of the EU.

The GAK is the main Federal level instrument for co-financing measures of the EU Rural Development Regulation (Reg. 1257/99; RDR). The EU, the Federal Government and the Länder jointly fund the support schemes. In 2000, the financial resources of the GAK were around 1.4 billion Euro.

The main objectives of the GAK are the improvement of competitiveness and market structure of agriculture and forestry; the diversification of activities and an improved integration of agriculture into the rural economy; the improvement of compensating functions of rural areas concerning housing, economy, recreation and ecology; the support of a sustainable land use

[4] See www.reginet.de and www.regionalvermarktung.info.

[5] *Bundesprogramm Ökologischer Landbau (BÖL)*

[6] *Gemeinschaftsaufgabe Verbesserung der Agrarstruktur und des Küstenschutzes (GAK)*

[7] *Gemeinschaftsaufgabe Verbesserung der regionalen Wirtschaftsstruktur (GRW)*

adapted to local conditions by considering the demands of health, environment and wildlife protection as well as coastal protection.

At the end of 2001 the GAK has been redesigned for stronger support to sustainable development of rural areas. It is now specifically addressing the overall shift towards quality production, new activities in rural areas and the development of a more sustainable rural economy.

More support is now given to regional food supply systems

The GAK is of some importance in terms of providing a framework of planning and financial (investment) support in the fields of quality production and short supply chains (both in the context of the improvement of marketing structures and marketing). Support of regional processing and marketing has become a new component of the GAK in 2002.

Regional food supply systems are favoured in the new GAK (and in the new agricultural policy, in general; see below) because they have a range of advantages in terms of a more sustainable economy (less transport and related problems, increased transparency of shorter chains, higher value added with the farmer and rural areas, more employment opportunities in rural areas, etc.). Another decision by the GAK Planning Committee for the Framework Plan 2000 to 2003, by many considered long overdue, was to place agricultural investment promotion of part-time and full-time farms on an equal footing.

3.1.2 Support given to organic farming

In Germany organic farming is supported during the conversion period and also for the mere maintenance of organic farming. Normally support is given in the framework of agri-environmental programmes. The payments for organic farming are accepted well in society because organic farming is associated with environmental quality (less pollution, more biodiversity, more pleasant landscape), a higher level of food quality and safety as the welfare of farm animals.

While support has for a long time (since the early 1980s) focused on production support (hectare payments), it was only at the beginning of the 1990s that it was realised that this one-sided support caused severe problems on the marketing (demand) side. Since the end of the 1990s, and particularly since the overall reorientation in agricultural policy, the support given is much more diversified, including investment support for processing and marketing.

Organic Farming Act

A national Organic Farming Act was adopted by the Federal German Parliament in July 2002. In addition, the Federal Organic Farming Scheme supplements the support schemes already in place and is designed to improve the environment for a further expansion of organic farming. The aim is a sustainable growth of the organic sector based on a evenly balanced expansion of supply and demand. The measures, therefore, set in at all levels from production to consumption.

The Organic Farming Act pools specific executive functions in organic farming in Germany, whilst improving the efficiency of the implementation of the EU Organic Farming Regulation (BMVEL, 2003b). It contains the following measures: 1. Expansion of notification requirements: The Act stipulates that inspection bodies should always be required to notify the competent authority for the respective holding of established irregularities or violations laid down in the EU Regulation on Organic Farming. This shall also apply to cases where the queried produce originates from another EU Member State. It has so far been prescribed EU-wide that inspection bodies for organic products should only inform the competent authorities about established violations of the EU Regulation on Organic Farming in particularly serious cases that are expected to result in a ban on the marketing of organic produce being

imposed on the entire business. As far as the information requirements in the event of other irregularities are concerned, the Länder made their own separate arrangements within their current competence for the approval of inspection bodies.

Pooling of executive functions at the Federal Office for Agriculture and Food (BMVEL, 2003b):

- approval of private inspection bodies and withdrawal of approval,
- granting authorizations for the marketing of organic products imported from third countries.

Thus, the approval of inspection bodies and the importation of organic products will in future be guided by uniform standards. This enhances the transparency and efficiency of the execution of these tasks.

Introduction of penal provisions and provisions concerning administrative fines: Violations of the Organic Farming Regulation are liable to one-year imprisonment or a fine of up to € 30.000. This applies to improper use of indications referring to organic production methods in the labelling and advertising of organic products. The Organic Farming Act was promulgated in the Federal Law Gazette on 15 July 2002. The provisions governing the first and second paragraphs will take effect on 1 April 2003 (BMVEL, 2003b).

Federal Organic Farming Action Programme

In conjunction with the Organic Farming Act a very comprehensive Organic Farming Action Programme (*Bundesprogramm Ökolandbau,* BÖL) has been drawn up in 2002 and 2003. It is to contribute to sustainable growth based on a well-balanced expansion of supply and demand. The medium to long-term Action Program on Organic Farming is developed within a social discourse encompassing all relevant policy fields and actors. Based on the identification of problems and development potential, the scheme envisages support measures where growth can be efficiently boosted by closing gaps in support.

Bearing this aim in mind, the Federal Scheme incorporates various measures in line with a production chain concept in the following sectors:

- agricultural production,
- recording and processing,
- trade, marketing, consumers,
- development and transfer of technologies,
- accompanying measures such as research and development.

The scheme focuses on the one hand on training, educational and general information measures. A further priority is the promotion of research and the development of new technologies as well as the practical implementation of the acquired insights. The scheme fosters broad information about organic farming. To this effect, the following measures are taken, inter alia:

- Concrete support is being provided to farmers wishing to convert to organic farming, e.g. in the form of differentiated information, education and counselling opportunities. The internet, trade fairs, multipliers and seminars provide information about organic farming.
- The primary and processing stages are informed about the rules governing organic production. Here, incentives are given for innovation and competition and assistance to facilitate the exchange of information at seminars, trade fairs or on the internet.

- The trade sector undergoes intensive preparation to be able to provide sound and fair advice as requested by consumers. Further training opportunities are therefore offered to retailing staff.
- Consumers receive targeted information about the value and benefits of organic products. What matters is informed conversion advice for catering establishments as well as adaptation of the topic for day-care centres for children and general-education schools.

To implement the Federal Scheme, the BMVEL budget has earmarked around Euro 35 million for 2002. The same amount has also been envisaged for the 2003 budget. The support is given outside the Joint Task for the Improvement of Agricultural Structures and Coastal Protection (GAK).

The Federal Office for Agriculture and Food is charged with the implementation and execution of the Scheme. The Agency for the Federal Organic Farming Scheme has been set up there for this purpose.

3.2 The institutional setting of FSC

In this section only some general information is given on institutions that are important in cross-sectoral terms. Sector-specific information on the institutional setting of FSC is given in Section 4.

3.2.1 The role of regional and local level programmes

Rural districts and communes are responsible for designing and implementing region-specific measures and projects - normally within the frameworks given by the Länder. A significant number of RD measures and projects are related to regional and direct marketing.

Some regions and communal bodies are running their own schemes outside Federal and Länder level frameworks using only their own funds (regional and direct marketing, nature management, water protection, specific routes, networking, etc.).

3.2.2 The CMA

The CMA (Central Marketing Organization for German Agricultural Industries) is the main national level marketing agency in the agricultural sector. It is the German equivalent of Food from Britain, and it is funded by compulsory commodity levies.

3.2.3 Farmer-managed initiatives

By far the largest number of initiatives can be considered as being farmer-managed. Very often production and producer associations are the starting point for more comprehensive initiatives and projects.

3.2.4 The Deutscher Verband für Landschaftspflege (DVL)

The *Deutscher Verband für Landschaftspflege* (DVL) (German Association for Landcare) is the umbrella organisation of all the landscape organisations in Germany and other, similar, organisations. In early 1999, 132 landcare groups were active in twelve federal states. A number of others are currently being set up. The association was formed in 1993. It represents the landcare groups, holds conferences and supports initiatives leading to the founding of new landcare groups.

In cooperation with the local landscape associations, the German Association for Landcare carries out model projects often related to the establishment of regional marketing. Regional

diversity is seen as the basis for long-term attractiveness for tourists. Representatives of the tourist trade participate in some landcare groups, thus emphasizing the responsibility of this sector of the economy for the preservation of intact landscapes (see http://www.lpv.de/ and http://www.reginet.de/hauptframe.htm).

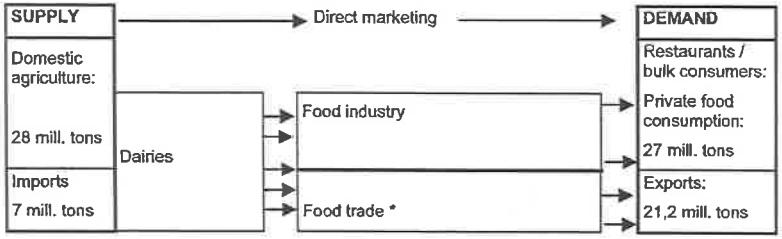
4 Sector by sector summary of FSC in Germany

The following chapter gives brief descriptions of core sectors of FSC in Germany. The sectors covered are dairy, beef, sheep meat, pigs, poultry, sheep, cereals, potatoes, sugar, fruits and vegetables.

The data given are based mainly on the relevant ZMP market reports for 2002.

4.1 The dairy sector

Overview of the milk market



Main characteristics

Per capita consumption	334 kg / capita
Part of directly marketed products	8 -10%*
Part of organic production	1.3%
Part of organic market share on retail level	3.1%
Degree of self-sufficiency	98%

Sources: BMVEL; 2002, ZMP, 2002g, ZMP 2002e. * Estimated by authors.

Delivery and processing of milk

In 2000/2001 an average organic dairy cow produced 5,007kg milk /cow for 36.60€/100kg, while an average conventional dairy cow produced 6,681 kg milk per cow for a price of 33.09€/100 kg.

Milk processing is less concentrated in Germany than in other European countries and there are still some 250 dairies (340 production sites). Foremost in the southern part of the country

a relatively large number of small and medium scale dairies can still be found, even if the concentration process accelerates. During the past 3 to 5 years many dairies paid relatively high prices to farmers in order to attach tem to the dairy and to maintain or to enlarge their production volumes.

There are, generally spoken, three types of dairy enterprises:

- family owned firms;
- farmer owned firms (co-operatives);
- public companies.

A special form of governance are farmer-owned milk assembly co-operatives on regional level. They are, by means of long-term-contracts, linked to dairies of their region and have influence on the price and volume decisions.

The milk market, prices and trends

The present situation on the milk market is difficult. During the last three years, dairies often paid milk high milk prices in order to attach farmers to their production sites. This competition for volume, that reached its peak in 2001, brought high prices for farmers during a short period, but the financial power of many small and medium scale dairies got exhausted, making them an 'easy prey' for the big players.

In 2002/2003 milk prices fell dramatically resulting in an accelerated number of milk farms being given up. The structure of the market is fragile and a rapid concentration process might lead to the closing down of production sites. This leads to a general rise of milk assembly costs, that hit organic farms, who are more dispersed, more than conventional farms. These factors could deepen the gap between conventional and organic consumer prices for milk and dairy products and, thus, render alternative FSC products less attractive.

Farmers' negotiation power is likely to be reduced. Milk production tends to concentrate in areas, where feeding stuff (domestic and imported) can easily and cheaply be procured.

One of the major bottlenecks in alternative FSC in the dairy sector is the lacking of a real 'big player' with enough weight to compete with the huge dairies of the conventional sector. At the moment, even relatively big organic dairies *Scheitz* or *Söbbeke* struggle for their market positions in conventional supermarkets.

A higher quality kind of milk that has been of some importance in Germany for some decades and that is achieving a slightly higher price is the so-called *Vorzugsmilch* which is a high quality, non-pasteurised, milk (BUNDESVERBAND DER VORZUGSMILCHERZEUGER, 2003).

Processing and marketing of organic milk

In 1999 approx. 75% of the organic milk was also sold as organic. This was 1.2% of the whole amount of sold milk. Organic milk is sold to 50% in health food shops, to 25% in conventional grocer's and to 25% to the food industry, e.g. baby food (RAHMANN, 2003) The sales of *Demeter* milk grew between 1999 and 2000 about 200%.

58 dairies are specialised on processing organic milk. Thereof only 4 dairies are processing 44% of the organic milk produced in Germany: *Andechser Molkerei Scheitz, Molkerei Rogge / Söbbeke, Küstenlandmolkerei Rostock* and *Milchwerke Berchtesgardner Land.*

Some dairies, like the *Hamelner Molkerei*, converted back from organic to conventional milk processing (REUTER, 2002, p. 4).

From June 2003 onwards the German branches of McDonald's will only sell organic milk from the dairy *Andechser Molkerei Scheitz*. The organic industry hopes to get new impulses

and to become more recognised (NATURKOST, 2003). Another new organic milk campaign has been launched in July 2003 on the premises of the Berlin organic supermarket BioCompany. The campaign is supported by Deutscher Naturschutzring (DNR), BÖLW and CMA. The consumer campaign for promoting the sale of organic milk was launched in the presence of press and association representatives and is to be run in the months of July, August and September (see http://www.aktion-biomilch.de).

Institutions, organisational forms and governance

Co-operatives are very important in Germany. About 65% of the milk brought to dairies in 2002 were from co-ops (RAIFFEISEN, 2003).

The CMA (Central Marketing Organization for German Agricultural Industries) is very important in promoting the marketing of milk and dairy products. With the slogan *"Die Milch macht's"* (the milk makes it) CMA advertises the taste and lifestyle of milk. The aim is to show to the consumers how milk can taste different and can be used for a lot of different milk recipes. CMA sponsors sport events, like the German tour 2003, the marathon of Bonn, or cultural events, such as the *Berlinale* in order to promote milk and dairy products (CMA, 2003).

The *Verband der Deutschen Milchwirtschaft* (German Association of Dairy Farmers and Processors) is an association to support and promote German dairy products. It is also the mediator between the dairy producers and the administration of the Länder (VDM, 2003).[8]

Areas that exhibit dynamism in terms of being sustainable or alternative

The fresh milk and the cheese market are considered not yet well developed by German dairies (see for example an expert study by the WISSENSCHAFTLICHER BEIRAT BEIM BML, 2000).

Particular dynamism in terms of sustainable or alternative initiatives can often be observed with regard to organic and/or regional production. The biggest German (and European) organic dairy, *Scheitz*, is a family-owned enterprise that succeeded in establishing its products in the nation-wide retail. But the processing of organic milk is not exclusively taken up by small and medium dairies. The *Müller AG*, a global player on the milk market, engages with two of its production sites in the organic sector and produces yoghurt for the British organic market as well as cheese for a regional marketing initiative in Bavaria.

A farm-level development that is characterised by particular dynamism is the farm-level processing, bottling and direct marketing of (mostly organic) milk. Very often rather small scale technologies for pasteurising and bottling fresh milk. This is then sold directly to consumers (by home delivery services) or to local (organic) food stores. Using modern delivery logistics and putting forward the regional aspect in their communication policy, they succeed in being competitive.

A promising regional marketing structure is the *Käsekūche Isny*. It receives milk from 10km around the processing plant. The milk must be produced organic or environmentally friendly

[8] Many other associations are involved in dairy marketing and food supply chains related to milk: The *Deutscher Bauernverband e. V.* (German Farmers Union), the *Gemeinschaft der Milchwirtschaftlichen Landesvereinigungen* (an umbrella organisation for all Länder level associations related to milk production and processing), the *Deutscher Raiffeisenverband*, the *Verband der Landwirtschaftskammern*, the *Bundesverband der Privaten Milchwirtschaft*, the *Deutsche Landwirtschaftsgesellschaft*, the Verband für handwerkliche Milchverarbeitung im ökologischen Landbau e.V. (specifically dealing with the processing of organic milk), the *Arbeitsgemeinschaft Deutscher Rinderzüchter e.V.*, the *Milchindustrie-Verband e.V.*, the *Bundesverband der Vorzugsmilcherzeuger und Direktvermarkter von Milch und Milchprodukten*, and the *Bundesverband Molkereiprodukte und ZV Deutscher Milchwirtschaftler* (VDM, 2003).

as defined by Bioland or Demeter. The *Käseküche Isny* produces traditional, locally typical cheese - which has become a rare phenomenon in Germany (DVL, 2002; ALLES BIO-KÄSE, 2003).

The *Arbeitsgemeinschaft für Rinderzucht auf Lebensleistung* is an interesting complementary initiative because it breeds dairy cows on a life time performance basis, a criteria that, although economically and ecologically convincing, is generally not taken into account any more in conventional breeding (Zs-L, 2003).

Sustainability and transparency of the current structure

Extensive milk production forms tend to be relatively disadvantaged economically in the present economic framework conditions. Particularly the grazing of dairy cattle and extensive pasture management is less competitive than in-door-keeping and intensive feeding (maize silage; cheap feedstuffs based on cereals and imported soybeans). The result is that extensive milk production forms have considerably lost market shares in the last 3-4 decades.

The transparency of the current processing and marketing structures appears relatively limited in the milk sector. The main reason for this could be the mere complexity of the sector, the still very large number of actors (private, state and mixed), the substantial regional differences and presumably also the lack of sufficiently clear labelling rules.

A particular deficit in the organic milk sector is the lack of adequate (regional level) processing possibilities.

Interrelationships with rural development

In the last decades there has been a very significant concentration in milk processing and marketing and, simultaneously, a retreat from less favoured areas (LFAs). While farmers in LFAs receive particular support it is the lack of milk processing and effective marketing and, in addition, the continuously decreasing prices in conventional channels, that discouraged many younger dairy farmers and potential successors. A significant number of farmers have converted to suckler cows and higher quality beef production. In spite of this latter adjustment a significant decrease of income and employment in LFAs can be seen.

A model for a more sustainable development in the milk sector - particularly in LFAs - could be the *Käsekūche Isny* that explicitly links milk production, processing and marketing at the regional level. While contributing to the maintenance of dairy farming in the region there can also be positive impacts on the local and regional economy identified (ALLES BIO-KÄSE, 2003).

Bottlenecks to a sustainable development of rural areas

The relative competitiveness of dairy farmers and milk processors in conventional markets is limited due to the prices of work, energy and water that are higher in Germany than in many other EU countries. At the same time Germany tends to have particularly high regulatory requirements (e.g. environmental protection).

In addition to that the WISSENSCHAFTLICHER BEIRAT BEIM BML (2000) also identified structural deficiencies in the organisation of the German dairy economy. It must be questioned, however, that the problem really is the large number of smaller dairies, as stated by the WISSENSCHAFTLICHE BEIRAT. The much more important question appears to be how smaller dairies can position themselves with new products and new forms of marketing. There appear to be many opportunities, like for example organic, controlled, ecological friendly, healthy, functional, light or Fair Trade. The big question really is how to establish new products on the German market (WEINDLMAIER & MAIDL, 2002). RAHMANN found that there must be a better infrastructure and marketing for organic dairy products to establish them on the market

(RAHMANN, 2003) - and this precisely may actually be an opportunity for the smaller, regional level dairies that still exist.

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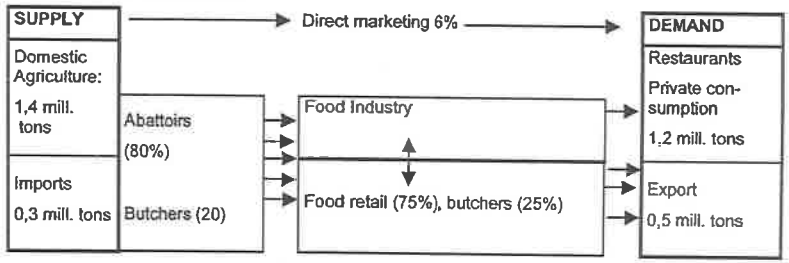
4.2 The beef sector

Overview of the beef market



Main characteristics

Per capita consumption	10,0 kg / capita
Part of directly marketed products	6%
Part of organic production	2.5%
Part of organic market share on retail level	1.5%
Degree of self-sufficiency	116%

Sources: BMVEL; 2002, ZMP, 2002g, ZMP 2002c, DFV, 2002

Concentration in the beef market

The German beef market is dominated by huge beef and meet enterprises. The sector is highly concentrated and competition is particularly fierce on abattoir level.

Particularly the number of abattoirs has been reduced very much in the last two decades. Many small abattoirs were closed down, above all because they couldn't cope with hygiene standards any longer. In the early 1990s, just after the reunification of Germany, many abattoirs were newly built in the eastern part of the country, due to a fatal over-estimation of the beef and meet production in these regions. Consequently, there are huge over-capacities in eastern Germany.

Trends in processing and marketing

Most butchers are no longer equipped to slaughter cattle. As the hygiene regulations are very strict and as there are no subsidies for this kind of diversification any longer, only relatively few farmers invest into own cattle slaughter facilities (3% of all cattle is slaughtered on farm level). Regional, direct and organic marketing initiatives try to re-establish or to maintain small scale beef marketing structures. Partly they also succeed in modernising small regional slaughterhouses or in establishing mobile abattoirs.

Supermarkets hold almost 75% of the retail market and large discounters are continuously reinforcing their efforts in beef and meat selling - mainly through a low price policy. The remaining 25% of the market are held by 25.000 butchers.

In more and more rural areas farmers can't chose their market partner any longer, because there's only one abattoir left or because there appears to be no beef marketing possibility left at all and farmers have to deal with high transport costs for cattle.

Beef from organic farms

Beef has the highest proportion of organic or ecologically friendly produced meat, however, a significant part of beef has still to be sold as conventionally produced (WENDT et al., 1999).

Organic beef is marketed by several supermarket chains but market shares tend to be rather low. This is also related to the difficulty to enter the butcher market. In general, butchers hesitate to take up organic beef (and meet in general). They find it difficult to run conventional and organic products in a parallel manner and to differentiate the organic products without devaluating their conventional assortment.

A very substantial proportion of all organic beef is sold directly at regional level. Many organic beef (and meet) marketing initiatives, however, are lacking marketing and transformation capacities for inferior pieces (to produce organic sausages, convenience etc.). Consequently, they have to sell these pieces very cheaply on the conventional market. At the same time, they have to sell the more appreciable pieces (steaks, cutlets etc.) expensively to cover the losses, rendering them rather expensive for many consumers.

Institutions, organisational forms and governance

The CMA is promoting German meat and meat products in a special programme. This year the slogan is *"Fleisch & Wurst - Der absolute Sommerhit"* (meat and sausages - the absolute summer hit) (CMA, 2003)

In addition there are around 40 associations that promote the beef sector and work as lobbyists. The *Arbeitsgemeinschaft Deutscher Rinderzüchter e.V.* is the umbrella organisation for the segments of breeding, insemination, evaluation of breeds and efficiency tests. It also works together with the CMA in developing appropriate marketing strategies (ADR, 2003). The *Verband Schleswig-Holsteiner Fleischrinderzüchter eV* and similarly some other regional level associations try to promote direct marketing of beef and veal at regional or Länder level.

The *Gesellschaft zur Erhaltung alter und gefährdeter Haustierrassen e.V.* (society for the conservation of old and endangered livestock breeds) wants to secure old breeds that are regionally typical (SEIBOLD, 2002).

An important national level organisation is the *Verband der Fleischwirtschaft e.V.* that represents all parts of the meat sector from the producing to the wholesale and import or export. The main tasks are lobbying, training, marketing and information of all actors involved in the mainstream meat sector (VERBAND DER FLEISCHWIRTSCHAFT E.V., 2003).

Areas that exhibit dynamism in terms of being sustainable or alternative

Extensive (grazing) and organic beef production, and the related processing and marketing seem to be the main areas that exhibit dynamism. Typical initiatives are:

- *Bergisch Pur* is a rather successful quality label for regionally produced and regionally marketed beef and lamb in the Bergische Land (DVL, 2002c; see also Section 6.2.3). The same concept can be found with the *Erzeugergemeinschaft Prignitzer Weiderind e.V.* (DVL, 2002d) or *IGERO - Interessengemeinschaft Extensivrinderhaltung Osnabrück e.V.* (see Section 6.2.8). Similarly the *Erzeugergemeinschaft Junges Weiderind*

e.V. that is promoting ecologically friendly produced beef in the Black Forest. Its aim is to sustain the agriculture of the region and to produce in an ecologically friendly way without long distance animal transports (DVL, 2002a).

- The organisation *Bioring der Schwarzwaldbauern e.V.* tries to re-establish the marketing of the traditional *Wälderochsen* (forest oxen) in the Black Forest again. It works together with butchers and restaurants, and it actively supports direct marketing. A main aim is to sustain region-typical breeds of cattle (DVL, 2002b).
- The *ÖRZ Ökologische Rinderzucht GmbH Seefeld* is a typical eastern German company that was established in 1992 to produce ecologically friendly veal in Brandenburg (LAB GMBH GESCHÄFTSSTELLE, 2003).

Sustainability and transparency of the current structure

Some of the beef and meet processing firms are held by farmer co-operatives, but this improves market positions for farmers only to a limited extend, given the difficult overall market conditions. Generally spoken, the sector is in a bad financial condition after the BSE crises that entailed at the same time market reduction and new investments into new slaughtering facilities and traceability systems.

The concentration of marketing structures tends to favour the concentration of cattle farming, while extensive cattle husbandry and grazing systems are constrained by this development.

Transparency and quality are very important aspect for the newly established products, chains and organisations (DVL, 2002c). Important synergy effects can be achieved in successful cooperations between the farmers and the local or regional butchers and traders (DVL, 2002b).

Interrelationships with rural development

The interrelationships with rural development are very similar to the ones described for milk production and the dairy sector. The particular additional aspect is the importance of (often imported) breeds that are particularly adapted to large scale low input ranching systems.

Large scale low input ranching systems in turn could be sufficient in terms of the maintenance of landscapes. Clearly such systems help to preserve the particular environment, landscape and wildlife of (semi-)mountainous areas (DVL, 2002d). What such systems cannot achieve, however, is to maintain the income and employment levels of the more intensive traditional systems.

More advanced model link extensive grazing with processing, marketing and possibly additional activities such as rural tourism. Particularly in such initiatives the farmers can earn more money which offers new perspective for full-time and for part-time farmers. Farmers who sells their beef under the *Bergisch Pur* label do earn around 8% more, if they fulfil the high standards of this organisation (DVL, 2002c).

Bottlenecks to a sustainable development of rural areas

The major bottlenecks and entry barriers for alternative (beef) marketing systems are the relatively high investment costs, the concentration and poor transparency of the market and its difficult overall situation. Even innovative and potentially profitable alternative projects have problems to be given credits by banks, because analysts information on the beef market is very negative.

Problems that are considered to prevent a more rapid expansion of organic beef marketing are the small structures, the insufficient marketing, the more difficult distribution and logistics and the very limited engagement of the big retailers (WENDT et al., 1999).

Traditional butcher shops have become much less important as supermarket sales were increasing. As they are often important for regional products, it is a key question whether and how this segment can find new ways in marketing (SIMONS, 2002).

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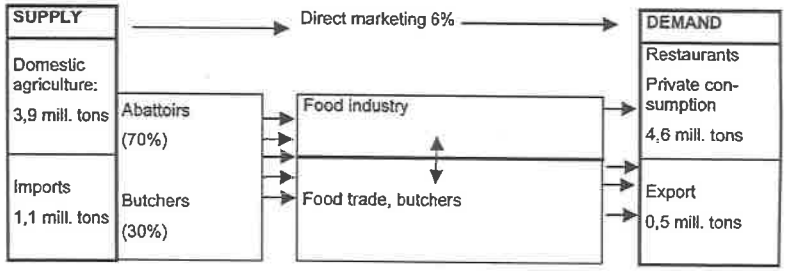
4.3 The pig and pork sector

Overview of the pig and pork market



Main characteristics

Per capita consumption	40,5 kg / capita
Part of directly marketed products	6%
Part of organic production	0.3%
Part of organic market share on retail level	1.5%
Degree of self-sufficiency	83%

Sources: BMVEL; 2002, ZMP, 2002g, ZMP 2002c, DFV, 2002

Germany produces 84% of its total pork consumption (SCHÖNBERGER, 2003). Less than 1% is produced organic or ecologically friendly. This pork is sold directly to the consumer, to butchers or to the food retail. The shares of organic pork products to all organic food is less than the proportion of conventional pork products to all conventional food (WENDT et al., 1999). Many pig producers are organised in cooperatives (AGRAR.de, 2003).

The pork sector has a lot in common with the beef sector with respect to the abattoir level. A difference is that there are still more facilities on butcher level for slaughtering pigs than for cattle. Some 2.5% of all pigs are slaughtered on farms, a phenomenon which in the 1960s and 1970s still had been very common. On farm level, production is much more concentrated than in the beef sector: 14% of all pig farms hold almost 70% of all pigs.

The establishing of alternative marketing chains is often related to animal welfare or organic production and faces the same barriers as observed in the beef sector.

Institutions, organisational forms and governance

The main umbrella organisation is the *Zentralverband der Deutschen Schweineproduktion e.V.* (ZDS, 2003).

Apart from this national level umbrella organisation there are many regional level organisations which promote and sell piglets and pork. An example is the *Schweinezucht- und Produktionsverband Berlin-Brandenburg e.G.* which promotes and sells pork from the region

Brandenburg together with the organisation *Natürlich Brandenburg pro Agro* which is also involved in other regional food products (ZUCHTSCHWEINE, 2003).[9]

Areas that exhibit dynamism in terms of being sustainable or alternative

Overall there had been a tremendous concentration in pig and pork production in the 1970s, 1980s and 1990s. This has generally been linked with a continuous lowering of production costs as well as producer prices for pork.

Nowadays there are some smaller associations that are developing very well and that manage to obtain higher prices for their products in the market. On such example of smaller and medium size pork producers and of a very successful marketing initiative is the *Bäuerliche Erzeugergemeinschaft Schwäbisch Hall*. It was set up in 1988 to produce 'healthy' and 'natural' pork. Pork produced by their standards have their own label and it is sold regionally (BÄUERLICHE ERZEUGERGEMEINSCHAFT SCHWÄBISCH HALL, 2003).

Another sub-sector that is developing dynamically is the breeding of free range pigs, s.th. that had been very uncommon in Germany until the late 1980s. In the natural park *Brandenburgische Elbtalauen* pigs are kept since 1993. By grazing in a traditional way the pigs preserve the particular cultural landscape of the *Elbtalauen* (BELLERSEN, 1999).

Sustainability and transparency of the current structure

Often the very large pig producers have extremely high livestock densities with similarly extreme nutrient surpluses per farm and hectare. Ammonia emissions also tend to be very high.

As for transparency there is little differentiation of pork of different qualities in mainstream outlets. Smaller associations that are developing very well and that manage to obtain higher prices for their products in the market are mainly involved in regional level marketing.

Interrelationships with rural development

The associations of smaller and medium size producers that often also promote alternative regional level marketing chains might well have more favourable interrelationships with rural development. A more in-depth study on such interrelationships in the Netherlands has recently been published by COMMANDEUR (2003).

The fact that free range pigs are important for the landscape and natural vegetation is stressed in various projects in Germany (see for example BELLERSEN,1999).

Bottlenecks to a sustainable development of rural areas

One of the major bottlenecks for the development of alternative / sustainable supply chains is the very nature of the pork market and the substantial fluctuations of quantities and prices. Newly created marketing systems tend to be not sufficiently robust to cope with turbulences in mainstream pork markets.

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[9] Some of the many other regional marketing organisations are: *Niedersächsische Erzeugergemeinschaft für Zuchtschweine eG* (NIEDERSÄCHSISCHE ERZEUGERGEMEINSCHAFT FÜR ZUCHTSCHWEINE EG, 2003), *Erzeugergemeinschaft für Ringferkel Oberfranken, Erzeugergemeinschaft Schwein 'Altmark', Erzeugergemeinschaft und Züchtervereinigung für Zuchtschweine in Bayern, Hannoversche Erzeugergemeinschaft für Zuchtschweine, Mitteldeutsche Zuchtschweine-Erzeugergemeinschaft, Rheinische Erzeugergemeinschaft für Qualitätsferkel, Ringgemeinschaft Bayern, Schweineerzeuger Nord-West eG, Schweinekontroll- und Beratungsring M-V, Schweinezucht- und Ferkelerzeugergemeinschaft Hessen eG* and *Thüringer Schweinezucht- und Produktionsverband e.V.* (TSPV, 2003; AGRAR.de, 2003).

On the demand side it must be taken into account that the ecologically oriented consumer tends to eat less pork than beef while the rest of the consumers do eat more pork than beef. This might explain the relatively small amount of organic pork produced as there is only a small market (WENDT et al., 1999).

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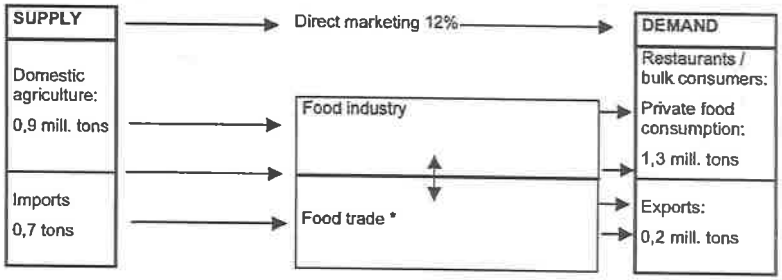
4.4 The poultry sector

Overview of the poultry market



Main characteristics

Per capita consumption	15.3 kg / capita
Part of directly marketed products	12%
Part of organic production	0.3%
Part of organic market share on retail level	1.5%
Degree of self-sufficiency	71%

Sources: BMVEL; 2002, ZMP, 2002g, ZMP 2002b, DFV, 2002.

The consumption of poultry increased in Germany in the last years. About nine kilogram of poultry are eaten per person in Germany per year. In the EU it is up to 15 kg per person (TAGEBLATT, 2002). Only 1% if the produced poultry is organic or environmentally friendly (WENDT et al., 1999).

Conventional poultry production on farm level is extremely concentrated. 90% of all broiler chicken are kept by 4% of the poultry farms. The leading enterprises often developed integrated production systems (own mills for feeding stuff production, animal production, abattoirs, sizing and packaging, shipping). They are highly efficient, produce at low costs and negotiate directly with retailers.

Alternative husbandry systems for poultry do exist as well. On a much smaller scale, they tend to build the same vertically integrated systems as the conventional sector. Their main problem are high production costs, that render their products very expensive in comparison to the extremely low-priced conventional offer.

Thus, there are very successful examples of organic chicken and turkey production and marketing. Consumer demand for poultry in general is constantly growing, and this is true for organic poultry as well.

Institutions, organisational forms and governance

The *Zentralverband der Deutschen Geflügelwirtschaft e.V.* is the main organisation to promote German poultry and to represent the interests of the poultry producers. Another important organisation is the *Bund Deutscher Rassegeflügelzüchter* which tries to improve the standards of poultry breeding (BUND DEUTSCHER RASSEGEFLÜGELZÜCHTER, 2003). And there are also regional level associations like the *Geflügelerzeugergemeinschaft Franken e.V.* (GEFLÜGELERZEUGERGEMEINSCHAFT FRANKEN, 2000). In addition to these mainstream organizations there are associations that deal with particular market segments such as the turkey farmers that are organised in the *Verband Deutscher Putenerzeuger e.V.* which is an association of over 1.000 members and that are from breeding to marketing specialised on turkey hen (VERBAND DEUTSCHER PUTENERZEUGER E.V., 2003).

The regulations to keep poultry has changed in Germany with the *Erste Verordnung zur Änderung der Tierschutz-Nutztierhaltungsverordnung* which regulates the keeping of poultry. It is considered the most animal friendly and strict in the EU (DAINET, 2003). From 2006 onwards, no cages are allowed in Germany while in the EU special types of cages will still be permitted (BMVEL, 2003).

Areas that exhibit dynamism in terms of being sustainable or alternative

The poultry sector has some special trademarks like the *KiKog* of the company Borgmeier or the *Weidehähnchen* of Wiesenhof (AMT FÜR LANDWIRTSCHAFT, LANDSCHAFTS- UND

BODENKULTUR MÜNSINGEN, 2002). *Wiesenhof* is a company with its own breeding and slaughter houses that produces a wide variety of poultry products. Around 700 farmers are fattening poultry for this company (TAGEBLATT, 2002).

The *Freiland Puten Fahrenzhausen GmbH* put its emphasis on ecologically friendly produced free range turkey (FREILAND PUTEN FAHRENZHAUSEN GMBH, 2003). Specialised on free range eggs is the union *Erzeugergemeinschaft CW Öko Ei GmbH* (ERZEUGERGEMEINSCHAFT CW ÖKO EI GMBH, 2003). And there is a number of producers of ecologically friendly produced poultry such as the members of the *Interessengemeinschaft BIO-Geflügel e.V.* (INTERESSENGEMEINSCHAFT BIO-GEFLÜGEL E.V. 2003).

Sustainability and transparency of the current structure

The organic and free range egg producers and their associations as well as some niche associations such as the turkey producers try to implement more transparency and sustainable agriculture. Particularly for eggs but also for poultry products the labelling is perceived as not sufficiently clear.

The *Interessengemeinschaft BIO-Geflügel e.V* plans to establish more integrated businesses with the breeding and fattening on one farm. The expectation is that this will lead to a better transparency (INTERESSENGEMEINSCHAFT BIO-GEFLÜGEL E.V., 2003).

Interrelationships with rural development

The conversion of a highly industrialised egg and poultry production in cages into a free range production in according to criteria of animal welfare is generally considered to have a very positive impact on the environment and on rural development (BMVEL, 2003).

Bottlenecks to a sustainable development of rural areas

Particularly for eggs but also for poultry products the labelling is perceived as not sufficiently clear. Producer prices in mainstream production and marketing are extremely low. Many consumers have become used to low prices and are hardly willing to pay more (WENDT et al.,1999).

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4.5 The sheep sector

Overview of the sheep meat market

60,000 sheep farmers are working nationwide (WIRTSCHAFTSVEREINIGUNG DEUTSCHES LAMMFLEISCH, 2003). German sheep production only covers 50% of demand. A major consumer group are the Moslems living in Germany. Most of the sheep meat is sold directly (RLV, 2002). Organic sheep meat comes up to 5% of all sold sheep products, i.e. it has the highest proportion of organic to conventional of all in Germany sold meat (WENDT et. al., 1999).

Institutions, organisational forms and governance

The *Vereinigung Deutscher Landesschafzuchtverbände* (union of the German sheep breeding associations of the Länder) is promoting the German sheep meat together with the *Wirtschaftsvereinigung Deutsches Lammfleisch* (business association of German lamb meat). They have their own trademark for in Germany produced lamb and sheep meat (WIRTSCHAFTSVEREINIGUNG DEUTSCHES LAMMFLEISCH, 2003).

The *Vereinigung der Bergschafzüchter im Alpenraum* is an international association between the countries of the Alps that has been established in 2000. Its main aim is to promote sheep meat from that region in a regional and broader perspective (GRASEGGER, 2001).

Areas that exhibit dynamism in terms of being sustainable or alternative

Similarly as in the beef sector there is a significant number of regional level associations that focus on high quality, environmental attributes and alternative marketing channels. *Württemberger Lamm* is an example. It is a new trademark for lamb produced in Baden-Württemberg which means regional produced and marketed lamb. In this initiative a number of actors are working together with the aim to re-establish and if possible expand the market for regional high quality lamb from Baden-Württemberg. The key actors are: *Viehzentrale Südwest GmbH, Frischlamm GmbH, Landesschafzuchtverband Baden-Württemberg e.V., MBW Marketing- und Absatzförderungsgesellschaft für Agrar- und Forstprodukte aus Baden-Württemberg mbH* and CMA (CMA, 2003).

Besides this several other regions promote their special lamb and sheep meat - often in connection with environmental goals (landscape, biodiversity). Some examples are: *Altmühltaler Lamm, Frankenhöhe Lamm* and *Rhönschaf*. Their strategy is to expand the sales of lamb and sheep meat with a regional marketing concept and to preserve the landscape (DVL 2002a, b, c; see also Section 6.2.12).

Sustainability and transparency of the current structure

The production of sheep has become almost unprofitable in micro-economic terms. However, its importance for landscape and biodiversity, and thus also for rural and green tourism has been more and more recognised in recent years. As a result many environmental organisations and particularly landscape management associations are actively promoting sheep farming - in most cases through marketing initiatives.

Interrelationships with rural development

Sheep farming is particularly important for preserving the landscape. Particularly in tourism areas there is also a certain demand for lamb products in restaurants. The image of this high quality lamb or sheep production is also transferred to tourist attractions and accommodations. Many examples can be found in the Rhön, such as the *Rhönschaf-Hotel* (DVL 2002a, b, c).

Bottlenecks to a sustainable development of rural areas

The knowledge of the preparation of lamb and sheep meat has largely been lost in Germany which stops the consumers to buy this meat (CMA, 2003).

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4.6 The cereal sector

Overview of the cereal market