Part I.

Organic Agriculture and Sustainability

Chapter 3.

Economic and Social Aspects of Organic Agriculture

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THE PROFITABILITY OF ORGANIC FARMING IN EUROPE

Hiltrud Nieberg and Frank Offermann[1]

Abstract

This paper discusses some methodological aspects important for the analysis of the economic performance of organic farming, and gives an overview of the profitability of organic farming in Europe at the farm level. On the basis of a review of current and previous studies, as well as farm accounting data, the incomes of organic and comparable conventional farms are compared, and the main factors influencing profitability, especially yields, price premia and support payments for organic farming are discussed. The analysis shows that organic farming has been an economically interesting alternative in many European countries even though yields were generally significantly lower. One of the main determinants of profitability is the realisation of higher farm-gate prices. Premium prices could generally be realised for crop products, while for livestock products marketing was often more difficult. European Union and government support payments for organic farming as well as the design of the Common Agricultural Policy contributed to the success of the farms. While on average the profits of organic farms are very similar to those of comparable conventional farms, there was, however, a wide variation in performance within the samples and between countries and farm types. The development of profits in organic and comparable conventional farms is remarkably similar. This indicates that external, non-system inherent factors influence both farming systems in very much the same way. Comparing financially successful and less successful organic farms reveals that in organic farming too, size and cost-effectiveness of production matter.[2]

Introduction

Economic analysis of organic farming needs to cover a wide range of different aspects to account for the complexity of the issues involved, which is reflected in the diversity of the contributions to this Workshop. This article deals with some general methodological aspects, but will focus on farm-level economics. The motives for the conversion to organic farming are manifold (Padel, 2001). In addition to the wish to actively contribute to environmental goals, financial motives have become one of the most important aspects in the decision to convert, which is reflected in the

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2. The paper is partly based on a report which has been carried out with financial support from the Commission of the European Communities, Agriculture and Fisheries (FAIR) specific RTD programme, Fair3-CT96-1794, "Effects of the CAP-reform and possible further development on organic farming in the EU". It does not necessarily reflect its views and in no way anticipates the Commission's future policy in this area.

strong growth in the adoption of organic management practices following the introduction of financial support for organic farming in most countries. This paper will discuss methodological aspects of comparative economic analyses of organic farming. On the basis of these reflections, it will provide an overview of the financial performance of organic farms in selected European countries, and try to identify the conditions and farm characteristics which promise a profitable conversion. Specifically, the importance of yield levels, prices realised, costs incurred and payments received will be analysed.

Data and methodology

The criteria for measuring and evaluating the economic performance of organic farms depend on the objectives of the farmer and the time horizon of the analysis. Quite generally, a minimum requirement would be that organic farming is economically viable, meaning the monetary return under organic management is high enough to cover all expenses incurred, including consumption by the farm household. In the long run though, relative profits and the criteria of profit maximisation are becoming more important for analysing the economic performance of organic farming, and the profits under organic management need to be compared to the (hypothetical) performance under conventional management.[3] Such an approach also facilitates a comparison of results across countries, and permits the evaluation of the financial incentive to convert to organic farming.[4]

Therefore, when analysing the performance of an organic farm, questions that need to be answered include: What would the organic farm look like if it were managed conventionally? What profit would be realised? Essentially, four different approaches to answer these questions can be discerned (Annex 1, compare Schulze Pals, 1994 with Offermann and Nieberg, 2000):

1. ***Calculation of hypothetical farm organisation and indicators under conventional management with the help of models.*** This approach can be quite time consuming, especially if the number of different farm models that have to be developed is high. Often, not all information on the relevant interrelations on the farm is available, and the results very much depend on the assumptions made for the modelling.

2. ***Determination of the farm's situation before conversion.*** The economic data for the period before conversion are often easily accessible, and thus do not need to be estimated or calculated. A serious drawback in this procedure is that a comparison with an earlier situation neglects any development the farm would have undergone even if it had not converted. The longer the time span since conversion, the less viable this approach, since changes in external parameters like prices, policies and technical progress would have substantially influenced economic performance, even without conversion.

3. ***Selection of comparable conventional farms.*** These farms should have a similar "production potential", *i.e.* a similar endowment with production factors, as the analysed organic farm. The comparability increases with the number of selection criteria used.

3. "Conventional" in this study stands for "non-organic", and should ideally refer to the most obvious alternative to organic farming (*e.g.* the most widespread agricultural production system) in the respective region. This could be mainstream conventional farming, or, for example, an extensive farming system supported within the framework of the agri-environmental programmes.

4. The comparability of economic calculations between countries is a common problem for economic analysis, due not only to the differences in definitions. Different costs of living and purchasing power parities make comparisons of absolute figures less meaningful.

However, as the objective is to isolate the effect of the farming system on profits, only "non-system determined" variables can be used for this matching. Examples of factors that are clearly "non-system determined" are locational factors such as region, soil texture, topography, climate and market distance (Fowler, Lampkin and Midmore, 2000). Additionally, farm size in hectares and farm type are often used as selection variables, even though these may possibly be affected by the farming system (Dabbert, 1990, Offermann and Nieberg, 2000).

4. ***Selection of conventional farms that are comparable to the organic farm before conversion.*** This allows use of a large number of variables to match comparable farms, since the distinction of system-determined and non-system-determined variables is no longer relevant. This approach ensures that conventional and organic farms have similar conventional starting positions. However, this approach requires an excellent availability of data, since data are needed for several years for both organic and comparable conventional farms. To our knowledge, only a single study exists which has applied this approach (Schulze Pals, 1994, continued in Nieberg, 1997). However, even with this approach, a basic problem cannot be solved: is there a correlation between managerial characteristics and inclination to convert? Such a correlation can lead to systematic distortions of farming system comparisons, *e.g.* if innovative abilities correlate with an inclination to convert as well as with farm performance, or if converting farmers place a different emphasis on monetary and non-monetary objectives than non-converters.[5]

Using the comparative methodology discussed above, we will in the following present some results based on data which were collected with the help of national experts in each of the EU member States as well as in Norway, Switzerland and the Czech Republic. The financial performance of the farms is assessed using the indicators "profits per ha" and "profits per family work unit" in combination with important factors which determine profitability, *e.g.* yield levels and prices realised and support payments received. Most of the studies analysed are based on approach 3. In some cases, the selection of an adequate reference group was, in our opinion, not completely successful. Since the selection of the reference system has a large influence on results, the findings of the respective studies have to be interpreted with due care.

Results

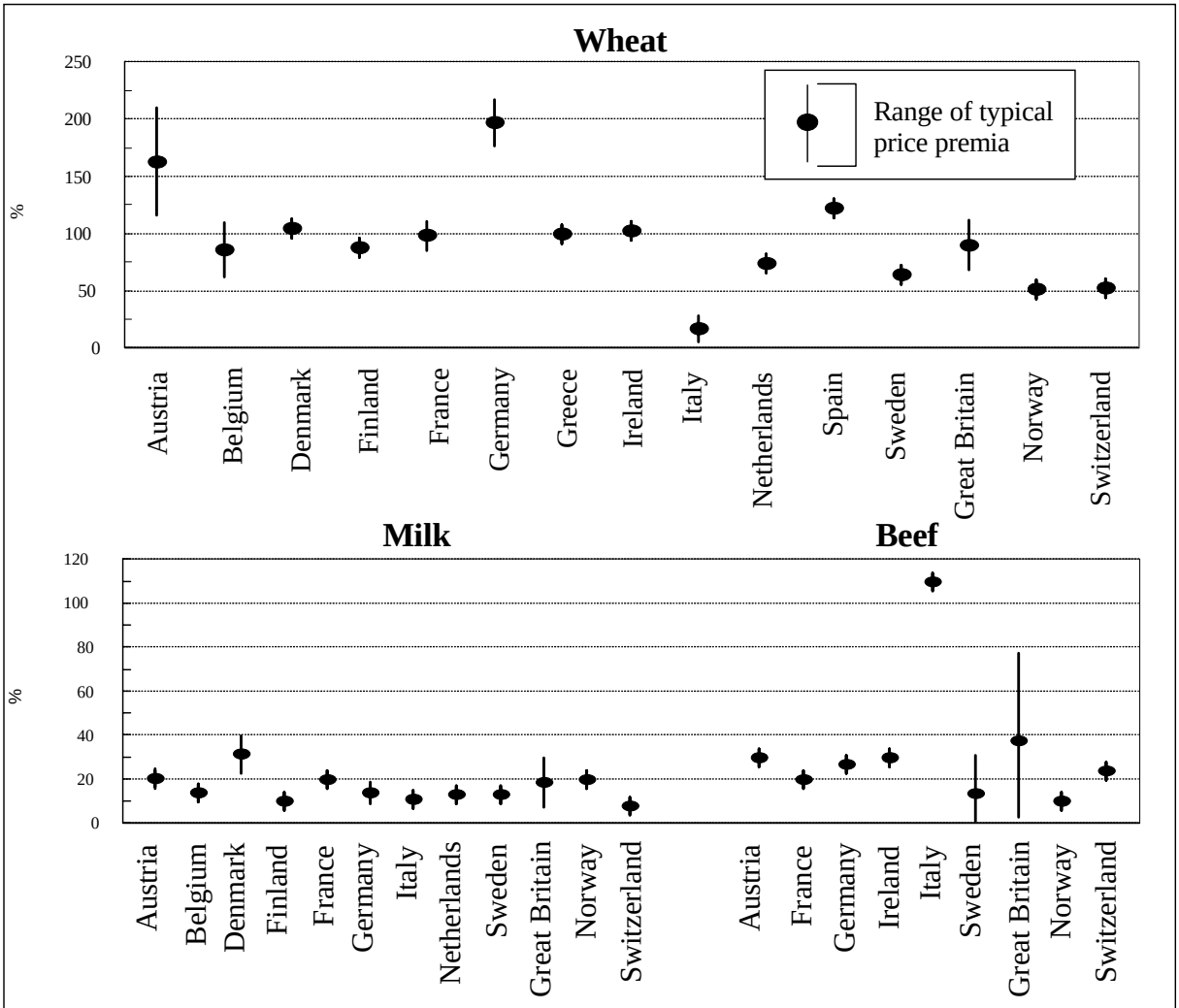
Yields and prices

In Europe, yields in organic crop production are in general significantly lower than under conventional management. Cereal yields are typically reduced by 30-40% compared to conventional management. In livestock production, performances per head are quite similar to those in conventional farming. Dairy yields per cow and year are on average 0-20% lower than under conventional management. However, stocking rates are on average 20-40% lower in organic farming, due to lower yields in forage production, changes in feed rations (less purchased concentrates, more forage) and in some cases the organic guidelines on the rearing of animals.

5. In the long run and with perfect information, profit-maximising behaviour would result in each farmer choosing the farming system which is the most profitable for him or her. In such a situation, the assessment of the profitability of organic farming using a conventional reference group is of course not possible anymore. However, the high degree of uncertainty regarding the economic consequences of conversion during the period analysed justifies using comparable farms for system comparisons.

An important aspect of the profitability of organic farms is the opportunity to receive higher farm-gate prices for organically produced goods than for conventionally produced ones. Prices vary considerably between the different marketing channels. The realised average organic price depends on the level of these prices and on the quantities marketed via the respective sales channels. For many products, the calculation of an "average organic farm-gate price" has to take into account that in many cases part of the production still has to be sold at conventional prices. The studies evaluated for the period 1992-1997 show that the realised average organic price premium varies considerably between products and countries. Price mark-ups were very high for most crop products (Figure 1).

Figure 1. Typical farm-gate price premia for organic products (1994-1997)



Weighted average of price premia realised in the different marketing channels (conv. price = 0%)
Source: OFFERMANN und NIEBERG (2000)

In nearly all countries analysed, average farm-gate prices for organically produced wheat were 50-200% higher than for conventionally produced wheat. In contrast, the marketing of organic livestock products was much more difficult. Often, a significant share of the production had to be sold at conventional prices, and thus the average price premium realisable for organic livestock products was generally comparatively low. Organically produced milk received on average a premium of 8-36% on conventional prices, while prices for organic beef were in most cases on average 20-30% higher than the conventional price. The importance of the realisation of higher prices for organic products is highlighted by studies for Germany and Great Britain: in arable farms, 40-75% of profits is due to the price mark-ups for organic products. In dairy farms, the respective share was between 10-50% (Table 1).

Table 1. The importance of premium prices for organic products for farm income

Country	Share of price premia in profits (%)	
	Arable farms	Dairy farms
Germany	75	48
Great Britain	40	10-17 (51*)
Denmark		>45

* In Great Britain, the price difference at the farm gate between organically and conventionally produced milk increased rapidly in 1998 as a consequence of the drastic fall of the price for conventionally produced milk, following the revaluation of the British pound.

Source: Own calculations based on Nieberg (2001a), Fowler *et al.* (2000) and the Danish Institute of Agricultural and Fisheries Economics (DIAFE).

The development of farm-gate prices for organic products in Europe was mixed over the last few years. In several countries, a positive trend was observed for organic livestock products. With intra-European trade of organic products growing each year, it can be expected the prices for organic products will converge at least at the wholesale levels.

Payments for organic farming

Organic farming is supported in all the countries analysed within agri-environmental programmes. Payment levels and eligibility conditions vary significantly between countries, and thus the impact of these grants on the financial performance of organic farms may differ regionally. While most countries support both conversion to and continuation of organic farming, in France and Great Britain only conversion is supported. In 1997, payment levels for arable land in the first two years of conversion ranged from EUR 100/ha/year in Great Britain to EUR 470/ha/year in Finland and more than EUR 800/ha/year in Switzerland (Lampkin *et al.*, 1999). Where data were available, the calculations show that the payments accounted for 15-26% of profits (Table 2). Without these payments, conversion would not have been economically profitable for some of the farms (Offermann and Nieberg, 2000).

Table 2. The importance of support payments for organic farm income

Country	Share of payments in profits (%)	Average payments (EUR/ha)
Germany (1995-99)	26	130
Denmark (1996-99)	15	123
Austria (1996)	18	218
Switzerland (1996)	24	490

Source: Offermann and Nieberg (2000), supplemented by new data from the Bundesministerium für Ernährung, *Landwirtschaft* und Forsten (BMELF) and DIAFE.

Profits

As far as possible, the definition of profit was based on the definition of "Family Farm Income" according to Farm Accountancy Data Network of the European Commission, *i.e.* profit represents the return to the farm family's own labour, land and capital. The most notable exception is the UK, where net farm income was used as an indicator of profitability.

The analysis of the economic situation of organic farms in Europe shows that on average, profits are similar to those of comparable conventional farms, with nearly all observations lying in the range of +/- 20% of the profits of the respective conventional reference groups (Figure 2), but variance within the samples analysed is high.[6] Profitability varies between the countries surveyed, and between different farm types.

Due to the high price premia realisable in the last few years, and the design of the general Common Agricultural Policy (CAP) measures (*e.g.* set-aside and compensatory arable payments; see the paper by Frank Offermann, Part III, Chapter 8), organic arable farms have in several countries been more successful than the average. For dairy farms, there are large differences in relative profitability between countries. In addition, the evaluation of the results strongly depends on the indicator used: while profits per family work unit were equal to or higher than those of comparable conventional farms in all countries for which data were available, profits per hectare of utilisable agricultural area were often lower. Very little data are available on horticultural, pig and poultry farms. The respective studies highlight both the risks and the opportunities that exist for these farms: while in 1995 the profit of horticultural farms in the Netherlands was four times as high as that of comparable conventional farms, in Great Britain it was less than half the level of the reference group.

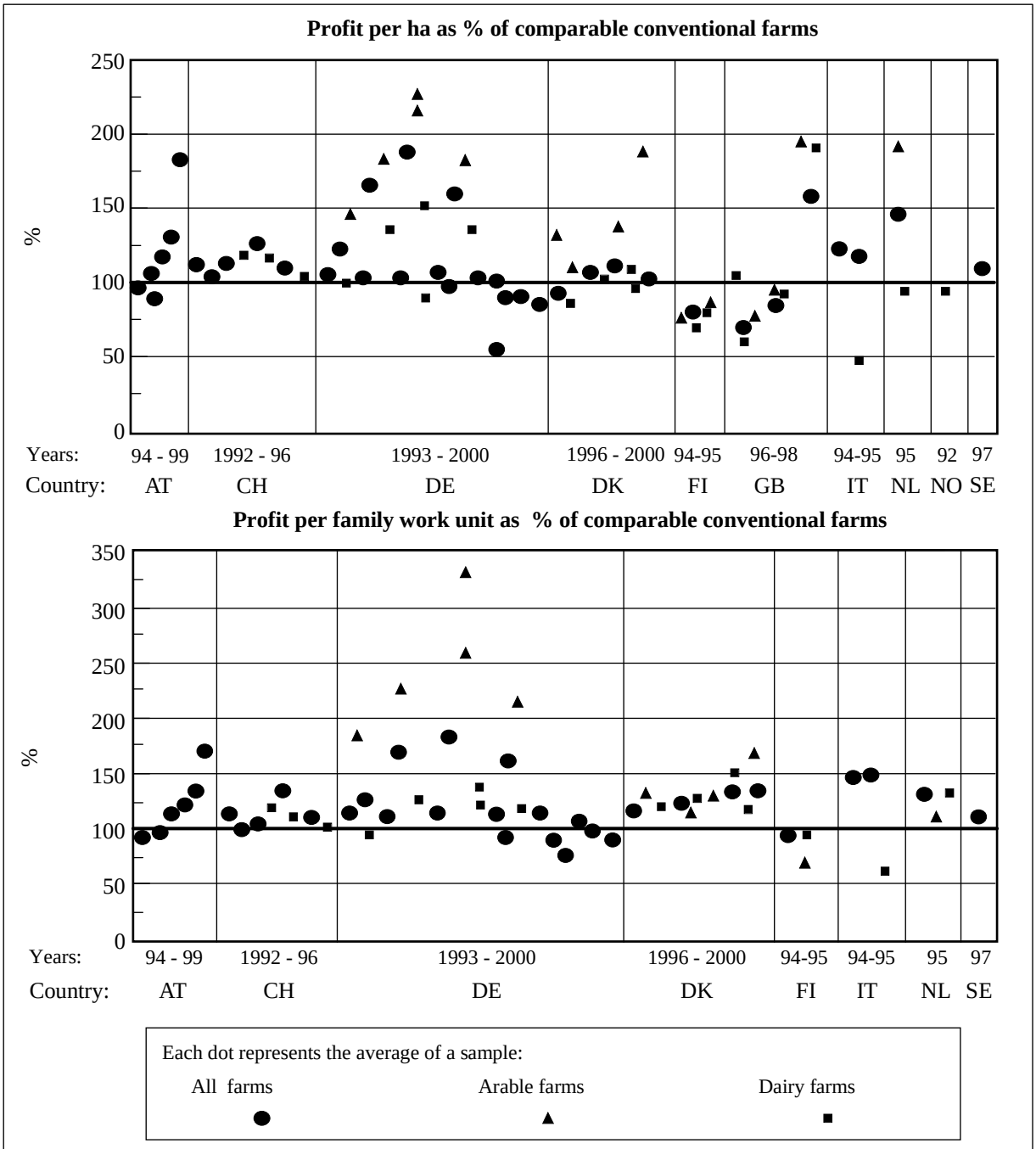
Development of profits

For several countries, time series data on the profits of organic and comparable conventional farms are now available. The data need to be interpreted cautiously, as the composition of the samples may vary over the years. The graphical representation still shows clearly that the profits of the organic farms were slightly higher in most of the years in the five countries analysed (Figure 3). The similarity of the curves for conventional and organic farms over the years is remarkable. This indicates that external, non-system inherent factors like climate, prices and general agricultural policy influence both farming systems in very much the same way. This parallel development may provide an indication that organic farms are subject to the same pressure to adjust to changing external conditions as conventional farms, and may have to face similar consequences from structural change (*e.g.* farm size growth) and rationalisation.

6. For example, in a survey of 107 organic farms in Germany (Nieberg, 1997), the profits of the organic farms were found to be higher than the profit of comparable conventional farms by 23% *on average* — but within the sample, 35% of the organic farms had lower profits than the respective reference farms.

Figure 2. Profits of organic farms relative to comparable conventional farms in different countries

(empirical results of different studies, 1992-2000)

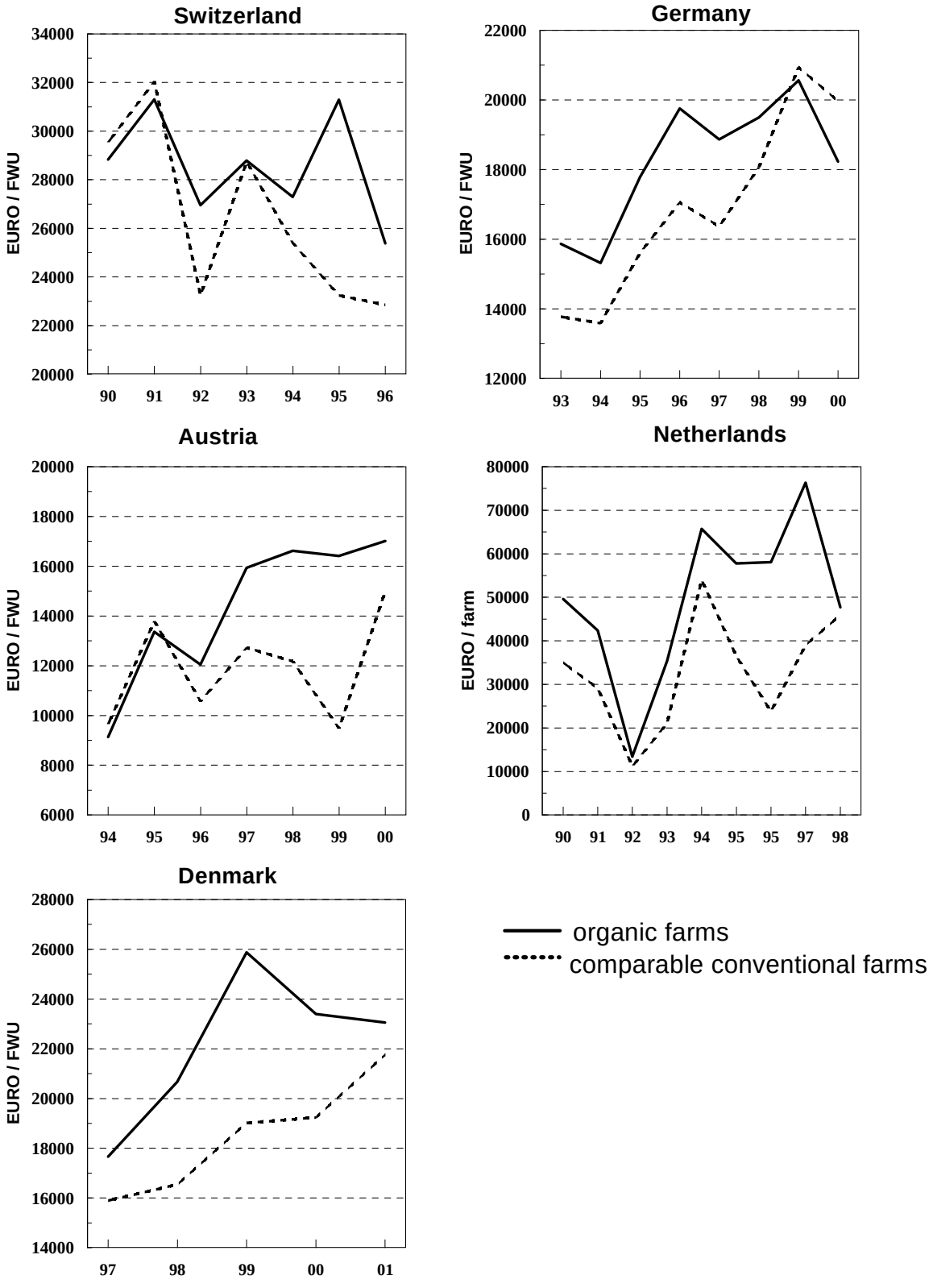


AT = Austria, CH = Switzerland, DE = Germany, DK = Denmark, FI = Finland, GB = Great Britain
IT = Italy, NL = Netherlands, NO = Norway, SE = Sweden

For countries where more than one observation exists, the dots are ordered by year. The further right the dot, the more recent the observation.

Source: OFFERMANN and NIEBERG (2001), supplemented by new data from BMLF, BMELF, DIAFE and FOWLER et al.

Figure 3. Development of profits of organic and comparable conventional farms



Source: Own calculations based on BMELF, BMVEL, FAT, and the Agricultural Economics Research Institute (LEI).

Table 3. Comparing successful and less successful organic farms in Germany 1998/99

Indicator	Unit	Upper quartile	Lower quartile
Yield index[a]	Points/hectare	3 633	3 545
Agricultural area	Hectare	83	40
Dairy cows	Number	33	19
Cereal yield	Tonne/hectare	3.8	3.6
Potato yield	Tonne/hectare	17.8	15.1
Dairy yield	kg/cow	5 107	3 993
Concentrates for cattle[b]	EUR/cattle unit	52	103
Expenses for veterinary services[b]	EUR/livestock unit	27	37

[a] Index describing yield potential for prevailing soils and climate. [b] Numbers refer to dairy farms only.
Source: Based on Nieberg (2001b).

This assessment is confirmed by an analysis of successful and less successful organic farms in Germany. Ordering farms by profit per family work unit and comparing farms of the upper and lower quartile respectively (Table 3) reveals that:

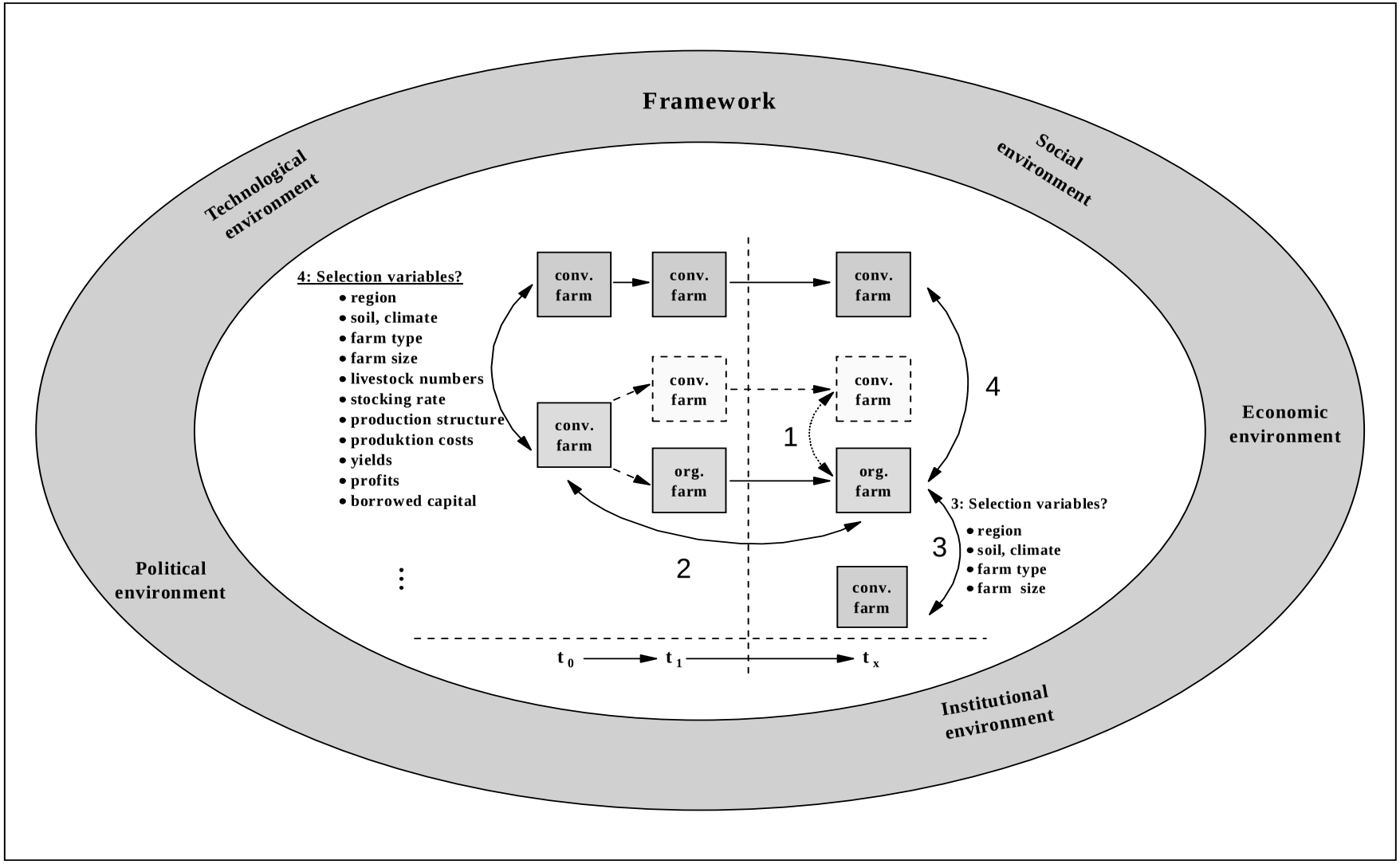
- soil and climate do not seem to have a significant influence on economic results — the yield index (describing the potential of prevailing soils and climate) is only marginally higher on successful farms;
- successful organic farms are larger; area and number of milk cows are significantly higher than on less successful farms;
- successful farmers seem to be better production engineers; they realise higher yields both in arable farming and in dairy farming;
- successful organic dairy farmers realise higher yields with only half the amount of concentrates and fewer expenses for veterinary services and medication.

These results show that in the organic segment, too, successful farms produce at lower costs than less successful colleagues.

Conclusions

Looking back, organic farming has proven to be a financially attractive alternative to conventional farming for many of the farms which converted. However, the large variation of results calls for further detailed analyses of factors determining an individual farm's success or failure of conversion. Whether the relative profitability of organic farming will on average look as positive in the years to come will mainly depend on the development of prices for organic and conventional products, the future design of agricultural support and the regulatory framework, and the technological progress in organic production systems.

Annex 1. Selection of a conventional reference system



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FARM-LEVEL IMPACTS OF ORGANIC PRODUCTION SYSTEMS

James Hanson[1]

Abstract

This paper examines the farm-level impacts of organic agricultural production as measured in profit and risk management, when compared with the conventional alternative. Specifically, farmer perceptions regarding profit, the importance of studying farming systems rather than single crops, and the effect of labour requirements are explored. Off-farm and on-farm sources of risk are identified for the organic producer.

Profit[2]

Farmer perceptions matter

Many farmers speak of the economic advantages of organic production, while many conventional farmers maintain that their system of production is more productive. How all farmers value their family labour and how an organic farmer views the costs associated with the biological transition may partially explain these differences of opinion.

The Rodale Institute Farming System Trial (FST) began in 1981 and was designed to study the conversion from a conventionally managed to an organic farming system. The study has three multi-year rotations: conventional cash grain; low-input cash grain (organic); and low-input cash grain (organic) with livestock; each rotation had three different entry points (nine treatments); each treatment was replicated 8 times. The conventional grain system rotation (five-year rotation) was corn, corn, soybeans, corn, soybeans that followed published Penn State University crop recommendations. The organic rotation changed two times, approximately every five years. The final rotation (three-year rotation) was hairy vetch/corn, rye/soybeans, and wheat. Our economic analyses only compared the conventional versus the organic cash grain systems.

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2. This section is based on an economic evaluation of the Rodale Farming System Trial as presented in Hanson, James C., Erik Lichtenberg and Steven E. Peters, "Organic versus conventional grain production in the mid-Atlantic: an economic and farming system overview", *American Journal of Alternative Agriculture*, Vol. 12, 1 November 1997, pp. 2-9.

In the period 1991-95, the per-acre returns (returns to transition cost, unpaid family labour, and management) were higher for the organic rotation. When the cost of the biological transition were subtracted, the returns to unpaid family labour and management for the two systems were similar. Finally, when the cost of unpaid family labour was subtracted then the returns to management were higher for the conventional system. Because of their variability, this analysis did not include the use of organic premiums. Their inclusion would have significantly increased the rate of returns to the organic production system.

This analysis illustrates how perceptions by both organic and conventional farmers can be true. Between 1991 and 1995, the organic rotation averaged USD 6.30 more per acre than the conventional rotation (without organic premiums). However, when we subtracted the "investment costs" from the organic returns due to the biological transition,[3] the difference in returns per acre was only fifteen cents. When we put a value on family labour, then the conventional rotation's returns exceeded the organic by USD 4.35 per acre. If the organic farmer views family labour as part of his/her chosen lifestyle; if s/he views the transitional costs as acceptable expenses associated with his/her learning curve; then s/he does make more per acre. If the conventional farmer views these costs differently, then s/he does better. Presenting these different expressions of profit is an important component of any analysis.

Evaluate farming systems not crops

In the Rodale Farming System Trial, yields for specific crops between the organic and conventional systems were similar after the biological transition was completed. Consequently, the organic profits per acre for a particular crop were higher because of lower purchased input costs. The principal cost of the organic farming system, however, was that the principal cash crops could not be grown as often because of the need for "low value" soil investing crops.

With farming systems, such as those associated with organic production, it is more useful to study the profitability of combinations of various crop(s) over a multi-year period rather than an individual crop's profitability. For example, during the period 1991-95 in the FST, the organic corn returns per acre averaged 39% higher than the returns to conventional corn (subtracting only explicit cash costs). Yet on our 750-acre study farm, the organic farmer could only raise 250 acres of corn per year while the conventional farmer averaged 450 acres. A key component of the organic rotation was the use of a hairy vetch winter cover crop before corn. To get the vetch properly established so as to produce the maximum amount of nitrogen, it must be planted in very early fall. The only cash crop that could precede it would be a small grain, which in this case was wheat. Single-crop wheat is rarely grown in the Mid-Atlantic because of its relatively low economic returns; double-cropping wheat with soybeans is the nearly universal choice. Consequently, to get the high organic corn returns, the organic farmer is forced to devote one-third of the rotation to an unprofitable single-crop wheat. The cost of producing organic crops is not in the actual production, but in what a farmer must give up in the "off years".

3. The "biological transition period" describes a period when the soil capital is being built up (early years associated with organic production). The relative losses sustained by the organic rotation, in comparison to the conventional rotation during this period, were treated as an investment (similar to an orchard) that were paid back in future years.

Labour estimates are critical

In the Rodale Farming System Trial, family labour requirements were higher and more evenly spread through the growing season for the organic rotation (42% higher than the conventional rotation during 1991-95). This labour difference has significant implications regarding adoption of organic farming systems by different groups (part-time versus full-time and small acreage farms versus large farms).

Farming systems can have considerably different labour requirements, particularly in the Rodale study where organic and conventional grain rotations were compared. As mentioned, the family labour requirements for the organic rotation were 42% higher than for the conventional rotation. However, they were more evenly spread over the growing season, so that the hired labour requirements of the organic rotation were only 3% higher. These higher family labour requirements are not necessarily bad if a family feels that they are paying themselves to supply nutrients and control weeds instead of an agribusiness company. On the other hand, the schoolteacher, who wants to farm intensively only in the summer, may not be able to adopt organic production. A major factor affecting a farmer's decision to adopt an organic rotation is their availability of labour.

Risk management[4]

There are weather and climatic risks but these are the same for organic producers as for non-conventional farmers, and for farmers without irrigation, there is always the risk of drought. However, some organic farmers thought that they could withstand droughts better because of their investment in soil quality which allows their soils to hold water better than their conventional counterparts.

While diseases, insects and, most importantly, weeds cause problems for organic farmers, most felt that they had developed cultural practices to manage these pests. One farmer said that he has learned how to handle the problems on his farm, it was the off-farm problems that concerned him. However, with an unexpected infestation of pests, these organic farmers were decidedly at risk because they did not have any quick-fix solutions to the problems (*i.e*. use of pesticides). On the other hand, since pests are developing resistance to their chemical controls and with the difficulty of agricultural research keeping up with the development of new products, organic farmers were at less risk to this resistance because of their use of cultural (non-chemical) controls.

Of major concern to organic farmers is the drift of pesticides and pollen from genetically modified organisms (GMOs). Drift from chemicals and GMOs is a major risk factor for organic farmers. Drift could cause farmers to lose certification and markets, both domestically and internationally. Buffer zones may help against pesticide drift but there is a real concern that buffer zones may prove ineffective against GMO pollen. GMO contamination is an insidious problem — it can come from anywhere. For example, a tornado in South Carolina led to the contamination of canola with GMO pollen. A loss of certification, due to GMO contamination, might require organic producers to move their operation, which is an expensive proposition. They would have to undergo the three-year transition period again and have to undertake the long process of rebuilding the necessary level of soil quality required for organic production.

4. This section was based on focus group interviews with organic farmers in South Carolina, New York, Wisconsin, Texas, California and North Dakota, United States of America, with Cathy Greene, Robert Dismukes, William Chambers and Amy Kremen of the United States' Department of Agriculture (USDA) Economic Research Service.

Organic agriculture is increasing at rapid rates, which is causing growing pains in the industry. Increasingly, price premiums are less stable and, in some cases, dropping. Niche markets can disappear quickly after having taken a long time to establish. Also, many larger food companies have moved into organic production, leading to increased supply. These big producers have all the leverage in the market. Local organic farmers are more subject to dumping of excess production by larger producers out of their region into their local markets. Similar to conventional agriculture, the small family producer is more at risk.

The National Organic Standards in the United States have helped to reduce the confusion regarding "what is organic" and also levelled the playing field by setting a national standard. However, many farmers have been discouraged by the amount of paperwork and administration costs associated with achieving organic certification from the USDA. Also, these standards require that organic farmers utilise seeds that have been produced organically. While a grace period has been instituted to permit the use of conventionally produced seed until a suitable supply of organic is available, many organic farmers are concerned about the supply of these seeds including their price, quality, and availability in desired varieties.

Concluding remarks

The organic industry is growing rapidly. With that expansion have come some growing pains. Larger commercial farms have entered into organic production, dramatically increasing the supply of some agricultural products, and significantly reducing the organic price premiums. The National Organic Standards are somewhat frustrating to the smaller growers and some of these farmers wonder if the cost of being certified is worth the "organic label" from the USDA. That said, organic farmers are not going to abandon their practices. They have chosen organic agriculture for other reasons than just profit. In addition, many family-sized farms in conventional agriculture are exploring organic production. They recognise that their farms are not big enough to compete in the conventional markets. Organic agriculture offers them the opportunity to add value to their agricultural products and, in doing that, protect their financial bottom-line and quality of life.

ECONOMIC PERSPECTIVES OF KOREAN ORGANIC AGRICULTURE

Chang-Gil Kim[1]

Abstract

Organic farming has had a tentative start as an alternative production system but now is more widely accepted in Korea. Many farmers express an interest in organic agriculture. However, farmers are reluctant to adopt organic farming practices because of many obstacles. They perceive that there are high risks involved, although they earn similar expected income to their conventional counterparts. The price premium of organic products is an important factor to induce farmers to participate in organic agriculture. The results of the accounts survey reviewed in this paper indicate that factors of production receive a lower remuneration in organic agriculture than in conventional farming. Substantial price premiums on outputs are essential for the economic viability of organic farming. Consumers' lack of willingness to pay significant price premiums on rice and vegetables seems to be the most important obstacle to the expansion of organic farming. Finally, in order to soundly promote organic agriculture, additional public and private research is needed on many aspects of organic production and marketing in Korea. What would the economic impacts and social benefits be under widespread adoption of organic farming? Additional research is also needed on how to improve organic farming systems from agronomic and ecological perspectives, as well as from an economic perspective. The extent of the national research agenda on organic agriculture, along with programme and policy initiatives, will help shape the role that organic farming systems play in Korean agriculture in the decades ahead.

Introduction

Increasing demand for food production in Korea has resulted in the application of more chemical fertilisers and the introduction of mechanisation in agricultural management in the last few decades. It has been reported that, in some areas, intensive agricultural practices have caused environmental problems such as excess residual nitrogen in cultivated farmland. These problems should be taken into account in order to practice better management of agricultural-environmental conditions.

It is well known that the use of organic materials such as crop residues, green manure and livestock waste in soil-crop systems may improve soil structure and support the development of soil micro-organisms. This condition leads to a process of biological transformation of nitrogen in soil and results in the conversion of an organic form of nitrogen into an inorganic form available for crops.

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Practising organic farming, therefore, should be promoted in order to produce safe foods and a clean environment.

Organic agriculture in Korea, generally defined as farming without the use of synthetically produced agro-chemicals, is still in its infancy, but is showing signs of rapid growth in recent years.[2] Organic farming has attracted increasing attention because it is perceived to solve the problems that modern agricultural systems face. The organic farming is considered as the potential agricultural technological system which provides benefits in terms of environmental protection, conservation of non-renewable resources, improved food quality and the reorientation of agriculture towards areas of future social demand.

The Korean government has recognised and responded to these potential benefits by encouraging farmers to adopt organic farming technologies, either directly through financial incentives or indirectly through support for research and marketing initiatives. The Sustainable Agriculture Promotion Act, established in December 1997, has played a major role in the growth of organic farming in Korea by creating an organic labelling system. More recently, an environmentally friendly direct payment and preferential government policy loans have been provided to organic and semi-organic farmers as economic incentives. As a consequence, the number of farms adopting organic farming practices has been increasing since the mid-1990s.

Based on empirical findings, this paper investigates the economic perspectives of organic agriculture in Korea. The following aspects of economic performance have been analysed and compared: physical productivity; price premium; variable costs; and overall financial performance.

An overview of Korean organic agriculture

Historical development of organic agriculture

During the past three decades, agricultural policies in Korea were focused on intensive farming using chemicals, and farmers became apathetic to environmental and natural ecosystem destruction and were generally uninterested in organic farming. The organic agriculture movement in Korea arose from a group of pioneering farmers who raised the problems of excessive use of chemical inputs in the 1970s. A few organic farming clubs began to emerge in that period, including Jeongnong Hoe ("Right Agriculture Association") in 1976 and the embryonic form of the Korea Organic Farming Association (KOFA: www.organic.co.kr) in 1978. During the 1970s, organic agricultural production received little attention from the Korean government, with no incentives being created for growers to convert to organic agriculture.

In the 1980s, however, public concerns about food safety and environmental degradation in rural areas had increased the number of organic farmers to as many as 1 400 farm households. The pioneers of Korean organic farming followed the ideal of agricultural fundamentalism. Therefore, their motives were more philosophical or ethical, rather than economical. Their characteristics and activities can be evaluated as naturalistic agricultural fundamentalism and social movement towards their ideals of organic farming.

2. In this paper, the term "organic agriculture" (or farming) is a production system which avoids or largely excludes the use of synthetically compounded fertilisers, pesticides, growth regulators, and livestock feed additives, and uses only natural materials such as organic matter, microbes and natural minerals. The term "conventional farming" will be used here to refer to a production system that employs a full range of agricultural chemicals.

Starting in the early part of 1990, the National Agricultural Co-operative Federation introduced organic farming in its training programme implemented for members called the "Farming Technology Support Team", and organic farming management support training has been carried out every year since then at approximately 200 co-operatives. The Ministry of Agriculture and Forestry expressed deep interest in this field and established a training programme and effective support measures for farmers, such as the operation of an Organic Farming Development Planning Team, established in July 1991.

After a series of examinations lasting for approximately one year, the second committee meeting was held in August 1992 and clarified the definition of organic farming and established the standards of positive organic farming. The first national surveys were administered to organic farmers in 1991, and a quality certification programme for the organic products was introduced in December 1993. In 1994, the state created a section responsible for sustainable agriculture in the Ministry of Agriculture and Forestry, and in 1997 the Korean National Assembly passed the "Environmentally friendly Agriculture Promotion Act" (EAPA). In late 1998, the Enforcement Ordinance and Regulation of the EAPA was enacted to set an institutional basis for fostering organic agriculture in Korea.

Policies for promoting organic agriculture

In the early stage of the development of organic agriculture, government support is essential to guide farmers to participate in organic farming. Accordingly, national plans for developing organic agriculture should be initiated by the government. It is the Korean government's position that organic agriculture can guarantee food safety and environmental preservation, but cannot guarantee food self-sufficiency, due to the decrease in land productivity. Because of this reason, a moderate type of sustainable agriculture, *i.e.* low-input sustainable agriculture, is considered to be a main policy goal. This means that organic agriculture is considered as subsidiary target, even though it guarantees food safety and protects environmental degradation in the agricultural sector.

A major activity of government is formulating a database for NGOs and organic farmers. The major activities of NGOs are training organic farmer members and marketing their products. Therefore, a unified well-organised co-operative system is urgently needed. In this situation, farmer and consumer groups established a joint organisation, that is, the Federation of Korean Sustainable Agricultural Organisations (FKSAO) in 1996. A major role of this organisation is to network all the activities of member organisations. Despite this network system, a unified standard of organic agricultural technology does not exist because each NGO has its own technological system. As a consequence, the activities of FKSAO are very limited.

Both government and NGOs have actively promoted organic agriculture. Besides central government, which had adopted several policy measures, such as incentive and certification schemes, about 140 rural counties actively participated in organic farming promotion programmes. Some counties have independently developed organic policy programmes, including sales promotion of organic produce, operation of compost-making factories, and the establishment of re-cycling systems for organic materials.

MAF established both supporting and regulatory systems to encourage farmers to participate and to promote organic agriculture. In connection with marketing organic products, there is a need for certification which could give guarantees to consumers. Subsequently, an institutional labelling system was established for organic and other sustainable agricultural products, together with public control for production and marketing. Only certified farms are permitted to label their products. Product control is

made in the form of on-farm and product checks by the inspection agencies in public and private organisations.

According to the government quality standard regulation for environmentally friendly agricultural products, there are four types of agricultural products, *i.e.* low-pesticide products with a low level of chemical pesticides used (less than 50% of the quantity used in conventional farming); no-pesticide products, with no pesticides used; transitional organic products under a conversion period of less than three years; and organic products. For efficient and reliable implementation, a government organisation, the National Agricultural Products Quality Management Service (NAQS), is designated as a government certification body for sustainable agricultural products.[3]

Current status of the organic farming sector

Based on the inputs used in crop production, environmentally friendly farming practices are classified as three groups: 1) organic producers, with no synthetic pesticides or fertilisers applied, and appropriate waste and soil management; 2) no-pesticide producers, not using pesticides, and with appropriate water and soil management; and 3) low-pesticide producers, using low quantities of synthetic pesticides, and with appropriate water and soil management.

According to the 2000 Agricultural Census, the number of farm households practising environmentally friendly agriculture was 72 867, accounting for 5.3% of the total number of farm households (1 383 468) (Table 1). The number of organic producers was 3 327, or 4.5% of farm households practising environmentally friendly agriculture, and 0.2% of total farm households.

Table 1. Structure of environmentally friendly farming practices (2000)

(number of farm households)

	Paddy Rice	Fruit	Vegetables	Oil and Cash Crops	Others	Total
Organic	1 057	526	1 275	254	215	3 327
No-pesticide	3 115	408	2 744	671	750	7 688
Low-pesticide	37 322	6 952	14 757	1 068	1 753	61 852
Total	41 494	7 886	18 776	1 993	2 718	72 867

Source: Korean National Statistical Office, *Agricultural Census 2000* (2002).

The number of farms certified under the organic system has been increasing very rapidly since the late-1990s. In 2000, there were 669 certified organic farms, using 667 hectares, or approximately 0.1% of total farmland (Table 2). It is estimated that only about 20% of farm households practising organic production participate in the organic certified system. This implies that many farmers practising organic farming practices chose to remain uncertified.

3. NAQS is a subsidiary organisation of the MAF, specialising in quality management for agricultural products including safety inspection and quality certification. The role of NAQS is to establish order in quality control and in the fair trade of farm products including standardisation of agricultural products, management for labelling of origin and GMO inspection and storage control of government grains.

Table 2. Change in certified organic agricultural production

	1999	2000	2001
Organic farming households	601	669	899
Acreage of organic crops (hectare)	528	667	962
Quantity of organic production (tonne, A)	16 805	19 257	31 105
Quantity of total agro-production(1 000 tonne, B)	18 944	19 311	19 696
Percentage (A/B)	0.1	0.1	0.2

Source: MAF (2002).

Recently, new types of sustainable farming practices have been widely developed by farmers, including the use of ducks or freshwater snails for pest control in rice production, and cleaner practices for hydroponic vegetable production.

As in other countries, the marketing of organic products is essential to the development organic agriculture in Korea, especially in the early phase of development. During the initial stage, a direct marketing system, in which both producer and consumer organisations were principal market agents, played an important role in creating a connection between organic products and producers and consumers. Currently, there are two different marketing channels: i) the direct marketing channel between producers and consumers organisations; and ii) the indirect marketing channel between producers and consumers through the wholesale and/or retail marketing centres.

With regard to international trade of organic products, there are no institutional barriers in Korea. Nevertheless, very few organic agricultural products and foods are exported because the quantity of product is insufficient. In terms of imports, some Korean food companies import processed food such as orange juice for producing organic baby foods. Sales of organic baby food have grown considerably in recent years since consumers believe that it may reduce health risks from exposure to pesticide residues, and are willing to pay a premium for what they perceive as better taste and nutrition.

The economic perspectives of Korean organic agriculture

Productivity of organic farming systems

Information about the productivity of organic farming systems comes from several sources, such as research plots and case studies using actual surveys of organic farms. The first limited attempt to make a productivity analysis of organic farming in Korea was in 1990-1991 (Suh *et al*., 1991). To date, the most comprehensive comparison of organic and conventional crop production in Korea has been undertaken by Yoon *et al.* (1999). Information from 158 organic and conventional farms was sourced from the dataset created by the Rural Development Administration (2000).

As shown in Table 3, organic crop yields are about 10% to 35% below the conventional average. Yield differences are most noticeable for agro-chemicals (fertiliser and pesticide) intensive crops such as rice, lettuce and Chinese cabbage. The lower yields are primarily due to the reduced use of yield-promoting inputs. Through the conscious avoidance of synthetic fertilisers and plant-protection chemicals, it is often not possible for the genetic potential of the crop to be fully exploited.

Table 3. Yields for organic and conventional crops (1999)

Crop	Conventional (tonne/hectare)	Organic (tonne/hectare)	Relative (conv. = 100)
Rice	5.18	3.39	65.5
Lettuce	33.0	24.4	73.9
Chinese cabbage	79.4	60.2	75.8
Pepper	2.59	2.33	90.0

Source: Yoon, *et al.* (1999).

Financial performance of organic farming

Korean farmers, in general, are not very market-oriented, and the importance of marketing to organic farmers has recently been recognised. Premium prices have an important influence on the financial performance of organic farming. The marketing of organic products is conducted via a number of different channels. Alongside private traders and producer co-operatives, direct marketing to consumers plays an important role. Direct marketing in various forms (farm-gate sales, weekly markets, local distribution rounds, etc.) is practised by many organic farms. Korean organic farms have preferred direct selling and/or specialised organic outlets (such as wholesale food markets) to selling through supermarkets, but the situation is changing.

As in other countries, strong market demand for organic products has led to high premium prices for organic products (Tables 4-7). Certified organic products can achieve prices significantly above the price level for conventional products. The price premiums available for crops such as rice, lettuce, Chinese cabbage and pepper are 42.4%, 75.6%, 36.9% and 13.9%, respectively. Oh *et al.'s* 2001 survey of major urban areas suggested that 30% of consumers would purchase organic vegetables if the price premium were no more than 30%, although this rose to 60% for occasional purchasers. However, there appears to be significant resistance to premiums above 30%-40% at the retail level.

A sharp reduction in input use is characteristic of organic farms. Expenditures on these items are consequently also lower. In crop production, the expenditure on fertilisers and sprays is significantly lower. Depending on the enterprise, savings in variable costs of between 30% and 50% are possible. In interpreting these figures, it needs to be remembered that the parameters only include directly applicable fertiliser and plant-protection costs. In addition, the reduction in herbicide use is often accompanied by increased labour and hence higher labour costs.

The findings reported in Tables 4-7 indicate that the organic sample uses about twice as much labour per hectare as its conventional counterparts. Some of the difference is explained by the considerably larger share of labour-intensive crops — such as lettuce, Chinese cabbage, and pepper — in organic farming.

It was investigated to what extent cost savings due to the non-use of chemical fertiliser and pesticides compensate for lower yields and higher labour requirements in organic farming. On average, cost savings on fertiliser and chemicals cover about 40% of the losses or extra cost incurred by lower yields and higher labour requirements. Thus, considerable price premiums on organically produced farm products are needed to obtain a remuneration of labour and capital at about the same level as in conventional agriculture.

In most cases, farmers select which farming system to use, whether conventional or organic, by considering profitability in the short run. Until recently, conventional farming systems have usually appeared to be more profitable in the short term than organic farming systems. This comes as no surprise, given that agricultural research and policy over the last three decades have promoted conventional agriculture. Even so, the long-term profitability of conventional farming seems questionable if the environmental and health costs are taken into account. Indirect costs, such as off-site damage from soil erosion, pollution of surface water and groundwater, and hazards to human and animal health from conventional farming practices, are at present borne by society. If these external costs were factored into the costs of farm production, the overall profitability and benefits to society of organic farming systems would probably be much higher.

As mentioned earlier, the yields in organic farming are generally lower than in conventional agriculture. These lower yields may, in part, be offset by higher prices and lower variable costs. These three factors influence the level of the gross margin. Depending on the crops, the net revenue results for the two management systems differ correspondingly. As shown in Table 4, the production cost of organic rice farming is KRW 3 898 000/ha higher on the conventional farm and the higher price premium does not offset the difference. Organic rice farming has quite a low-level of net income — KRW 1 254 000/ha — compared to KRW 5 995 000/ha for the conventional.

In reality, comparisons of profitability between organic and conventional systems have limited applicability because of several intrinsic problems. Differences in management costs between organic and conventional production are difficult to assess and are not included in this paper.

Prospects for organic farming

At least for the time being, Korean agriculture, with its limited agricultural resources, cannot completely abandon conventional and intensive farming based on the use of agricultural chemicals. This does not, however, imply that the basic concepts of organic farming cannot be generally accepted, and an attempt made to combine organic farming and conventional farming in practical way. Perhaps the term “organic farming” in its rigid sense can be replaced with a more practical term. Regardless of the terminology, what Korean agriculture must aspire to in the coming years is farming systems which are attractive to farmers economically, while satisfying consumer demands for food safety and environmental quality. Organic farming would be a feasible and a desirable approach to this goal.

Organic farming has had a tentative start as an alternative production system but now is more widely accepted. A change to organic agriculture may have number of benefits. In order to be a member of a global agricultural society, the direction of organic agriculture has to harmonise with the international standards for organic foods. Therefore, the government certification system was changed to the international standards (*i.e.* CODEX) in July 2001. It is a more stringent regulation than previously. Hence, this will influence Korean organic farming in the future. Many expect that organic livestock products will be imported, largely due to limited organic feed production in Korea.

Table 4. Economic performance of organic rice farming

	Organic[1] (A)	Conventional[2] (B)	A/B (%)
	KRW 1 000/hectare		
Gross Receipt (A)	8 434	9 041	93.3
Yield (tonne/hectare)	3.39	5.18	65.5
Unit Price (KRW 1 000/tonne)	2 485	1 745	142.4
Production Cost (B)	7 180	3 282	218.8
– Material Cost (C)	2 393	1 214	197.1
·Seed and Seedlings (KRW 1 000/dectare)	179	80	223.8
·Inorganic Fertiliser	-	119	-
·Organic Fertiliser	894	50	1 788.0
·Agro-chemicals	76	197	38.6
·Fuel and Materials	76[3]	76	-
·Depreciation	1 168	692	168.8
– Management Cost (D)	4 164	2 280	182.6
·Hired Labour	306	148	206.8
·Hired Land Service	661	918	72.0
·Hired Capital Service	804	-	-
– Self-Service Labour	1 275	1 002	127.2
– Self-Service Land	1 258	-	-
– Self-Service Capital Cost	483	-	-
Value Added (A-C)	6 041	8 065	74.9
Revenue (A-D)	4 270	6 997	61.0
Net Revenue (A-B)	1 254	5 995	20.9

Notes:
1. Information on organic rice production was drawn from Yoon, *et al*. (1999).
2. Information on conventional rice production was drawn from RDA (2000).
3. Agro-chemicals in the organic production represent the cost of biological pesticide.

Table 5. Economic performance of organic lettuce farming

	Organic[1] (A)	Conventional[2] (B)	A/B (%)
	KRW 1 000/hectare		
Gross Receipt (A)	36 075	27 737	130.1
Yield (tonne/hectare)	24.4	33.0	73.9
Unit Price (KRW 1 000/tonne)	1 475	840	175.6
Production Cost (B)	43 472	25 834	168.3
– Material Cost (C)	12 085	10 076	119.9
·Seed and Seedlings (KRW 1 000/dectare)	253	213	118.8
·Inorganic Fertiliser	-	316	-
·Organic Fertiliser	3 573	1 018	351.0
·Agro-chemicals	57	147	38.8
·Fuel and Materials	4 527[3]	4 527	-
·Depreciation	3 675	3,928	93.6
– Management Cost (D)	22 248	13 645	163.0
·Hired Labour	2 532	3 390	206.8
·Hired Land Service	522	188	74.7
·Hired Capital Service	7 109	-	-
– Self-Service Labour	13 580	12 189	111.4
– Self-Service Land	4 688	-	-
– Self-Service Capital Cost	2 956	-	-
Value Added (A-C)	23 989	17 670	135.7
Revenue (A-D)	13 827	14 092	148.6
Net Revenue (A-B)	-7 397	1 903	-

Notes:
1. Information on organic rice production was drawn from Yoon, *et al.* (1999).
2. Information on conventional rice production was drawn from RDA (2000).
3. Agro-chemicals in the organic production represent the cost of biological pesticide.

Table 6. Economic performance of organic Chinese cabbage farming

	Organic[1] (A)	Conventional[2] (B)	A/B (%)
	KRW 1 000/hectare		
Gross Receipt (A)	12 907	12 464	103.6
Yield (tonne/hectare)	60.2	79.4	75.8
Unit Price (KRW 1 000/tonne)	215	157	136.9
Production Cost (B)	7 878	7 528	104.6
– Material Cost (C)	1 852	2 287	81.0
·Seed and Seedlings (KRW 1 000/dectare)	152	337	45.1
·Inorganic Fertiliser	-	311	-
·Organic Fertiliser	696	479	145.3
·Agro-chemicals	78	199	39.2
·Fuel and Materials	361[3]	361	-
·Depreciation	565	600	94.2
– Management Cost (D)	4 486	3 431	129.6
·Hired Labour	1 389	915	151.8
·Hired Land Service	495	229	216.2
·Hired Capital Service	750	-	-
– Self-Service Labour	1 689	4 097	41.2
– Self-Service Land	1 259	-	-
– Self-Service Capital Cost	444	-	-
Value Added (A-C)	11 055	10 177	108.6
Revenue (A-D)	8 421	9 033	93.2
Net Revenue (A-B)	5 029	4 936	101.9

Notes:
1. Information on organic rice production was drawn from Yoon, *et al*. (1999).
2. Information on conventional rice production was drawn from RDA (2000).
3. Agro-chemicals in the organic production represent the cost of biological pesticide.

Table 7. Economic performance of organic pepper farming

	Organic[1] (A)	Conventional[2] (B)	A/B (%)
	KRW 1 000 / hectare		
Gross Receipt (A)	13 020	12 725	102.3
Yield (tonne/hectare)	2.33	2.59	90.0
Unit Price (KRW 1 000/t)	5 595	4 913	113.9
Production Cost (B)	21 325	9 703	219.8
– Material Cost (C)	4 305	2 357	182.6
·Seed and Seedlings (KRW 1 000 / dectare)	638	437	146.0
·Inorganic Fertiliser	-	383	-
·Organic Fertiliser	2 374	204	1 163.7
·Agro-chemicals	186	328	56.7
·Fuel and Materials	616[3]	616	-
·Depreciation	491	384	93.6
– Management Cost (D)	8 009	3 565	127.8
·Hired Labour	1 824	739	246.8
·Hired Land Service	591	435	135.8
·Hired Capital Service	1 289	-	-
– Self-Service Labour	5 125	6 138	83.4
– Self-Service Land	6 823	-	-
– Self-Service Capital Cost	1 368	-	-
Value Added (A-C)	8 715	10 503	82.9
Revenue (A-D)	5 011	9 295	53.9
Net Revenue (A-B)	-8 305	3 022	-

Notes:
1. Information on organic rice production was drawn from Yoon, *et al*. (1999).
2. Information on conventional rice production was drawn from RDA (2000).
3. Agro-chemicals in the organic production represent the cost of biological pesticide.

Many farmers express an interest in organic agriculture, but are reluctant to adopt organic farming practices because of various obstacles. They perceive that there are high risks involved, although they earn similar expected income to their conventional counterparts. However, in the long run, it may be considered as the most desirable approach, provided that the necessary technical and economical improvement can be made. The price premium of organic products is an important factor in inducing farmers to participate in organic agriculture. Premium prices can be achieved by means of selling to a specialist market outlet, or selling products directly to the consumer.

Although existing organic farmers have considerable experience, mainly based on practices and research from other countries, new technologies could enhance the environmental sustainability and financial viability of organic methods. Many techniques need further testing and adaptation for the range of Korean conditions.

The perceived risk involved in converting from conventional to organic farming is a major constraint at present. More information, as well as a change in the way of thinking, is needed. Organic farming requires a greater awareness and understanding of biological and ecological processes and interactions, and a longer-term approach to making the system work without depending on chemical remedies. Although a farm may attain organic certification within three years, it may take longer for the soil's biological processes to fully develop. There are risks of lower yields, especially during the 3-year required conversion period, before crops can be certified as organic. However, some established organic farmers have indicated in submissions that they achieve satisfactory production and consider these constraints are more perceived than real. Management ability is likely to have the greatest effect on yields during transition.

Concluding remarks

Farmers have shown rapidly increasing interest in organic farming. Many farmers who adopted organic farming methods were motivated by reasons relating to the health and safety of their families, consumers, and livestock, and by idealistic convictions about soil and land stewardship. The relative economic performance of organic farming and conventional farming is sensitive to the ratio of input costs to the value of outputs. Both organic and conventional farmers are vulnerable to fluctuations in input and output prices, but the effect of a given change will differ between the two farming systems.

Certified organic cropland in Korea more than doubled between 1997 and 2001, but is still modest because of the low starting base. Only 0.2% of total cropland was managed under a certified organic farming system in 2001, although about 5% of some of the major specialty vegetables, such as lettuce, was under organic management.

Strong market signals for organically produced agricultural goods, along with public and private support for organic farming systems, make it likely that organic production will remain a fast-growing segment of Korean agriculture. Currently, government's efforts to facilitate organic agriculture have focused primarily on developing national certification standards, but MAF has recently begun several programmes on organic technology as well as in the production and marketing areas.

Since the technologies relating to organic agriculture involve high risks in productivity, it is not easy for farmers to adopt organic farming practices. Therefore, a comprehensive long-term approach is required. In order to encourage organic agriculture, Korea should change the present agricultural support system to a system favourable to organic farming. This means that the mechanism of technology development and extension, market promotion and the farm income support system should be changed.

The results of the accounts survey reviewed in this paper indicate that factors of production receive lower remuneration in organic agriculture than conventional counterpart. Substantial price premiums on outputs are essential for the economic viability of organic farming. Until now, price premiums have been available only on rice and vegetables. Consumers' lack of willingness to pay

significant price premiums on rice and vegetables seems to be the most important obstacle to the expansion of organic farming.

Finally, in order to continuously and soundly promote organic agriculture, additional public and private research is needed on many aspects of organic production and marketing in Korea. What are the primary incentives that motivate farmers to switch from conventional to organic farming systems? What would the economic impacts and social benefits be under widespread adoption of organic farming system? Additional research is also needed on how to improve organic farming systems from agronomic and ecological perspectives, as well as from an economic perspective. The extent of the national research agenda on organic agriculture, along with programme and policy initiatives, will help shape the role that organic farming systems play in Korean agriculture in the decades ahead.

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A SOCIAL AGENDA FOR ORGANIC AGRICULTURE

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Abstract

The paper describes how the organic movement with its holistic approach is already engaged in "social agenda" activities. It highlights the co-ordinating and supporting activities in this context by the International Federation of Organic Agriculture Movements (IFOAM) with an emphasis on the co-operation with the Fair Trade movement. An outlook is given about concrete plans and activities of the organic movement to ensure that organic agriculture is not only ecologically and economically — but also socially — sound and sustainable.

Where are we?

The issue of where a social agenda fits in organic agriculture is not new. Aspects were integrated into the concept of organic agriculture at the very beginning of the movement. Organic agriculture, which has a holistic approach that includes taking care of human beings' needs and rights, is supposed to be beneficial for all people involved at all levels. This is, indeed, an ambitious goal. But where to start? How to measure? At what point to conclude?

A significant proportion of IFOAM's 750 member organisations in about 100 countries are already working with fair trade issues. For example, the pioneers in setting and implementing criteria and standards for Fair Trade, such as Fairtrade Labelling Organizations International (FLO, Germany), and the International Federation for Alternative Trade (IFAT, United Kingdom), are both IFOAM associates. Several of IFOAM's trade associates, such as U-Landsimporten (Denmark), TWIN trading (UK) and Equal Exchange (United States of America), linked fair trade and the organic movement together from the very beginning. In addition, some IFOAM members, including the Instituto Biodinamico (Brazil), Rapunzel and Lebensbaum (both Germany) and Sekem (Egypt), have developed specific standards or codes to promote a social agenda in their own organic environment.

However, the past shows that the aim, though admirable, is ambitious and not easy to achieve or handle. The implementation of social justice within the daily organic operation has revealed specific challenges; and a social agenda for the entire organic movement, in all its complexities, means much more than just considering its place in trade relationships. Some areas in which a social agenda and organic activities are interconnected include:

- ***The development of rural areas and communities:*** organic agriculture especially with its value-adding potential, aids rural development, which has a significant positive impact on social revival.

1. International Federation of Organic Agriculture Movements, Germany.

- ***Creation of employment:*** organic agriculture is known for maintaining and creating employment all over the globe.
- ***Local marketing:*** organic agriculture encourages local and regional marketing, thus it brings people together and establishes win-win relationships between producers and consumers, which for the long term are beneficial and sustainable.
- ***Gender aspects:*** prevailing attitudes to gender are very progressive in the organic movement, giving women equal rights and respect.
- ***Globalisation:*** organic agriculture can be seen as a positive kind of globalisation, harmonised by the idea of serving people now and in future generations, as well as the environment.
- ***Financial issues in trading:*** the long-term influence organic agriculture can have on trade depends on whether specific economic structures at the financial and company level are needed to make the trade more sustainable. Under what conditions would multinationals and global financial trusts convert to a fair, socially and economically sound/sustainable behaviour in the market place?

The long history of discussions about social justice standards in IFOAM is still ongoing. According to IFOAM, it is recommended that "All ILO [International Labour Organization] conventions relating to labour welfare and the UN Charter of Rights for Children should be complied with."[2] However, how many people are aware of ILO conventions, what they are concerned with, and what impact their implementation might have on daily operations? Furthermore, is it possible to come to an agreement on the definition of social standards/codes of conducts not only for production and processing, but also for the complete organic trade chain? How can globally relevant and world-wide implementable standards and codes of conducts be developed?

One specific challenge to the organic movement in this context is the cost of inspections and certifications. High ethical standards including a detailed social quality will not be implemented on a large scale for any product unless there is market demand for it. How many consumers are willing to pay an extra social premium on top of the organic premium? Who could resist agreeing with the statement that "Organic production shall not be based on violations of basic human rights"?[3] The problem starts when it comes to defining at what precise point in a specific situation violations begin. The inspector needs clear and "measurable" indicators to evaluate social justice issues within a reasonable time frame.

Where are we heading?

In an attempt to merge the philosophical discussion with the reality in production and trade, IFOAM's World Board has initiated two programmes:

A. Working with IFOAM trade members, an *option paper for a code of conduct for organic trade* was developed and discussed at different events all around the globe. Issues covered included: What makes organic trade different? Which criteria should apply and how should they be monitored?

2. IFOAM, *Basic Standards for Organic Production and Processing*, Chapter 11.

3. IFOAM, *Basic Standards for Organic Production and Processing*, Chapter 11.

B. The Social Accountability in Sustainable Agriculture (SASA), focussing on the inspectability of Social Standards, was brought on its way, together with FLO, Social Accountability International (SAI) and the Sustainable Agriculture Network (SAN). Under the framework of twelve world-wide pilot studies, different types of farms in different climates and on different continents will be inspected jointly in regard to different products. The result of these studies could help the organic movement define the social justice standards in more detail and will help to identify possible fields of further co-operation with the other participating organisations. The co-operation with the fair trade sector is particularly important in further constructive development. It will be mutually beneficial for the image of both sectors to use synergy effects and to avoid unnecessary competition in the market place as much as possible.

It was emphasised at IFOAM's General Assembly in Mar del Plata, Argentina, in 1998, how smallholder production systems, both in the South as well as in the North, require special attention and protection. One aspect of this is to make smallholders' voices heard by authorities, especially when a new regulation has been installed. Through its I-GO programme for developing organic agriculture in developing countries, IFOAM has recently financed two workshops specifically related to Internal Control Systems (ICS) of small-scale co-operatives. The objectives of these workshops are to harmonise the approach of relevant stakeholders, mainly certification bodies, so that they speak with one voice when it comes to negotiations, and reasonable revisions of respective regulations such as the EU regulation, or the USDA law. The positive effects of these meetings can already be seen.

Conclusions

Social standards are *"en vogue"*. Consumer awareness and concern are increasing, a fact indicated by the so-called anti-globalisation movement and the very concrete and growing fair trade market. On the other hand, the organic sector itself is also growing very fast. How should newcomers be persuaded to think beyond just the organic production standards? If the impressive growth of the organic movement over the last decade continues, what can be done to ensure the principles do not get lost on the way to achieving the target of 20% market share? There is no doubt that the organic movement needs a social agenda. However, these questions must be addressed if that agenda is to be defined and made relevant for all stakeholders, and if organic agriculture is to become even more sustainable.

In order to provide a structure to IFOAM's approach in regard to the social agenda, the World Board recently developed its own position and strategy for this field of activity. Furthermore, a code of ethics for all IFOAM affiliates is being discussed. At the IFOAM Organic World Congress with the theme "Cultivating Communities", which took place in August 2002 in Victoria, Canada, the whole range of aspects of the social agenda was brought to further discussion and refinement. The IFOAM General Assembly, which immediately followed, took into account the findings and conclusions of the World Congress.

To achieve tangible results for the social agenda in organic agriculture, IFOAM seeks input from all stakeholders concerned. In co-operation with them, we will more and more grow together what belongs together: organic agriculture and fair trade.

> *I believe that fair trade, combined with organic production, can help to reduce the kind of trading that exploits producers distant from the final market and ignorant of prevailing prices.* (HRH The Prince of Wales on "Benefits of Organic Farming", 21 March 2002, London).

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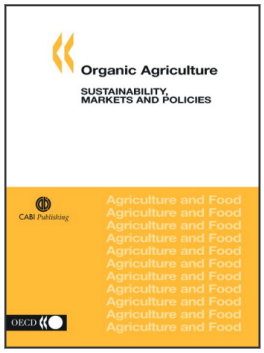

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