

Market issues in organic meat and dairy markets¹

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Foreword

The main subject of this meeting is the marketing of organic meat and dairy products, but it should be wrong not to position this subject within the broader perspective of the whole organic farming movement. Furthermore, OF is only a small part of the entire environmental movement, made by producers, scientists, consumers and policy makers, who are trying to improve the situation of this planet. It could be even more misleading to tackle the subject with a short term look, as another simple chance to make some more money at expenses of somebody else. Organic farming deals broadly with living entities, people, environment, health, nutrition and future. Add to this that, due to better information and to a good number of food scandals, a growing number of consumers who in all countries, are linking the quality of their nutrition with their health.

Some people believe that “neutral” market forces can drive the humanity towards a better future. It is shortsighted: market forces do not exist “per se”, but they result from human needs and desires and are shaped by man made rules and legislation, hopefully searching for a better common future.

1. Crisis of conventional farming

Some people still affirm that OF must demonstrate its sustainability³. Still, no paper about organic farming, can avoid to remind, at least briefly, the major problems caused by the present conventional system. It is not possible, for obvious reasons, to deal in detail about all of them. The suggested references could greatly help the interested persons, searching for a deeper knowledge.

Modern agriculture is consuming **energy**. Arguably, it has not became more productive: it simply moves energy stocked in the past: ones it was the guano from Latin America, now it is petrol that is used to produce nitrogen or phosphorus (Pimentel and Pimentel 1982, Pimentel D. et al. 1973). The supposed growth of productivity is a fascinating example of creative accounting applied to farming systems which have been consuming in a few decades the natural resources accumulated in millions of years.

The **environmental degradation** caused by industrialization of farming can be seen everywhere (Carson 1963). Landscapes have been flattened, for expanding over and over the size of fields. “Useless” trees and shrubs have been cut away, thus increasing wind and rain erosion which are causing the loss of billions of tons of fertile soils every year. Biological competitors do not have a shelter any longer and pests multiply freely. Rotations and mixed farming have been abandoned, for a monoculture that has transformed millions of hectares into a desert, as well as overgrazing is destroying pastures in all continents. The intensification of farming is demanding more and more water, that is often badly used. Nitrates and fine chemicals from farming, as well as heavy metals, antibiotics and animal wastes are flowing into the aquifers, whose waters are now dangerous for all forms of life.

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³ I personally believe that the opposite is true: conventional farming is not sustainable any longer, and it has been demonstrated by all kinds of facts

The pressure for higher production from few plants and from few animal races has led to a huge **genetic erosion** (vegetal and animal). Endless financial and human resources have been spent for imposing foreign plants (irrigated soft wheat in Nigeria) and animals (Large white pigs in Cabo Verde or Frisian Holstein dairy cows in Ethiopia), without even trying to improve local genetic resources.

Productive animals are treated with cruelty. From dairy cows to chicken, they have been progressively confined into artificial productive systems, subject to all kind of experiments for increasing their “productivity” in man made systems. Artificial illumination 24 h/d, debiking, forced feeding, artificial insemination, artificial lactation, etc.. growth hormones, antibiotics, synthetic vitamins have progressively led to think that animals could be treated as machines.

The simplification of agro-ecosystems has made necessary the continuous search for ever newer and more powerful fine chemicals, because **diseases** (for both plants and animals) and **“weeds” are increasingly resistant.**

The next point can seem strange, or to be out of the boundaries of our topic, but it deals with the the scope itself of the agro-food chain. New social problems have recently appeared, linked with food consumption: aggressive advertising is pushing adults, children and teenagers to consume over their needs. **Obesity** (and related diseases) is a growing problem leading to other physical and psychological diseases. Only in Italy, it has been calculated that the annual social cost due to obesity is 23 billion Euro (same amount in US\$). Similar problems have been found in Developing Countries, by the WHO (Hoffman 2001), which has recently issued a report about such alarming new phenomenon amongst the richest categories in developing countries. A growing number of people suffer from **allergies** to additives, artificial colors, artificial flavors, that are used in food production. Even the reduction of male fertility in rich economies has been linked with environmental pollution and mainly to food. This means that there is too much offer of food around the world, and that hunger is not a matter of scarcity, but a matter of access to resources, a matter of social justice, a matter of peace and stability.

And yet, although all the above mentioned distortions and madness, such systems are not competitive: they need **huge State support**, either openly declared or carefully hidden, as unpaid natural resources (water, grazing land, for example) or low taxation or free services (from agricultural advice to social care). The European Union alone declares to spend about 40 billion Euros per year for agriculture, but how much is spent by national, regional and local governments ?

And what about the farmers ? Are they happy and rich ? Exactly the contrary: agricultural labor has surely became less demanding, in terms of physical fatigue, but in many sectors and many Countries it is very unhealthy. Pesticides are used carelessly. The **agricultural income remains weak** and the exodus from the countryside remains strong. Even rich agricultures can not reduce such movements: France, Denmark, USA are losing farmers every year. In developing countries, in some areas only the elderly, some women and the children have remained in the villages.

Last but not least, all these efforts often only lead to produce unsold surplus, that sooner or later must find a buyer or a receiver somewhere. **Commercial wars** have been happening all over, while the dumping of surplus into developing economies (often labeled as “food aid”) has simply killed the local producers and modified urban food habits.

2. What is Organic Farming ?

According to Lampkin and Padel (1994), OF can be defined as “approaches to agriculture, aiming at setting up sustainable production systems, based mainly on renewable resources, on a management of the biological and ecological processes with the goal of achieving acceptable levels of animal and vegetal production and of human nutrition, protection from parasites and diseases, and a proper return to labor and other resources.

In other words, they are holistic approaches = integrated, where the individual parts (in space and time) should be seen and treated together, unlike the reductionistic approach, typical of present culture.

Several forms of organic farming have been developing, after the teaching and experiences of different people, who were working and living in various environments:

- Biodynamic, after Steiner, Germany, 1926
- Organic, after Howard, United Kingdom, 1940
- Biological, after Rusch & Mueller, Switzerland, 1950
- Biological, after Lemeire-Boucher, France, 1950
- Permaculture, USA, 1970
- One straw, after Fukuoka, Japan, 1970

For decades, OF has been slowly developing by itself, thanks to the dedication, devotion and voluntary work of farmers, consumers, some medical doctors and a few experts. OF was normally ignored by Institutions (Research, Extension, Legislation) and in a few cases even persecuted. Consequently, OF development was mainly in the hands of a few Non Governmental Organizations, the most structured being the Biodynamic one, that had local associations, research centers and training activities in several Countries of all Continents.

In 1972, the perceived need for closer cooperation and mutual understanding generated the establishment, by five Founders, of the International Federation of Organic Agriculture Movements, itself a NGO. Present membership is about 750 associates in 100 Countries: farmers' associations, traders, consumers, research groups, but not Governments.

Ifoam⁴ has elaborated some very basic guidelines:

- Reshaping of natural environment: hedges, trees, walls, channels, to avoid erosion, give shelter to natural competitors, have a nice landscape;
- Proper techniques: rotations, mixed cropping, limited soil labor, (to limit weeds and parasites, to save water and energy, to reduce erosion, for the nitrogen cycle);
- Development of animal and green manure, composting;
- Enhancement of animal and vegetal biodiversity, through the utilization of local resources;
- No Genetically Modified Organisms;
- Husbandry techniques respectful for animals and environment;
- Reduction of plastics and no synthetic chemicals;
- "Natural" storage, processing and transportation;
- Fair trade and Local Trade;
- Intelligent consumption.

It is worth to mention that, contrary to general opinion, the abandonment of synthetic chemicals is not the only change needed from conventional to organic farming, and that it is not the first one or the most important one: it needs to be accompanied by several other technical and organizational measures. Furthermore, the required changes at farm level should be matched by modifications in the post-harvest handling and processing of the raw commodities, in order to ensure that good products are not transformed into bad food for consumers.

⁴ More information can be found at www.ifoam.org

3. Development of Organic Farming

There should be at present more than 250,000 organic farms, all over the world, covering a surface of about 17-18 million hectares. In relative terms, this is almost nil, but the recent growth has been impressive and all experts forecast a continuous expansion.

The most recent estimates (Table 1) indicate that Europe leads the way in terms of number of farms, whose size is anyhow quite small, whereas Oceania (namely Australia), with a relatively small number of producers, represents almost 45% of the entire organic area.

Table 1 - Worldwide recent evolution of organic farming

Continent	Farms					Area				
	1999		2001		Δ 99-01 %	1999		2001		Δ 99-01 %
	no.	%	no.	%		ha	%	ha	%	
Africa	661	0,4	12.800	5,2	1.836,5	21.891	0,2	59.567	0,3	172,1
Asia	9.288	4,9	16.256	6,6	75,0	44.430	0,5	94.174	0,5	112,0
N. America	36.539	19,4	38.190	15,5	4,5	117.843	1,2	1.325.876	7,7	1.025,1
S. America	9.890	5,2	34.301	13,9	246,8	545.970	5,7	3.718.519	21,7	581,1
Europe	130.454	69,1	143.070	57,9	9,7	3.503.730	36,7	4.252.928	24,8	21,4
Oceania	1.957	1,0	2.367	1,0	21,0	5.309.497	55,6	7.705.389	44,9	45,1
World	188.789	100,0	246.984	100,0	30,8	9.543.361	100,0	17.156.453	100,0	79,8

Source: Willer and Yussefi, 2002

Great attention towards OF can be found in European Former Communist Countries, in many Developing Countries and even in China. Increasingly, National and local Governments are supporting (where already existing) the organic movement. Legislation is being issued, research activities are starting, education, training and extension are beginning to be offered, certification bodies are established. All this activism has at least two main sets of motivations:

- The observation that conventional agriculture has failed or is failing to solve the technical, socio-economic and ecological problems of many areas and communities;
- The search for better prices in the domestic markets (normally offering the output to small fraction of consumers) and in the rich markets represented by USA, Japan and Europe.

At present, all commodities are produced under organic management and can be found at open air markets, specialized retailers and supermarkets: all cereals, all tropical fruits, all vegetables, meat and dairy. Concerning meat and dairy products, it is obvious that grass based extensive production systems are most likely to be converted into organic husbandry:

Australia is the continent with the major surface devoted to organic farming and most of the area is represented by pastures, with meat, milk and sheep wool being very important commodities, for both the domestic and export market. The same can be said for New Zealand.

Coming to Latin America, according to Puppi and Ramirez (2001), in Argentina there were more than 600,000 sheep, almost 51,000 cattle and dairy cows; for meat, the main market was Europe (522 t out of 569). In Uruguay there are 250 producers with 500.000 hectares for export oriented cattle breeding.

In USA, animal productions still represent a small fraction of the total organic output (USDA 2000), with about 13,000 dairy cows, 4,300 beef cows and almost no hogs or sheep. Layers and broilers are obviously several tens of thousands.

Table 2 – Annual expenditure for bio food.

Country	US\$ per capita	Total Mio US\$
USA	28	8,000
Japan	20	2,500
Europe		9,000
Denmark	114	600
Switzerland	95	700
Austria	49	400
Sweden	45	400
The Netherlands	38	600
Germany	30	2,500
France	21	1,250
Italy	19	1,100
United Kingdom	15	900

Source: ITC, SOEL, USDA.

Consumption⁵ is mainly concentrated in USA, Japan and Europe, but organic retailers can be found in almost all the biggest towns of all Countries. In 2000, the European organic market (Table 2) counted for about 9,000 million US\$, followed by USA (8,000) and Japan (2,500). Within Europe, Germany represents the biggest market, followed by France, Italy and United Kingdom. The relevance of organic consumption is not the same in all countries: it was about or more than 2% of the total food market in Switzerland, Denmark and Austria, and much lower in other countries (Table 3).

Table 3 - Organic market in Europe, 1999.

Country	Millions of US\$	% of total food market	Annual growth
Germany	1,800	1,2	5-10%
Italy	750	0,6	20%
France	720	0,5	20%
United Kingdom	450	0,4	25-30%
Switzerland	350	2,0	20-30%
The Netherlands	350	1,0	10-15%
Denmark	300	2,5	30-40%
Austria	230	2,0	10-15%
Sweden	110	0,6	30-40%

Source: ITC 1999.

⁵ Two detailed studies were recently made by ITC (1999) and FAO/ITC/CTA (2001), but they do not cover meat and animal production. Anyhow, they provide useful information about market trends and normative aspects, of general validity.

Even within the same Country, consumption is concentrated in the biggest and richest towns and decreases in smaller towns and in poorer areas. Distribution plays a major role: there is a big potential consumption that is not satisfied because of the absence of shops or supermarkets.

4. European situation

Within the framework of several extensification programs, EU has partially supported OF with several structural Regulations since 1985, but in many member countries OF was not legislated it this was causing confusion and legal problems.

Finally (Le Guillou and Sharpé, 2001), the Reg. 2092/91 filled the void and established the norms for crops and foods (also for imports). Next year, the Reg. 2078/92 introduced subsidies to farmers to convert or to continue OF. Subsidies have been confirmed by Reg. 1257/99, they decoupled from production and given to the area (European Commission 2001) and may vary, according with national and local legislation. The highest subsidy goes to orchards (900 euro as upper limit) and annual crops (600) while the lowest (450) goes to pastures and fodder crops.

Due to absence of a regulation concerning animal productions, and to the consequent confusion that such absence generated in consumers, processors and traders, for several years an important share of organic raw materials were sold on the conventional markets (Table 4).

Table 4 - Organic products sold as such in European Union (%), 1997-98

Country	Dairy	Beef	Eggs	Sheep	Pork	Poultry
Austria	30-40	10	100	nd	nd	nd
Belgium	75	60	100	nd	80	100
Germany	50	65	95	70	85	100
Denmark	80	75	90	nd	95	nd
Spain	100	80	100	80	80	80
Finland	60	nd	nd	nd	nd	nd
France	-----95-----					
United Kingdom	95	80	nd	80	95	100
Greece	nd	nd	nd	nd	nd	nd
Ireland	nd	nd	nd	nd	nd	nd
Italy	70	90	100	90	nd	90
Luxembourg	15	80	100	nd	90	100
Netherlands	100	100	100	100	100	100
Portugal	nd	nd	nd	nd	nd	nd
Sweden	85	95	99	75-80	100	100

nd = no data available

Source: Michelsen et al., 1999.

After a long a painful negotiation, the Reg. 1904/99 was finally issued and it contains some general norms for animal productions at farm level. A long lasting transition period has been agreed, in order to allow gradual modification of existing structures. Post gate processing is ruled by norms agreed by the Certification Bodies.

Thanks to the combined effects of market demand and Community subsidies, organic area in the member Countries has grown from 0.7 million ha in 1993 to 3.8 in 2000 = 3% of UAA. Farms were 29,000 in 1993

and now are 130,000 = 1.9% of total. Most area is grassland and fodder, then arable crops, fruit trees and vegetables. Dairy cows are > 280,000 = 1.3% of total. Other cattle is > 500,000 = 0.65% of total.

Meat and dairy productions are obviously more present in the northern part of the EU, where grassland systems dominate. In France, about 40% of all organic farms have animals and most of the new entrants are meat producers. Large units for pig production can be found in Germany and Denmark, while poultry breeders of good dimension begin to appear also in Southern Europe, as to meet the demand for organic eggs. Otherwise, animal production units are mostly of small size and generally sell directly to local butchers or to consumers.

5. Marketing systems⁶

An easy to prove demonstration of the fast evolution of this market is that new operators enter into the market almost every day⁷. The old fashion marketing system, with most producers selling directly to the consumers, or through one small specialized grocery store, is becoming less important, as market share, due to the entry and fast expansion of supermarket chains and of the franchising approach to distribution. They require a stable and homogeneous flow of planned supply, in big quantities. Consequently, contract farming is increasing, thanks also to an improvement of the producers' organization: associations, cooperatives, platforms are expanding their presence.

Another interesting development is represented by community catering: a growing number of kindergartens, school and university canteens, restaurants and even factory canteens are introducing organic menu and obviously they need a properly organized supply of ingredients, at a reasonable price.

Internet and mail orders are also quite used by organic producers, who are always searching for better premium prices. For cattle meat, box schemes are relatively frequent, with one or few producers linked to a group of clients who regularly buy a box containing a given quantity (10-15 kg) of different types of meat.

Merging and acquisitions are beginning to happen also in the organic food chain, with somebody looking at these facts with attention and suspicion. The challenge ahead is to organize the markets more and more, in order to benefit the consumers, the producers and the environment, without losing the characteristics which made the organic market a bit different from the conventional one.

Within European Union, all products (raw or processed) must be certified by Certification Bodies (CB), public or private, recognized by their Governments. Also Third Countries' products must be certified by a EU CB: for this purpose, EU CB's establish agreements with non EU CB's.

Labels must indicate:

- * Name of firm
- * From organic farming (if >95%)
- * Certification Body and Authorization no.
- * Code of CB, firm, lot number
- * Ingredients and net weight
- * Expiry date and conservation suggestions
- * Address of the firm

Even in Europe, markets show different levels of organization, with Germany, UK, France and Italy in a leading position and the other Countries following rapidly.

⁶ I would suggest to read the Chapter 7 "Market development" and 8 "Labelling, certification and standards" of the Proceedings of the 13th International IFOAM Scientific Conference, edited by Alfoeldli T., Lockeretz W. and Niggli U.: there are several contributions from different parts of the world and give a good idea of what is happening around the world.

⁷ It is interesting to see the number of websites or that of firms offering marketing information.

6. Consumers' profile

All surveys (Sylvander 1999, Klonsky 1999 and see note) confirm that consumption of organic food is linked with health education, environmental awareness, family income and product availability.

The motivation attracting consumers toward organic food can be classified as follows:

- **Religious or philosophic:** food habit due to beliefs of various types;
- **Environmental:** people buy organic because they want to help preservation (adopt a cow): and improvement of the environment, in a nearby valley as well million of miles away;
- **Social:** people purchasing organic items to support the survival of rural communities in a nearby valley (adopt a farmer, Agenda 21 agreements) as well as in a developing Country (Fair Trade);
- **Health:** the most numerous category, made by people who are scared by food scandals, by the chemicals contained in the conventional food, who care about themselves and their beloved ones.

These four typologies are extremely important in order to design communication and distribution strategies motivating potential buyers towards organic food. The first category reflects the motivations of a small minority of people who do not need to be convinced to buy organic food, because their food habits are dictated by their beliefs. The second motivation is driven by the consumer's degree of respect for nature and conservation: buyers can be convinced by using environmental motivations (green labeling) or by linking purchase with preservation. The social motivation affects consumers who want to know where their money goes and who profits out of their consumption: small shop owners, small farmers, groups of women, endangered cultures, etc.. The concern for health affects the greatest number of consumers. This motivation is aside from concerns about the environment, beliefs or social problems. It stems from the consumers' desire for food to feed themselves and their families with good quality and safe food (= no chemicals, good proteins, many vitamins, etc..), possibly without spending a fortune. For the first three categories, price is not a primary issue, since it is a secondary aspect of another, more important choice. For the latter category, since it is mainly a selfish motivation, price is a very important issue. For this category, consequently, the search is for organic food which (and from where) costs less: imported items at the supermarket. The only important key factor is the certification, that gives the traceability of the product, the security about the quality.

Regarding meat and other animal products, it is also clear that a portion of organic consumers are vegetarians or vegans, while many others consider that for adults a small amount of animal proteins is more than enough. On the other side, there is a growing demand for certified organic meat, eggs, milk and dairy products. Consumers are scared not only by BSE, but also by hormones and other residues. Goat and sheep milk is also processed into organic cheeses. Organic pork products are also available. A special group of buyers is represented by parents who buy organic food for their babies and this niche market is expanding even in the countries (Italy, Spain or Greece) where the organic consumption is still limited.

Many people think that productive animals deserve at least the same treatment that is given to pet animals (cats, dogs, etc.): animal welfare norms have been already adopted into conventional production/transportation/processing systems and some organic movements are pushing for even better rules, more respectful of the animal rights. Buyers who share these convictions want food from animals which had an happy life, certified by a label.

7. Prices

Comparing prices is quite difficult, because products, quantities, marketing chains, etc are very different from conventional market and generalizations could be misleading.

It is true that premium prices are normally paid to producers (Table 5), but in some cases they have been obliged to sell on the conventional market, without any premium. This has happened for all types of meats and also for milk.

Table 5 - Producers' premium prices in European Union (%), 1997-98

Country	Dairy	Beef	Eggs	Sheep	Pork	Poultry
Austria	20-30	20-25	30	nd	nd	nd
Belgium	20	35	75	nd	40	nd
Germany	15	20	40	20	80	50-100
Denmark	20-25	10-30	10-95	20	60-100	nd
Spain	10-30	nd	10-30	nd	nd	nd
Finland	10	40	100	nd	40	0
France	20-30	nd	nd	nd	nd	nd
United Kingdom	40	40	nd	20	100	200
Greece	nd	nd	nd	nd	nd	nd
Ireland	nd	20	nd	20	20	20
Italy	15	nd	20-100	nd	nd	nd
Luxembourg	10	40	50	nd	40	50
Netherlands	10	nd	nd	100	nd	nd
Portugal	nd	nd	nd	nd	nd	nd
Sweden	15-20	5-25	70-200	0-15	20-95	nd

nd = no data available

Source: Michelsen et al., 1999.

Premium prices tend to decrease over the time, due to an expansion of supply faster than the demand. A slump in the prices at farm level has been already observed in many areas, specially in Northern Europe or same parts of Germany and Austria, where too much milk has been produced. Table 6 shows that for many commodities the domestic markets have been saturated.

Table 6 – Self sufficiency ratios for selected commodities.

Country	Dairy	Beef	Sheep & goat	Pork	Poultry	Eggs
Austria	112	102	100	104	100	105
Belgium	87	60	100	100	100	75
Denmark	121	102	95	115	128	120
Finland	100	100	100	100	nd	122
France	85	83	100	100	140	134
Germany	104	101	101	102	96	83
Italy	72	51	nd	73	nd	71
Luxembourg	90	63	72	93	79	67
Netherlands	116	62	52	108	145	71
United Kingdom	80	77	97	66	46	93
Sweden	100	121	122	128	100	100
Switzerland	100	99	100	100	100	93

nd = no data available

Source: OMIRD, 2002.

Consumers pay more (Table 7), also due to distribution channels and to cost of processing small quantities, but it must be reaffirmed that consumers prices for organic food are within the range of high quality conventional food. Once again, it is relevant to note that the motivated buyers who were dominant some

years ago are now leaving the room to a new category of consumers, who are more price conscious. To some extent, price differentiation can be a marketing strategy, in order to show a different quality, but the pressure made by the supermarket chains will tend to decrease the premium. This is not yet so clear as far as meat is concerned, but such competition (and consequent price reduction) has been already recorded for some grains, olive oil, even for wine.

Table 7 - Consumers' premium prices in European Union (%), 1997-98

Country	Dairy	Beef	Eggs	Sheep	Pork	Poultry
Austria	25-30	25-30	25-30	nd	nd	nd
Belgium	30	35	70	nd	40	60
Germany	25-80	35-50	30	10-30	50-80	40-100
Denmark	20-30	20-50	7-50	nd	30-60	50-100
Spain	15-75	nd	15-100	nd	nd	nd
Finland	31	33	nd	nd	-2	nd
France	20-150	30	nd	nd	nd	nd
United Kingdom	20	25-50	nd	20-50	50-100	100
Greece	nd	nd	nd	nd	nd	nd
Ireland	nd	20	nd	nd	nd	nd
Italy	20-50	25-50	50-200	20-50	nd	nd
Luxembourg	10	40	50	nd	40	50
Netherlands	38	nd	43	nd	nd	nd
Portugal	nd	nd	nd	nd	nd	nd
Sweden	15-20	20	25-115	20	40	nd

nd = no data available

Source: Michelsen et al., 1999.

8. Problems and perspectives

First of all, I think it could be wrong to look at organic production methods only as a simple market opportunity: they represent a chance for improving the whole agriculture and the whole food chain. It is equally important to underline the relevance of domestic market, that should not be ignored.

It is quite evident that conventional farming, animal breeding, fishing and wood exploitation, as they have been practiced in the last decades, are becoming every year less competitive and even impossible. Conventional farming will become more and more costly and a growing number of producers and of Governments will turn to organic farming because it is the only sustainable form of agriculture and animal husbandry.

On the other hand, the fight against the Establishment that profits from conventional farming is far from being won. The few cross national companies which control the pesticides markets, as well as the seeds market, or the fertilizers and now the GMOs are spending billions of dollars to influence Governments, Institutions and consumers, with promises that are the same ones made 20 years ago with hybrids or pesticides....

There is a strong need for coherent policies:

- Organic farming needs research and development, in order to apply the most modern knowledge and improve its performance.
- Universities and research centers should start research programs employ a new generation of scientists, open to challenges and ready to work in a different way, together with the producers,

- Training and extension should be provided to all categories of stakeholders, from the farmers to the field level advisors, from the miller to the butcher, from the school teacher to the canteen cook.
- Consumers' education should be a must for all Governments, not only for the development of organic farming, but for the well being of all population and for saving the private and social costs of bad food habits.
- Governments have to produce legislation, in order to ensure the much needed regulatory framework, where all stake holders can play on a fair level ground.
- Independent Certification Bodies should start their operations, in order to certify all phases of the food chain.

Legislation already exists in many Countries and it should not be difficult to elaborate and implement specific legislation, where still not existent.

Personally, I do not believe in subsidies, as the ones which were given to European farmers converting to OF, for two main motivations: first of all, organic farming can be profitable without subsidies and 70 years of successful organic farmers have proved it; secondly, they draw into organic farming people who are not seriously motivated to change their farming practices, the so called "eco-smarts", ready to a u-turn once the subsidies are over. It could be much better to finance farm projects, or post farm processing plants.

9. Opportunities for new comers

For traditional or extensive animal breeding, conversion is not difficult, but attention should be paid to local breeds, to improvement of pastures (organic farming is NOT a "do nothing" approach), to preventive medicine (proper nutrition – attention to micro-elements).

For intensive systems, conversion requires a careful technical and financial analysis. In some cases, major structural investments are required and modifications to the whole production unit are needed. Landless production units are normally not allowed and this means to buy or lease nearby plots (if available). The animal density (indoor and outdoor) must decrease and this means a lower total output. Compulsory vaccinations are obviously allowed, but whenever allopathic treatments are needed the animals or the milk can not be sold as organic, loosing the premium and may be the client...

Markets are expanding, but competition is high. Since many exporting Countries are looking at this market, the sale of raw commodities (meat and milk) at a premium price is not going to last forever. Add to this that the production of these commodities, historically, has never been too successful. The search for processing strategies, for value added products (finished or semi finished) should be part of the overall strategy, for a sustainable rural development based of diversification and organic farming. The cost and the trustworthiness of the certification is another point that could be debated: organic products must be certified, in order to ensure the buyers and the honest producers, but this procedure should not be too expensive, or it risks to become another barrier to entry. In the past (and sometimes still now) there was a sort of neo-colonialism made by European Certification Bodies sending their experts all around the world: it was costly and useless.

Governments or NGOs alike should set up a working group to develop short- medium and long term strategy; as usual, it should facilitate the participation of all stake holders. This strategy should include: legislation whenever necessary, the establishment of one or more national Certification Bodies offering all internationally required guarantees, Research + extension with producers, according with procedures which have been developed for organic farming (Krell and Zanoli 2000). The domestic markets should not be ignored: in all Countries, at least in the biggest towns, there are niches of potential buyers who can absorb some locally produced organic farmers, namely the smaller ones.

Education for national consumers is also necessary, involving media, school teachers, parents' associations and all willing stakeholders, as to develop a local market and to send a strong signal to farmers, affirming the common right of producers and consumers for a better future.

It is not a sum zero challenge, but rather it is a win win situation.

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