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Organic Farming Policies for a Sustainable Development of Rural Albania

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List of Abbreviations

€	Euro
AIR	Third EU research framework
ALL	Albanian Lek
AWU	Agricultural work unit
BSE	Bovine Spongiform Encephalopathy
CA	Codex Alimentarius
CAP	Common Agriculture Policy
CEE	Central and Eastern European countries
CH_4	Methane
CO_2	Carbon dioxide
DARCOF	Danish Research Centre for Organic Farming
EFRC	Elm Farm Research Centre
ENOF	European Network for Scientific Research Co-ordination in Organic Farming
EU	European Union
EU-CEE-OFP	Further Development of Organic Farming in Europe with particular Emphasis on EU Enlargement Project
FAIR	Fourth EU research framework
FAL	Bundesforschungsanstalt für Landwirtschaft
FAO	Food and Agriculture Organisation
FCM	Fat corrected milk
FDB	Danish Cooperative Retail and Wholesale Society
FiBL	Forschunginstitut für biologischen Landbau
FMD	Foot and Mouth Disease
FSA	Food Standard Agency
GATT	General Agreement on Tariffs and Trade
GDP	Gross Domestic Product
GMO	Genetically modified organism
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit
ha	Hectare(s)
HDRA	Henry Doubleday Research Association
IFOAM	International Federation of Organic Agriculture Movements
IFR	Institute of Food Research
IOAS	International Organic Accreditation Service
ITC	International Trade Centre
IVR	Institute of Veterinary Research
K	Potassium
kg	Kilogram
km	Kilometre
LU	Livestock unit
MAFCP	Ministry of Agriculture, Food and Consumer Protection
N	Nitrogen
N_2O	Nitrous oxide
NGO	Non-governmental organisation
NH_3	Ammonia
NUTS	Nomenclature Unités Territoriales Statistiques
OAA	Organic Agriculture Organisation
OCIS	Organic Conversion Information Service (UK)
OECD	Organisation for Economic Co-operation and Development

OF	Organic farming
OMIaRD	Organic Farming Initiatives and Rural Development Project
ÖPZ	Öko-Prufzeichen
P	Phosphorous
PAB	Progetto finalizzato integrato per la diffusione e assistenza tecnica all'ampliamento dell'agrobiodiversità colturali e all'implementazione della produzione di prodotti biologici
SASA	Sustainable Agricultural Support in Albania
SDC	Swiss Development Cooperation
SECO	Staatssekretariat für Wirtschaft
SEE	South East Europe
UAA	Utilisable agricultural area
UK	United Kingdom
US	United States
USDA	United States Department of Agriculture
VAT	Value added tax
WHO	World Health Organisation
WTO	World Trade Organisation
WWF	World Wildlife Fund

Chapter One: Introduction

1.1 Background to the research

Organic farming is a production system that excludes the use of synthetic chemical substances which can alter the environment and negatively influence the healthiness of products obtained: therefore, it is a method of agriculture production which is particularly careful to the possible negative effects on the human health and environment. Growth of organic sector has largely been led by demand from consumers in high-income countries who favour organic produce for a variety of reasons, including perceived benefits to health and the environment, perceived improvement in food quality and taste, accessibility to fresh produce and helping small-scale local producers, communities and markets. Recent food safety scares in some countries – BSE and foot and mouth disease in particular – and concerns among some consumers about genetic modification in agriculture, have also had an effect in boosting demand for organic produce (OECD 2003). Thus, organic farming can be seen as a concern of a social movement representing an alternative to mainstream agriculture (Michelsen et al. 2001). As a result of being in opposition to mainstream agricultural policy, in past decades organic farming in Europe developed independently of the established agricultural institutions. Later, agricultural policy has addressed organic farming making it an inherent part of European agriculture (Michelsen et al. 2001). The conditions for the development of organic farming differ widely between EU and Albania. To ensure a sustainable development of organic farming it is necessary to develop policy recommendations on how a complementary and sustainable development of organic farming can be fostered (Zerger et al. 2005).

Looking at the development of organic farming in Albania, we can see in a snapshot the history of organic farming policy development in EU. As in Europe, there was, and often still is, close contact with organisations outside the agricultural sector, highlighting its character as a social movement in opposition to traditional agricultural institutions. As a consequence, with assistance of international donors, the organic movement in Albania has developed its own private services (extension, market development support, information, training, inspection and certification) and quality assurance systems with private standards defining organic agriculture. Following the example of EU in the late ‘80s and early ‘90s, this situation in Albania changed in the last two years with the introduction of a law on organic farming and increasing involvement of state authorities in organic farming issues (e.g. training, education, advice, information as well as the establishment of a State Commission on Organic Production) (for more details, see 2.3). As a result, again as in Europe, after several years of being in opposition to mainstream agriculture, organic farming has started to became (or at least there is willingness) an instrument of agricultural policy. Moreover, as Stolze states in the case of EU, this situation now requires the organic movement to establish its own political structures for interacting both with public authorities and with the mainstream farming community (Stolze 2003). In Albania as well, the Government is attempting to formulate policies to foster the development of organic farming. This individual research is surprisingly coherent with such governmental attempts.

To account for the differences in development stage of the organic farming sector in Albania, institutional framework and social capital and to produce applicable policy innovation, bottom-up approaches to policy design are necessary. When addressing organic farming policy, the main objective must be to involve all national stakeholders and policy makers in identifying the parameters that could guide the further development of organic farming policy (adapted from Zerger *et al.* 2005).

Based on this consideration, a structured form of participation of and consultation with these policy stakeholders was developed to contribute to a scientifically based formulation of policy recommendations. Stakeholder involvement is achieved through Delphi method, which are managed as to facilitate policy learning among stakeholders (adapted from Zerger *et al.* 2005).

Organic farming in Albania has experienced a limited growth in the last decade with a limited register of organic farmers and a minute market for organic produce. Interest in the organic sector however, stretches far beyond such limited growth and market. Organic farming is promoted on the basis of the multiple benefits it provides; healthier food, improved farmed environment and a contribution to the rural economy (Pretty 2002; Soil Association 2003). To date, it is the environmental impacts of organic farming that have received most research attention and while some still contest the environmental benefits of organic farming (Colman 2000; Shepherd 2003), there is growing consensus that it does indeed offer certain environmental benefits over and above those of conventional agriculture. For example, in nutritional terms, while there is some evidence that "a predominately organic diet reduces the amount of toxic chemical ingested, totally avoids GMOs, reduces the amount of food additives and colourings" (Cleeton 2004: 62) as well as increasing the amount of vitamins, antioxidants and beneficial fatty acids (Soil Association 2005), others have argued that "in our view the current scientific evidence does not show that organic food is any safer or more nutritious than conventionally produced food" (Krebs 2003).

More recently researchers have turned their attention to the role of organic farming in the rural economy and specifically, the potential for organic farming to contribute to rural development (Pugliese 2001, Lobley *et al*. 2006). Thus, any policy measure which aim is to promote organic farming development, would also promote sustainable development of rural Albania. It is frequently argued that organic farming can promote employment in rural areas (Hird 1997; Midmore and Dirks 2003) and that it can also contribute to rural development, for instance, through the provision of environmental services that underpin rural tourism. Given the wide-ranging implications of these claims, it is not surprising that sometimes organic farming is presented as a panacea for the problems facing the food and farming sector. Equally, it is not surprising that it can stimulate just as vociferous 'anti-organic' feeling that sees in organics a rejection of the agricultural science that has led to such remarkable growths in yields and productivity in the last fifty years (Lobley *et al*., 2006).

Parallel with the growth of and interest in the organic sector, 'local food' has taken on increased economic, environmental and symbolic importance. Much of this is concerned with reducing environmental costs, particularly food miles but also a desire to increase local economic multipliers and contribute to the (re)connection of farmers and consumers (e.g. Pretty *et al*. 2005). Although organic produce is not necessarily 'local', there is nevertheless a close alliance between local food and organic food. Combining a greater degree of localness in food sourcing with increased organic production would lead to considerable savings associated with the reduction of environmental externalities (Pretty *et al*. 2005). Although the economic and social benefits of reducing negative externalities and increasing positive externalities are recognised, the potential for organic farming (or other forms of farming) to contribute to rural economies is much more wide ranging than the focus of previous research would suggest (Lobley *et al*. 2006).

Contrary to the situation in Europe, so far in Albania, there is no research on organic farming policies and on the potential implications of the latest on rural development. Considering the experience in EU, it can be argued than policy measures would foster the development of organic farming.

There is no single 'best way' of facilitating policy innovation. To compare innovation performances, and even more, to assess the transferability of "good practices", it is essential to understand the specific national environment behind these performances and policy practices. As said by Liikanen 'the challenge [for EU countries] is not to copy the best performers, but to define their own original innovation policy, taking into account specific strengths, weaknesses, priorities and cultural and institutional traditions. This supposes a broad political debate among stakeholders (Cordis News Interview 2001). **The Albanian government has declared the willingness to support organic farming as**

well as to use it as a policy instrument for the development of rural areas. However, so far, the government has not analysed this sector and has no precise idea on what kind of policy measures to use for supporting it.

1.2 Research objectives

Against this background, the research reported here has sought to define the main policy goals and subsequently policy instruments for the development of organic farming in Albania by integrating different levels of policy-makers, sector-representatives and other stakeholders.

The first objective was to analyse in detail European experience with organic farming policy intervention. Thereby relevant organic policies might be identified which may be transferred (policy transfer) in Albania through emulation, adaptation or simply more or less coercive acquisition (as it has happened in the case of the New Member States) (Evans and Davies 1999).

The second objective was to characterise the organic farming sector in Albania. Beside the analysis of the development of organic movement in Albania, we aim, in particular, to understand the reasons for converting to organic. For the purposes of characterisation, we have compared organic with conventional farmers. The approach adopted involved examining the socio-economic linkages associated with different types of farming such as sales and purchasing patterns but also evidence of social connectivity and embeddedness; the latest not with the aim to prove the additional benefits that organic farming has compared to conventional but rather to better analyse and characterise the organic farmers, as a prerequisite for any policy action. However, we have assumed that organic farming policy measures are a major step that should be taken by the government at all levels to deal with agriculture, the countryside and farmers which are important for the reform, development and stability in rural Albania.

The third objective was to develop policy implications and inform future decision making on the support of organic farming.

1.3 Justification for the research

This research is fully compatible with the PhD title (*International Cooperation and Sustainable Development Policies*) and especially with the Research Area (*Economy, Agriculture and Environment*). I have also considered and made use in this research of knowledge gained during didactical courses at the University of Bologna on sociology, political science, history and anthropology. Moreover, it fits with my background as Agrarian Engineer and Agrarian Economist and my previous research and specialisation particularly in the field of agri-environment.

As stated earlier, there is relatively little research carried out so far on organic farming policies and no research at all in Albania. The impetus to choose such a research topic originates from the conviction that organic farming policy measures are new instruments, uniquely appropriate for addressing the sustainable development of rural areas. It is an imperative task for rural work and an important step in further deepening the country's rural reform. It is also an effective way to protect rural inhabitants' interests and increase their incomes, as well as to ensure the general goal of maintaining long-term stability in the countryside.

1.4 Methodology

Full details of the methodology are provided in Chapter Three and Annexes although it should be noted here that the research was divided in several phases to reflect discrete methodologies and the-

matic concerns.

Phase 1 of the research was used in particular to review in detail international experience with organic farming policy interventions with particular emphasis to EU member states and especially CEE. In **Phase 2**, I moved beyond theoretical reviewes in order to assess the policy context of Albania and evaluate the potential policy measures that could apply to our country's economy, stakeholder dynamics as well as fiscal, agricultural and environmental policy context. A Delphi method (Linstone *et al*. 1975) using a panel of experts representing different stakeholders and views was carried out. **Phase 3** was designed as a data collection through a farm survey and supplemented by in-depth face-to-face interview with farmers and stakeholders in different study areas. Moreover, beside descriptive statistics and statistical analysis for organic farm characterisation data, social network analysis modelling was used for the purposes of the institutional survey. **Phase 4** of this research has documented the entire findings of my research into this thesis.

1.5 Outline of the thesis

Particular care was given to the structure of this thesis in order to be accessible to others.

Chapter Two, **Literature Review**, starts with a description of the Albanian case of agricultural and rural development followed by the discussion of organic farming in the country. Then we attempt to reproduce the debate regarding government intervention to promote organic farming versus conventional agriculture. It charts the growth and development of the organic sector in EU with emphasis to CEE providing linkage of such growth with policy measures. Then it draws on a wide range of organic farming and rural development literature in order to explore the possible ways in which organic farming may play a distinctive role in rural economies and rural development. Particular emphasis was paid to the literature on social network analysis as part of the methodology used under this research.

Chapter Three, **Methodology**, describes the methodology used under this research.

Chapter Four, **Analysis of Data**, presents patterns of results and analysis them for their relevance to the hypothesis. More specifically, it provides the results of different rounds of Delphi survey, institutional survey as well as farm survey. Beside descriptive statistics, social network analysis was used.

Chapter Five, **Conclusions and Policy Implications**, draws different conclusions from the data analysis and attempts to formulate several policy goals and instruments.

1.6 Definitions

Definitions adopted by researchers are often not uniform, so key and controversial terms are defined to establish positions taken in this PhD research.

Certification: The process used by certifying agents to ensure that each producer or handler of organic food or fiber meets the standards for organic production, processing and handling. Certification always includes on-site inspection of the production operation.

Codex alimentarius: A set of standards on maximum chemical residues in food devised by a committee established by the Food and Agriculture Organisation (FAO) and the World Health Organisation (WHO).

Consumer protection: Consumer protection laws are statutes governing sales and credit practices involving consumer goods. Such statues prohibit and regulate deceptive or unscrupulous advertising and sales practices, product quality, credit financing and reporting, debt collection, leases and other aspects of consumer transactions. The goal of consumer protection laws is to place consumers, who are average citizens engaging in business deals such as buying goods or borrowing money, on an even par with companies or citizens who regularly engage in business.

Conventional: Not certified as organic or in conversion.

Export subsidies: Special incentives provided by governments to encourage increased foreign sales. Subsidies, which are contingent on export performance, may take the form of cash payments, disposal of government stocks at below–market prices, subsidies financed by producers or processors as a result of government actions such as assessments, marketing subsidies, transportation and freight subsidies, and subsidies for commodities contingent on their incorporation in exported products.

Integrated farming: A farming system that aims to reduce the environmental impact of agriculture while pursuing economic goals. Standards are voluntary. The farming system is not legally certified.

Market failure: The failure of the market to include in the price of a good the costs or benefits of an externality (a harmful or beneficial side-effect that occurs in the production, consumption or distribution of a particular good). Often, government policies in the form of regulations (such as standards, bans and restrictions on input use) and incentive-based mechanism (such as taxes, subsidies and marketable permits) are implemented as corrective measures (Henrichsmeyer and Witzke: 58).

Market distortion: Factors (such as taxes, subsidies or quotas) that cause the market price and quantity for a given good or service to differ from the equilibrium level.

Market non-transparency: A lack of market overview. The setting of a uniform price is hampered, as is the ability of producers to adapt to changed market conditions.

Multifunctionality: The EU tries to define agriculture as multifunctional, as more than the production of food and fibre. Multifunctionality recognises the principles of sustainability. In this view, agriculture also has economic, ecological, social, cultural and other functions.

Non-renewable resources: A natural resource, such as fossil fuels, that has a finite stock and cannot be renewed.

Organic farming: The popular or 'lay' definition of organic farming defines it by what it does not do, or what is perceived by consumers not to be present. Commonly it is described as being farming without the use of chemicals, by which many people mean contemporary pesticides, fungicides and herbicides as well the absence of antibiotics and more recently Genetically Modified (GM) technologies.

According to Lampkin, organic farming can be defined as an approach to agriculture where the aim is to create integrated, humane, environmentally and economically sustainable production systems. This encompasses key objectives related to achieving high levels of environmental protection, resource use sustainability, animal welfare, food security, safety and quality, social justice and financial viability. Maximum reliance is placed on locally or farm-derived, renewable resources (working within closed cycles) and the management of self-regulating ecological and biological processes and interactions (agro-ecosystem management; see Altieri, 1995), in order to provide acceptable levels of

crop, livestock and human nutrition, protection from pests and diseases, and an appropriate return to the human and other resources employed. Reliance on external inputs, whether chemical or organic, is reduced as far as possible. In many European countries, organic agriculture is known as ecological agriculture, reflecting this reliance on ecosystem management rather than external inputs. The term 'organic' refers not to the type of inputs used, but to the concept of the farm as an organism, in which all the component parts - the soil minerals, organic matter, micro-organisms, insects, plants, animals and humans - interact to create a coherent and stable whole.

Underlying this characterisation is a wide divergence of ideas about how a positive definition of organic farming might be constructed. Although many organic farmers agree on what they are against and the general prescriptions of what they are for, the specifics of a farming system are still the matter of some contention. For example, those who belong to the Biodynamic school of organic farming are concerned with astrological alignments and preparations that aid plant growth, whilst those who subscribe to the Soil Association's standards would be not concerned with such characteristics of an organic system. At the level of the individual farm the diversity of actual practices in part reflects these differences and also the preferences of the farm operator.

In accordance with Community rules, organic farming can be defined as a system of managing agricultural holdings that implies major restrictions on fertilisers and pesticides. This method of production is based on varied crop farming practices, is concerned with protecting the environment and seeks to promote sustainable agricultural development.

It pursues a number of aims such as the production of quality agricultural products which contain no chemical residues, the development of environment-friendly production methods avoiding the use of artificial chemical pesticides and fertilisers, and the application of production techniques that restore and maintain soil fertility.

Inspections are carried out at all stages of production and marketing, with a compulsory scheme, officially recognised and supervised by the Member States, involving regular checks on all operators (Baillieux and Scharpe, 1994: 5).

FAO has adopted a more detailed description by the Codex Alimentarius (CA). "Organic agriculture is based on holistic production management systems which promote and enhance agro-ecosystem health, including biodiversity, biological cycles, and soil biological activity. It emphasises the use of management practices in preference to the use of off-farm inputs, taking into account that regional conditions require locally adapted systems. This is accomplished by using, where possible, cultural, biological and mechanical methods, as opposed to synthetic materials, to fulfil any specific function within the system. An organic production system is designed to: a) Enhance biological diversity within the whole system; b) Increase soil biological activity; c) maintain long-term soil fertility; d) recycle wastes of plant and animal origin in order to return nutrients to the land, thus minimizing the use of non-renewable resources; e) rely on renewable resources in locally organized agricultural systems; f) promote the healthy use of soil, water and air as well as minimizing all forms of pollution that may result from agricultural practices; g) handle agricultural products with emphasis on careful processing methods in order to maintain the organic integrity and vital qualities of the products at all stages; h) become established on any existing farm through a period of conversion, the appropriate length of which is determined by site specific factors, such as the history of the land and the type of crops and livestock to be produced (CAC 2001).

As the research presented in this report is concerned with the operation and impacts of the farm business rather than the agronomic practices conducted on the farm, instead of entering into a discussion

of the farming system we have pragmatically accepted certification as the basis for being considered organic. While it is certainly possible for farmers to be practising organic farming without certification, for the purposes of this research registration is the baseline for inclusion as an 'organic farmer'. Certification provides an understood and pragmatic means of defining organic farms (and, by extension, non-organic farms). In addition, registration and certification imply a range of engagements with support policies, institutions and other businesses that are of interest in understanding the management and impact of the farm business. While mindful of the importance of the discussions about the formation and rationality of organic standards for the purpose this research, registration and certification are of central importance (Lilliston and Cummins 1998; Guthman 2004).

Policy intervention: Any politically motivated intervention to develop the economy. Interventions in the agricultural sector are usually aimed at harmonising supply and demand.

Precautionary principle: This advocates action – such as banning the import of genetically modified organisms – when the safety of products cannot be established with full scientific certainty and potentially hazardous consequences in the future are suspected.

Price premium: The extra money received by farmers or paid by consumers for a quality/premium product.

Private good: A good, such as an automobile, used and enjoyed exclusively by its owner.

Public good: A good, such as air or national defence, that cannot practicably be defined to any individual without denying it to everyone; that continues to be available regardless of how much of a given individual consumes; and that therefore must be produced or regulated by government action, rather than by the marketplace, in order to ensure socially optimal availability.

Social Network Analysis: see several definitions in the main text.

Subsidiarity: Principle, specified in the EU Common Act (Article 5), by which governmental or societal responsibilities are assumed by the smallest possible administrative unit.

Sustainable agriculture: Methods of farming that do not degrade the productive capacity of the land.

Transition: A time period in which a farm or other operation moves toward organic certification by improving soil fertility, reducing use of prohibited materials, and developing an organic plan.

Welfare theory: A macroeconomic discipline theory, dealing with the most efficient allocation of resources in an economy. An important aspect of welfare theory is the so-called Pareto criterion.

1.7 Delimitations of scope and key assumptions

Organic farming is receiving considerable attention in terms of research, policies and market opportunities all over the world. Considering also the political will in Albania to promote this sector, I have considered to carry out such research even if the current stage of development and availability of data were not favouring such an in-depth study. The choice of such research topic was based on the conviction that the results of this study could be of relevance for the stakeholders of this sector. This research is in coherence with the attempts of the Government of Albania to define the role of organic agriculture within the agricultural and rural development strategy.

1.8 Conclusions

Organic agriculture is gaining momentum in the political, social and scientific arena in Albania. There are several strong points which would stimulate a governmental policy toward the support of this farming sector; low level of agrochemicals and extensive agriculture methods, climate and relief, small size of land per capita and fragmentarisation are only some of them. However, at the moment such farming system in Albania is just at an emerging state with a limited market and organic farms, beside other constraints. Even this small number seem to have been persuaded by those who promote organic rather than inspired by this farming phylosophy. They do not change very much from their conventional neighbours. They operate the same small surface of land and both are suffering in terms of marketing; maybe the organic farmers more as they have to reach clients which are located only in the middle of large cities.

We do not expect a high growth rate in the future, with variation among different product categories, with fruit and vegetables having the best market opportunities. These organic products should be sold mostly through multiple retailers and supermarkets, trying to get to the most educated and richest consumers. Media can help very much in this regards, especially in the context of high concerns in terms of food safety. In terms of promotion, organic farming activities are integrated with other initiatives, like tourism development.

For more detailed conculsions, see Chapter 5.

Chapter Two: Literature Review

2.1 Introduction

Organic agriculture has developed rapidly worldwide during the last few years and is now practiced in approximately 120 countries of the world with 51 million hectares currently managed organically by at least 623'174 farms worldwide (Yussefi, 2006). The recent development of organic farming in Europe is not only a matter of (marginal) agricultural change. It also represents an implantation of important aspects of recent major changes in society at large into agriculture (adapted from Dabbert *et al*. 2004). Essential vehicles in the development of the concept of organic farming are values expressing a general criticism of mainstream agriculture, and more general doubts about the interplay between man and nature as reflected in modern technology (Michelsen, 2001).

Our review of organic farming policies (subsection 2.4 - 2.8) is mostly based on "*Organic Farming: Policies and Prospects*" by Dabbert, Häring and Zanoli, three leading authorities in organic farming. Their review of organic farming policies is accessible, balanced and up-to date and has strongly influenced my opinions and rationale. The remaining sections are mostly based on the review of Lobley *et al*. as well as Pugliese and Michelsen's papers on organic farming and rural development and institutional analysis (Pugliese, 2001; Michelsen, 2001). Other important sources used were the outputs (various reports) produced in the framework of EU-CEE-OFP Project (*Further Development of Organic Farming in Europe with particular Emphasis on EU Enlargement*) and OMIaRD Project (*Organic Farming Initiatives and Rural Development*). Moreover, a larger number of papers are reviewed and genuine attempts are made to try to quote all of them.

2.2 The case of Albanian agriculture and rural development

Agriculture is a very important sector of the Albanian economy. Beside its considerable growth potential, both in terms of production and trade, it provides the income basis for almost half of population and serves as an employment safety net for an even larger share. Growth rates have been among the highest in Europe in fact, even as the share of agriculture, while remaining very important, is decreasing, compared to services, transport and construction sectors which gained momentum. Nevertheless, the sector plays a much larger role in the Albanian economy than it does in any other European country, including its neighbours in South East Europe (SEE), with about one third of GDP coming from agricultural production (see Appendix 1).

Even a small country, due to the hilly and mountainous relief, climate, economic policies and other factors, Albania hides great differences in the regional development (Kullaj, 2003) (see Appendix 2). However, on average, the rural areas are characterised by high density population compared to the surface of arable land, bad rural infrastructure, low living standards, isolation from information and cultural activities, etc. These factors have increased the immigration in the country, which along with non-agricultural business concentration, has sealed valuable agricultural land in the western fertile lowlands. Irrigation, which is vital for Albanian agricultural lands and an absolute priority in terms of budget allocation in the last decade, yet cannot achieve a command area of more than 180'000 ha out of 423'000 ha which is the projected irrigation potential. Some of the social constraints to the development of agriculture in Albania are the high rate of emigration and immigration, the lack of interest of young people to deal with farming, temporary involvement in farm activities, lack of financial and social incentives, etc.

The privatisation of agricultural land, as part of liberalization policies which followed after the fall of Communism with State control and subsidies shrinking dramatically, led to the rapid break-up of 550 state and collective farms, and the privatization of 94% of farmland by 1994, and over 470'000

privately owned farms by 1996 for a total of 560'000 ha. As a result, agriculture is constrained by uniform, small-scale farms and large segments of fragmented land, with a current average farm size of 1.3 ha (and even smaller farms of 0.8 ha in mountainous areas). Although this may have hampered productivity increases, allotting small land parcels did provide an important form of social security to the rural population and may well have averted famine. In the meantime, almost half the landowners do not sell produce on the market and subsistence and semi-subsistence farming provide a minimum level of food security and socio-economic stability in rural areas. Considering the experience of the last decade, only little change in structure is expected in the future and this is due to the lack of land market, a consequence of the insecurity of land property relations and a lack of perspective of agricultural activity. Efforts to organise farmers into producer or marketing cooperatives have been ineffective so far due to the lack of a developed marketing system (lack of contracts between farmers and producers, processors, etc.), factors related to mentality associated with the experience of communist cooperatives and state farms as well as shortage of incentives. Instead, Albanian agricultural producers and agro-processing businesses are only beginning to benefit from the social capital of producer associations. Such associations, grouped under the Council of Agricultural Trade Associations and other groups of associations, can provide significant support to producers in the areas of advocacy, information dissemination, developing business contacts and in overcoming institutional barriers.

The post-communist history of agriculture witnessed a shift in production patterns to a demand-driven model, with steep declines in industrial field crops (rice, cotton, wheat, tobacco) balanced by increases in livestock and associated forage crop production. Agro-processing (olive oil, flour milling) and horticulture (olives, grapevine and fruit production) have also witnessed a dynamic growth, more rapidly than the agriculture sector (see Appendix 3). Some of the causes of this resource reallocation between sub-sectors are the effects of trade liberalization, investment, changes at the institutional and infrastructure level, and rising domestic demand for food products. Such rises and falls in production of particular agricultural sub-sectors reflect also the Albania's comparative advantages, in climate, geography, and labor costs. However, both agriculture and agro-processing face significant challenges to achieve regional standards, particularly in the areas of institutional capacity, technology, skills and know-how, access to resources and quality of inputs and outputs.

Other institutional issues regard the weak marketing and packaging of Albanian products, beside recent improvements in some key products. Poor access to information limits both domestic trade and export opportunities. Attempts are made to build up market information system, so far only for fruits and vegetables. The lack of trade facilities has both impeded market access and increased the economic risks of producers as the low capacity for storage of produce does not allow to take advantage of price fluctuation on the market as well as discourages higher production. The Government, mainly through donor funding, has responded by starting the building of wholesale markets and slaughtering houses in the major production areas of the country. The geographic advantage of Albania is not fully exploited due to the infrastructure (road transportation, railway and ports, irrigation, electricity, etc.) which is still in the process of catching up to regional standards. Considering the benefit of infrastructure for other sectors of Albanian economy, especially tourism, one of its main pillars, the Government has allocated a considerable part of budged to address infrastructural issues.

Liberalization of foreign trade was one of the first measures taken during the post-Communist period, contributing to rapid recovery in trade but also to a current account deficit as domestic demand continued to outpace domestic production. This is true for the food and agriculture as it is for other sectors. Given the continuing growth of the sector, the overall fall in agricultural exports may not be a cause for concern. Although growing more slowly than the overall economy, the agriculture sector has not contracted, as might be expected given the tremendous growth in imports. The domination of imports in nearly every category is a sign of Albania's inability to be self sufficient in agriculture but

it does not necessarily mean it lacks the capacity to be competitive. These constraints can be compensated through the natural advantages like the Mediterranean climate in the western lowlands, making a longer season possible, opportunities for diversity and differentiation of products, physical proximity to EU countries, early harvests, preference of Albanian consumers for domestic products, etc. In this era of trade liberalization with respect to WTO commitments and further progress in integration in EU, a raising competitiveness is expected. The Stabilisation and Association Agreement, recently concluded, has provided an impetus for agricultural reform and sector modernization by upgrading the regulatory, institutional, and legal framework necessary for enhancing the competitiveness of agricultural products. With the restructuring of the sector, certain niche products are competing successfully with imports and even being successful export products. Thus, the challenge for policy-makers is to maintain the role of agriculture as a major contributor to economic growth through target support and cultivation, within the limits of WTO requirements, in order to generate significant returns, and encourage other farmers and producers to switch to these competitive crops.

In such a mosaic of Albanian agriculture, beside the high input production under a supportive policy framework, a 'post modern' sustainable agricultural and rural policy can fit perfectly. This approach to agriculture would support organic and low input farming on significant areas, producing high quality, healthy food. It will favour the Albanian agriculture competitiveness and turn a certain degree of backwardness into advantages considering the extensive agriculture practiced in a large part of our territory. The financial assistance required in this case is not an aid but a payment for preserving environment, landscape and culture in a sustainable way, for the benefit of the whole society.

2.3 Organic farming in Albania: history and main features

The history of organic agriculture in Albania is related to the foundation of Organic Agriculture Association (OAA) in 1997, which one year later, became member of IFOAM. Since the very beginning of their foundation, OAA started to promote organic movement and products through participation in consumer fairs organised in the country. Starting from 2001, this Association started the implementation of some projects on sustainable agriculture with the financial support of international donors (Swiss Development Cooperation and Avalon). The main activities were related to organic plant production and protection techniques, focused on vegetables, fruit trees, olive trees and vineyards. Organic livestock production was also another important area of support especially in regions with particular vocation for livestock breeding. Besides, several marketing initiatives are undertaken in these years, attempting to create a demand for organic products. In this context, the existence of a shop in the centre of Tirana as well as market stalls in the main agro-food markets has helped promoting organic products and raise consumer awareness.

Considering the small scale of Albanian farms and the time-consuming process of converting farmers into organic production, organically managed area is yet very small. Only about few hundred hectares are managed organically. Most of organic area is certified by AlbInspekt and OAA at national level, and in few cases by international certification bodies. In the vigil of its tenth anniversary, the organic movement counts about 50 organic farms, most of them certified according to organic standards. The organic farms are to a certain extend distributed over the whole country. They are mostly located in areas with a developed agriculture (lowlands of Durrës, Tirana, Vlora, Fier, Kavaja, Lushnja) but also in remote highland areas with a vocation for particular crops (Korça, Skrapar, Pogradec, Krujë). The largest numbers of farms are located near the capital (Tirana and Durrës), the biggest market for organic products. The main organic commodities are medicinal plants, olive oil, fruits and grapes, vegetables and milk. Smaller quantities of eggs, cheese, honey, wine and meat are also produced.

Members of organic movement have contributed to the establishment of a legal basis for organic pro-

duction. Thus, with the assistance of donors and coordination between the stakeholders, the People's Assembly approved the Law no. 9199 of 26.2.2004 "*On production, processing, certification and marketing of "bio" products*". It should be noted that by the end of the legal drafting process, OAA, being the promoter of the law, was opposing to its approval since they did not agree with the approach to adopt the EU-Regulation without adaptations in order to take into considerations some limitations of Albanian organic farmers compared to EU ones. Other stakeholders considered that same standards should apply for Albanian organic producers for the purposes of equivalency and attitude.

The provisions of the aforementioned law as well as the framework of a new project (SASA) funded by Swiss Development Cooperation (SDC) and SECO and implemented by FiBL created new stakeholders in the organic farming movement. Inspection and certification of organic produce for domestic marked is carried out through OAA and a limited company registered with the court, named AlbInspect. In view of a future without donor support, AlbInspect is trying to become profitable by extending the range of services. Other foreign certification bodies are operating in the country, like BioInspecta, BCS Öko Garantie, CERES, SKAL, ICEA and Italian Codex. BCS, CERES, SKAL and Italian Codex have almost exclusively certified large exporters of medicinal plants and essential oils while BioInspecta has certified two successful export cases, fresh spices and organic olive oil, both of the Swiss market.

BioAdria, a research and extension network embracing many experts in organic production techniques is focused on research and extension service offered to organic farmers. The main funding of SASA project will be devoted to increase the supply of organic produce. The assistance through other projects, like the PAB Project under INTERREG IIIa, has helped in strengthening the know-how of Albanian experts and farmers in organic farming techniques, especially in relation to biological control and composting. This Project has also organized specialized training for extension officers from the public extension service which reflects the willingness of the Government to promote this sector. The most relevant component of this project was the development of an Action Plan for Organic Farming in Albania.

Other stakeholders are entering into the organic movement as it is the case of Albanian Association of Organic Horticulture "BioPlant".

Organic farming in Albania is benefiting from activities carried out by other donor/agencies like Oxfam, GTZ, SNV, FAO, etc. Focused on sustainable agriculture, fair trade, small-holder groups and promotion of typical products, these donors/agencies have found synergies with the organic production practices/values. Thus, organic farming has entered into the agenda of the main donors operating in Albania. This has helped to increase the awareness and sympathy of political stakeholders, which are open-minded to organic agriculture.

Regarding education, the Agriculture University of Tirana, in coherence with other universities has recently introduced three organic farming courses, namely "Bioecological Agriculture" at the Department of Agroenvironment and Ecology and "Organic Horticulture" and "Biological Control" at the Department of Horticulture and Plant Protection. Several diploma and master theses as well as papers published in scientific journals by Albanian authors deal with organic agriculture.

Organic agriculture is gaining momentum in the political, social and scientific arena in Albania.

2.4 Political acceptance of organic farming (in Albania)

In the present sub-section, an attempt is made to reproduce the debate between the supporters of organic farming and those who do not see any particular benefits from this agriculture system. Most of

the rationale and arguments given in this sub-section are taken from "*Organic Farming: Policies and Prospects*" by Dabbert, Häring and Zanoli, 2004. Where relevant, arguments valid for the European context, are adapted to the situation in Albania.

There is debate going on in Albania, regarding the actual and potential role of organic farming in the development of agricultural and rural sector. Some experts, politicians, governmental officials dealing with agriculture in Albania are in support of organic farming as it is shown by the enthusiastic declaration of ex-prime minister who declared that Albania's economy should be based on three pillars: tourism, organic farming and semi-processing industry; or the declaration of actual Prime minister who said that 70 % of Albanian products are organic. As in Europe, there is a stronger political focus on environment issues in agriculture, leading to a positive attitude towards organic farming. Beside trade ambitions, EU accession was part of the driving forces in establishment of the legal framework for organic farming in Albania. Policy-makers have recognised that, when in EU accession process, the organic farming development is an opportunity, as there is already low farming intensity and opportunity to use EU funds in Rural Development Regulation framework. As described in the above sub-section, several pilot projects undertaken with international assistance have funded a movement which is lobbying for organic. The Government now is trying to build up the certification system according to EU rules. Albania is also motivated to design and implement agrienvironmental measures.

However, other policy-makers demand a rational agricultural and rural development policy in order to take into consideration more acute problems that Albanian agriculture is facing (see 2.2); they do not see organic farming as a priority. This sub-section follows with a series of arguments pro and against policy measure to support organic farming which is based on the aforementioned work of Dabbert *et al*. 2004, with an effort to actualise relevant arguments to the Albanian specific case.

Among their most important theses is the fact that in Albania, organic farming production as well as market demand is very limited; thus, it does not justify political intervention. Moreover, they argue that the level of knowledge of Albanian farmers, the limited number of experts on organic farming, land fragmentarisation as well as low purchasing power and consumer awareness are limiting factors to the development of this agriculture system. Considering the "naturalness" of Albanian agriculture, they pretend that there will be no major difference between a "natural" Albanian product and a certified "bio" product, thus, no price premium. Nevertheless, the organic system, beside its standards and certification, does not prevent infection from diseases that causes health problems to humans. A fundamental argument against organic farming policy - or, indeed, any support policy - is that it hinges on efficiency considerations and that government intervention impedes competitive market equilibrium.

The discussion follows with an analysis of these theses trying to identify the potential relevant positions, in most parts using the arguments written from Dabbert *et al*. 2004, whose approach is rational, critical and transparent as the authors claim. It is rational because it is based on the assumption "that policy objectives and instruments are closely linked". It is critical because it does not assume that organic farming has a value in itself: instead, its advantages and disadvantages are carefully assessed. It is transparent because it is based on easily comprehensible objectives voiced by politicians, and looks at whether these can be achieved or not. For policy design, however, it is not only the relative contribution of organic farming, compared with conventional farming, to policy objectives which is relevant. The main issue is the absolute contribution of an activity to certain policy objectives at relatively lower costs than those caused by an alternative activity (Dabbert *et al*. 2004). Let us start with our analysis and arguments.

Albania, even if a decade away from the integration, has to start the process of alignment with the CAP. The reformed CAP will create a promising way for a more sustainable development of rural areas also in Albania, where external effects of agriculture are more positive than negative ones and where in the future the public goods supplied by agriculture and countryside could be recognised and rewarded more adequately then at present. Sustainable development, so widely advocated, should guarantee that the further development and social progress of highly developed societies is tightly bound up with the idea of humans being in harmony with the world of nature. The socio-economic system should run in accordance with natural environment to use the resources rationally for the needs of future generations. As this could not be realised by the market mechanism itself, there is a need for government to support the market mechanism to gain both environmental harmony and economic rationality.

In terms of strategic agricultural policy, the Albanian government is faced with two scenarios; a high input production which, according to economic calculations, requires a supportive policy framework with high subsidies for intensive production, and a 'post-modern' sustainable agricultural and rural policy, which would support organic and low-input farming on significant areas, producing high quality, healthy food. The first scenario will not favour the Albanian agricultural competitiveness due to several decades of drawback in development, while the second one, will turn a certain degree of our backwardness into advantages considering the extensive agriculture practiced in a large part of our territory. The financial assistance required in this case is not an aid but a payment for preserving environment, landscape and culture on a sustainable way, for the good of the whole society.

The limited development of organic farming and market for organic produce in the last ten years is interpreted as a lack of interest in organic farming, implying that there is no scope to support it. However, it must be remembered that the restrictions with which organic farmers must comply are much more demanding and more costly than those required by other farming systems, and this is why not many farms have converted.

Regarding the lack of market, evidence supports the hypothesis that potential demand for organic food is much higher than the currently realised demand. First of all, this claim neglects the fact that consumers are not forced to buy organic products but are free to choose organic or conventional products. Among the obstacles to realise higher demand for organic products in Albania, is the lack of proper promotion. Considering the limited production of organic food, organic private organisations or businesses that are dealing with the marketing of organic products, did not organised proper production campaigns due to quantity and seasonality reasons. However, if we study carefully the market in Albania, we can certainly identify a segment of population which has a very high purchasing power. If we add to them the relatively large number of foreigners living in Albania (consultants, tourists, etc.) which can be considered as domestic exportation, this should stimulate the demand and increase the production. Considering also that one of the pillars of Albania's economy is tourism and especially cultural and eco-tourism (rather than mass tourism), organic foodstuff can be promoted along with tourist attractions, creating that synergic linkage between local (typical) and organic food.

Parallel with the growth of and interest in the organic sector, 'local food' has taken on increased economic, environmental and symbolic importance. Due to the low quality level of imported food in the last decade in Albanian markets, consumers are looking for native products, as their taste is still persisting in their memory. For the educated consumers in Europe, much of this is concerned with reducing environmental costs, particularly food miles but also a desire to increase local economic multipliers and contribute to the (re)connection of farmers and consumers (e.g. Pretty *et al*. 2005). Although organic produce is not necessarily 'local', there is nevertheless a close alliance between local food and organic food. Combining a greater degree of localness in food sourcing with increased

organic production would lead to considerable savings associated with the reduction of environmental externalities (Pretty *et al*. 2005). Although the economic and social benefits of reducing negative externalities and increasing positive externalities are recognised, the potential for organic farming (or other forms of farming) to contribute to rural economies is much more wide ranging than the focus of previous research would suggest (Dabbert *et al*. 2004).

As it is discussed in 2.2, in the particular case of Albania, the issue of land fragmentarisation is one of the greatest limiting factors for Albanian agriculture. Proponents of organic farming argue that in such a condition, organic farming is the only solution as you can not apply intensive production methods in small farms. They also justify the small surface under organic management with the small size of farms; attempts to convert a farmer, spending several years, at the end will result in few hectares more. Policies to stimulate the conversion into organic farming may provide an additional incentive for the creation of cooperatives and stimulate land market. Regarding the size of farms, in the EU context, Dabbert *et al*. 2004 state that, although some proponents of organic farming have considered efficient farm organisation contrary to the idea of organic farming, organic farms are subject to the same pressure to adapt to changing external conditions as conventional farms. This often has similar structural consequences, such as growth. Organic farms also take advantage of economies of scale. However, it is not size which defines an organic farm, but its method of production.

Paraphrasing from Dabbert *et al*. 2004, in terms of food safety, in a strictly technical sense, organic farming does not have a zero risk and other measures should be taken (i.e. strengthening veterinary controls) rather than a mass conversion to organic farming. Moreover, support for organic farming is certainly no substitute for strict controls on feedstuffs. Up to this point the argument is valid. However, the question is whether the technical view is sufficient to analyse a political crisis of a wider dimension. For example, in Germany the BSE crisis proved to be a catalytic event. The public suddenly realised that agricultural policy spends a lot of money without supplying the goods demanded by the general public, such as animal welfare or food safety. Organic farming seems to come off well in this respect (Dabbert *et al*. 2004).

Organic producers need to be compensated financially for restricting their production practices, effectively internalizing costs that could be considered as externalities of conventional agriculture (Pretty *et al*. 2000). It is clear that organic farming is enabling part of the public services to be internalised and expressed in market premia (Lampkin 1994). Another argument is that, if a government will financially support organic farmers, the price premiums for organic products will decrease creating a permanent dependency on state handouts. An increase in organic farming area due to direct subsidies for and increased profitability of organic farms may result in an erosion of price premiums. This argument holds as long as demand is consolidated. However, if the 'bottleneck' theory described earlier applies and part of potential demand can be realised - by political measures, for example' then price premiums can be sustained in the short to medium term. In the long term, price premiums may erode. At present, however, several options exist to avoid erosion of price premiums - without price support measures. Nevertheless, it is important to consider whether direct subsidies are the appropriate measure to support organic farming (Dabbert *et al*. 2004).

As explained by the authors of *"Organic Farming: Policy and Prospects"* regarding the argument given by 'free market' economists, it should be said that the same economists have developed a theoretical framework with scope for state intervention in the market; this is known as 'economic welfare theory'. Critics of a purely 'free market' approach to official policy also need to take a closer look at the arguments provided by the theoretical framework of welfare theory. With respect to organic farming, the following questions are relevant:

- Can the potential contributions of organic farming to official policy objectives fit into that frame-

work?
- Can instruments demanded by supporters of organic farming fit into that framework?

If they do and could actually be supported by a generally free-market-oriented, liberal approach to policy, quite strong arguments in favour of political support for organic farming arise.

In the highly proclaimed context of poverty reduction and lessening the production costs in order to increase agricultural production, many experts argue that conventional farming can provide the same public goods as organic farming but at less cost. Measures aimed at achieving specific public goods, such as environmental objectives, within conventional farming, may be more effective than subsidies to organic farming by providing the same benefits at lower cost. This might be true if a small, one-dimensional environmental problem is to be addressed. The more aspects have to be taken into account, however, the more expensive specific measures are to administer - an argument in favour of organic farming.

Generally speaking, organic farming is providing positive externalities, which are demanded by society (Dabbert *et al*. 2004). As is usual with the market failure, there is higher demand of society for positive externalities than market can provide, and therefore there is a reason for design and implementation of adequate policies in order to increase the supply (University of Cambridge 2002). In the attempt to justify policy support for organic farming (in Albania), we have tried to discuss several pertinent topics in relation to organic farming and society, then moving into European experience with organic farming policies as well as some considerations regarding the future of organic.

2.5 Organic farming and society

The key goals of organic farming with respect to environmental protection, animal welfare, food security, safety and quality, human health and nutrition, resource use sustainability and social justice are ones for which the market mechanism does not normally provide an dequate financial return and are normally seen as public goods and services, of benefit to society as a whole rather than the individual (Lampkin, 2003). Dabbert *et al*. in "*Organic Farming: Policies and Prospects*", discusses in detail four important factors which can impede market function (see also Henrichsmeyer & Witzke 1994):

- Markets do not function properly owing to the nature of goods involved, such as public goods.
- Markets may lead to an income distribution within society which is considered unacceptable.
- A lack of information severely impedes market functions.
- The negative effects of earlier government intervention on markets need to be corrected and eased by new intervention.

In the case of **public goods**, the problem is that private markets will not supply or will supply too little of the public good because of free rider effects. Therefore, governments respond by providing the public goods. To provide goods like these (or to avoid public ills like dirty air), governments must overcome the logic of collective action, which says that people have very little incentive to organise politically and to work for the provision of public goods. If the good is provided, people cannot be excluded from enjoying it, whether they worked collectively with others to produce the good or not. According to welfare theory, a competitive market will produce an optimal quantity of private goods. However, it will not produce adequate quantities of pure public goods, given their above-mentioned nature. Such market failure results in a loss of social welfare. In the case of organic farming, it means that if this farming system provides more public goods than other farming systems, government intervention can be justified if organic farming is the cheapest way to produce the goods desired (Dabbert *et al*. 2004).

Market transparency, which is due to inadequate information for both the consumer and the produc-

er, can result in market failure and sub-optimal provision of goods. In the organic sector, consumers may not be informed adequately about the attributes of organic products, and this may influence their decision to consume organic products as well as representing increased risk due to lack of transparency (Dabbert *et al.* 2004). This situation can justify government intervention.

Regarding, **income distribution**, as we have seen, because of the nature of public goods, their allocation within a society tends to be sub-optimal and along with market effects can lead to a sub-optimal distribution income. Correction of a sub-optimal income distribution is therefore a common objective of government actions (Dabbert *et al*. 2004).

Lastly, government interventions are justified if they ease market distortions caused by **previous government interventions**. An example could be support of organic farming because of its contribution to reducing surplus production and thus cutting down on government expenditure in the EU.

These goals are increasingly important to policy-makers too, leading to increasing interest in the potential of organic farming as a policy option. Organic farming has established a complex set of principles and practices that are believed to contribute to achieving these objectives, but that does not guarantee that the objectives are achieved, and much debate centres around the extent to which these objectives are achieved in practice (Tinker, 2000; House of Commons, 2001). It is not possible and out of scope to provide a detailed and comprehensive assessment, however, some generalizations are made addressing the reader to relevant sources of further information.

The concept of sustainability lies at the heart of the debates that currently exist over the use of the planet's natural resources, yet there is no consensus on its meaning despite its intuitive appeal (Park and Seaton, 1996) The same is valid for sustainable agriculture, even if it is a more specific aspect of sustainability. (The concept of sustainable agriculture is well documented and therefore there is no intention to report it here).

While sustainability is a complex and wide-ranging concept, the basic objective is to optimise agriculture's net contribution to society, by making better use of physical and human resources. Sustainable farming systems are those that contribute to long-term welfare by providing food and other goods and services in ways that are:

- ***economically viable***: responding efficiently and innovatively to current and future demands for adequate, safe and reliable supplies of food and raw materials;
- ***environmentally sound***: conserving the natural resource base of agriculture to meet the reasonably foreseeable needs of future generations, while maintaining or enhancing other ecosystems influenced by agricultural activities; and
- ***socially acceptable***: meeting the wider values of society, such as supporting rural communities and addressing cultural/ethical issues such as animal welfare concerns (Jones, 2003)

Agricultural sustainability can be seen as a measure of the performance of different systems with respect to all these goals, as well as the financial viability and hence sustainability of individual farm businesses. One of the conclusions of the OECD Workshop on the Adoption of Technologies for Sustainable Farming Systems held in Wageningen, the Netherlands, July 2000 was that:

> "*...all farming systems, from intensive conventional farming to organic farming, have the potential to be locally sustainable. Whether they are in practice depends on farmers adopting the appropriate technology and management practices in the specific agro-ecological environment within the right policy framework. There is no unique system that can be identified as sustainable, and no single path to sustainability. There can be a co-existence of more-intensive farming systems with more-extensive systems that overall provide environmental benefits, while meeting demand for*

food. However, it is important to recognize that most sustainable farming systems, even extensive systems, require a high level of farmer skills and management to operate." (OECD, 2001d).

However, the key factor determining the relative sustainability of different systems in such a multi-objective context is the weighting placed on the individual objectives by different parts of society. A high weighting on environmental factors may favour one approach, while a high weighting on yield will favour another. In addition to the technical difficulties of defining appropriate scales and benchmarks for measurement and comparison, policy makers are confronted with the difficulty of having to make trade-offs both within and between the economic, environment and social dimensions of sustainability (Dabbert *et al*. 2004). The situation is relatively easy when the effects are all in the same direction. But when factors move in different direction, the task is much more difficult. The OECD report on sustainable development suggested that "the overall long-term effects of organic methods of food production on the sustainability of agriculture require more investigation, given the use of more land to produce a given quantity of food, the greater skills required of farmers, and high costs of food to consumers" (OECD, 2001c).

Beside the large number of studies which have been carried out over the past decade in an attempt to evaluate the possible advantages of organic farming relative to other farming systems in the context of sustainable agriculture, it may prove impossible to come to a conclusive view on the relative merits of the different approaches to sustainable agriculture, such as organic farming, integrated crop management, agroforestry and permaculture (Lampkin *et al*. 2003). Nevertheless, if we consider the legislation in Europe (EU, 2001), in the United States (USDA, 2000) and at international level through the *Codex Alimentarius* agreement (FAO, 2001), organic farming seems the only approach to sustainable agriculture.

2.5.1 Environmental impacts

Considering the role of environment as a driver of economic development is increasingly recognised (Winter and Rushbrook, 2003), the impact of organic farming on the environment has been extensively reviewed (USDA 1980, Litovitz *et al*. 1990, Greenpeace 1992, Redman 1992, Smolik *et al*. 1993, Unwin 1995, Avalanja *et al*. 1996, Dringwater, Wagoner and Sarrantonio 1998, DG VI 1999, Greenwood, 2000; Soil Association, 2000 and Stolze *et al*. 2000). There is now a significant body of research indicating the beneficial effects of organic practices on soil structure, organic matter levels and biological activities, as well as plant, insect, bird and wild animal biodiversity. However, differences can vary depending on farm type, the relative intensity of the conventional and organic systems compared, and the management ability and interest of the individual farmer, so that better performance is not necessarily guaranteed in all cases (Lampkin, 2003). As Stolze *et al*. (2000) point out, these benefits are clearer on a per unit land area basis, but the reduced yields from organic farming may mean that the benefits per unit food produced are not as great. Table 2-1 summarises available evidence relating to the ecosystem, soil, ground and surface water, climate and air, farm input and output, and animal health and welfare.

Although it is difficult to estimate the monetary benefits of the positive environmental contribution made by a farming system, the reverse approach can illustrate these benefits to a certain degree (Dabbert *et al*. 2004). As organic farming results in less negative environmental effects, some of the costs of offsetting negative environmental effects of agricultural production in general might be avoided.

The important issue of GMO is not so much considered due to the absence of comprehensive information, despite its relevance to organic farming. The environmental argument against OM seems to be the possibility of gene transfer from GM crops to wild plants and the resulting loss in biodiversity. Furthermore, the effects on living organisms further down the food chain are not yet fully understood

and the associated risks therefore cannot be assessed. What is certain is that organic farming remains fundamentally opposed to the use of GMOs in agriculture.

Table 2-1. Impact on the environment: organic compared with conventional farming

Indicators	++	+	0	-	--
Ecosystem		**X**			
Floral diversity		**X**			
Faunal diversity		**X**			
Habitat diversity			**X**		
Landscape			**X**		
Soil		**X**			
Soil organic matter		**X**			
Biological activity	**X**				
Structure			**X**		
Erosion		**X**			
Ground and surface water		**X**			
Nitrate leaching		**X**			
Pesticides	**X**				
Climate and air			**X**		
CO_2		**X**			
N_2O			**X**		
CH_4			**X**		
NH_3		**X**			
Pesticides	**X**				
Farm input and output		**X**			
Nutrient use		**X**			
Water use			**X**		
Energy use		**X**			
Animal health and welfare			**X**		
Husbandry			**X**		
Health			**X**		
Food quality		**X**			
Pesticide residues	**X**				
Nitrate		**X**			
Mycotoxins			**X**		
Heavy metals			**X**		
Desirable substances			**X**		
BSE risk		**X**			
Antibiotic residues	**X**				

Legend: Organic farming performs: ++ much better, + better, 0 the same, - worse, -- much worse than conventional farming; if no data were available, the ratio was 0

X Subjective confidence interval of the final assessment which is marked with X

Source: Stolze *et al*, 2000

There is an ongoing debate as to whether the reduced yields might require additional land currently

not in production to be brought into production, with potential negative environmental consequences. However, this assumes current production structures will be retained, including the current level of feeding crop suitable for human consumption to livestock. In terms of non-renewable resource use (and the related pollution risks/greenhouse gas emissions), several studies indicate that organic farming has the potential to reduce resource use and pollution, not only on a per unit land area basis, but also per unit food produced (ENOF, 1998), with significant implications for future global food security in the context of diminishing resources.

The agriculture activities in Albania, especially in the past, are responsible for the degradation of natural resources posing important long-term constraints to sector development. Problems include: (a) uncontrolled deforestation; (b) large livestock numbers and consequent overgrazing of pasture land, particularly in mountain areas; (c) soil erosion and degradation through agriculture production on marginal lands, especially on steeply sloping land in hill and mountain areas and before the collapse of the old regime; (d) loss of scarce and productive arable land through rapid urbanization; (e) depletion of marine fishing resources; (f) degradation of water resources and watersheds; and (g) increased vulnerability to flood damage. Beside these negative externalities, due to general limited intensification, localised only in the lowlands oriented toward exportation, the level of damage caused to the environment was comparatively not so high. The National Strategy for Environmental Protection foresees organic farming as an instrument for the application of sustainable agriculture.

2.5.2 Food quality, nutrition and health

The impact of organic farming on food quality, nutrition and human health has been a core concern of organic farming since the research of McCarrison (1936). The issue has been subject to recent reviews, (Williams *et al*. in Tinker, 2000; Soil Association, 2001b). Although food quality can be considered a private good, many governments have included the provision of food safety in their policy objectives (Dabbert *et al*. 2003). The evidence on food quality is less conclusive that that for environmental benefits. Extensive reviews of existing research findings on the physically measurable quality of organically produced food compared with conventionally produced food (Woese *et al*. 1995; Stolze *et al*. 2000) have shown that no firm conclusions about the quality of organically produced food in general can be drawn (Table 2-1) in the absence of adequate results from comparative investigations of organic as opposed to conventionally produced food, although for some of the indicators organic food performed better than its conventional equivalent (Dabbert *et al*. 2003). It is clear from the focus of many agricultural research programmes that the way food is produced does affect its quality. Therefore it is reasonable to expect that quality differences, for better or for worse, could exist between organically and conventionally produced foods.

Some studies show benefits with respect to increased valuable nutritional components (vitamins, minerals, trace elements, secondary metabolites) and reduced harmful components (nitrates, pesticide residues), while other studies show little or no differences and some authors have raised the theoretical risk of increased levels of potentially harmful components such as *E. coli* 0157 and mycotoxins in organic foods, but with little evidence to substantiate this (FAO, 2000; FSA, 2000; Soil Association, 2001b).

With regard to animal produce, no comparative investigations exist that prove the higher quality of organic produce. However, many research findings have highlighted the risks associated with conventional animal produce while other animal studies have shown, beneficial impacts on fertility and morbidity from organic diets. For example, the risk of antibiotic residues is assumed to be lower in organically produced meat since sub-therapeutic application of antibiotics is strictly forbidden, while therapeutic use is avoided as far as possible and strictly controlled. The discussion of BSE-contaminated meat and the risk to humans also suggests a somewhat lower risk associated with organic com-

pared with conventional meat.

Such differences as have been identified tend to be specific to particular crops or farming situations, so that it is difficult to generalize an overall benefit from organic food. However, when exercising the precautionary principle in relation to food safety and agriculture, organic farming seems to be a viable option. This view is confirmed by a European Commission report on this issue.

Re-considering the issue of GMOs, it is true that their effects on humans are not fully understood, but consumers are afraid of the effects of unknown genetic elements in food and their possible impact (allergic reactions, for example). On the other hand, if a market for non-GMO products is maintained, crop varieties that might be displaced are conserved. A trend in this direction can already be observed independently of the GMO issue. Organic farming generally relies more on traditional varieties of crops as these tend to be adapted to the non-pesticide, non-fertiliser environment of organic farming systems. This may contribute to the preservation of certain species and variety in food culture (Dabbert *et al*. 2004).

There is a clear need for further research on this topic, which is now more likely to take place than in the past, as the resistance of governments to funding such research is waning (Lampkin, 2003).

In the case of Albania, in last five years, there is a remarkable increase in the quality of products entering the major markets of large cities. After a decade of mass food without particular quality level, now Albanian consumers are more attentive to the quality of the products they consume. There is also a growing share of consumers which have a high purchasing power and they want to be distinct from normal consumers not only a through their houses, cars but also through food. However, the situation of foodstuff hygiene are alarming. A recent control from the specialists of Public Health Institute have shown that milk has resulted contaminated in almost 49 percent of the cases, while yogurt, even more problematic. Same problems are found in flour and its by-products, in 30 percent of the cases. Other products analysed are salami, water, etc. with contamination problems. More than 15 people per day are sent to hospitals for the reason of food toxication.

Therefore, food quality constitutes an important part of the agenda of the MAFCP. The main structures in controlling food safety are: the Central Control Lab (reference lab) at the IVR, Tirana; the Central Lab of Food Control (IFR) Tirana; the Institute of Public Health (ISHP) Tirana; 9 Regional Labs. MAFCP has completed the rehabilitation and equipment of regional food control labs. The legislation about quality, expired period and marketing condition for agro-food products is approximated with the EU pertinent directives. MAFCP is drafting a law on National Food Authority. GMP (Good Manufacturing Practices) and HACCAP (Hazard Analysis and Critical Control Points) are adapted and implemented.

2.5.3 Food security and developing countries

The relatively large crop yield reductions observed in the northern European context have led many to question whether organic farming is capable of meeting the food needs of a growing global population (Lampkin 2003). This is a complex question, which has to take account of both distribution and production issues, as well as the increasing demand for meat as incomes increase and the role of livestock production as a direct competitor with human food needs. In addition, the large yield reductions experienced in northern Europe are not reflected in other studies from countries where conventional production is less intensive (Lampkin and Padel, 1994) and Pretty and Hine (2001) have demonstrated the potential for yields to be increased in resource-poor countries (where the ability to pay for external inputs, in particular agro-chemicals, is severely limited) through the adoption of ecological management principles. The experience of Cuba in pursuing organic farming as a key part of its food

security strategy in the face of US economic sanction is particularly relevant in this context (Pretty and Hine, 2001; Food First website).

2.5.4 Social impacts

Social impacts are perhaps the least considered aspect of organic farming, although social goals have long been part of the organic farming concept. The International Federation of Organic Agriculture Movements' standards (IFOAM website) include a section on social justice which covers workers' rights and expectations of appropriate working conditions, rewards for labour, and educational opportunities. In a European context, basic rights are covered by national legislation, and have therefore not been a focus of organic farming standards and legislation, but there is a need to look critically at working conditions, employment and **income levels on organic farms** (Jansen, 2000; Offermann and Nieberg, 2000). One of the main concerns of agricultural policy is to preserve the economic viability of farming in general and ensure incomes high enough to keep farming families in the sector (Dabbert *et al*. 2004). Analysing the comparative review of the economic situation of organic and conventional farms in Europe up to 2000 from Offermann and Nieberg 2000 we find that average profits are similar, with nearly all organic farms achieving +/- 20 per cent of the profits achieved by the relevant conventional reference groups (Figure 2-1). On the one hand, the economic performance of organic farms in comparison to conventional farms strongly depends on the level of support payments for organic farming and the type of Common Agricultural Policy measures employed, such as set-aside of compensatory arable payments. Support payments to organic farming are intended to compensate for yield losses due to production restrictions in organic farming. The advantage of organic farming is that part of the losses due to lower yields is compensated for by the price premiums that consumers are willing to pay.

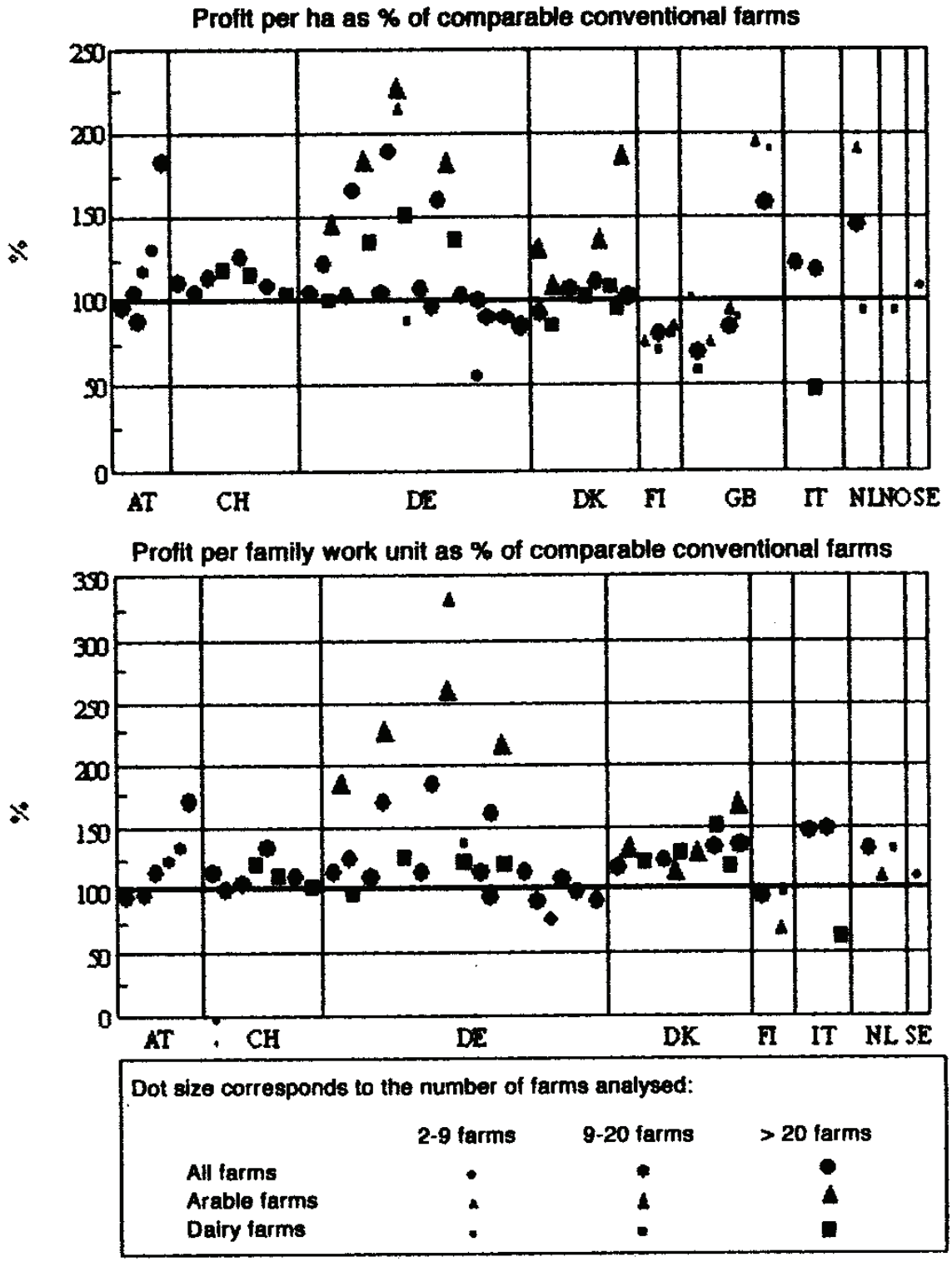
The "*Report on the farm level economic impacts of OFP and Agenda 2000 implementation*" from Nieberg *et al*. 2005 which tries to compare between old and new Member States, indicates that the economic situation of organic farms is generally satisfactory. It seems that in the new members, with an emergin organic sector, the economic situation is less often assessed as positive than in old member states with an established organic sector. However, in all of the countries, a positive perception of the own economic results compared to comparable conventional farms is more frequent than a negative perception.

It is obvious that economic performance differs significantly between organic farms - substantially depending on farm type and country. Not only is the typical production structure quite different, but national factors such as land rents significantly influence profitability. These results are not unexpected. As long as farm income is a major factor for the decision to convert, and conversion is voluntary, conversion to organic farming is a sensible option for those likely to earn a similar or higher profit. Obviously, the income effect of conversion to organic production depends on farm type, location and country. Generally, extensive farms in marginal regions are more likely to benefit from conversion than intensive farms in fertile regions (Dabbert *et al*. 2004).

Farm incomes have improved substantially since the agricultural reforms began (Dabbert *et al*. 2004). Farmers have been able to take advantage of opportunities to re-allocate resources and modify farm structures following the reforms. Contributing factors include developments in private sector input supply, marketing and processing; rehabilitation of some irrigation systems; improvements in veterinary care; and enhancement of the extension system. Nevertheless, agricultural income is still very low and is usually only a small part of the total income of rural families. The smallholder farmers and other rural entrepreneurs in Albania still face a myriad of constraints in developing their businesses, and most lack the information and knowledge needed to further improve their productivity, diversify production and exploit market opportunities. The early gains after the reform period were followed

by slower growth due to a number of factors such as: market limitations; the continuing disrepair of the irrigation infrastructure in areas not included in the various irrigation projects; the limited avail-

Figure 2-1. Profits of organic farms relative to comparable conventional farms in different countries: 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

Profit = 'Family farm income'. Exception: in the UK net farm income was used.

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 2000, supplemented by new data from Dabbert *et al*. 2004

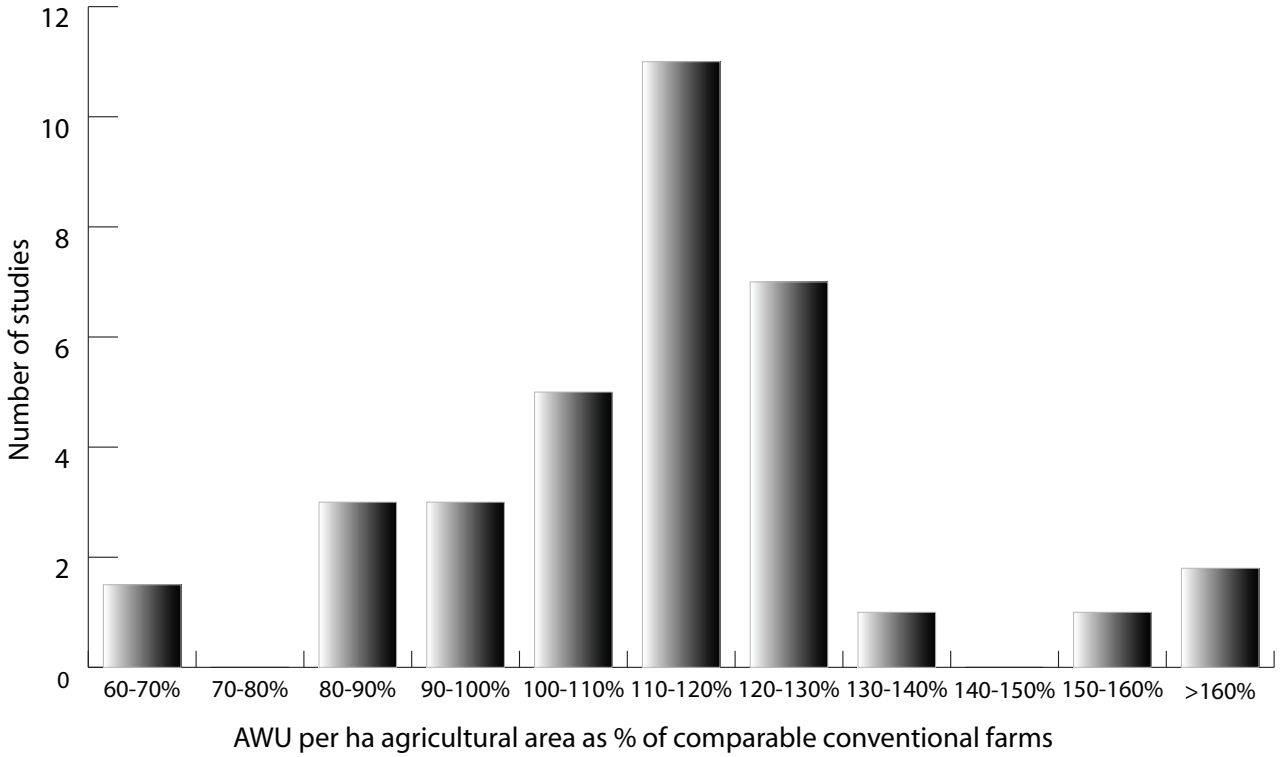
ability of rural credit to farmers, processors and traders and other small rural businesses; and the poor quality of seeds and saplings.

In Europe, one of the main objectives and pushes of organic agriculture in Europe is to reduce unemployment rates. **Employment** in agriculture is already low in rural areas in the EU, and is expected to decline further, as in many areas farms are still too small to benefit from economies of scale (Dabbert *et al*. 2004).

Theoretically speaking, employment for many commentators is an unambiguous and easily measurable indicator for rural development success. Jobs protected or created within a rural area provide the foundation on which viable communities can be based, as they in turn supply the economic multipliers that support other businesses and services. According to Midmore and Dirks (2003) employment is a central concern in rural development: "the approximate measure of rural community well-being is and should still be employment, because although the emerging paradigm of rural development suggests this should no longer be the end of policy, it is certainly one of the most important means by which further ends should be achieved" (Midmore and Dirks 2003:3).

Research on the employment impact of organic farming typically indicates a positive impact. Offermann and Nieberg (2000) found labour input on organic farms in Germany and Switzerland to be an average 20 per cent higher than on comparable conventional farms, mainly reflecting a substitution of chemical inputs by labour and a higher proportion of labour-intensive activities (Figure 2-2). Additionally, organic farms tend to employ more paid labour while relying less on family workers. Padel and Lampkin (1994) for example, estimate additional labour requirements in the range of 10-25% and Hird (1997) reports a similar effect, yet the employment impact is sensitive to enterprise type. According to Midmore (1994), the impact on employment is positive for most outputs under organic production.

Figure 2-2. Agricultural work units per hectare of utilisable agricultural area on organic and comparable conventional farms: results of various studies



Source: Offerman and Nieberg (2000), supplemented by new data from Dabbert *et al*.2004

However, considering the small workforce employed in agriculture in western European countries and the size of the organic farming subsector, only minor effects are expected. For example, in a region where agricultural employment accounts for 5 per cent of all jobs, a 20 per cent increase in organic farming would result in a mere 0,2 per cent in overall employment, despite the higher labour input in organic farming. The expected direct contribution of organic farming to rural development rates is therefore insignificant, but other indirect factors might contribute to rural development.

First, marketing and processing of organic products to date have mainly developed as small businesses closely related to primary organic production but legally independent. Many of these are efforts by farm families to create additional income sources for increasingly redundant family labour; others have evolved from cooperative initiatives, often creating employment opportunities in the long run. Such clusters of organic agribusiness firms, working and networking together, can create an additional dynamic in developing the sector.

Second, organic farming might contribute to a positive image of rural areas, of benefit not only to agriculture but also to other sectors of rural economies. Young farmers increasingly seem to favour organic farming (Tress 2000, for example), and the conversion to organic farming could be a reason for them to remain in farming instead of choosing other employment opportunities. A strong commitment to environmental goals might add to the appeal of a region for tourism, which is very likely to have positive effects when companies from other sectors choose a certain region as a business location. As a result, several regions exist which have tried to use the positive image created by organic farming as a motor for rural development (Biosphärenreservat Rhön in Germany is an example).

In short, although organic farming is expected to have little direct effect on unemployment rates in rural areas, small-scale marketing and processing initiatives may contribute directly to rural employment. Indirect effects such as increased employment in tourism due to the positive 'ecological' image of a region can also be of importance.

In the case of Albania, generally, agriculture has still a primitive nature thus having a high demand for labour force. Moreover, as explained above, a comparatively large population is living in the rural areas. Thus, a conventional farm in Albania has almost the same working force as an organic farm, or at least we can say that there is no substantial difference in order to consider employment as an important factor. However, a price premium would better justify the involvement of such high labour force and motive young people to work in agriculture activities.

In general terms, the case can be made that employment and incomes can be maintained or increased on organic farms, but even securing current farming businesses and existing employment and income levels might be beneficial for rural communities in the context of the dramatic structural changes currently taking place in conventional agriculture. There is clearly a question whether organic farms will not in the longer term be exposed to the same economic pressures for specialization and rationalization as conventional farms, and it may be that local marketing and processing initiatives are more important than production in terms of the rural development potential of organic farming (OMIARD website).

The Common Agricultural Policy is one of the European Union's main sources of expenditure. For the planning period of Agenda 2000 (2000-6), a projected EUR 300 billion will be spent (EC 2000a), more than half of the whole budget. Traditionally, the two major sources of expenditure have been direct payments to producers, and market support such as export subsidies and storage costs. With the objective of reducing storage costs and stabilising market prices, **surplus reduction** itself has become a declared policy goal (Dabbert *et al*. 2004).

Organic farming can contribute significantly to surplus reduction since the observed yields are much lower in organic as compared to conventional production (Dabbert *et al*. 2004). This is particularly true of plant production (Offermann and Nieberg 2000).

Direct payments within the agri-environmental programmes are the main source of expenditure on organic farming, amounting to EUR 300 million for the 15 EU countries in 1996 (Lampkin *et al*. 1999a). This volume is often quoted by critics of organic farming. However, taking only costs related to the above-mentioned reduction of surpluses and change in farming structure after conversion to organic farming into account, expenditure would be reduced approximately by half of the amount spent on direct subsidies (Zanoli and Gambelli 1999). This emerges from a comparison of the hypothetical situation of Europe without organic farming (0 per cent) with the observed situation in 1997. A similar calculation reported by Offermann (2000) puts the savings in arable area and headage payments under Agenda 2000 conditions at 13 per cent of the expenses for organic farming. Obviously, an increase in organic farming area would still result in higher expenditure than for conventional agriculture, but compared with other agri-environmental schemes, the previously mentioned benefits might become increasingly important in the future.

2.6 Organic farming and agriculture policy in Europe

2.6.1 Introduction

The process of agricultural modernization during the last century in developed and in many developing countries, is patently inconsistent with the principles of sustainability and with the related notion of 'sustainable agriculture' (Pugliese, 2001). For the sake of boosting productivity, many agricultural lands have undergone massive transformation because of the introduction of western organizational models of labour and production patterns and of externally developed technological packages substituting the on-farm by off-farm resources. The use of farming systems, which rely on the internal preservation and production of soil fertility, was reduced as it became economically profitable to replace farm labour with machinery, and enhance soil fertility by using chemical fertilisers. 'Headaches' of farmers due to pest and disease problems where 'cured' by the synthesis of a variety of chemical plant protection products, at the same time, simplifying agricultural systems that were based on regular applications of these pesticides while abandoning various prophylactic non-chemical measures that were formerly an integral part of farming. The tendency to detach agriculture from its natural roots, which was inherent in these technological developments, became especially visible in some forms of animal husbandry, such as the housing of laying hens in batteries where they are completely separated from anything that might resemble a natural environment. Conversely, these new forms of agriculture, encountered mostly in the industrialised countries of Western Europe, were associated with a series of key advantages, in terms of labour and soil productivity increase, abundance of food and low prices, increase of wealth with the shift of the labour force from agriculture to other sectors of the economy. Such approach was assumed to be universally applicable, irrespective of local social and environmental contexts. Therefore, despite the positive impact on the overall availability of food, the spread of high external input agriculture has caused some major problems (Pretty 1995). In many cases modern agricultural technologies had a very negative impact on the natural environment, with a massive build-up of nutrient surpluses in some regions and intensive use of pesticides in others. Animal welfare became a major issue in societies, not only because of the advent of methods of animal rearing that closely resemble industrial production but also because the more affluent societies became very concerned about animal welfare. The loss of heritage landscapes and biodiversity, which in many cases had been created by earlier forms of agriculture and were now being destroyed by modem forms, became further areas of concern. The decline of the agricultural population in rural areas meant major structural change and was often accompanied by above-average unemployment rates (Lernoud 1999) which was associated by dangerous 'human erosion', due to displacement and

marginalization effects and to progressive disempowering of local institutions and individuals as well as difficult social conditions in formerly agricultural regions (Dabbert *et al*. 2004) related to uneven distribution of benefits and serious deterioration of farmers' socio-economic conditions.

2.6.2 History of organic farming

Reading the historical perspective from Lampkin, 2005 we learn that organic agriculture is a system that had been developed in Europe long before the impact of the major technological revolution in agriculture, described above, became obvious. Starting from the beginning of the 90s, different authors wrote about a new and diverse agriculture, in which respect for the productive activity against natural ecosystems became esential element for the development of society. In different books, attempts were made to define organic agriculture, the productive techniques and philosophical principle that sustain it. The development of organic farming can be traced back to the 1920s, although many of the underlying ideas of self-reliance and sustainability feature also in earlier writings (for reviews, see Boeringa, 1980; Merrill, 1983; Conford, 2001; Reed, 2001). The basic philosophy of organic farming has been around since the start of the twentieth century. Steiner (1924) laid the foundation for biodynamic agriculture (Sattler and Wistinghausen, 1992), grounded in his spiritual philosophy of anthroposophy, which later was to have a significant influence on the development of organic farming. At about the same time, Dr. Hans Muller founded a movement for agricultural reform in Switzerland and Germany, centred on Christian concepts of land stewardship and preservation of family farms. Later, Dr. Hans-Peter Rusch contributed important ideas relating to soil fertility and soil microbiology, which led to the further development of organic-biological agriculture in central Europe (Rusch, 1968).

In the English-speaking parts of the world, King (1911) in Farmers of Forty Centuries used the long history of Chinese agriculture with its emphasis on recycling of organic manures as a model of sustainability, while McCarrison (1936) focused on nutritional issues and the influence that methods of food production might have on food quality and human health. Stapledon's work on alternative husbandry systems in the 1930s and 1940s (see Conford, 2001) and Sir Albert Howard's work on the role of organic matter in soils and composting (Howard, 1940) were also of key importance. These writers provided a powerful stimulus to Lady Eve Balfour (Balfour, 1976), who founded the Soil Association in 1946. The key emphasis at that stage, as the name suggests, was on soil fertility and soil conservation, with the dust bowls of the 1930s a recent event. The links between a healthy, fertile soil and crop and livestock health, food quality and human health were central to the mission of the organization.

Detailed descriptions of the principles and practices of organic farming can be found in various publications (e.g. Lampkin, 1990; Blake, 1994; Newton, 1995), as well as the detailed codes of practice contained in the standards documents of the various certification bodies operating in each country.

In this period, from different parts of the world, associations and entities were established, which grouped producers, consumers and other parties interested on the problems of ecology applied to agriculture. Such organisations have elaborated guidelines and have introduced a series of norms related particularly to the agricultural production and to the guaranties offered to consumers.

From a political economy perspective, according to Kledal, organic farming can be regarded as a social countermovement born out of the crisis between the second food regime (1945-1970s), and the birth of a new and third food regime in the 1980's. The rules and regulations of organic farming are alternative measures trying to combat the growing pressures for more capital accumulation received as:

- Environmental and human health risks in relation to the use of pesticides, nitrate in the groundwater and escaling problems with animal welfare and food safety.
- Expulsion and marginalization of farms, landscapes and rural production cultures.

Organic agriculture is expanding in all countries to meet increasing consumer demand, although it still only accounts for a relatively small share of agricultural production and food consumption. It is no longer limited to those farmers for whom organic production is a holistic life-style, selling through specialist outlet, but has extended into the mainstream of the agri-food chain as an economic opportunity to satisfy a niche market at premium prices. Organic farming is generally more environmentally friendly than conventional agriculture but may require more land in some countries to provide the same amount of food and often requires more labour in place of purchased fertilizers, pesticides and animal health care products.

The organic sector is not homogenous either in terms of production or marketing. There is a continuum of motivations for farmers to engage in organic farming, ranging from the purely philosophical at one end of the spectrum to the purely agri-business at the other. For some producers, organic farming is both a way of life, involving a holistic ecosystem approach to agriculture production and en economic enterprise. They tend to be smaller, family-run enterprises, have been farming using organic methods for a long time, and market their produce through specialist retail outlets and on-farm shops. For others, organic farming is viewed primarily as an economic activity responding to consumer preferences, and marketed as niche foods at premium prices through supermarkets. Moreover, across the farming spectrum there is a range of systems, from low-input organic to high-input industrial farming systems, with integrated farming systems in between. In some circumstances non-organic farming have taken up certain farming practices employed by organic agriculture. Technological development and the strengthening of agri-environmental measures will also influence the relative performance of different farming systems. In some countries, this has meant that large corporate farming operations are now using organic methods. This present a challenge for some in the organic movement, who are concerned about the social and environmental impact of business practices and structural characteristics of mainstream agriculture but also want to encourage the spread of organic farming principles and facilitate greater consumer access to organic food (OECD 2003).

Since the beginning of the 1990s, organic farming has rapidly developed in almost all European countries and is generally the most rapidly growing sector of agriculture, at anything between 15-30% annually, albeit from a very low base. Organic farming policy has developed from a one-dimensional area support instrument to more integrated approaches considering demand-oriented measures as well as cross-cutting instruments of information, training, research, education and capacity building. In many cases these policies are integrated in EU, national or regional action plans comprising comprehensive and target oriented approaches to organic farming policy (Lampkin and Stolze, 2006; Stolze et al., 2006).

The two most important EU policy measures, in terms of their impact on the organic farming sector, were the agri-environmental policies implemented as a consequence of the McSharry Reform (1992) of European agriculture policies (within which organic farming was supported) and a Europe-wide common certification system for organic farming which came into effect at the beginning of the 1990s and has recently been extended to the animal production sector (Dabbert *et al*. 2004). Further information on a number of other measures of minor importance for the general development of the organic farming sector can be found elsewhere (Lampkin *et al*. 1999a and b). These policy measures account for more than 80% of the expansion in the organic land area in Europe up to 2000. All EU27/ EEA states have implemented legal definitions of organic farming (OF) consistent with Reg. 2092/91 providing a basis for market development and policy support. Most states have also implemented area payments to support conversion to and (in most cases) continued organic production, with BG and RO due to introduce support. However, payment rates, eligibility conditions and requirements vary considerably between countries (Tuson and Lampkin, 2006). Let us describe in more detail these policy measures.

2.6.3 Agri-environmental support

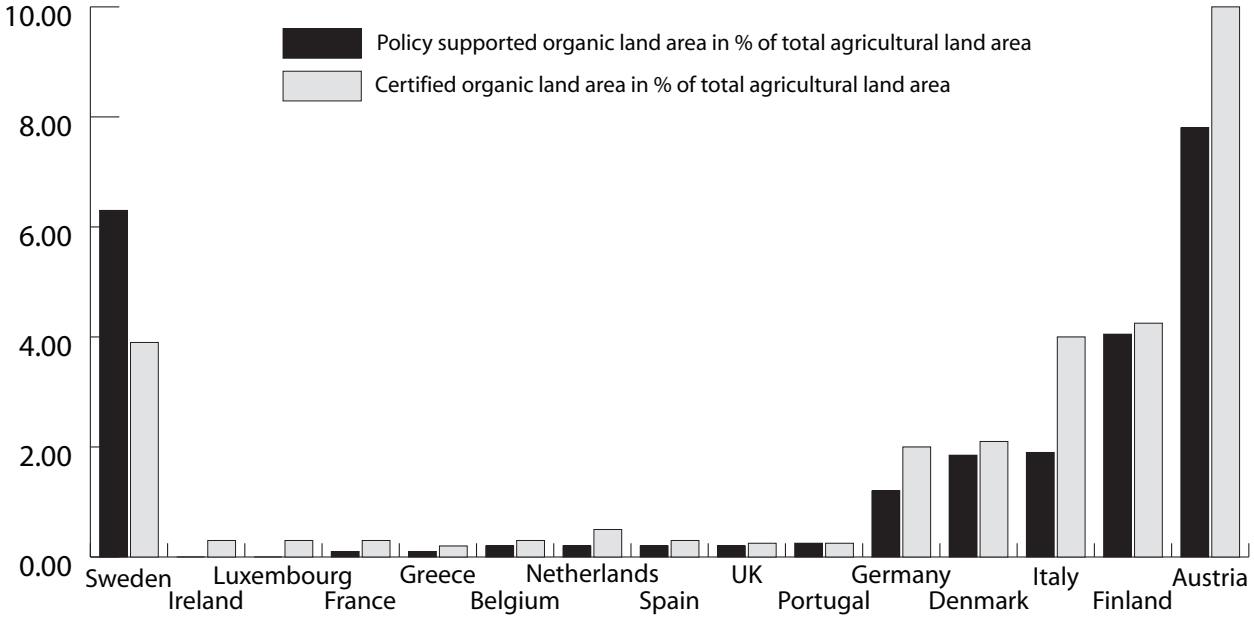
The reform of the Common Agricultural Policy in 1992 has been the most important change in direction of European agricultural policy in recent decades. Named the McSharry Reform after the Agriculture Commissioner who was responsible at the time, it consisted of mainstream measures and others officially called the accompanying measures due to the lower budget allocation. Yet these accompanying measures were quite important for organic farming. They were intended to provide a framework allowing environmentally friendly farming practices to be supported through specific regional or member state programmes.

The measures included: (a) Substantial reductions in the use of fertilisers and plant protection products; (b) A reduction of the density of sheep and cattle per forage area; (c) Long-term set-aside schemes; (d) Support for organic farming - quite important in our context. It was also possible to provide some support for demonstration and training projects on environmentally sustainable agriculture.

In line with the principle of subsidiarity, it was up to the member states and regions to devise and implement specific programmes, although these were subject to the approval of the European Commission. The regions had to finance 10-50 per cent of the expenditure in these programmes, while the rest was financed by the European Commission (50-75 per cent) and member states.

The agri-environment measures came into effect in 1993, although the majority of organic aid schemes under EC Regulation 2078/92 were not fully implemented by EU member states until 1996, and significant differences between the schemes implemented exist (Lampkin *et al*. 1999). By October 1997, more than 65'000 holdings and nearly 1.3 million ha were supported by organic farming support measures at an annual cost of more than 260 million ECU (Figure 2-3).

Figure 2-3. Policy-supported and certified organic land as a percentage of total agricultural land in 1997



Source: Foster and Lampkin 2000

Organic farming's share of the total agri-environment programme amounted to 3.9% of agreements, 5.0% of land area and nearly 11% of expenditure, the differing shares reflecting in part the widespread uptake of baseline programmes in France, Austria, Germany and Finland (Lampkin, 2003). There were wide variations between countries in terms of the significance of organic farming support, both

relatively and absolutely, within the agri-environment programme (Table 2-2). Financial support for organic farming has continued to be provided, in many cases at increased levels, under the agri-environmental measures in the Rural Development regulation (EC Regulation 1257/1999).

Table 2-2. Agri-environmental support and organic farming in 1997

Country	Share of land in agri-environmental programmes (%)	Share of organic farming in expenditure on agri-environmental programmes (%)	Organic land share (%)
Austria	93.8	12.9	10.1
Finland	92.8	7.6	4.7
Italy	10.3	25.6	4.3
Sweden	55.4	17.0	3.8
Denmark	3.9	58.2	2.4
Germany	31.8	6.0	2.3
Netherlands	1.7	0.8	0.8
Ireland	21.2	nd	0.5
Luxembourg	74.3	nd	0.5
Belgium	1.4	23.7	0.5
Spain	2.8	3.9	0.6
France	22.7	1.4	0.6
Portugal	13.8	1.9	0.3
UK	8.9	0.9	0.7
Greece	0.7	31.7	0.3
EU 15	**18.2**	**10.7**	**1.7**

nd = no data

Source: Lampkin *et al*. 1999a and b, Michelsen *et al*. 1999, Foster and Lampkin 1999)

In financial terms, the agri-environmental support programmes (Council Regulation 2078/92) (EC 1992) are the most important European policy applicable to organic farming. As part of the CAP Reform, they provided a unified framework for supporting conversion to and continued organic production. Direct support to organic and converting producers was seen by some governments as a means to meet increasing consumer demand as well as transfer income to farmers for environmental and other benefits. Lampkin *et al*. (1999a) report that of a total of about EUR 300 million spent on organic farming support in the EU (estimate for 1996), nearly EUR 190 million was spent on these programmes. In the following year, this actually increased to EUR 260 million. All other areas are - in financial terms - much less important (Table 2-3).

2.6.4 Mainstream commodity support

Like their conventional counterparts, organic farmers also qualify for the mainstream commodity support measures, including arable area payments, livestock headage payments, and support for capital investment and in less favoured areas where available. In most EU countries, the mainstream commodity support measures are seen as beneficial, at least for organic arable producers (Lampkin *et al*. 1999). Set-aside in particular is seen to have potential to support the fertility-building phase of organic rotations during conversion and on arable farms with little or no livestock.

Only in a few cases have significant adverse impacts of the mainstream measures on organic farmers been identified. In some cases, special provisions have been made to reduce these, for example flexibility with respect to use of clover in set-aside in the UK. There is a case that, since organic produc-

ers are producing significantly less output, and the organic market is under-supplied, then organic producers should not face compulsory set-aside. In 2001, the European Commission moved in this direction, permitting organic producers to use set-aside land for forage production.

Table 2-3. Organic farming share of total agricultural area (UAA) and agri-environment (AE) expenditure, 2003

	Total organic area		Total OF support (1257/99)		
Country	*Thousand hectares*	*Share % UAA*	*kha (% of cert. OF)*	*Million Euro*	*Share % AE*
AT	328.8	10.1	295.2(90)	85.9	13.9
BE	24.2	1.7	18.9(78)	4.7	16.9
(BG)	2.0	0.04	na	na	na
CH	109.1	10.1	109.1(100?)	19.3	5.4
CZ	255.0	6.0	214.2(84)	7.3	20.3
DE	734.0	4.3	536.8(73)	97.7	16.0
DK	165.1	6.2	110.5(67)	8.7	45.5
EE	46.0	5.9	37.5(82)	3.2	15.5
ES	725.3	2.9	158.2(22)	25.7	19.1
FI	160.0	7.1	142.5(89)	16.9	5.9
FR	551.0	2.0	207.8(38)	42.2	7.7
GR	244.5	6.2	19.0 (8)	7.7	30.1
IE	28.5	0.7	17.7(62)	1.7	1.0
IT	1052.0	8.0	297.9(28)	100.3	33.5
HU	113.8	1.9	58.0(51)	4.2	25.2
LT	23.3	0.6	22.1(95)	0.9	na
LU	3.0	2.3	2.3(75)	0.4	3.3
LV	24.5	1.0	nd	0.7	na
NL	41.9	2.1	11.0(26)	2.5	16.3
PL	49.9	0.12	31.0(62)	1.3	na
PT	120.7	3.2	27.9(23)	3.9	5.7
(RO)	57.2	0.4	na	na	na
SE	(462.4)	14.8	407(180)	54.8	23.4
SI	20.0	3.9	18.9(95)	2.9	29.3
SK	54.5	2.5	37.8(69)	0.5	nd
UK	695.6	4.1	249.9(36)	9.0	5.0
Total	6175.5	3.3	3041(49)	502.4	13.5

Sources: Hrabalova et al. 2005, Olmos et al. 2006, EC 2006.
(x) qualifications apply, see original references for details; na = not applicable; nd = no data

According to Stolze and Lampkin, 2006, in 2003, the average OF area payment was highest (€404/ha) in GR, reflecting the then focus on high value crops, and lowest in the UK (€36/ha) reflecting low per ha payments on high areas of grassland. The EU15 average was €185/ha. Organic farming support through Reg. 1257/1999 accounted for ca. 5% of all agri-environmental contracts, 7% of supported area and 14% of expenditure. In absolute terms, expenditure on organic farming area support was highest in AT and IT (86 & 201 mill. € respectively), or 45% of the total EU27 & CH expenditure of

€635 million, and lowest in IE and most new member states (Table 2-4). (This includes €132 million paid under the old Reg. 2078/92 schemes, but not other agri-environment payments received by organic farmers, e.g. for the REPS scheme in IE.

Table 2-4. Organic farming area payments (€/ha), 2003/4

	In conversion		Continuing OF		Average payment
	Arable	*Grass*	*Arable*	*Grass*	
AT	327	251	327	251	291
(BE)	500-600	425-450	240-350	55-275	248
BG	na	na	na	na	na
CH	526	131	526	131	
CZ	110	34	110	34	43
(DE)	200-300	200-300	150-190	150-190	182
DK	271	271	117	117	(78)
EE	97	74	97	74	85
ES	92	117	92	117	162
FI	147	103	147	103	119
FR	366	160	(183)	(80)	203
GR	335	(100)	335	(100)	404
IE	178	59	127	59	nd
IT	181	181	91	91	97
HU	150-200	100-200	100-200	100-200	337
LT	416	118	416	118	nd
LU	200	200	150	150	172
(LV)	139	139	82	81	nd
NL	(148)	(136)	(-)	(-)	227
PL	149	72	131	57	104
(PT)	228	210	190	175	141
RO	na	na	na	na	na
SE	151	58	151	58	135
SI	460	230	460	230	243
SK	149	99	75	50	nd
(UK)	261	203	44	33	36

Sources: Hrabalova et al., 2005, Tuson and Lampkin, 2006.
(x) qualifications apply, see original references for details; na = not applicable; nd = no data
NMS 2004 data used

The wide variability of uptake (share of supported area in certified organic area) indicates the influence that low support levels or strict requirements can have. The uptake of OF support was high (>70%) in most new and some central EU old member states, but low (<40%) in Mediterranean countries as well as in FR, NL and the UK partly due to the absence or low levels of support for converted land. In GR, the very low uptake of 8% is due to a rapid increase in the organic area in 2003 not yet reflected in the agri-environment scheme data (Stolze and Lampkin, 2006).

The loss of eligibility for livestock headage premiums as a result of reduced stocking rates following

conversion is seen as potentially more problematic, but this can be mitigated by extensification payments and quota sales or leasing where applicable.

Several countries have made use of investment aids and national/ regional measures to provide additional assistance, including special derogations for organic producers.

Since the late 1990s there has been a significant increase in the use of market support policies including investment aids, consumer promotion and public procurement, although these are less common in the new member states (Table 2-5).

Table 2-5. Organic farming policy instruments used, 2003/4.

	Action plan	Conversion payments	Maintenance payments	Advice, training, education	Research	Marketing & processing	Consumer promotion	State logo
AT	+	+	+	+	+	+	+	+
BE	+	+	+	+	+	+	-	-
BG	-	n.a.	n.a.	-	-	-	-	+
CH	-	+	+	+	+	+	+	-
CZ	+	+	+	+	+	-	-	+
DE	(+)	+	+	+	+	+	+	+
DK	+	+	(+)	+	+	+	+	+
EE	-	+	+	+	+	-	-	+
ES	(+)	+	+	(+)	+	+	(+)	+
FI	+	+	+	+	+	+	+	-
FR	+	+	(-)	+	+	+	+	+
GR	-	+	+	+	+	+	-	-
HU	-	+	+	+	+	-	-	-
IE	+	+	+	+	+	+	-	-
IT	+	+	+	+	+	+	+	+
LT	+	-	-	+	+	+	+	+
LU	-	+	+	+	-	-	-	-
LV	-	+	+	+	+	+	+	-
NL	+	+	(+)	+	+	+	+	-
PL	-	+	+	+	+	+	+	-
PT	+	+	+	+	+	+	-	-
RO	+	n.a.	n.a.	+	-	-	-	-
SE	+	+	+	+	+	+	+	-
SI	+	+	+	+	+	-	-	+
SK	+	+	+	-	-	-	-	+
UK	+	+	(+)	+	+	+	-	-

Sources: Hrabalova et al., 2005, Tuson and Lampkin, 2006
(x) qualifications apply, see original references for details; n.a. = not applicable

2.6.5 Standards, certification and labelling

Organic farming could be considered as a production system in which farmers merely comply with certain standards (Dabbert *et al*. 2004) without having the necessity of any certification system. However, if products are to be marketed separately, a system ensuring that products have been produced according to organic standards must be established and a clear distinction between organic and conventional products needs to be pursued throughout the organic distribution and processing chain (Dabbert *et al*. 2004). The main objective of such a certification system is to assure consumers that products genuinely have been produced organically. As there is no obvious way for consumers to distinguish whether a product is organic. This makes clear standards, certification and labelling of products important factors for the economic success of organic farming (Dabbert *et al*. 2004).

Standards to which farmers have to adhere in order to produce organically are defined by the Council regulations 2092/91 and 1804/1999 (EC 1999a), providing a clear basis for all organic farmers in Europe. Such standards are also linked to a logo as well as labelling, both intended to guarantee and communicate to the consumer the fact that organic farming is different from conventional farming (adapted from Dabbert *et al*. 2004)

Thus the European policies tackling standards, certification and labelling have been quite successful in overcoming the major difficulties in developing standards and have established an efficient certification system. Although in both areas, private systems exist in addition to the European system, the European system has become the point of reference - even for those interested in stricter systems.

The approval of the Codex Alimentarius Guidelines for Organic Food was an important step towards international harmonisation of government regulations. It acknowledges that organic farming standards are a legitimate means of recognising product quality rather than a technical barrier to trade. Therefore, policies that serve the development of organic farming undoubtedly fall into the current green box and are very likely to be treated as such in future negotiations. These Codex Guidelines are expected to gain increasing importance in relation to equivalence judgements on imported products under the WTO rules. Furthermore, they are expected to help build consumer trust. This becomes especially relevant for trade in organic food, as the designation ‘GMO-free’ is an important motivation for consumers to buy organic food.

2.6.6 Rural development and structural measures

The agricultural policy environment is changing very rapidly. The need for the strengthening and innovation of the policies is expressed in the last reform of CAP (Fischler 2003). One of the major trend which has a direct impact on the organic farming policy is the reduction of expenditure on agriculture Organic farming is seen in many countries in Europe as having significant potential for rural development, in terms of its capacity to supply premium markets and thereby to support rural incomes and employment. As discussed above, as a result of increasing demand for organic products, significant price premiums have helped policy makers to support organic farming. Moreover, the current policy is trying to target issues like environmental degradation, maintaining marginal land in production, farmers’ incomes, surplus production and the negative impacts of agriculture on international commodity markets.

Organic farming projects were favoured under the marketing and processing support and structural measures in the 1990s and this has continued under the new Rural Development Programme and structural measures under Agenda 2000. Agenda 2000, agreed upon in March 1999, is the most recent drastic reform of the EU Common Agricultural Policy (EC 1999b). The agricultural reforms which are part of Agenda 2000 continue and consolidate changes introduced by earlier reforms. Their main objectives are: (a) to increase the competitiveness of EU agricultural products on the domestic and

world markets; (b) to integrate environmental and structural considerations more fully with the implementation of the CAP; (c) to ensure a fair income for farmers; (d) to simplify agricultural legislation and decentralise its application; (e) to improve food safety; (f) to strengthen the EU position in the new round of WTO negotiations and (g) to stabilise agricultural spending in real terms at its 1999 level.

The Rural Development Regulation (Council Regulation 1257/99) (EC 1999c) has been added to the Agenda 2000 package for agriculture. This 'second pillar' of the CAP is designed with the objective of securing the future of the Community's rural areas by promoting: (a) the accompanying measures introduced in 1992 (early retirement, agri-environmental provisions, forestry); (b) measures to diversify agricultural holdings (support for processing and marketing of agricultural products, training, promotion, diversification of agriculture, etcetera); (c) structural adaptation of holdings and measures to keep young people in rural areas and farming; (d) the inclusion of these measures in Rural Development Plans devised by member states and approved, together with the other accompanying measures set out in the 1992 reform, by the European Commission (these plans, intended to simplify agricultural legislation and decentralise its application, are innovative in integrating various policy instruments better and enhancing synergies among different measures).

As we can read in Dabbert *et al*. 2004, in July 2002 the European Commission published its mid-term review of the Agenda 2000 framework (EC 2002b). This Commission paper proposed a number of far-reaching changes to the CAP framework which may have profound implications for European agriculture and organic farming. The Commission proposed introducing a single decoupled income payment per farm. This payment should be based on historical payments. 'Decoupled' means that the farm will receive the payments regardless of what it produces. Any payments are subject to compliance with specific environmental, animal welfare and food safety requirements (cross-compliance). A further element of the mid-term review with specific relevance to organic farming is the inclusion of a new food quality chapter in the rural development regulations, which should encourage 'farmers to participate in quality assurance and certification schemes recognised by the member state or the EU including geographical indications and designation of origin and organic farming. In addition, the Commission suggested introducing support to producer groups for promotion activities - and here too, organic farming is mentioned among other types of farming. The final important element of the mid-term review proposals is a quasi-mandatory farm audit which - according to the Commission - should help farmers to 'become aware of materiel flows and on-farm processes relating to environment, food safety, animal health and welfare, and occupational safety standards'. The Commission also proposed to introduce compulsory long-term set-aside (replacing rotational set-aside) regulation of arable land.

According to Dabbert *et al*. 2004, the general line of the Commission proposals, namely to decouple large parts of the payments within the so-called 'first pillar' of the CAP and to shift more money to the second pillar for the benefit of the rural development programmes, is a step in the right direction. It is evident that the decoupled payment per farm is only a transitional solution and would lead, in the long term, to the abolition of this payment, because it is hard to imagine that politicians would be able to sell such 'payments for doing nothing' to taxpayers. As a transitional policy element it makes sense, however, because it paves the way for gradual change and leaves time and scope for the farmer to adapt to a new policy environment. Furthermore, such decoupled payments are much more compatible with WTO requirements than the current policy. It can be expected, however, that in certain regions, especially in those where arable land is used with low fertilising intensity in conventional production, land use might drastically change: set-aside might become the most profitable land use in those areas.

The exemption from the mandatory set-aside obligation for organic farmers is an advantage, as long as mandatory set-aside is applied. This raised concerns voiced in the political discussion that cross compliance might make it necessary to phase out some of the grassland support within agri-environmental programmes.

The new provision of the rural development policies provide a number of options potentially benefical to organic farmers. The main concern is whether regions will actually provide sufficient funds for co-financing. There is a potential danger of increasing differences in organic farming support between regions, with negative implications for interregional organic competition (Haring, *et al*. 2004).

As organic farms receive less paymentss under the CMOs it should be less affected by modulation. On the other hand they should benefit from measures financed by modulation which makes modulation a measure beneficial for organic farming (Haring, *et al*. 2004).

The market reform of the milk sector is of high importance for organic farming. A decrease of milk prices received by organic farmers is likely a consequence of the reform. Many organic farmers depend more strongly on ruminants for their farm organisation, which implies a less flexible reaction of organic farms to decreasing milk prices than for their conventional counterparts. In this respect the reform might disadvantage organic farmers. However, the actual effect will depend on the development of the premiums paid at the market for organic milk.

The future reform planned for the olive sector would be quite beneficial for organic farming (Haring, *et al*. 2004).

Information programmes, including support for research, advice, training and demonstration farms as well as consumer information, are also seen in many countries as essential counterparts to the other programmes (Lampkin *et al*. 1999) and have been supported at EU level through the Framework research programmes and national funding, as well as through the provision of specific training and advice under the Rural Development Programme.

The overall conclusion on the CAP Reform 2003 is that the positive effects for organic farming seem to clearly outweigh some negative effects. Thus the reform has the potential of supporting a continued positive development of organic farming. However, to what extent this potential can be realised depends on many details (e.g. of the RDPs) not knownn at the time of this study.

The future perspectives of organic farming within the framework of Agenda 2000 largely depend on the further recognition of its role in achieving the overall policy and agricultural objectives of environmental cross-compliance, rural employment, reduction of surpluses, food safety and other related welfare issues.

In October 2004, the European Commission agreed on the "*European Action Plan on Organic Food and Farming*" . Therein the Commission proposes detailed measures for a Common Policy for the Organic Farming and Food sector, with the aim to support the development of the sector. This Action Plan provides Member States, for the first time, with a common framework for the further development of policies for Organic Farming. For Member States, this provides an opportunity to stronger emphasise Organic Farming in their revised Rural Development Plans and develop national Action Plans for Organic Farming. The revised Rural Development Programmes were finalised by the end of 2005 by the Member States.

2.6.7 Analysis of organic farming's contribution to rural development

Organic farming is a topic that raises considerable passion; the enthusiasm of its proponents is only matched by the scepticism of its detractors (Colman 2000). Rural development is scarcely less contested and complex. The mixture of the two topics cannot but be highly contentious (Lobley *et al.* 2006). The question of rural development has been raised by the travails that have afflicted many rural communities, as economic recession in the farming industry, contention over the meaning of rural life and the role of farmers within it, and disquiet about questions of food quality (Lobley *et al*. 2006).

2.6.7.1 Features of rural development The purpose of this topic is to synthesise the literature on farm-centred rural development and draw out the role of organic farming within it, in line with the preceding sections in which we argued in favour to the potential role of organic farming and its distinct impact from that associated with non-organic farming (see Table 2-6). It should not be assumed that organic farming necessarily achieves all these goals. Nor is it a 'shopping list' for rural development but rather a framework for exploring the impacts of different types of farming activity (Lobley *et al*. 2006).

2.6.7.2 The role of agriculture in the rural economy and rural development For most purposes the term 'rural economy' is a shorthand way of considering a range of 'economies' rather than discussing a discrete, unified and homogenous economy (Winter and Rushbrook 2003). These various economies may share similar characteristics but may also be quite different in terms of economic linkages with the wider economy and reliance on different sectors, for instance. For the purposes of this thesis both the spatial aspects of rural economies and the linkages associated with economic activity are important in promoting rural development. The shift in rural policy towards more of a territorial focus and the growing policy emphasis on regional and local sustainable economic development is associated with the development of research addressing interactions within 'local' economies. Some writers, such as Courtney and Errington (2000) have considered local economic linkages although the renewed focus on the local economy extends beyond traditional concerns with economic multipliers and has witnessed a resurgence of interest in the importance of clusters, networks and innovation (Winter and Rushbrook 2003).

There is consensus about the fact that agriculture can no longer be reduced to the mere production of raw materials for the food industry. The agricultural policy of the European Commission has thus engaged in the concept of multifunctional farms and established the 'second pillar' of the Common Agricultural Policy (CAP), i.e. the Rural Development Regulation (Lowe *et al*. 2002). This approach addresses the multiple roles of farming in society, since agriculture also provides public goods and services.

The nature of agriculture's contribution to the rural economy, its spatial differentiation and its dynamic change is now widely recognised by researchers. Lobley *et al*. (2002) confirmed spatially differentiated process of restructuring and identified a 'restructuring spectrum' that can be used to describe the complex pattern of restructuring in the recent past and the future. This ranges from 'static businesses' making little or no change, to 'agricultural integrators' developing non-farm business closely linked to farming, on and off farm 'diversifiers' and 'leavers'. Such trajectories of restructuring at the farm and regional level have different economic, social and environmental implications beyond the farm into the local rural economy (Lobley *et al*. 2006). Moreover, as Tigges *et al*. (1998) argue, agricultural restructuring is more than its economic change as it is also about social relationships of place and gender.

Research interest in rural economies inevitably promotes discussion of 'rural development', although as van der Ploeg and colleagues concede: "Any critical discussion of these issues must begin with the

acknowledgement that, as yet, we have no comprehensive definition of rural development" (van der Ploeg *et al*. 2000:391).

Table 2-6. Features of Rural Development

Feature of Rural Development	Farm Aspects and Examples
Employment	Employment of the farm family Other employees in the farm business Employment created off the farm
Generating and retaining value in the rural economy	High value products On-farm processing On-farm retailing Co-operative processing/selling Diversification
Skills, knowledge and networks	Fostering of innovation Specific product knowledge New networks Human capital
Community	Solidarity Social capital Social networks Vibrant community life
Environmental goods	A high quality farm environment Aesthetic aspects of landscape

Source: Lobley *et al*. 2006

Sotte argues that rural development "means providing non agricultural functions and employment in rural areas, fostering exchanges between sectors and territories, and thus breaking both isolation and mono-functional agricultural specialisation" (Sotte 2002:12). Errington on the other hand, adopts a less overtly anti-agriculture definition arguing that rural development involves "premeditated changes in human activity which seek to use resources within the rural arena to increase human well-being" (Errington 2002:11). In this sense, rural development is about more than promoting employment and generating income.

While it is true that a universally accepted and comprehensive definition of rural development does not exist it is nevertheless possible to identify some of the factors and processes associated with rural development. Before considering the characteristics of rural development it is important at this stage to distinguish between broad based development within the economy as a whole and rural development closely connected to farming. Whilst the rural economy is certainly much wider than agriculture alone, this research is principally concerned with farm businesses and allied enterprises. Thus, we do not consider directly the role of other businesses in the rural economy. To that end the perspective advanced here is one of 'farm centred' rural development, which places farmers and farm businesses as central actors in the process of rural development. This is not to claim that they are the most important, or only actors, but rather for a number of reasons that they are well placed to deliver rural development. This is particularly the case of rural Albania.

According to van der Ploeg and colleagues, farm businesses have particular advantages in being involved in the process of rural development for three interconnected reasons (van der Ploeg *et al*. 2000). Firstly, as long term residents in rural areas it is in a farmer's self-interest to run a viable business, within a vibrant economy. Whilst this has a certain validity (and reflects some very longstanding arguments about the beneficial role of farmers in society) it also ignores the potential limitations the self-interests of established farmers, which may not necessarily result in a rural economy of benefit to the wider community. Secondly, it is argued that farm businesses offer the opportunity to realise new enterprises in a step-by-step fashion. Farmers and their household members are able to 'toe-dip' into new opportunities, minimising business risks. While it is true that farming provides a resource base from which to experiment with new economic activities, equally, it could be argued that many existing farmers are in a poor position to respond quickly to market signals. Despite powerful driving forces evidence suggests that recent agricultural restructuring has been confined to a relatively few farms and that a distinct group of 'resistors' are particularly unwilling to quickly re-configure their resources and realign their businesses (Lobley and Potter 2004). Finally, van der Ploeg and colleagues argue that farmers are able to use their pre-existing networks of contacts to take advantage of opportunities. This presupposes that these networks are pertinent for taking up these possibilities and that farmers are part of such networks. Evidence from a review of the Peak District Integrated Rural Development programme (Blackburn *et al*. 2000) suggests that farmers operated within well defined but narrow networks and that, in contrast to non-farming residents, these networks were not particularly useful in terms of broader rural economic and community development.

A broader perspective on the potential contribution of farmers to rural development derives from growing interest in ideas surrounding the concept of economies of scope (Renting *et al*. 2003). Originally a contested concept within economics, economies of scope refer to the synergistic benefits and cost savings made through producing at least two different products. Other rural social scientists have developed a broader interpretation of the concept but it is still concerned with exploiting synergies, in this case, between the different aspects of a farm business. For example, the quality of the semi-natural environment of a farm can become the reason for an agri-environmental agreement, the basis of a farm holiday business and part of the marketing of the particular products from the farm. The farm business needs to be able to reconfigure itself to take advantage of these potential synergies that, of course, requires change by the business operators as well. In turn, they may have to draw on the ideas and knowledge of their friends, acquaintances and even customers to see the possibilities. Realising that such interactions exist and then being able to exploit them becomes one of the key aspects of farm centred rural development.

Current declining performances of modernized agriculture and its negative side effects have been experienced worldwide. Such negative impacts have completely transformed the rural landscape and the habits of rural populations in many parts of the world. As a result, the notions of 'sustainable agriculture' and 'sustainable rural development' have emerged. They adopt the 'endogenous development paradigm,' give prominence to low-input, resource-conserving farming systems, and emphasize the multifunctional role of agriculture (Pugliese, 2001).

The broadly accepted concept of 'sustainable rural development' merges different theories and experiences. It mainly combines the 1980s theories on sustainability [World Conservation Strategy (IUCN, UNEP and WWF 1980); World Commission on Economic Development (1987); Pearce, Markandya, Barbier (1989); Pearce and Turner (1990); Ekins and Max-Neef (1992)] with new strands of thought in rural development resulting from criticism of the modernization of agriculture occurring in 20th century. During the past decades, increasing environmental awareness and progressive acknowledgement of the complex, imperfectly known and predictable interaction between economy, ecology and society generated the notion of 'sustainable development.' According to it, economic growth should

be pursued concomitantly with the improvement of human welfare and the conservation of natural resources. The intrinsic diversity and complexity of ecological and social systems should be preserved in order to increase or, at least, not to undermine their stability and erode their resilience. Moreover, sustainability relies upon the co-evolutionary interpretation of reality. Assuming that people and nature co-evolve under the influence of mutual selective pressures, it fosters an understanding of the world, which acknowledges the complex and dynamic interrelatedness of evolving patterns within and between systems (Norgaard 1992).

Sustainable rural development can be defined as a process of multidimensional change affecting rural systems (Polidori and Romano 1996). Economic growth, improvement of social conditions, and conservation of natural values are all equally important features in sustainable rural development, which should be induced according to a bottom-up approach, through a participated and sustainable use of local endogenous resources (environment, labour force, knowledge, patterns of production, consumption, and communication). Sustainable rural communities should be able to recognize and internalize exogenous chances of growth, i.e. markets, policies, and technology opportunities, properly integrating and balancing them with the need to preserve and enhance rural specificities and diversity (Long and Van der Ploeg 1994). Farmers and rural people are thus assigned an active role and identified as primary economic and social actors in the determination of their development options, in the control over the development process and in the retention of the benefits.

Among the differentiated developmental paths currently available to rural areas, in the sustainable approach agriculture still plays a central role, despite its declining importance worldwide in economic terms and for the labour market. In the era of the 'pluralization of the rural' (Jones 1995), i.e. of the increasing number of discourses, interests, and conflicts centred around rural areas, defined as 'arenas' (Lowe *et al*. 1993), farmers are just one of the players negotiating spaces and power, together with landowners, new residents, conservationists, tourists and entrepreneurs of the secondary and tertiary sectors. A gradual shift from a sectoral to a spatial focus is affecting the rural economy resulting in a progressive detachment from the exclusive production of food and fibre and in a concomitant increasing reliance on a service economy, tailored on the new needs of urban society (Lowe 1996). Although some of the latter (e.g. housing, business relocation, and certain kinds of outdoor recreation) cannot be easily reconciled with the carrying out of farming activities, agriculture can still have a pivotal and catalyzing part in meeting other equally relevant demands placed on the countryside: rural tourism, the preservation of rural landscapes and traditions, environmental education, the production of healthy, typical food. In this respect, the very role of agriculture is in the process of being redefined and farmers are being called upon to acquire new skills and competences (Hervieu 1997). Thus, the diversification of rural economy and agricultural pluriactivity are important developing trends, which can be strategically devised to transform urban-rural geographical adjacency into sustainable multifunctional linkages.

Coherently, sustainable rural development only relies on resource-conserving forms of agriculture and implies the respect and the enhancement of local agricultural knowledge and traditions and of farm organizational patterns. These are described by van der Ploeg (1994) as local 'styles of farming,' exclusively resulting from a historically and geographically contingent process of social construction and negotiation in which rural actors interact with external driving factors. However, according to Goodman (1999), sustainability would entail re-conceptualizing the 'styles of farming' in terms of relational co-productions of nature and society. Such a change in perspective would recognize both human and natural agents as active relational entities and surmount the reductionist dichotomy between nature and society, which still characterizes many current analytical perspectives.

2.6.7.3 Organic farming and rural development Despite the debate about the definition and na-

ture of rural development and the role of farms within it which we attempted to reproduce above, farmers clearly can and do play a role, shaping the environmental context and often providing the location for rural development through diversification. In the case of organic farming in particular, although considerable research effort has been devoted to exploring the farm level impact of conversion to organic production, there has been very little investigation of the contribution of organic farming to rural economies and the rural development process. To date, impact on labour use appears to have generated most interest but, as Morris *et al*. (2001) argue, research on the wider "social impacts of organic farming is very limited". Nevertheless, from the limited body of research that has been carried out and the much more expansive literature on rural development, it is possible to identify a range of ways in which organic farming can contribute to rural economies.

Against this background, organic farming is sometimes promoted as a vehicle to deliver safe, high quality food from an enhanced farmed environment while at the same time stimulating rural development through enhanced employment. In such a highly charged situation arguments rapidly polarise and it is important that any analysis rests on a set of clear arguments and robust evidence.

Organic farming is supported at both EU and national levels for "the provision of nonfood services that the public expects from farmers" and because it can provide "public goods linked to rural development" (EC 2002, p. 5). It is generally agreed that organic farming is an environmentally-friendly production system (Hansen *et al*. 2001; Lotter 2003) and more sustainable than most conventional farming systems (Edwards-Jones and Howells 2001; Rigby and Cáceres 2001; Mäder *et al*. 2002). It can have a positive impact on the cultural landscape (Tress 2000). It is seen as creating employment opportunities in rural areas (Knickel and Renting 2000) and increasing farm income (Nieberg and Offermann 2002) thereby securing farm livelihoods. Organic farming can benefit the regional economy (Pugliese 2001; Schermer 2005), as has been demonstrated in a number of studies (Knickel and Renting 2000; Banks and Marsden 2001; Kratochvil *et al*. 2003; Smith and Marsden 2004). Most of these focus on the on-farm value-added, particularly through on-farm processing, direct marketing and the ability to reap price premia. Indeed, organic farms seem to be "particularly well geared to vente directe" (Battershill and Gilg 1998). Organic farming is thus often seen as a category of alternative or short food supply chains (Renting *et al*. 2003), as a form of high quality differentiated production that has the capacity to respond to consumer concerns, such as those related to food safety (Zanoli 2004). Short food supply chains are seen as a 'defence' strategy against the prevailing trends of globalisation and further industrialisation of markets and their impact upon broader aspects of rural development (Marsden *et al*. 1999).

This conceptualisation of organic farming as enabling farmers to bypass the supply chains of the (increasingly powerful) corporate retailers represents an important opportunity. However, although the indirect or 'softer' contributions of organic marketing initiatives to rural development outside of farming can be considerable, e.g. by supporting and embedding confidence and raising regional profile, their direct contribution is often relatively modest (Midmore *et al*. 2004; Schmid *et al*. 2004). In addition, such an opportunity is not open and/or attractive to all farms. On-farm processing and direct marketing is increasingly constrained by rules and regulations, e.g. on hygiene, packing and labelling, which constitute high entry barriers. It is also unclear how much product can be sold directly by farmers before that market is saturated. Marketing weaknesses may result in organic products being sold as conventional, thereby forfeiting the price premium (Kirner and Schneeberger 2002; Schneeberger et al. 2002).

The question then is whether organic farmers who market their products (mostly) through corporate retailers can still contribute to rural development. This issue is particularly pertinent in countries like Austria, where organic farming is no longer a niche and a large share of organic produce is funnelled

through conventional food chains and sold in supermarkets. Is the support of small-scale agriculture and rural development compromised, as Banks and Marsden (2001) suggest, once organic products are subsumed into mainstream food supply networks? Or has a lack of attention to dynamic aspects, the farm family and the interrelationships with the rural economy, together with a singular focus on the food chain, resulted in a one-sided perspective of the potential impact of organic farming on rural development?

Exploring the strategies pursued by farmers through their conversion to organic farming may shed some light on these issues. Reaching a better understanding of the aim and purpose of engaging in organic farming as well as the impact it has on the use of farm resources, can help assess the degree to which farmers engage in new relations with the rural and urban population. A number of studies have analysed farmer motivation for conversion (Fairweather 1999; Padel 2001; Schneeberger and Kirner 2001; Tress 2001; Darnhofer *et al*. 2005; Diamond 2005). Most of these focus on farmers' perception of organic farming techniques and market potential of organic products and do not investigate the farm development strategy that a farmer is pursuing through conversion. Moreover, these studies tend to focus on food production and do not take a comprehensive approach to all activities engaged by farm household members. The study presented here investigates the extent to which farmers use conversion to reconfigure farm resources and take advantage of the opportunities offered by rural development activities. In light of the presented examples, implications for the potential impact of organic farming on rural development beyond the food chain are discussed.

The perceived link between organic farming, on-farm processing and direct marketing, and the potential contribution of short food supply chains to rural development, make it even more attractive to policy makers. However, studies show that realising organic farming's potential to add on-farm value through alternative food chains is often problematic. As powerful retailers get involved in organic supply chains, value-added benefits may shift away from the farm and the rural location (Smith and Marsden 2004). This has led Banks and Marsden (2001) to suggest that as organics becomes subsumed into mainstream food supply networks, local economic development and the support of small-scale agriculture may lose out.

2.6.7.4 Convergence of organic farming and sustainable rural development Van Mansvelt and Mulder (1993) argue that "the potentials of organic types of agriculture make them valuable options for a sustainable agriculture and rural development." As we read in Pugliese's paper "*Organic Farming and Sustainable Rural Development: A Multifaceted and Promissing Convergence*", this patent connection between organic farming and sustainable rural development has been progressively acknowledged. However, the study of the relationship between the two represents a stimulating branch of research yet to be fully covered by the literature (Marino 1996/b). This is the point from which the endeavour of this paper originated to propose a specifically tailored framework of analysis and interpretation of such an interesting convergence. The central purpose here is to derive new illuminating insights, to foster a better understanding of the role that organic farming can play in rural development processes.

Interestingly, framing organic and rural systems in terms of evolutionary perspective and network analysis approach provides an adequate analytical lens to recognize and focus on some crucial features that characterize modem organic movement and make its contribution to sustainable rural development distinctly important. Specific reference is made here to: organic farming practitioners and institutions' experience and skills in community building, animation and revitalization; the vision, intrinsic to the organic philosophy, of farming systems as social and natural co-evolving constructions; organic systems' embodiment of an alternative, multivalent form of agriculture, weaving new spatial and functional linkages between rural and urban areas and communities (Pugliese, 2001.

In the light of considerations given in the previous sections, convergence of organic farming and sustainable rural development can be efficaciously, albeit not comprehensively, described by focusing on four interlinked broad concepts, namely innovation, conservation, participation, and integration (Pugliese 1999). Such key ideas, constitute a fourfold grouping of the main aspects of sustainable rural development; at the same time they represent the cornerstones of a four-component framework within which organic farming contributions to sustainable rural development may be conveniently discussed. Using Puglieses' culinary metaphor, it can be stated that, innovation, conservation, participation and integration are all essential 'ingredients' in the 'recipe' of sustainable rural development: organic farming represents a viable, flexible way to combine these four ingredients, leading to balanced, appreciable results.

In the following paragraphs, the contribution that organic farming can offer to the achievement of sustainable rural development is analyzed in greater detail. Every single 'aspect-ingredient' is discussed in a sub-section in which, firstly, compliance of organic farming with sustainability principles and with the recommendations of current rural policies is outlined. Secondly, specific reference is made to some interesting examples of urban-rural initiatives in the EU contexts in which organic farming is a central, catalyzing element.

In this respect, European 'rural mosaic' (Hoggart, Buller and Black 1995) offers a great variety of experiences to study and to replicate. Thanks to the conspicuous financial and human resources mobilized by recent policy interventions, urbanized and peripheral ruralities are currently experimenting various paths of sustainable rural development, different solutions to local and global rural challenges. Since in an increasing number of initiatives organic farming plays a crucial role, precious lessons can be drawn from such a rich laboratory of ideas.

2.6.7.4.1 Innovation Much of the previous research on the development of organic farming has implicitly or explicitly adopted an innovation diffusion approach (Ilbery et al 1999, Colman 2000). While the simple innovation diffusion model has been subject to considerable academic criticism it nevertheless highlights a range of factors concerning organic farming and organic farmers that may help contribute to rural development (Padel 2001). Innovation represents a strategic element for the development of agricultural and rural systems (Marotta 1995). Innovative solutions are no longer chiefly derived from technological progress, as was the case during the modernization of agriculture, but are also the fruit of new methods of organizing and managing processes and information within and between sectors; within territories and between them (Pugliese 2001). Innovation is also identifiable in the reintroduction of elements, spaces, and people into different positions, integrated in renewed relational strategies. In innovation theory, 'innovators' have higher levels of educational attainment and more links outside of their immediate community, whilst 'early adopters' are more closely aligned to their communities and include 'opinion formers' who influence others in the community.

A wide range of studies have used this model as the basis for examining the diffusion of organic farming. Certainly, most studies have found organic farmers to be better educated, younger, more likely to come from urban backgrounds, and have less farming experience (Dabbert et al 2003). There are persistent, but largely unsubstantiated, indications that gender is also an important factor with women playing a leading role in the decision to convert or as business principals (Invetheen 1998).At this stage, the multifunctional role attributed to agriculture and to the farmer of the new century comes to mind. Of some interest is also the redefinition of the duty of the institutions operating in agricultural areas and that of the rural inhabitants, the former increasingly referred to as catalysts (i.e. enablers) rather than executors of development, the latter, encouraged to become key players in their own progress and to resolve at least part of the problems encountered through self-help initiatives and

voluntary work (Pugliese 2001).

Direct references to innovation are present in almost all EU interventions. Particularly in the rural field, the Community LEADER initiative supports pilot, innovative, transferable programmes, able to indicate new paths of rural development through the involvement of Local Action Groups. According to the LEADER approach, the innovative dimension of actions must go hand in hand with the availability of local resources, that is, with the geographic, economic and socio-cultural context of the rural area in question, when suggesting new solutions to local specific problems, and in taking advantage of new development opportunities: rural tourism, enhancement and marketing of local agricultural products, environmental and socio-cultural facilities and so on.

Innovation is, first and foremost, a mental attitude, capable of combining creativity with the spirit of initiative and taste for risk (EC 1995). Policy makers see innovation as a positive force of change and revitalization in rural areas. It is, in contemporary circumstances, the only alternative to rural decline and abandonment (Galston and Baehler 1995), the only way to properly exploit what is currently perceived as the rural comparative advantage: natural amenities, cultural traditions, unstressful rhythms of life, genuine food, unpolluted environment, closer interpersonal relationships, and open air entertainment. Innovation is a 'must' of endogenous development that just depends on the local capability to produce innovative solutions to current rural challenges by combining internal resources and external opportunities (INEA 1999).

Against this backdrop, organic farming can represent an important element of innovation in rural areas. Organic farming is an innovative way of envisioning and practicing agriculture. Its innovative force manifests itself in various aspects. Organic farming is a complex innovation, requiring a high information level and low technological input. It does not affect production techniques exclusively, it rather influences farm management in its entirety (Padel 1994; Padel 2001). Like organic pioneers, modern organic farmers are innovators. A greater openness to change, a lower average age and a higher education level often distinguish them from their conventional colleagues and usually make them more prone to accept external challenges (Padel 1994; Padel 2001). Therefore, organic people can have an important role in animating rural areas. Many marketing channels and initiatives of organic products are innovative. Among these, for example, we find variants of direct sales, which exist alongside, more traditional methods used by the first organic farmers, like sales on the farm premises and local markets (Steele 1995). With the development of the sector and its official acceptance into mainstream agriculture, the access of organic products to "impersonal sales circuits, similar or parallel to those of conventional products" is being favoured (Miele 1996). At the same time, the alternative channels of direct sales have increasing success among those consumers, ever more interested in installing a personal relationship with the farmer, and thus, a more direct link with the food being consumed and with the environment in which it is grown. Significantly, organic food has increasingly established itself as an important multivalent vector of such urban-rural issues.

It is not by chance that in the United Kingdom, the Soil Association (1998) defines these forms of direct sales as local food links and actively sustains their diffusion through the implementation of sustainable growth principles stated in Agenda 21 on the basis of the positive impacts on health, economy, and environment. The Soil Association is currently carrying out development projects for the local economy in some rural areas, in which local food links represent a valuable marshalling element within local communities and, consequently, an effective stimulus for further local connections and development investments; in Feenstra's words (1997), "a logical and appropriate way to revitalize a community," An example of such projects is the business support programme developed by the East Anglia Food link (1997). The project, which has been funded through EU Objective 5b scheme, aims to promote production, processing, and consumption of organically produced food from the East

Anglia Objective S region".

On a more general note, direct marketing, like other activities that the organic farmers are often involved in, is the expression of a decisively innovative and stimulating environment-agriculture-territory relationship, capable of drawing urban and rural aspects together, thereby contributing to rural development and utilizing precious rural resources in a sustainable manner (Pugliese 1999).

Padel (2001) argues that organic farming is not typical of technical innovations, describing it as an information based innovation with those engaged within it actively seeking sources of information about organic farming outside of the mainstream of agriculture and from others involved in organic farming. As a consequence, knowledge networks take on greater significance within organic farming:

> *Because of the bottom-up character of organic farming, the technology transfer extension approach that is frequently associated with adoption research has to be rejected. Instead a broad vision of a knowledge network with the involvement of producers, advisors and researchers should be aimed for.* (Padel 2001:51)

Whilst Padel looks to the diffusion of a technology, others (e.g. Morgan and Murdoch 2000) look towards the networks that lie behind innovation in order to explain some of the characteristics of organic farming. According to this perspective, networks are the mechanisms that bring information to organic farms from a trusted source, whether this is from within or outside the organic movement. Thus information regarding organic farming will flow through both weak and strong ties in personal business networks that may be obtained either by actively seeking and then talking to the individual that possess the required knowledge or through routine passive conversations without pre-determined intentions (Lin 1999). As such, networks are about who you know, who you talk to, and perhaps most importantly who you trust. This last quality is established between individuals who are well known to each other, on the basis of long-term acquaintance, and have demonstrated the necessary credentials to render each other reliable (Giddens 1990). Consequently, the social space of the farmer is an important aspect in decision-making and innovation, particularly regarding actions involving taking advice or seeking information regarding organic farming.

There has been a recent emphasis put upon the importance of farm businesses making use of information and knowledge to adapt to the changing needs of the market place. This has been part of a broader thrust of moving towards a learning or information based economy. The benefits for the rural economy would be obvious, with farm businesses being more efficient, responding quickly to market signals and that success, in turn, boosting the rest of the economy. Often policy programmes designed to help boost the skills of farm business have sought to lift whole areas through widely available skills and education packages.

The knowledge needs of organic farmers are viewed as being very particular as it requires the combination of knowledge about their specific farm and access to a body of knowledge that is relatively specialised. This has been characterised as a knowledge 'deficit':

> *In other words, the knowledge deficit needs to be understood as an effect of the systemic bias against organic farming, a bias which ranged from the formal organs of the state to informal, but no less important, peer pressure from intensive farmers at the local level.* (Morgan and Murdoch 2000:167)

This deficit, paradoxically, benefits the organic farmer as in seeking this knowledge they become

engaged with the wider networks of organic farming and they become 'knowing agents' (Morgan and Murdoch 2000). Organic farmers are able to blend their local, context specific knowledge with that of the wider networks of organic information to their own benefit. They are able to 'exercise more autonomy and control over both their relations with other actors in the food chain' (Morgan and Murdoch 2000:168). This would suggest that organic farmers are at the leading edge of a rural learning economy and gain greater autonomy through taking responsibility for their own learning.

Whilst Morgan and Murdoch present a picture that they admit to being simplified for explanatory purposes and focussed on the organic sector, more general empirical studies suggest that the flows of information are different and are used tactically by individual farm businesses (Egdell 2000). Rather than information being shared or cascaded, it is viewed as of being of use in the competition with their neighbours. The focus on contextual, applied knowledge tends to discount the importance of the formal education, not necessarily related to the business or agriculture, in providing new sources of information, new flows of income or perspectives. At the same time most of these accounts of a learning economy take an individualistic perspective, viewing the farmer as the learning agent rather than considering the household and the resources that it holds as a unit. Knowledge and information can allow farm and rural businesses run more efficiently, seek out opportunities and be more flexible. The capacity to learn is as important as the ability to gather information but the combination of the two is obviously crucial. It is unclear whether there is a consensus on the way in which farm businesses gather and use information, let alone how the conditions for that to be improved are created.

2.6.7.4.2 Conservation In rural areas, both the conservation of natural and cultural resources and the promotion of economic development pose a number of problems. Conservation policy is made difficult by number of factors, including the heterogeneity of wildlife and landscape and different social assessments of their value. Rural development policy suffers from pro-agricultural bias within the CAP, changing approaches, and in some cases inherent economic disadvantages. Moreover, much conservation is a joint (and often multiple) product alongside commercial or semi-comercial agriculture or forestry, so that separate identification of conservation performance is exceptionally difficult, and it is even hard to identify what is conservation policy.

The concept of sustainable rural development conciliates adherence to the market together with rules that safeguard the equilibrium and stability of rural and agricultural systems, thereby proposing itself as a conservative process of change (Iacoponi 1996). Therefore, conservation and innovation are not necessarily opposed elements. Adequate conservative strategies do not necessarily act as an obstacle to change and growth; on the contrary, they can help avoid the erosion of the rural comparative advantage and limit unwanted transformations. Through the conservation of local distinctive features, the development process can sustain itself in the long term, given that it becomes well-rooted in the area in which it takes place, through the use and enhancement of local resources, thereby contributing to identity construction and preservation, as well as to the reproduction of local specificities on which it is based (Pugliese 2001).

According to the position adopted by EU institutions, conservative processes of development must be promoted in rural areas; policies must protect the quality and the amenity of rural landscapes, preserve the natural and cultural diversity of European ruralities, while improving rural well-being and meeting the multiple urban demands on the countryside (Cork Declaration 1996). A particularly interesting aspect, in this sense, is the role designed for organic farming in many protected areas by some European projects (Willer 1998), which overcome the distinctly restricting approach adopted for years and are guided by a principle regarding 'environmental conservation carried out through use.' Therefore with the intention of producing natural and human landscapes that 'live and work,' organic farming has been accepted in several parks and natural reserves as an activity compatible with

the conservation of the natural specificity, but also capable of generating income and development, avoiding the mummification of these areas (Pugliese 2001). For instance, in 1998, in the Rhon biosphere reserve (middle Germany) several projects were set up to make the maintenance of agriculture acceptable to conservationists, attractive for farmers and economically viable, so that it did not have to depend on state subsidies for landscape conservation and management. Among the various initiatives, a special programme for local organic dairies was launched, thus demonstrating that organic farming has a potential for environment conservation and viable agricultural business (Pugliese 2001).

Another similar case is that of many Italian national and regional parks, organic farming receives specific funding from the Park Authority; collective marketing strategies (e.g. label creation and promotion) are implemented for organically produced typical local products, and various recreational and cultural initiatives are organized around organic food values, local rural traditions, natural beauties (AIAS and Prober 1999). Hence, local productions, amenities, and cultural identity are preserved, while new business options and jobs are created, transforming protected areas in true 'working landscapes.' The potential of this development model proves to be equally promising in other unprotected rural areas. The environmental field is certainly the area in which the conservative feature of organic farming is most highlighted. Evidence shows "that many organic farming systems have lower impacts on the environment than comparable conventional systems" (Kristensen 1999).

With the aim of minimizing environmental impacts (IFOAM 1998), organic farming refers back to the habits and traditions of our farming forefathers, deriving information from their wisdom and profound knowledge of the agri-systems and their mechanisms. Thus, apart from the valuable natural resources, organic methods may contribute to conserve and revive 'local styles of farming' (van der Ploeg 1994), conveying modern, innovative meaning and purpose to the tradition which produced the agricultural landscapes that both rural and urban communities so admire today and do not want to disappear. They recover and improve past agricultural customs, contributing to the handing down of local traditions, renewing them and adapting them to current demands, and thus transforming them into revitalization and development instruments (Pugliese 2001).

2.6.7.4.3 Participation According to Pugliese, local players' involvement and participation in the growth process is a key factor in the endogenous development paradigm, which is primarily a people-centred development model. According to the model, far from being simply the target group, and sometimes the victims of externally induced development action, local people must become the protagonists of the development work carried out in the area where they live and work. Therefore, they should be helped to identify their needs and viable solutions. At the same time, they should be encouraged and enabled to contribute to the planning and implementation of the development process. To this purpose individual and collective empowerment strategies should be adopted and a new role designed for national and local institutions, which are called to use public resources to catalyze action in the private sector and in local communities. In this respect, some critical points have to be considered: the diffusion of a pro-growth attitude, the building of a well-organized partnership of local leaders and actors, the emergence of private and local authorities' entrepreneurship, the stimulation of indigenous talents, the awakening of local solidarity, and the mobilization of voluntary efforts (Galston and Baehler 1995).

The European Conference on Rural Development, which announces that: "the emphasis must be on participation and a bottom-up approach, which harnesses the creativity and solidarity of rural communities…Rural development must be local and community-driven" (Cork declaration 1996) clearly states the relevance of 'interactive participation' in rural development.

The participatory approach, which implies awareness of self-potential and dynamism, is an innova-

tive key element of current rural policies, designed to react to rural stagnation and marginalization, to benefit from multiple urban-rural inter-connections and to keep under control the globalizing trends progressively affecting rural territories. For rural actors and communities, the participatory attitude is a crucial pre-requisite to internalize (and localize) chances of growth provided by technology, the market, and policies. It is the only way to become leading figures, conscious of their own development in what can be defined the 'co-evolution (Polidori and Romano 1996) of the local context together with external trends.

Moreover, in her paper, Pugliese states that hard work, autonomous efforts and integrated, collective initiatives are required for a successful organic management of ecosystems and farm enterprises. As a consequence, organic farming indirectly teaches people to have a more conscious connection with nature and society resulting in a pro-active attitude and a participatory approach in the growth of their own business and community. Organic farming requires a high level of commitment, both at the cultivation stage, because it cannot resort to the easy chemical solutions available, and at the commercialization stage of the products, which need adequate promotion and marketing. Increased technical and entrepreneurial skills are thus necessary in organic farming to result in an economically viable venture, considering the fact that we are dealing with an emerging sector and market. These circumstances make well-organized and careful farm management essential and obtainable only through constant and hard work, which concomitantly induces awareness of self-potential and of internal and external difficulties.

For many farmers, going organic means regaining possession and pride of one's role as a producer, that is, as an expert of the land, its mechanisms and its products (Tovey 1997; IAMB 1999). In order to live and work in harmony with the surrounding nature, as the organic philosophy envisages, farmers must know and respect the relations between ecosystems, use them wisely for their production purposes, while actively taking part in their preservation and enhancement. Organic farmers, therefore, no longer consider themselves only passive beneficiaries of Community support, nor simple executors of instructions of pesticide and fertilizer producers, but rather as rural experts, stewards of invaluable knowledge and experience.

In this respect, the distinctive relationship that organic farmers establish with technical advisors is of some interest. It does not entail the unilateral teaching-learning relations imposed by modernization, on the contrary it requires a strong co-operation and the integration of farmers' practical experience with experts' scientific knowledge to study ecosystem mechanisms on the land and plan a rational use for it (Schiatti and Tellarini 1996). Moreover, everyday difficulties allow organic farmers to understand the relevance of integrated and collective action to guarantee an environmentally sound agriculture and viable organic business. They perceive that individual efforts are essential but not enough. Thus, in order to rapidly and efficiently solve the technical and legislative difficulties encountered in the application of organic method, as well as in product selling, farmers and other organic operators are induced to adopt pro-active and participatory attitudes and behaviours and are encouraged to become involved in collective initiatives (Pugliese 2001).

Such circumstances suggest that an interesting correlation exists between the adoption of organic practices and the development of networking activities among converted farmers who share interests and worries and cannot make use of conventional agriculture networks. Compared to the latter, organic networks appear more intricate (Marino 1996ja) and are based on commercial relations, requests for information and technical support and participation in development and socio-cultural initiatives (Lampkin *et al*. 1999). Therefore, Marino (1996jb) asserts, organic agriculture seems to have a valuable ability to activate people, favouring the participation of those adopting it and creating the conditions for increased commitment and involvement. This occurs to the farmers and to the

consumers of organic products; the latter, in many cases, support this type of farming, not exclusively through careful and conscious purchasing, but also through direct participation in numerous projects associated with the diffusion of organics. In short, it can argued that rural development needs animators, leading actors and catalyzing figures that organics can undoubtedly help to generate and mould. As a matter of fact, people affiliated to the organic farming movement often have important roles in various rural development initiatives (Lampkin *et al*. 1999).

2.6.7.4.4 Integration The new Common European Agricultural and Rural Policy that is emerging, inspired by the Agenda 2000 (EC 1997) and the Cork declaration, adopts a programmatic strategy based on the logic of ' integrated rural development.' This recognizes that agriculture is but one in a bundle of factors affecting rural development. Thus, agricultural and rural policies must necessarily be included in global programmes contributing to the growth of the local system as a whole (Buckwell and Sotte 1997). "Rural development policy must be multidisciplinary in concept, and multi-sectoral in application, with a clear territorial dimension' (Cork declaration 1996). Since EU strategies for rural areas are based on a flexible and endogenous model (Iacoponi 1996) and assign a central and pivotal role to farming and related activities, a careful diversification of rural economies and a reorganization of the agricultural sector are highly important in furnishing a vital and dynamic impulse within the local system. From this perspective, depending on the endogenous potential, the development of a whole area may opt for agribusiness, agri-tourism, agri-environ- mental, agri-craftsmanship or agri-industrial sectors, or move concomitantly in several directions that can be integrated with and strengthen one another (Marotta 1995).

In this context, organic farming provides interesting opportunities and an intrinsic ability of integration with the territory and with other sectors of the economy. From a strictly agricultural point of view, organic farming represents a strong reorganization stimulus for farms and intensification stimulus for the production pro- cesses (in an eco-compatible sense), thus opposing the gradual re-structuring of farms and the simplification of crops favoured by previous European policies (Santucci 1996). Moreover, in the organic sector there exists, an interesting specific drive to local vertical integration, apart from the obvious benefits in terms of economy of scale. The value of the hard work and commitment required to obtain genuine, tasty and environment-friendly organic productions need to be guaranteed and maintained in the further phases of the chain. This is possible only through consistent processing activities able to preserve and enhance, in processed products, the biological and ethical quality of original organic raw materials; coherent promotion and marketing strategies that are specifically planned to obtain satisfactory market results as well as to transfer the organic message to consumers and to promote the rural territory of origin, its people, its traditions. Organically produced food is very often also typical of the area it comes from. A successful example of local vertical integration in the organic sector is represented by the Alce Nero agricultural cooperative which received funding through the LEADER initiative to develop an integrated system of production, processing and marketing of organic cereals in the Marche region (central Italy).

In relation to the integration with the other components of the local socio-economic systems, organic farming holds the advantage of already operating according to a holistic approach and is capable of transferring it from crop and pest management to other areas of activity in which the modern organic enterprise is often involved: tourism, catering, environmental and food education, enhancement of local products etc. In addition, organics is an emerging sector, progressively organizing and structuring itself. Such a condition almost automatically encourages the creation of synergies with other sectors for promotional and development purposes. Integration with the surrounding area and other activities is in many ways a spontaneous strategy for the organic movement, fostered by the dynamism of its people and the systems-based approach that distinguishes it. The vast number and variety of projects and initiatives that orbit around the diffusion of organics are proof of this. In this respect, it

is worthwhile to mention the 'Organic farming and rural Ecodevelopment' project funded, in Sardegna (Italy), through the LEADER II programme. The strong co-operation between the local organic community and other individual and collective actors with different, though converging, interests and competences is an important distinctive feature of the project which represents a successful replicable model of integrated rural development built around the diffusion of organic farming.

2.6.7.5 Social networks in rural areas The centrality of the co-evolutionary paradigm in sustainability theories has interesting methodological implications for the investigation and interpretation of rural contexts and processes. Co-evolutionary theories underpin some modern rural sociologists' evolutionary perspective and their use of the network analysis approach for the exploration of rural systems. Evolutionary ideas conform to the 'integrative' vision of reality implied by sustain ability (Dovers and Handmer 1992) and provide scientists with a coherent and powerful research approach to address sustainable development issues. In particular, the evolutionary perspective allows to develop a holistic understanding of processes occurring in a specific context. At the same time, it enables to capture a dynamic perception of the continuous, unpredictable transformations undergone by the various components of the analyzed system and to explore the complexity of their multiple interactions.

Rural researchers are increasingly interested in the role of networks and the associated concepts of embeddedness and social capital (Falk and Kilpatrick 2000; Murdoch *et al*. 2000; Winter 2003). Drawing on these concepts, economic behaviour is no longer viewed simply in narrow economic terms. Rather, the innovative capacity of an individual enterprise is viewed as being linked with the associational capacities of those controlling it. Entrepreneurial skill is not seen as being held by an isolated individual but is located in a cluster of other people with whom businesses operators can collaborate with, share knowledge and trust. This means that the transaction costs of the business are lowered, with skills being developed in particular areas where these networks exist and innovation stemming, in part, from the flows of information between such businesses. Interest in social relations inevitability brings the concept of community into play although the term community can be something of an analytical whitewash that obscures as much as it illuminates.

Community is a frequently ill-defined term referring to notions of settled populations with "a wide variety of kinship, social and political links plus a cultural awareness or identification with the local geographical area" (Curran and Blackburn 1994:18). That said the observation that the connections between people, and the collective actions of people who share some bonds are important is one that is hard to ignore. As has been implied in the discussion above, these bonds and connections are seen as of central importance in the process of rural development. For many commentators the presence of community is an unalloyed public good that brings forth flows of trust, solidarity and security.

Social capital is defined as "the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalised relationships of mutual acquaintance and recognition – or in other words, to membership in a group" (Bourdieu 1986, 248). Social capital is a way of conceptualising the social resources that an individual holds. From the perspective of the individual these resources require them to be part of a group and recognised as such, as well as having a set of social skills and competences to mobilise them. Quickly it becomes apparent that most people belong to more than one group and that each group may be of different importance and scale. In addition, some people have more social capital than others and such capital can ebb and flow.

As with most concepts, academic researchers frequently contest both the nature and benefits of social capital. Indeed, it is possible to distinguish between different types of social capital and to recognise that it has a 'dark side'. Putnam (2001) argues that it is possible to distinguish between bonding

social capital and bridging social capital. The former is the social capital that binds people together, and the latter that which allows individuals to form new relationships and share with those beyond their immediate group. Or as Putnam describes it, "Bonding capital constitutes a kind of sociological superglue, whereas bridging social capital provides a sociological WD-40" (Putnam 2001:23). These material metaphors also serve as a warning, as too much glue can prevent movement and change, whilst those too loosened will not be able to experience the surety and support of the network. Possession of social capital is not in-itself sufficient; it is the form and the use of these competences that is of importance. Bonding capital creates the fellow feeling of a tight group but it also explicitly serves to exclude those outside of the group. A certain degree of exclusivity is the definition of a group, but it may lead to practices of exclusion that are less socially desirable. Bridging capital is in part concerned with the flow of new information, as the most challenging and new ideas will come from outside of the group. Thus, social capital provides the conceptual bridge between the individual and group or networks in which that individual is involved and in doing so is closely connected to the concept of embeddedness.

In modern industrial societies a multitude of actors is engaged in the policy-making process. Public actors, such as state governments and administration, as well as private actors like interest groups and other non-governmental organisations interact with each other, thus forming a network in which policy issues are discussed and decisions are prepared (Birle and Wagner, 2001). From a policy analysis perspective, such networks are a meso-level concept, as distinct from a macro-level and micro level concept (Marsh, 1998).

Table 2-6. Characteristics of a Social Movement

Characteristic Aspects of a Social Movement	**Constituent parts**
(1) Informal interaction networks	Interaction between individuals, groups and organisations. Range of networks from loose to dense Precondition and setting for (2)
(2) Shared beliefs and solidarity	Symbolic redefinition New collective identity
(3) Collective action focusing on conflicts	Promotion/opposition to change Contestation of a social stake
(4) Use of protest	Solidarity Social capital Social networks Vibrant community life
Environmental goods	Unusual political behaviour Frequent protest activity

Source: della Porta and Diani, 1999

At the micro level, individual actions and decisions of network actors will have an impact on how a network develops. And the network structure will open up options for actors or constrain their activities. At the macro level the broader political and economic structure in a country will influence the development of policy networks (Thatcher, 1998). Networks are likely to influence policy outcome at this level that, in turn, will feedback on the broader context of the policy network (Daugbjerg and

Marsh, 1998).

Allason *et al*. (1994) demonstrate that such an approach can be conveniently applied to investigating the changes currently affecting rural spaces and communities. It offers scope for a unified vision of these profound, interrelated processes, leading to the integration of economic and ecological concerns into social analysis. According to the same authors 'the rural' is a 'complex, dynamic, open system,' "made and remade by a complex amalgam of the social, the economic, the natural, the technical, the local and the global." Within the rural economy it is possible to identify a number of interacting social, economic, natural, cultural and political sub-systems, which are conceived of as undergoing a process of mutual co-evolution. In such systems, "open to the exchange of people, goods, services, information and so on," actors and agents are necessarily bound into fluid and changeable networks.

More specifically, drawing upon the work of Callon (1986), Latour (1987) and Clark and Lowe (1992), Murdoch (1994) proposes the concept of a "hybrid, composite network, made up of heterogeneous materials, including humans, non-humans, texts, technical objects, money, etc."; in other words, a system which integrates the social, the policy, and the technical networks, plus natural and inanimate elements (Ray and Woodward 1997). Thus, to a certain extent, the rural economy can be perceived as the result of the co-evolution and intertwining of these systems of relations. Against this backdrop, the network analysis approach can be used to understand how agents and actors become incorporated into these relations, how key actors come to exercise power over others, how they use heterogeneous materials to struggle, dominate or enroll others (Murdoch 1994). The network analysis approach allows researchers to follow the process of network building and to observe how actors and systems co-evolve.

In this light, together with evolutionary formulations, the network analysis approach constitutes a flexible, multidisciplinary framework to conceptualize and investigate rural issues and their implications for sustainable development. In particular, it may be argued, the evolutionary notion of 'the rural and the network analysis approach illustrated so far can be conveniently adopted to study specific rural phenomena characterized by dynamism, intense networking, and multivalence of involved actors and interests. The recent, broad and rapid spread of organic farming is markedly one of those.

In recent academic research on the economy of rural areas there has been a resurgence of interest in the importance of clusters, networks and their role in rural development and innovation (Winter and Rushbrook 2003). The strengthening of local ties is seen as being a prerequisite for the formation of a stronger rural economy with the benefits of local enterprise cascading into the rest of the rural economy. This takes the study of endogenous development beyond the consideration of economic multipliers alone to consider the importance of a whole range of interactions and transactions, which may strengthen the local economy (Courtney and Errington 2000). In turn, this explicitly links rural development with the concerns of social capital and embeddedness, (see above) which focuses on the creation of bonds between groups of people resident broadly in the same area. High levels of social capital would foster innovation; this however would be dependent on a cluster of relatively well-embedded and networked firms or individuals to be observable. In such a cluster, norms would be set that promote creative flows of thinking, prioritise new flows of information and lower the social and economic costs of co-operation. However, as Winter and Rushbrook (2003) comment in their recent review of the literature about the rural economy, little of the research on rural business communities "is grounded in empirical sociological research within business communities" (Winter and Rushbrook 2003:40).

Mark Granovetter (1985) is widely regarded as writing the seminal paper on the role of embeddedness in economic behaviour. In simplest terms, the embeddedness perspective points to the recogni-

tion that economic interactions are also related to non-economic connections (including non-business connections). Individuals are not free of social relationships. They are embedded in a community and linked to others through networks of association (professional and/or social): "in other words, economic connections are embedded in social, political and cultural relations and structures. Indeed, strong political and social links are seen as especially critical for models of industrial development that have a strong local component" (Curran and Blackburn 1994:93). In such a situation bonds of trust and affection will develop and Granovetter argues that these relationships can lower the cost of transactions in the market place. If I know someone for years and live beside her, I will do business with her more easily and quickly than I would with a stranger. So, embeddedness may aid economic efficiency.

At the same time it is important to recognise that tightly socially bonded groups may be less reactive to changes and external stimuli because of those tight connections. Tightly bonded, inward facing groups can foster inertia rather than the dynamism associated with innovation and development. Granovetter (1985) observed that innovation often stemmed from new information and such knowledge was most likely to come from associates who were infrequently seen. Friends and acquaintances that are only occasionally contacted are more likely to be the purveyors of novel information and their importance is that role. Granovetter's concept of the strength of weak ties has an obvious parallel to the role of bridging social capital in that being able to reach beyond the group has benefits. Granovetter's insight is that in assessing an individual's relationships it is important to map it as comprehensively as possible as it will be the outliers who are often of greatest importance.

2.6.7.6 Organic farming policy networks According to the analysis of Moschitz and Stolze, 2006, organic farming policy networks are not far developed where this policy domain is comparatively "young". First, the EU-level network of the discussion on the EU Action Plan for Organic Food and Farming is small and loose. Second, they found large and/or dense networks in old EU member states and Switzerland (CH) whereas in new EU member states they are smaller and relatively loose.

Based on the aforementioned author's study, at the EU level, the IFOAM EU Group as the only organic farming organisation at this level is recognised broadly as the representative for organic farming and the network is strongly centralised around this actor. However, its resources are limited. As a consequence, its central role in the network cannot fully be transferred into a strong impact on EU policy outcome and the network structure might indeed constitute more a constraint than an option for a successful lobbying for organic farming policy by relying on a poorly-equipped actor.

At the national level, we find the organic farming organisations in different positions of the organic farming policy networks (Moschitz and Stolze, 2006). The national networks furthermore differ according to whether or not the central position is taken by an actor alone or shared with other actors. We can thus identify an order of countries with respect to the potential of organic farming organisations to influence policy outcome. Organic farming organisations have the highest "political" potential in CH, the Czech Republic (CZ) and Denmark (DK) where they hold the central position in the network as monopoly. However, this potential is limited in CZ where the network as a whole is still relatively loose. This group is followed by Germany (DE), Italy (IT), Austria (AT) and England (ENG) where the organic farming organisation shares the network centre with another actor. The organic farming organisations' potential for influencing policy outcome is limited in Hungary (HU), Slovenia (SI), Estonia (EE) and Poland (PL), as they do not play a central role in these networks.

Thus, is concluded that analysing the relations between institutions engaged in organic farming policy reveals how this policy field is structured and who the key players are. For this reason, social network

analysis is part of the methodology used in this research.

Given the discussion earlier in this sub-section about the importance of clusters and networks in the discussion of the economic contribution of farm businesses, and specifically organic farms to the process of rural development, the tools and insights of social capital can be seen to be of immediate importance. For example, a study of innovation in Italy illustrated this as families sharing close networks of association moved from supplementing their agricultural incomes in the 1950s through to operating leading edge business by the end of the century (Cooke and Morgan 1998). These tight clusters of businesses were able to remain competitive by being able to associate with one another easily and quickly, sharing skills and information. These horizontal networks, in part, run counter to the standardisation and integration suggested in vertical networks, and to date most examples are based in rural areas with an economic stake in agriculture.

In the case of organic farming, a number of researchers have pointed to the propensity of organic farmers to cluster together (Ilbery *et al*. 1999) while Padel and Lampkin (1994) highlight the role of wider social networks. Given the importance of separate infrastructure for the storage of organic milk and grain, or for abattoirs to be cleaned down before slaughtering organic animals, there are important practical reasons for organic farmers to collaborate. Equally, solving problems on the farm and remaining within organic standards may require the support of other organic farmers. The other benefit is that of example and encouragement, particularly when the sector was very small other people would have been an important support.

Other evidence certainly suggests that a failure of organic producers to cluster together and to develop networks of association can endanger farm survival. For example, Rigby et al (2001) report that: "In specific areas where the critical mass of organic producers required to make the transportation and processing of their products economical did not exist, producers faced severe difficulties" (Rigby *et al*. 2001:606). The benefits of clustering and networking went beyond the economic though: "The dangers of geographical isolation were not simply in terms of marketing but also in terms of information and advice on the practicalities of production" (Rigby 2001 *et al*.: 607). Importantly, not only do Rigby and colleagues identify the role of networks but they go on to argue that organic and non-organic farmers operate within different networks. Unfortunately, given their limited data and sample size, they were not able to offer more substantial examples that the ones above. What is clearly demonstrated by all of these studies is that organic farmers have practical reasons to be spatially close to one another.

As with any community there are boundaries, there is a 'them' and us', but people also leave and enter a community. As this research is focused on farm centred rural development it is important to consider the population dynamics of farming communities i.e. entry and exit from farming. It has long been known that farming has a 'top heavy' age structure as farmers often demonstrate a reluctance to retire from active farming. With many family farmers being involved in passing the farm business between generations, so business planning is closely aligned with the life course of the family. It is important to understand the dynamics of entry into farming to know something of how the community operates.

For example, in the recent ADAS report on 'Entry to and Exit from Farming the in the UK' the authors explore the age profile of active farmers, which they confirm is significantly older than the rest of the workforce (ADAS 2004). The average age for a farmer in England is 55 years, which is comparable to the other UK nations, but the age structure of the farming population is older than comparators such as the rural or urban self-employed. Not only are farmers older but also they have often been engaged in the farm business for a long period, with the average date of entry being 1968.

Almost one in four (23%) of farm business has a decision maker involved with it over the age of 65. By comparison 3% of the general workforce is over 65. Farming is characterised by an aging population in control of the business, although it is acknowledged that younger farmers often carry out much of the day to day work.

Definitions of what constitutes a 'new entrant' to farming differ. Given the propensity for families to pass farm between generations it is possible to distinguish between 'intergenerational entrants' (where the occupation of farming as well a frequently the farm itself has been passed between generations), a 'new entrant' (someone who has never farmed before and does not come from a farming family) and a 'recent new entrant'. For the purposes of the most recent ADAS report it was defined as those who "entered farming in the last five years via various routes including inheritance (new and succession), farm purchase and/or inheritance, share farming/contract farming and farm manager employment" (ADAS 2004:22). Regardless of the definition employed it is apparent that the entry into farming is very low. The authors of the ADAS report found that only 1.4% of respondents had been a farmer for less than five years. In total their best estimate is that between 1.4% and 2% of the farming population (including successors) were new entrants in the last five years. Taking the more restrictive definition of being the first generation to farm, less than one in ten of all farmers were the first in their family to be farmers. Either indication suggests that a very low number of people enter the industry on a regular basis.

Not only are rates of entry in to farming very low but so are rates of exit. It is difficult to measure exits from farm business as the business may end but the family retains the ownership of the land and is able to start again, or wind-down the business to a very low level. However, data on VAT de-registrations provide some indication of exit from farming. By comparing VAT de-registrations over the nine years to 2003, a period covering a severe farming recession, it was apparent that the mean annual rate for agricultural businesses was 3.9% compared to 9.7% across all industries and 14.7% for Hotel and Catering businesses. Obviously not all businesses need to register for VAT but as the authors comment: "There is also an underlying expectation, from what has been mentioned before on business success rate that this difference would be greater if all businesses were recorded, including those too small to register." (ADAS 2004:37)

The inertia of the farming population itself suggested in these figures also has implications for business behaviour. While in many ways the farming community is very stable, this stability could mitigate against much change occurring within it. With low levels of physical/occupational mobility and high levels of intergenerational transfers, the bonds in farming communities in some ways should be very strong. Based on the earlier discussion of social capital and embeddedness, the low levels of people entering the industry would suggest that the opportunities for most members of this community to have new flows of information and to be exposed to new and innovative ways of thinking would also be very low.

2.6.7.7 Economic impacts of organic farming on rural development It is almost received wisdom amongst the organic research community and bodies that promote organic agriculture that, in addition to its undoubted environmental impacts; organic farming contributes to rural development through a distinctive contribution to local economies and employment. Evidence of the actual role of organic farm businesses in local economic development however is scarce.

2.6.7.7.1 Farm business purchases Analysis of purchasing links provides a method of exploring the extent to which farms (or indeed, any business) of different types are connected to local economies. There are a number of ways in which the concept of economic connectivity can be ap-

proached. Earlier studies of economic linkages (e.g. Curran and Blackburn 1994) focused on the proportions of sales and purchases by businesses within certain localities where as Errington et al. (Errington and Courtney 2000; Courtney and Errington 2000) extended that approach to include the monetary values of sales and purchases. Following the work of Granovetter and others reviewed earlier in this Chapter, Lobley et al. 2006 in their research on "*Organic Farming Impacts on Rural Development*" extended this approach by collecting data on the networks and embeddedness of respondents as well as sales and purchase data. In measuring economic connectivity (both in terms of purchases and sales) data was collected on the proportion (by value) of sales/purchases made by a business locally, regionally, nationally, internationally and also the actual value (totals and means) of these economic transactions. Consequently, it was possible to distinguish between businesses that are 'highly connected' in terms of the proportion of their sales and purchases made locally but which nevertheless make a relatively small impact due to low sales and purchase values and business which may be associated with a greater local impact even though their business is orientated towards more distant markets. Their results were in marked contrast to those from other studies, which suggest that agricultural businesses are not well integrated into their local economies (e.g. Courtney and Errington 2000). Possible explanations for these findings are related to the definitions of 'local' employed in that research with a ten mile radius to define 'very local', with the county boundary used to delimit a wider local area. In hindsight, while pragmatic and easily understood by respondents, perhaps neither are ideal and changing the definition of local will clearly have a impact on results.

2.6.7.7.2 Labour use on organic and non-organic farms One of the most common claims made for organic farming in a rural development context relates to employment creation. Quite simply, employment is necessary in order to earn income to purchase other goods and services. In addition, employment also brings with it a range of less tangible benefits such as social contact and a feeling of self worth. While employment is not the only goal of rural development, it can be seen as a principal means of meeting several objectives. In their research (Lobley *et al*. 2006) one implication is immediately clear - organic farms 'punch above their weight' in employment provision. They account for less than half the sample but more than half of all employment recorded and despite operating smaller farms (in terms of area) organic farms employ more people per farm. However, while absolute numbers of people employed may be taken as an indicator of rural development impacts at the farm level, it obscures differences in terms of full-time labour, part-time, causal and seasonal employees.

2.6.7.7.3 Generating value: farm business sales So far the analysis has considered economic impacts in terms of injections of money into the local economy though purchases of inputs and services and employment creation. It is also necessary to look at sales as a indication of the ability of farms to generate value in the economy and in terms of economic connectivity.

On the basis of this measure, Lobley *et al*. 2006 found that organic farms are no more connected to their local economy than non-organic farms and the value of their sales is less. One interpretation of these results given by the authors is that on the basis of this measure, organic farming does not lead to a benefit to rural economies over and above that of conventional agriculture. Despite the increasing importance of the 'local food' market and the greater use of local and direct sales routes by organic farmers, a lower proportion of their sales are located in the local area. One explanation may relate to the definition of local although an alternative explanation is that treating both organic and non-organic farms as a homogenous mass obscures important distinctions which may be revelled by exploring differences associated with farm type clarifications or indeed alternative methods of categorising farm businesses.

Further analysis indicates substantial differences, in terms of economic connectivity, between organic

and non-organic farms that are ostensibly of the same type. And, as with purchases, there are considerable differences between different types of organic farm.

It is apparent from the analysis presented by this example that both organic and non-organic farms generate a considerable amount of economic activity in terms of sales, purchases and employment. The employment dividend associated with organic farming in previous research for the UK case is reflected in the current sample. However, it is clear that much of this relates to the greater use of casual labour, which may be less desirable from a rural development perspective, although without knowing the other employment opportunities facing casual staff it is not possible to fully assess the implications of this finding. What is clear is that organic farms are more likely to employ non-family staff and for some organic sub-sectors (e.g. dairy and mixed) employees are paid more than their non-organic counterparts. On the other hand, family staff tend to take lower wages than both non-family employees and their non-organic counterparts.

In terms of the sales and purchases of the two groups of farms in the Exeter study, the organic farms generate higher sales values when expressed on a hectarage basis but in terms of economic connectivity with the local area there is little difference between organic and non-organic farm businesses. That said, greater differences are apparent when looking at different types of organic and non-organic farms (e.g. organic horticulture farms are more closely connected to their local economy than other organic farms and non-organic horticulture farms). The wide variation both within the organic sector and between farms of a similar a type in the organic and non-organic sector is explored more fully in the following chapter.

2.7 Future potential of organic farming

There is currently renewed debate about the potential for organic farming in Europe. The spread of BSE to other European countries and the outbreak of foot-and-mouth disease in early 2001 have led to many calls for a fundamental review of the future direction of agriculture, including an increased role for organic farming. This has created the moves to develop a European Action Plan for organic farming supported by several agriculture ministers at an international conference held in Copenhagen in 2001 (MFAF, 2001) and at the June 2001 Council of Ministers meeting in Gothenburg. Now, all European Member States have developed action plans for organic farming integrated with the European Action Plan, which fully utilize the support available under these measures and aim to ensure a better balance between support for supply growth through the agri-environment programme and, demand growth through market-focused measures.

Several countries have set different targets for organic farming to grow to 10 or 20% of total agriculture by 2005/2010. Although growth trends in individual countries have varied considerably, with periods of rapid expansion followed by periods of consolidation and occasionally decline, overall growth in Europe has been consistently around 25% per year for the last 10 years, i.e. exponential growth. Continued 25% growth each year would imply a 10% share of EU agriculture managed organically by 2005 and nearly 30% by 2010. Clearly this rate of growth cannot be sustained indefinitely; a slower rate of growth of 15% each year would still result in 5% of EU agriculture by 2005 and 10% by 2010.

In 2004 in Europe, 6.5 million hectares were managed organically by around 167,000 farms. In the European Union more than 5.8 million hectares are under organic management, and there are almost 140,000 organic farms This constitutes 3.4 percent of the agricultural area (Yussefi, 2006). The country with the highest number of farms and the largest organic area is Italy. The main organic markets are in fruits and vegetables, fresh poultry and eggs, and fresh milk, butter and cheese, although cere-

als are important in some countries. In many countries, organic agriculture is starting to move into a "mature" phase of development – integrated into the mainstream agri-food chain. In most countries of Europe and particularly the European Union organic farming is supported with legislation and direct payments.

A target of 20% by 2010 at the European level would imply a seven-fold increase in the size of the sector, resulting in ca. 1 million holdings and 30 million ha managed organically, and a retail market potentially worth more than 50 billion Euro. This level of growth has significant implications for the provision of training, advice and other information to farmers, as well as for inspection and certification procedures. It also has implications for the resourcing of existing organic support schemes under the Rural Development Programme, as the cost should increase to more than 6 billion Euro annually. It is an open question whether policy-makers, farmers and consumes will respond to the challenge to make this sort of expansion possible.

2.7.1 EU enlargement

The enlargement of the EU has both political and economic consequences. Agricultural policy is one of the critical issues in accession negotiations. The impact of enlargement on the organic farming sector is difficult to predict. The adoption of the EU body of legislation in accession countries will most likely result in some kind of support for organic farming under the agri-environmental programmes and possibly under other measures set out in the Rural Development Regulation. The existence of a wide spectrum of low-input farms in these countries might lead to a considerable number of farms opting for conversion: this may increase market pressure within the EU and dampen the interest of farmers in Western Europe in organic farming.

The transformation process started in the early 1990s and, at the same time, organic farming started as a new movement in most of the CEECs. From this point of view, organic farming was emerging as a new sector and, in many cases, even as new farms during the process of privatization, restitution and transformation. The process of integration with EU policies brought additional factors to those driving forces (Prazan *et al*. 2005). There are numerous factors, which could influence the new emerging sector and farms. Property rights changes (Swinnen and Mathijs 1995) during this period and availability of key production factors are especially crucial (Luc D´Haese 2003).

The transformation process led in some cases to conditions, which could prevent an effective implementation of some policies. For example, land ownership and tenure could prevent having secure five year rent agreement in some areas and it could be crucial to the five year commitment in organic farming itself and agri-environmental scheme support for organic farming, too.

Organic farming in CEECs started in 1983, when the first association was born on the biological one in Hungary (Biokultura). The latest rose with the objective to produce foods without the use of chemical substances and in the following years it progressively grew up to become in the 1987 member of the IFOAM.

Few years later, analogous organizations have risen in Poland (Ekoland), Republic Czech (For-Bio), in Lithuania and in Yugoslavia. Subsequently, the fall of the regimes has simplified very much the approaching towards organic of many countries like Croazia, Estonia, Latvia, Romania, Russia and Slovakia. Not yet to a good level is instead the certification and the biological production in countries Bulgaria, Bielorussia, Bosnia and Georgia. Currently, organic farming in these countries is growing of importance but the surfaces are not so wide yet. Nevertheless, the extensive methods of cultivation used in these countries facilitate the conversion to organic farming, offering so an evident produc-

tion potential. The countries that have a proper system of national control are first of all Hungary and Czech Republic, that are also in regime of equivalence with the EU standards, followed from Poland, Russia and Slovakia. In other countries it is anticipated to brief one regulation of the biological one to government level, that should make to develop this type of agriculture also through benefits.

A key factor for organic farming development was a replacement of central planning imposed on collective and state farms and overall democracy increase in most of the countries in question. Until that time there were only a few farms attempting to start organic farming, but after 1989, the number of farms started to grow (for example in the Czech Republic). In some countries this influence was not as strong as in Poland where farms had been private for all the time and the first changes represented removal of legal, economic and size growth limits (Prazan *et al*. 2004).

According to Prazan *et al*. 2004, the same impact as on conventional farming is expected on organic farming development. In countries with a high level of collectivisation, the transformation process actually gave new chances for organic farming development. Product differentiation occurred on the market with growing competition, which again opened the space for organic farming products. In addition, in some countries (like Poland) growth of agro-tourism is frequently associated with organic farming. This combination gives a bigger chance for farmers to make a living in rural areas.

Again, following the reasoning of Prazan *et al*. 2004, in areas with difficult access to means of production (land, credits, labour), the same impact could be on organic farming. This factor could be even more important in countries and areas with an unstabilized land tenure system and newly created organic farms. Short term rent agreements could prevent effective use of agrienvironmental measures after EU accession and could discourage some farmers from converting to organic farming. Organic farmers in CEECs are suffering from lack of credits as conventional farms. During the transformation process, there is a growing population of inhabitants seeking health food as a part of life style (this trend was not possible to observe during the communist time).

The internal market for organic products is not developed yet, also because of prices being to high for the local consumers and the organic production is mostly oriented towards export. An exception is constituted from the Czech Republic, where the inside market is rather vivacious, although a discontinued supply.

The demand in these countries, although being very low, show an increase of interest toward organic products. The motivations of purchase are tied up to an application of a healthier feeding above all for their children, to health concerns and less towards the respect of the environment. It should be stated that most of consumers does not know know the true meaning of the organic products. The prevailing channels of sale are the specialized shops, selling also non-organic products, mostly of natural origin, with clients which are not very much looking for a certification label.

The great productive potential of these countries, united to costs of conversion and of production inferior to those of the countries members of the European union, would be able already to determine a strong competitive push inside the community, that would be able being amortized thanks to the parallel development of the inside markets of such countries, that they already show signals of evolution.

Policy initiatives have also been developed in several of the CEE states poised to join the EU. Examples of direct financial support to organic producers can be found already in the early 1990s in the Czech Republic. More recently, policies including direct financial support have been implemented in, for example, the Czech Republic, Poland, Hungary and Slovenia under SAPARD. Several CEE

countries have also implemented regulations defining organic farming consistent with the European Union regulations.

In most of the countries, institutional measures are in place and are regarded as relatively well implemented. Rapid increase of acreage is reported from some countries during last years. According to Moschtiz *et al*. 2004, the organic farming community has been able to develop a community based on a common understanding of standards. A common organic farming identity has been established at different levels corresponding to the differences in size of the organic farming sector. It is most highly developed in CZ and HU (which have the highest shares and strongest growth of organic farming of the accession countries), and weaker in countries with a larger number of different organic farming organisations. All in all, the organic farming community in accession countries is still quite small, and therefore acceptance by mainstream policy-makers is hampered. This is especially true when the organic farming sector is diverse and scattered over the country, as is the case in PL. This country also shows the smallest share of organic farms of all the countries in this group. With regard to the general lack of contact between the organic and general farming community, the situation can best be described as competition. With regard to the advisory system, we can find more integration into mainstream institutions and, consequently, the situation here is more one of cooperation. In countries with an umbrella organisation or one dominant organisation, the organic farming community manages to be recognised by the state to some extent and a basis for contact is created. Examples are (to some extent) EE, SI and CZ. In HU, an umbrella organisation has just recently been established and a formal basis for contact with the state has not yet been found.

In the accession countries, the organic food market is at an early stage of development, with some supermarkets only beginning to engage in the marketing of organic products. Local and regional initiatives (state marketing initiatives as well as private cooperatives) are currently playing a more important role in most of these countries. Where an organic food market has been established at all, we find a situation of incipient cooperation, as well as competition between the organic sector and the mainstream. Organic market institutions are only starting to develop. The separated sales channel of direct marketing remains important for organic producers scattered over the country. In HU, most organic products are exported and this export orientation of organic farming is reported to be the primary driving force for organic farming development (Moschtiz *et al*. 2004).

In all the accession countries, pre-accession activities play an important role for the development of organic farming institutions. Adopting EU standards also includes the organic farming regulation, and therefore the state plays an important role in all these countries by establishing structures that are compatible with EU law. In response to the EU model of agriculture, general farming policy emphasises multifunctional aspects of agriculture. The ambition of acceding to the EU thus lays the basis for state bodies to engage in organic farming (Moschtiz *et al*. 2004).

During the process of implementing regulations on organic farming in recent years, NGOs have gained influence on national policy in all countries. This influence is estimated to be highest in CZ, where organic farming has been on the agenda of state activities since the early nineties. This could lay the basis for developing creative conflict; however, the organic farming sector is still in its infancy. In cases where the organic farming community is still rather small (PL), the situation is not so clear, but tends more towards competition as contact between the organic and mainstream farming sectors is lacking. EE and SI may be found somewhere in-between, with some efforts being made to establish closer contact with agricultural policy. In HU, too, contact at institutional level between the organic and mainstream farming sectors seems to be lacking, even though the organic farming community is larger than in PL.

The development of the institutional setting in accession countries is diverse. Internal relationships within the organic farming community are purely cooperative only in CZ and HU; in EE cooperation is the prevailing type of interrelationship, whereas SI and PL both show some controversy due to differences in opinions on standards details or labels and the large geographical spread, respectively. In all countries, some relations with the state are reported, but not between organic and mainstream farming organisations. The relationship between the organic sector and the state is developing in the direction of creative conflict in CZ. In EE and SI, contact between the state and the organic farming sector is present and observers suggest that there is potential for further development. In PL and HU, state interest in organic farming still seems to be at rather a low level, and contact between the organic farming sector and the state is sparse. As regards market issues, no institutional framework has been established at national level in any of the countries. On policy issues, no institutional setting has been developed so far in EE, HU, PL and SI, but has been established temporarily in CZ in the course of implementation of an action plan.

The accession process is said to be the key event for the development of the organic farming sector in all countries of this group. It resulted in enhancing acceptance of organic farming by state bodies. Only in CZ did a key event have such significant influence on the agricultural policy that it resulted in lasting institutional change for the organic sector, namely when an action plan was set up.

Goals in Action Plans are indicating the real need for market and processing development. It could be assumed that production will grow faster than the capacity of the market for the organic farming commodities and high proportion of the production could be either sold as conventional or exported (in case all conditions for export are met).

Some policy tool types are either missing or not enough implemented in most of the CEECs to provide integrated policy measures set. For example, current institutional measures are relatively well implemented but not enough integrated with current state organisations (for example state research, education or dissemination organisations are not operating enough in OF with result in lack of research and education).

2.7.2 WTO negotiations

Organic farming policies as part of the general CAP are increasingly affected by the liberalisation of agricultural markets. Trade liberalisation takes place at three different areas: first, free-trade zones are established or extended (such as the EC); second, bilateral agreements facilitate trade between countries; and third, at global level, a further reduction of trade barriers are achieved through the WTO talks. As a result of the liberalisation policies, competition on the supply side increases, producer prices drop down and state impact on markets are reduced. The significant influence of WTO negotiations on the future of European agriculture will probably lead to a substantial reduction of market protection.

The EU approach to the WTO conflict on the domestic subsidies issue (‘green box’) is that the specific role of agriculture as a provider of public goods should be recognised (EC 1999d). Measures that aim at protecting the environment should be accommodated in the Agriculture Agreement. The same applies to rural development measures and those aimed at promoting the sustainable vitality of rural areas and poverty alleviation. Whether the EU will manage to conserve certain types of subsidies that recognise the multifunctionality of agriculture remains to be seen, but is unlikely. The term ‘multifunctionality’ may be abused occasionally in daily political life, but it remains a useful concept. Government intervention is not always a bad thing but is justified in some cases - even in cases where a distortion of trade results. The question, however, is which instruments to use to achieve this concept of multifunctionality.

The importance of WTO renegotiations for organic farming has now been recognised, but lobbying by the organic movement started relatively late. Thus the interests of organic farming are in some danger of neglect, especially if the environmental benefits of organic farming are not quantified more precisely (Einarsson 2000).

The recognition in WTO negotiations of organic farming as a producer' of valuable public goods could only increase recognition of the sector as an ecologically sustainable 'promised land' and would almost certainly lead to a large-scale uptake of organic farming in European agriculture (Zanoli *et al*. 2000). Regarding organic farming policies, liberalisation will lead to a greater harmonisation of support measures as well as production and processing standards. In the light of the ongoing talks, it is expected that agri-environmental programmes will become stronger related to desired positive effects and less trade-distortive.

The further development of WTO negotiations and their impact on organic farming seem even harder to predict than the effects of EU enlargement. While some critics claim that organic farming is a protectionist system *per se*, we see the possibility of WTO negotiations developing in a direction that would also benefit organic farming (Dabbert *et al*. 2004).

Chapter Three: Methodology

3.1 Introduction

This Chapter deals with the description of the methodologies employed under this research as well as statistical methods used.

The general research approach used under this PhD is based on the interaction between social subjects (*interactive social research or action research*: Todhunder 2001) and on a collaborative policy learning procedure (Dolowitz and Marsh 1996, 2000; Roses 1991, 1993; Stone 2003, Zerger *et al*. 2005). Interactive social research allows to involve "ordinary" people in the development and implementation of research, through the development of common knowledge and critical awareness" (Todhunder 2001). This process involves the researcher identifying the user group, working in close collaboration with the users and getting them involved in identifying research questions, in analysing research results and in their interpretation.

3.2 Methodological concepts

3.2.1 Qualitative research

Unlike quantitative research, which is orientated towards natural sciences, qualitative market and social research tends to focus on humanities. Testing hypotheses is not central, which means that researchers do not search for regularities and standardisation but rather concentrate on the need for communicability and subjectivity (Zerger *et al*. 2005). The qualitative approach aims at reaching a profound understanding of a subject area, by concentrating on discovering and reconstructing complex inter-relations of meanings (Zanoli 2004).

Reading from Zerger *et al*. 2005, in *Implementation of Policy Recommendation on Organic Farming*, qualitative research methods were developed in the social sciences to enable researchers to study social and cultural phenomena (examples of qualitative methods are action research, case study research and ethnography). Qualitative data sources, in this specific case, include participant observation, group discussion, and the researcher's impressions and reactions.

The motivation for doing qualitative research, as opposed to quantitative research, comes from the observation that, if there is one thing which distinguishes humans from the natural world, it is our ability to talk! Qualitative research methods are designed to help researchers understand people and the social, cultural and political contexts within which they live (Myers 1997).

3.3 Delphi inquiry

The choice of Delphi method came from its use in OMIaRD Project. It should be noted here that, the use of Delphi method was combined with the problem solving approach used under EU-CEE-OFP Project. This combination was considered more appropriate due to the assumed practical difficulty of organising a workshop with all the stakeholders involved in the process

The brief description of the Delphi method in the following paragraph si taken by the Delphi leaflet produced under that project. The structure and content of questionnaires are modified according to the research questions under this PhD.

The Delphi method can be described as a method for structuring a group communication process so that it allows a group of individuals as a whole to deal with a complex problem effectively (Linstone *et al*. 2002). The Delphi method of increasing understanding about the future, or complex prob-

lems involving ambiguity, is named after the oracle of the same name in ancient Greece. In essence, the Delphi process allows a group of experts to participate jointly in defining and analysing complex problems/issues where information is fragmentary or inaccessible by contributing to successive rounds of information gathering, receiving feedback and then refining the information gathering process in the subsequent round. The process is well suited to situations where perspectives might differ substantially according to background, although it does not necessarily yield a unified consensus at the end. It has the advantage that each participant can reflect on and take into account views based on the range of experience of the other panel members.

The aim of Delphi Inquiry in this research was to define priority policy areas and policy actions for both government and other stakeholders (donors, NGOs, etc.) to consider. The first round of this Delphi (see Annex 1) consisted in six open questions sent together with an explanatory leaflet (see Annex 5) to 30 experts during 2006. Particular care was paid to select expert representing all the stakeholders and interest group. Hence, experts and managers from the MAFCP, donor agencies, non-governmental associations dealing with organic farming as well as conventional agriculture, experts on agrarian policies, marketing, processors of organic food, etc. formed the panel of experts involved in the Delphi inquiry (see Annex 4). Chapter Four, Analysis of Data reports the views expressed related to the most important factors influencing organic farming development, its current state, the likely development in the next 10 years as well as policies to promote organic farming in Albania.

These results provided the basis for the development of the structured questionnaire for the second round (see Annex 2). This was divided into three thematic sections:

- Development of organic market in Albania (Section A)
- Communicating organic to consumers (Section B)
- Organic farming and rural development (Section C)
- Inspection and certification (Section D)
- Research on organic farming and food (Section E)
- Fiscal policies (Section F)
- Personal Information (Section G)

The second round is designed to consolidate and deepen insights derived from the previous round, giving experts the opportunity to re-consider their views in areas where divergence of opinion emerged in the first round, and especially to explore other ideas (policy actions). In line with the Delphi method, together with the second round questionnaire, participants received a report with the results of the first round. As the results of the second round do not show divergence of opinions, they are reported and analysed for the purpose of defining policy actions.

3.3.1 Institutional questionnaire in the third round

A third round questionnaire was used only for the purposes of institutional analysis using the methodology applied from Moschitz and Stolze (2006). The methodology employed for this purpose is social network analysis, described in 3.3.1.

In drafting the questionnaires, in general, we have followed the general concept of policy design and implementation used in the framework of EU-CEE-OFP Project. In the first round we have identified strong and weak points as well as opportunities and threats for the development of the organic sector in Albania. Moreover, experts have defined priority policy areas. The second round aim was to define policy actions (instruments) under the policy areas to address such constraints (similar to SWOT). In some cases, policy actions were identified by the experts while in other case, especially where there was no previous experience in Albania, we have provided policy actions implemented or identified

elsewere. The identification of problem areas was performed by a lateral thinking exercise (De Bono, 2003; Mind Tools, 2004; Mycoted, 2004; Richardson *et al*., 2003; Richardson, 2003). The purpose of this exercise is to adapt such policy instruments to our national circumstances. This approach to policy innovation integrates the different administrative levels of policy design and implementation and provides a platform for policy markers, sector representatives and other stakeholders.

Draft questionnaires of all rounds were circulated to the tutors and other experts for comments. All questionnaires were developed in Albanian and translated into English for incorporation into the PhD thesis.

3.3.2 Social Network Analysis

For Scot, 1992, social network analysis has emerged as a set of methods for the analysis of social structures, methods which are specifically geared towards an investigation of the relational aspects of these structures. The use of these methods, therefore, depends on the availability of relational rather than attribute data.

According to Borgatti, network analysis is the study of social relations among a set of actors. It is a field of study - a set of phenomena or data which we seek to understand. In the process of working in this field, network researchers have developed a set of distinctive theoretical perspectives as well. Some of the hallmarks of these perspectives are:

- focus on relationships between actors rather than attributes of actors
- sense of interdependence: a molecular rather atomistic view
- structure affects substantive outcomes
- emergent effects

Network theory is sympathetic with systems theory and complexity theory. Social networks is also characterized by a distinctive methodology encompassing techniques for collecting data, statistical analysis, visual representation, etc.

In Wasserman and Faust, 1994, we can find that social network analysis is based on an assumption of the importance of relationships among interacting units. The social network perspective encompasses theories, models, and applications that are expressed in terms of relational concepts or processes. Along with growing interest and increased use of network analysis has come a consensus about the central principles underlying the network perspective. In addition to the use of relational concepts, we note the following as being important:

- Actors and their actions are viewed as interdependent rather than independent, autonomous units
- Relational ties (linkages) between actors are channels for transfer or "flow" of resources (either material or nonmaterial)
- Network models focusing on individuals view the network structural environment as providing opportunities for or constraints on individual action
- Network models conceptualize structure (social, economic, political, and so forth) as lasting patterns of relations among actors

The unit of analysis in network analysis is not the individual, but an entity consisting of a collection of individuals and the linkages among them. Network methods focus on dyads (two actors and their ties), triads (three actors and their ties), or larger systems (subgroups of individuals, or entire networks.

In Freeman, we find that social network analysis is focused on uncovering the patterning of people's interaction. Network analysis is based on the intuitive notion that these patterns are important features of the lives of the individuals who display them. Network analysts believe that how an individual lives depends in large part on how that individual is tied into the larger web of social connections. Many believe, moreover, that the success or failure of societies and organizations often depends on the patterning of their internal structure. From the outset, the network approach to the study of behaviour has involved two commitments: (1) it is guided by formal theory organized in mathematical terms, and (2) it is grounded in the systematic analysis of empirical data. It was not until the 1970s, therefore - when modern discrete combinatorics (particularly graph theory) experienced rapid development and relatively powerful computers became readily available - that the study of social networks really began to take off as an interdisciplinary specialty. Since then its growth has been rapid. It has found important applications in organizational behaviour, inter-organizational relations, the spread of contagious diseases, mental health, social support, the diffusion of information and animal social organization.

Social network analysis was applied on the stakeholder level, third round of Delphi method in line with previous research (Michelsen *et al*. 2001, Moschitz and Stolze 2004). The aim of the analysis of the network of the stakeholders involved in this case-study is essentially diagnostic: in fact, its main purpose is to confirm the goodness of the choice of people interviewed, the right number of interviews and to support qualitative information by quantitative results. Nevertheless, some interesting results can emerge from the analysis that can establish for the first time a knowledge on the structure of the organic sector in Albania.

For the social network analysis of this case-study, data have been organized in a *binary collaboration matrix* . In this case study, actors have been identified, corresponding to the institutions or entities all the respondents belong to and, where a sort of collaboration exists between the agents, there is a '1' in the corresponding cell of the matrix; non-collaboration is shown by a '0' entry.

Data processing was made using UCINET 6 (Borgatti, Everett and Freeman 2002), a software for social network analysis. Social networks for the purposes of comparison between agricultural policy network analysis and organic farming policy network analysis were drawn using NetDraw.

3.3.2.1 Some network measures and their interpretation

3.3.2.1.1 Density

The density of a network is defined as the proportion of arcs (directed links) present (Keohart, 1950). It is calculated as the number of arcs L, divided by the possible number of arcs $n(n\text{-}1)$, where n is the number of nodes in the network. In a directed graph (as in our case) the density Δ is:

$$\Delta = L/n(n\text{-}1) \qquad (1)$$

The density of a network gives an idea of how much interaction takes place between actors within a network. It varies between a value of zero and one; a density value of zero indicates no links between the actors and a value of one the maximum possible links between the actors. Density is usually presented as a percentage value, where 100% would then signify that all actors are interacting with each other reciprocally.

Network actors are free to act with a narrow focus on their particular ideas without having to consider other actors in a loose network. At the same time, their options to influence policy outcome are limited, because they lack contact with other policy actors and thus might not be able to reach their

target of lobbying.

Network density also indicates the importance of a policy. Related to the present research this means in particular the importance of organic farming within the super-ordinate field of agricultural policy. If organic farming was of low interest there would not be much activity in the network, because all actors would focus more on other policy issues than on organic farming (probably except for the organic farming organization). In consequence, we could not expect much influence of policy networks on policy outcome. Outcome would rather be the result of other factors (at the macro and the micro level). Referred to Figure 1, the arrow from micro or macro level factors to policy outcome would be thicker than from networks to outcome.

3.3.2.1.2 The power of actors: reputation and prominence

Finding the actor that is most powerful or that has the strongest influence in a network is one of the primary targets of network analysis. Jansen 2003 relates to (Burt, 1977) when she presents five ways to operationalize power in the context of networks. Two of them conceive power as deriving from networks of influence while two more are related to networks of resource exchange. The fifth way combines concepts of power gained both from influence and resource exchange.

Concepts that attribute power to resource exchange networks emphasize a negative relation between network actors who compete for scarce resources. Our research, by contrast, studied networks where actors collaborate with each other. We can thus best conceptualize power on the basis of positively related networks of influence.

Reputation

One can describe power in such a network of influence simply by looking for the expression of power, that is the reputation of an actor to have influence in the network. Power thus is perceived power. We index this reputational power of an actor as P_r and define it as the proportion of interviewees who named this actor as influential for the policy in question (Sciarini, 1996).

Prominence: prestige and centrality

The second power model based on positively related networks considers those actors as powerful which exert an influence on many others. Different authors have discussed this concept and particularly Knoke and Burt (1983) contributed to the discussion by distinguishing two types of actors' power which they called prominence: prestige and centrality. An actor is prestigious when it receives a lot of ties from other actors in the network. An actor is central when involved in many ties (regardless of the direction of ties).

Prestige

A common measure of prestige is the degree centrality C_D (Freeman 1978/79). It is a local network measure of the level of activity of an actor with its immediate neighbours. In a directed graph it is necessary to consider two cases depending on the direction of the arcs between two actors, the in-degree and the out-degree. For comparison between networks of different size these measures are standardized to C'_D by dividing the absolute values by the possible maximum value of the degree which is n-1:

$$C'_D(n_i) = \mathrm{d}(n_i)/n\text{-}1 \qquad (2)$$

The in-degree, d_I, of a node n_i indicates the number of arcs terminating at this node. It describes the number of actors that name this specific actor as a target of direct interaction. Thus, we can interpret it

as an indicator of the actor's prestige (degree-prestige). The more other actors from the network name a specific one as target of immediate interaction, the higher its prestige.

The out-degree, d_o, of a node n_i is the number of arcs originating from this node. It informs about the number of actors with which one specific actor states direct interaction and can thus be seen as a measure of how pro-active an actor is in a network. However, the out-degree is not used for building a concept of power.

Betweenness Centrality

Betweenness centrality C_B (Freeman, 1978/1979) is a global network measure of the power of an actor, i.e. it measures the involvement of an actor in relations with other actors regardless the direction of relations. Furthermore it also considers indirect links with other actors (Wassermann and Faust, 1999).

Actors with a high betweenness centrality have the potential to control communication within a network and take the role of coordinators in group processes (Freeeman, 1978/1979). Hence, this measure describes the potential of a network actor to act as information broker and informs about its overall activity level. An actor is central if it lies between other actors on their shortest link (the so-called geodesic), i.e., if these two actors want to interact with each other they have to pass via the central actor. A large betweenness centrality of an actor signifies that it is between many pairs of actors on their geodesics.

Again, this measure is standardized to enable cross network comparison. For a directed graph the standardized measure of betweenness centrality C'_B is:

$$C'_B(n_i) = CB(n_i)/[(g-1)(g-2)] \quad (3)$$

$$\text{with } CB(n_i) = \Sigma\, g_{jk}(n_i)/g_{jk} \quad (4)$$

where g_{jk} is the number of geodesics linking the two actors j and k.

Regardless how power is measured, powerful actors should be able to enforce their ideas and positions in a network. Policy outcome should thus reflect the positions of these actors.

3.3.2.1.3 Blockmodels

Blockmodelling is a way of simplifying structures in a network. Actors with a similar relational profile are grouped into one block and the relation between these blocks can then be analysed (Burt, 1976, Henning, 2000). Therefore, the blockmodelling procedure is not based on the interaction network, but on the question "With whom do you share opinions towards organic farming policy and with whom do you have diverging opinions on this issue?". On the basis of the so-created blocks we aimed to highlight the different opinions that might be a source of conflict (or cooperation) in the network.

3.3.2 Participants in the expert/institutional survey

According to Delphi methodology (Linstone *et al*. 2002), the experts invited to participate in the Delphi study were able to contribute expertise on a variety of aspects of organic farming development (policy, commercial, regulation, etc.). At the same time, the process was open to experts with divergent perspectives who can generate a range of ideas. The aim of the exercise is not to build consensus, but rather to increase understanding and so it is important to include those who do not necessarily represent mainstream views; this includes 'non-organic' as well as 'organic' actors.

The expert panel was made up of representatives from each of the following five categories:
1. Organic organisations (high management, key organic farmers, processors)
2. Other (non-organic) organisations (NGOs, farming unions, donors like EU, USAID, GTZ, UNDP, etc.)
3. Research (Agriculture University of Tirana)
4. Commercial organisations (including private consultancies)
5. Government agencies (Ministry of Agriculture and Food, Ministry of Finance, etc.)

The aim was to choose an even spread of panellists from each of these 5 categories, e.g. 6 from each group. Moreover, the choice of panellists within each category was as evenly spread as possible.

In a small country like Albania and with a young sector as organic farming was rather difficult to find pertinent expertise. However, expertise on agricultural policies and rural development was of high relevance (See Annex 4 for the list of experts participating in the Delphi survey and a short description of their expertise and present affiliation). For the purposes of confidentiality, Annex 4 shows only the experts that participated in the first round (26). We considered as appropriate to omit from the list those experts who have not replied in the first round as well as in the consecutive ones.

Based on the assumption that there will not be a 100% response rate, so the 1st round started with a larger group (ca. 30). The aim is to have ca. 15 experts in the 3rd round.

Again in line with the methodology used by OMIaRd, during the recruitment process it was found useful to prepare a list of 'substitute' experts that can be approached, if the original experts contacted do not wish to participate. In this way, not much time was lost in recruiting enough experts for the Delphi to go ahead.

Sequence of activities

Invitation letter and questionnaires sent to participating experts

Reminders sent to non-respondents

Analysis of the results of 1st questionnaire

Draft the 1st report

2nd round questionnaire sent to participants

Reminder sent to non-respondents

Collate the results of 2nd questionnaire

Draft the 2nd report

3rd round questionnaire sent to participants

3.4 Farm survey methodology

A survey was undertaken designed to capture a range of organic and non-organic farming situations in different regions for the purposes of proper comparison (see Appendix 2). The goal of the survey was to gain a deeper insight into the production structures and conditions of organic farms and also to identify the organic farmer's assessment of selected aspects of policy implementation and policy induced production adjustments. In the next chapter, results of the farm survey are presented, identifying key farming and socio-economic characteristics of organic and non-organic farmers as essential background for the characterisation of organic farms and for policy formulation.

Since both quantitative and explorative information were targeted, a survey was chosen as the instru-

ment for obtaining the necessary data. Due to the multiplicity of questions of interest and the complexity of the topic, it was decided to carry out a survey with face-to-face interviews.

The face-to-face interviews have the advantage that difficult questions and control questions can be asked, spontaneous answers can be registered and ambiguous answers can be clarified with explanations. The questionnaire can be longer than in the case of a written survey since the interviewer can motivate the respondent to cooperate. It must, however, be considered, that both the interviewer and the respondent can lead to distorted results through verbal or cognitive communication barriers and through certain opinions, expectations and motives of the respondent or interviewer. In general there is uncertainty in the surveys to what extent words and actions are in accordance with each other. This aspect had to be taken into account both in the development and design of the questionnaire and in the training of interviewers.

In the development of the questionnaire, it was possible to draw upon previous work and similar surveys carried out by the University of Exeter, Centre of Rural Research in collaboration with University of Plymouth and University of Glouceschiere under a DEFRA study (see Lobley *et al*. 2006).

The development of the questionnaire took place in several steps:

- First it had to be decided which information is needed from the respondent in order to meet the survey's objectives. This decision was made in a multi-stage discursive process with the tutors and other experts as Martin Warren, Mathias Stolze and Heidrun Moschitz.
- In the next step the individual questions were formulated. Depending on the type of information being asked and the available knowledge from previous survey and literature, closed, open-ended and open response-option questions were formulated. Country specific aspects were taken into consideration. A particular challenge in the formulation of questions was to find words and formulations that could be understood easily by all farmers. Then the questions were put into a meaningful order and format.
  The draft questionnaire was again discussed with the tutors and the aforementioned experts and revised several times. The final draft questionnaire was then pre-tested. Due to the limited time available, a small pre-test could only be carried out.
- In completion, the final questionnaire was compiled and additional guidelines for the interviewers were prepared and made available to the persons responsible for the carrying out of interviews (see Annex 4).

Considering the large number of conventional farms interviewed and their location, the author has made use of other people (mainly academic staff, local experts and few students) to carry out the interviews. Each interviewer has received a proper explanation for the conduction of interviews.

3.4.1 Selection and location of farms surveyed

Considering the limited number of organic farms and the different features of agriculture in the four regions on the diversity of structural and location characteristics described in Appendix 2, no standartised method of farm selection could apply. Therefore, an attempt was made to interview all organic farmers in the country and as many conventional farmers possibly in the same area in order to have a proper comparison.

The total sample comprised 223 farm businesses in Albania, of which 34 were registered organic. On the basis of the previous analysis (Appendix 2) regarding the different types of farming characteristics, a genuine attempt was made to cover all these regions (see Figure 3-1). Considering the small number of organic Farmers in Albania, it was attempted to interview as many of them as possible.

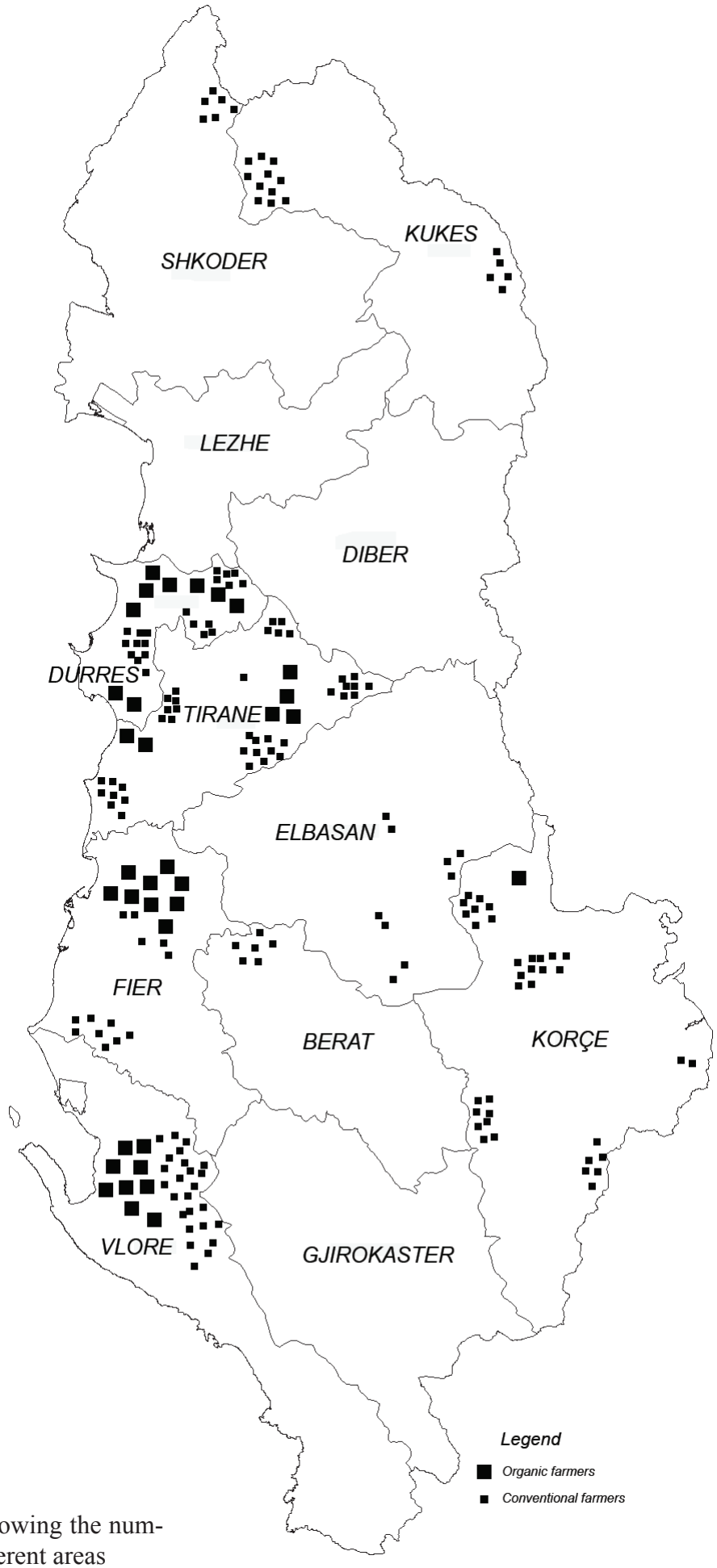


Figure 3-1: Map of Albania showing the number of farmers surveyed in different areas

The survey ran from October to December 2006 and achieved an overall response rate of 75%, of which 5% were discarded as they had been insufficiently completed. The aggregate response rate however, varies considerably between the organic and non-organic sub-samples with a 80% (34) response rate for organic farms and 75% (189) for non-organic farms. This refers to farmers who did not agree to be interviewed.

The interviews were finally conducted during November - January 2006. They generally took between 10 to 90 minutes per visit and thus were on the limit of what was possible. It must be emphasized here that the interviewed farmers showed interest in the interviews in many regions.

A particular constraint in completing the questionnaire was related to the provision of financial data from the farmers. As farmers in Albania do not pay taxes on agricultural production, they do not keep bookings, lacking accuracy on the figures given. Moreover, many do not provide these figures as they think that the scope of this interview might be to collect financial data in order to start taxing them.

In February 2007, the last completed questionnaires were received. Data entry was finalized by end of February.

In order to characterise organic and non-organic farms, the questionnaire was designed to capture a range of information about farm business characteristics, patterns of sales and purchases (the value and location of transactions), diversification activities, respondent demographic characteristics, embeddedness and participation in the local community and the extent to which formal and informal networks play an important role in the farm business (see Annex 6).

The questionnaire employed three proxy measures of embeddedness: distance from place of birth, distance from majority of close family and distance from majority of close friends.

The farm survey collected a number of different types of data that can be used as proxy indicators for various elements of social capital.

In measuring economic connectivity (both in terms of purchases and sales) data was collected on the proportion (by value) of sales/purchases made by a business locally, regionally, nationally, internationally and also the actual value (totals and means) of these economic transactions. Consequently, it is possible to distinguish between businesses that are 'highly connected' in terms of the proportion of their sales and purchases made locally but which nevertheless make a relatively small impact due to low sales and purchase values and business which may be associated with a greater local impact even though their business is orientated towards more distance markets.

3.5 Tests of Statistical Significance: A Note

On a number of occasions in this report comparisons are made between sub-groups of respondents. In these cases Chi^2 has been calculated to test the statistical significance of the difference between sub-groups. A 'significant' difference between distributions is taken to be one where there is less than a 5% probability of the difference arising by chance.

This study also notes statistical significance regarding the comparison of means between sub-groups of respondents. For these, the t-tests procedure compares the means for two groups of cases. An extension of the two-sample *t*-test is the analysis of variance (ANOVA) that tests the hypothesis that several means are equal. A 'significant' difference between means is taken when there is a less than 5% probability of the difference arriving by chance. On occasion 'significant' difference is indicated where there is a less than 10% probability of the difference arriving by chance, which is indicated by

$p<0.1$. Furthermore, while not shown, all 'significantly' different means are also reliable in terms of the test for variance homogeneity.

Tables with total rows may not sum exactly to 100% due to rounding.

Chapter Four: Analysis of Data

4.1 Introduction

This Chapter presents patterns of results and analysis them for their relevance to the research questions, while the next chapter, Chapter Five, will discuss the findings of the present chapter, Chapter Four, within the context of literature. We considered as essential to provide frequent summary tables and figures of results, in order for the readers to easily see patterns in the mass of data presented in this chapter.

The analysis of data starts with the results of different rounds of Delphi survey, followed by the results of the farm survey and is concluded with the output of the institutional survey.

4.2 Results of the 1st Round of Delphi survey

This section describes the results of the first round of Delphi survey which involved different experts (stakeholders) of the sector. Detailed description of the Delphi method is given in Chapter 3, Methodology. The questionnaire consisted of six questions, entirely open questions, and a concluding section for comments on other issues that respondents felt ought to be raised. The questionnaire itself, given in Annex 1, asked respondents to consider the following:

- What are the strong and weak points of organic farming development in Albania?
- How would you describe the current state of the organic farming in Albania?
- How do you expect the organic farming to develop over the next 10 years? (Please include important new influences not discussed in previous answers.)
- Please, give your suggestions regarding policy measures that will contribute to the development of organic farming in its actual stage by demonstrating also their potential effect?
- What advantages and disadvantages has organic farming compared to conventional farming for the economic, ecological and social development of rural areas of Albania?
- What characteristics make an organic farming policy measure successful? (Please give concrete examples, if appropriate.)

A total of 30 experts was involved in the Delphi inquiry but only 26 of them replied to the questionnaire, showing a response rate of 86,6% (see Table 4-1).

Table 4-1. Response to the 1st Round of the Delphi Inquiry

Total returns	Commercial Organisation	Government Agency	Organic Organisation	Non-Organic Organisation	Research
26	4	5	5	6	6
Source: *Delphi survey*					

4.2.1 Development of organic farming in Albania – strong and weak points

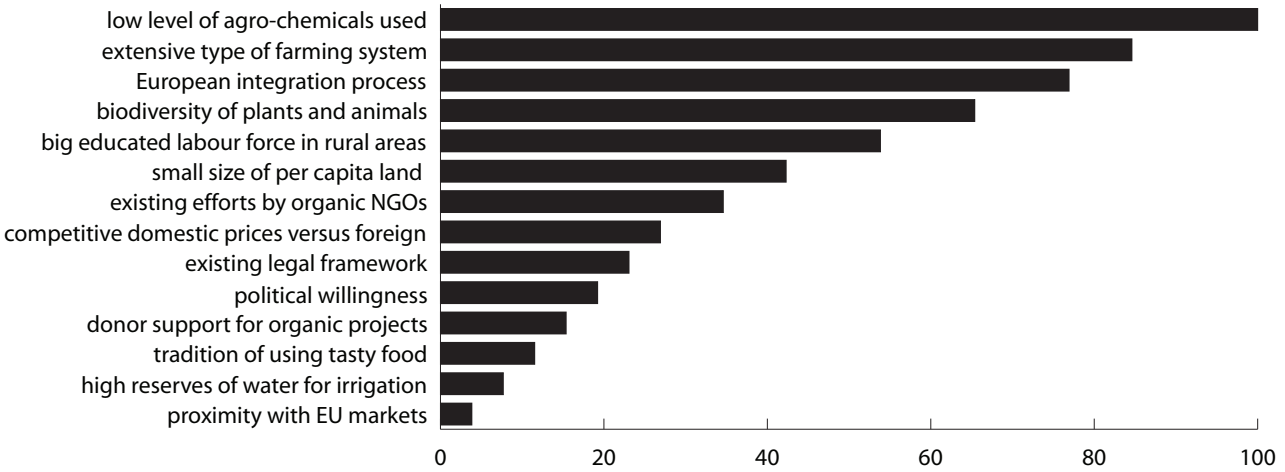
All the experts interviewed (100%) agree that the main strong point for the development of organic farming in Albania is the low level of agrochemicals used in agriculture production and as a second most frequent strong point (84,62%) is the extensive type of farming system which characterises Albania's agriculture. Moreover, the majority of respondents (76,92%) identified the European integration process as a major stimulus to the development of the organic sector in Albania.

One of the other factors most noted (65,38%) from the experts interviewed is the Mediterranean

climate and the relief which offer a great biodiversity of microclimates and soil, plants and animals. Others (53,85%) list the big educated labour force in rural areas of Albania as a strong point for the development of the sector.

Smaller percentages go into more detail by specifying as strong points facts like small size of land per capita (42,31%), trust build up by the work of organic NGOs to certify organic products and market them (34,62%), competitive prices of Albanian organic products compared to foreign ones (26,92%), the existence of a legal framework for organic farming (23,08%), the willingness of the high management level of the MAFCP to start implementing the law on organic farming (19,23%), support from donors through projects on organic farming (15,38%), tradition of consuming tasty food (11,54%), high water reserves for irrigation (7,69%), the location of the country close to European markets which attract organic products (3,85%) (Figure 4-1).

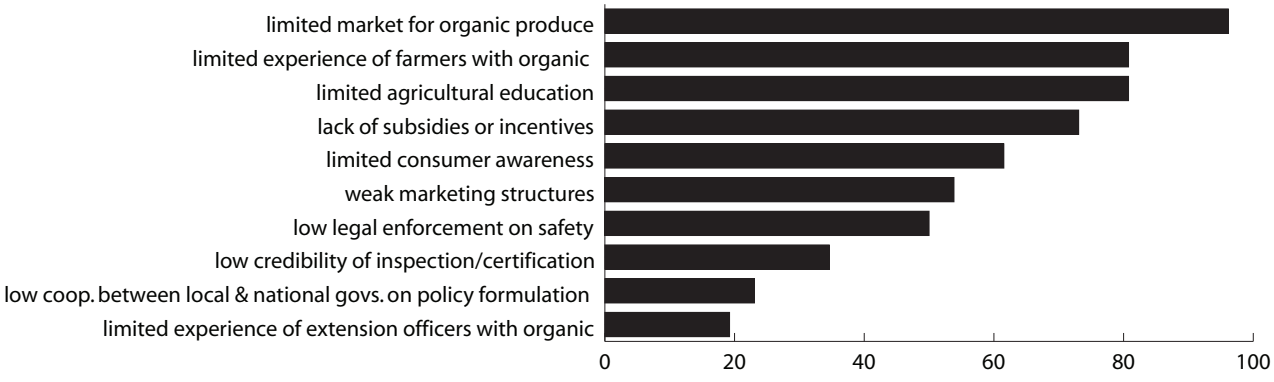
Figure 4-1. Strong points for the development of organic sector in Albania



Source: *Delphi survey*

Regarding weak points (Figure 4-2), almost all experts involved in the Delphi inquiry, expressed some concerns about factors like the limited market for organic produce (96,15%). This is followed by the limited experience of Albanian farmers with organic farming techniques (80,76%) and their low level of agricultural education (80,77%), lack of subsidies or other incentives (73,08%), limited awareness of consumers (61,54%), weak marketing structures (53,85%), low enforcement of laws on consumer protection and food safety (50,00%), low credibility of inspection/certification bodies to ensure trust of consumers, especially foreign (34,62%), low cooperation between the governmental and private sectors on the policy formulation (23,08%) and low level of education of extension

Figure 4-2. Weak points for the development of organic sector in Albania



Source: *Delphi survey*

officers on organic farming techniques and certification (19,23%). Further weaknesses stated by the experts are the great difference between the Albanian and EU farmers regarding competitiveness and financial situation (15,38%), low potential for export due to small quantities (7,69%), bad financial situation of farmers which makes them impatient to great and fast incomes (3,85%) and the discrete introduction of organic farming concepts at universities and research institutes in Albania (3,85%).

4.2.2 Current state of the development of organic sector in Albania

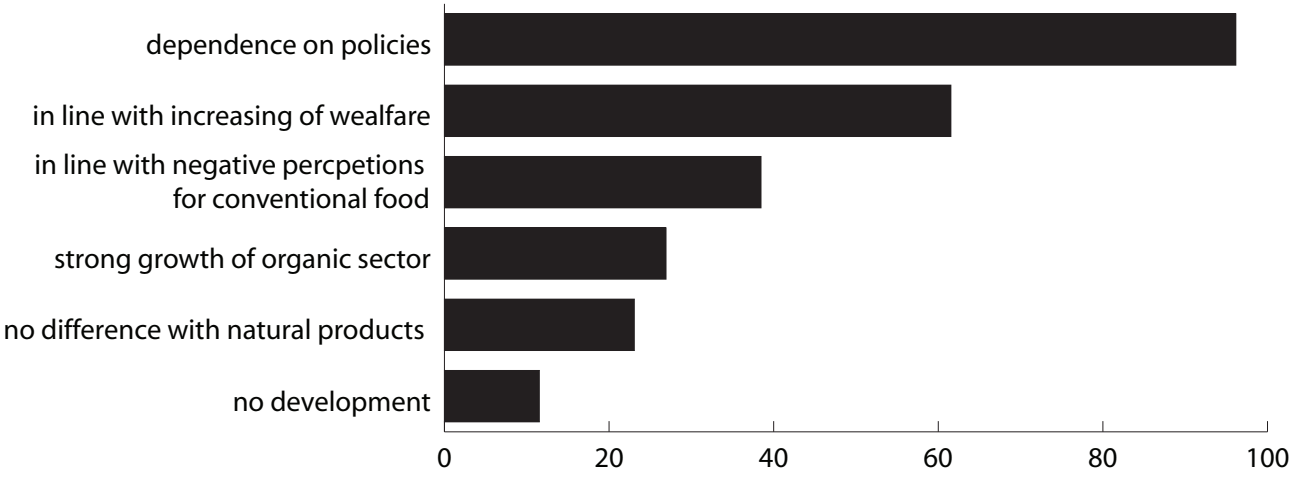
In relation to the question on the current state of the development of organic sector in Albania, experts had a range of different reactions which are not easy to be characterised into a single state denomination. This was better clarified during the 2nd round. However, almost all of them agree that beside the limited growth in terms of surface under organic management and number of organic farmers, there is a growing trend in the perception of organic food as well as sympathy among farmers regarding organic production methods. Some experts require distinguishing between real organic farming and "primitive" agriculture (near-organic) practiced in the most part of the territory due to the lack of financial means to practice a more intensive agriculture.

There is also predomination of the opinion, even among experts, that organic products are a luxury product, which will always be more expensive than the "food for masses".

4.2.3 Development of organic sector in the future

Opinions regarding the third question were also divided in response to this question. Between the two extremes, that of the strong growth of organic sector (26,92%) (coming mainly by the organic organisations) and "no development" (11,54%) (mostly from some researchers and especially non-organic organisations) there is consensus (65,38%) regarding the dependence of the sector's development on the policies of the Government to stimulate this sector. A considerable proportion of experts interviewed (61,54%) drew particular attention to the development of organic farming with the increased level of welfare, increased negative consumer perceptions of conventional, mass-produced food (38,46%) and the lack of distinction between products coming from near-organic (primitive) agriculture and the organic one (23,08%) (Figure 4-3).

Figure 4-3. Development of organic sector in the future



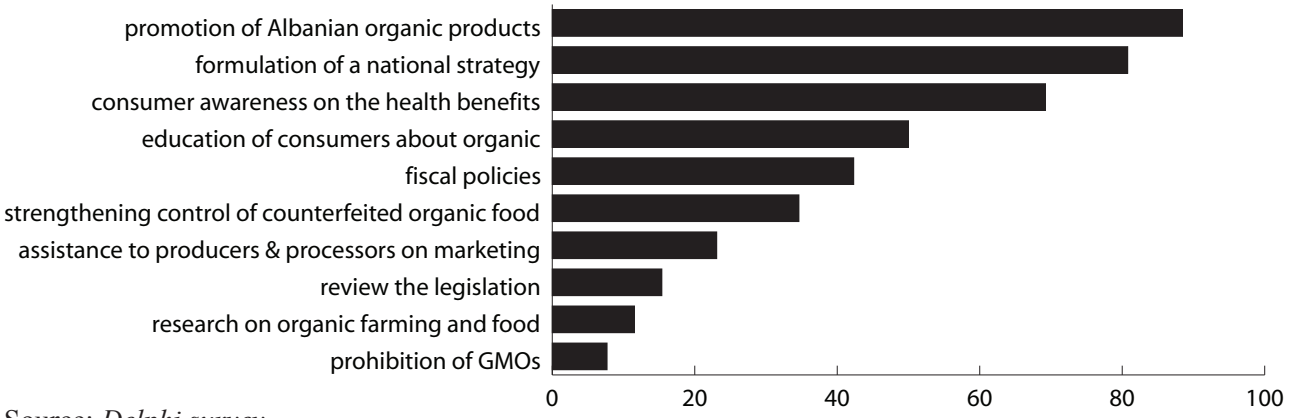
Source: *Delphi survey*

4.2.4 Policies to develop organic farming

Experts have generally agreed regarding the policy measures which will have a major impact on the

development of the sector. Most of them (88,46%) state that promotion of Albanian organic products, at both national and international level, would increase the demand for such products and subsequently the organic produce. Another highly stated (80,77%) measure is the formulation of a national strategy for the development of the sector which places organic farming as a model of sustainability. Other less stated measures are raising the consumer awareness on the health benefits of organic versus conventional products (69,23%), education of consumers (especially at school level) about organic products (50,00%), fiscal policies (42,31%), strengthening the control of counterfeited organic food (34,62%), assistance to producers and processors on marketing (23,08%), review the legislation (15,38%), research on organic farming and food (11,54%) and prohibition of GMOs (7,69%) (Figure 4-4).

Figure 4-4. Policy measures to develop organic farming in the future

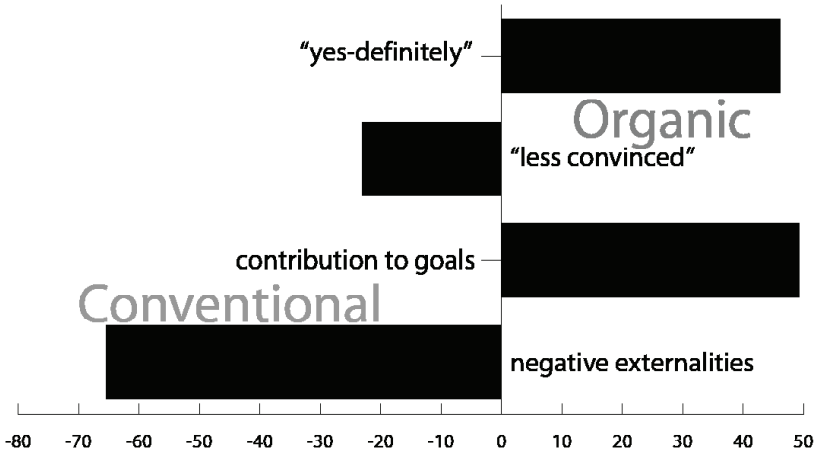


Source: *Delphi survey*

4.2.5 Advantages and disadvantages of organic farming versus conventional for the economic, social and environmental development of rural areas in Albania

In the 1st round, experts have somehow neglected this question as, in several cases, maybe because it was looking similar to question 1. Among respondents, again, a division emerged, with many respondents (especially from organic organisations) answering with an unqualified "yes-definitely" (46,15%), but others were less convinced (23,08%). The latter group believed that the direct economic impact was unimpressive, or that it was the best patchy, were local initiatives have managed to develop and exploit niche product distinctiveness. Other experts see the advantages of organic farming in terms of export promotion (11,54%) as they sustain that the cost of production under the organic farming system are higher and therefore will result in prices not affordable/attractive to consumers. Other disadvantages, not particularly related to the situation of Albania are less scientific

Figure 4-5. Advantages and disadvantages of organic farming versus conventional



Source: *Delphi survey*

knowledge, risks, low consumer awareness, less inputs available, higher documentation to be kept as well as failure to control the counterfeited products.

Generally, experts have not paid particular attention to the disadvantages of conventional agriculture, as they assume that are the opposite of the advantages of organic system. However, many do not fail to mention that such conventional agriculture has also negative externalities (65.38%). There are strong opinions (50,00%), especially coming from the governmental sector, that see conventional (intensive) farming as the broad solution to the problems of low agricultural productivity, big trade balance deficit, etc.

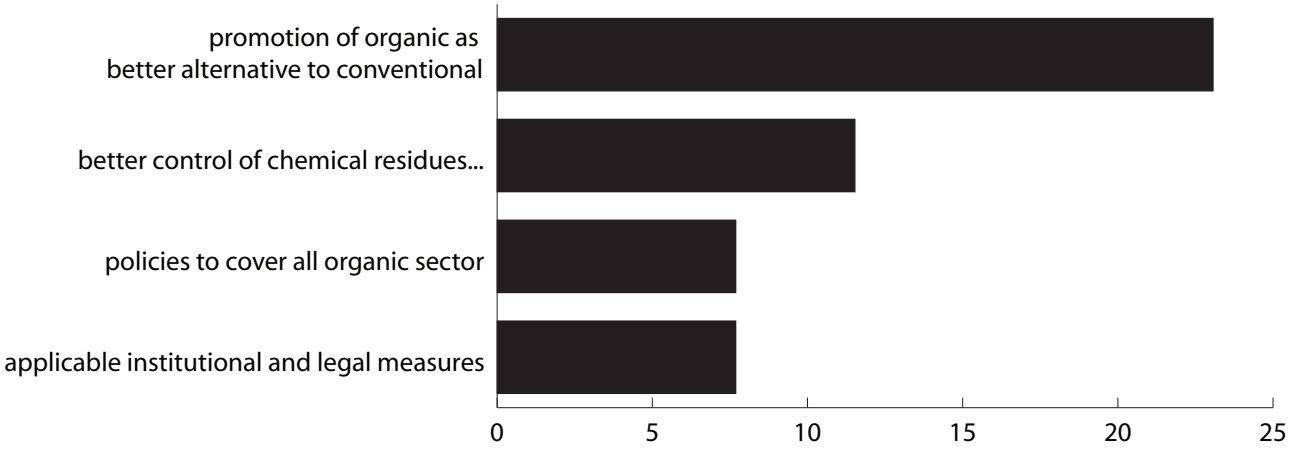
4.2.6 Characteristics of a successful organic farming policy measure

The question was rather difficult and it was designed to get the maximum attention and concentration of the experts. Their input together with the best practices in terms of organic farming policies would have been a valid input for the recommendation of this thesis.

Unfortunately, due to the lack of examples from the Albanian case but also lack of proper knowledge on foreign cases, have not yielded many contributions to this topic. This is also due to the fact, that even organic organisations, at the moment, are not very much working to elaborate and propose policy measures. However, from the answers given, we can identify some characteristics of policies to promote organic farming. The success of organic farming, according to some experts (23,08%), will not come from enforcing conventional agriculture or GMOs, but rather from promoting it as a better alternative. Other measures which will contribute to the increase of conversion, according to the experts (11,54%), are better controls on the chemical residues, agricultural inputs and even fiscal measures to limit the use of certain level of chemicals.

For some experts (7,69%), organic farming policy measures should cover all the organic sector, from production to marketing, trying to establish some models. Others (7,69%) have mentioned that institutional and legal measures should be applicable and verifiable for their efficiency (Figure 4-6).

Figure 4-6. Characteristics of a successful organic farming policy measure



Source: Delphi survey

4.2.9 Open responses

Only 10 out of 26 (38,46%) respondents provided these. The major common theme was the need for a strategy for developing organic farming sector in Albania, initiatives to raise consumer awareness as well as other comments regarding the contribution of organic farming to the image of the country.

4.3 Results of the 2nd Round of Delphi survey

This section is limited to the data analysis of the result of the second round of Delphi survey. In terms of data presentation, this section is also divided into subsection for each question or group of questions as the previous one. Data are mostly shown in graphical or tabular form with few comments where appropriate.

In line with the Delphi method all respondents to the first round, received the report on the first round, followed in September 2006 by the second round questionnaire. Some experts who had not participated in the first round were also included at this stage.

26 questionnaires were mailed out and a total of 14 responses could be evaluated. This represents a response rate of 53,85%.

4.3.1 Personal characteristics of respondents

The respondents to the second round came from a range of occupational backgrounds. The share of respondents from organic organisations was slightly highest, which non-organic organisations and the commercial sector were less well represented (Figure 4-7).

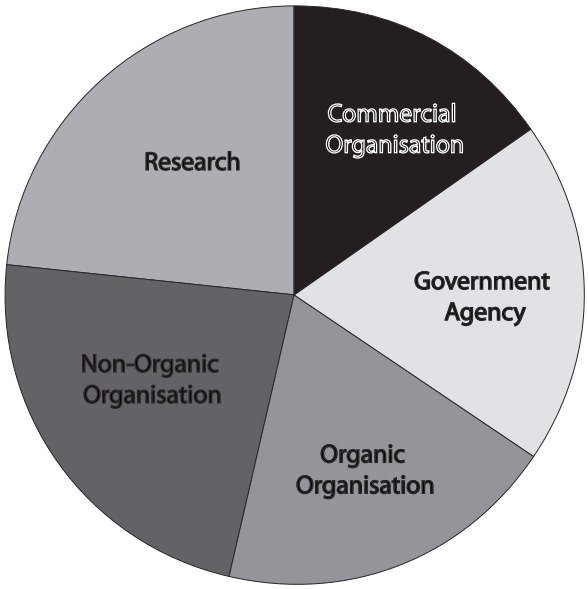


Figura 4-7. Share of respondents according to affiliation *Source: Delphi survey*

The majority of respondents were middle aged (between 30 and 44 years: 14,29%; 45-64 years: 64,29%). Only 14,29% of respondents were under 30, 78,57% are male and 21,43% are female. On average, respondents had 20 years experience and only a minority of respondents (28,57%) buy organic food.

4.3.2 Definition of priority policy areas for the development of organic farming in Albania

From the analysis of the responses to the questions of first round, especially question 4, the following policy areas emerge, presented in order of importance given by the experts:

(a) Development of the organic market
(b) National Strategy (i.e. Action Plan) for Organic
(c) Consumer education and awareness
(d) Inspection & certification (including GMOs)
(e) Research
(f) Fiscal policies

The questions listed in the 2nd Round of Delphi have sought to get more input regarding the formulation of policies (i.e. definition of policy actions). The following sections, present the output of each of the questions, maintaining the same policy areas.

4.3.3 Current and future development of organic market in Albania

4.3.3.1 Country classification (Q1&2)

The first and second question, are designed to analyse the market of organic products in Albania. The classification of the country in three categories of mature or established, growing or emerging

was based on the methodology of Foster *et al*. (2001) under OMIaRD). In this second round, experts were presented with this proposed classification for Albania and asked to agree or disagree. If they disagreed they were further invited to propose an alternative classification. In total, 92,86% of respondents agreed with the classification of Albania as emerging, therefore consensus has been reached on this issue.

4.3.3.2 Strategic development of organic market (Q3&4)

The respondents were asked to suggest which product groups to develop. Table 4-2 shows that more than 78,57% of respondents considered "fruit and vegetables" category as the first to be supported, followed by "dairy" (64,29%), "meat" (64,29%) and "medicinal plants" (78,57%). Cereals and convenience products had the lowest scores (64,29% and 57,14% respectively). (The percentages express the proportion of the most frequent score to total number of respondents!)

Table 4-2. Categories of products to be supported in terms of policies

Meat Products	Dairy Products	Fruit & Veget.	Medicinal pln.	Cereal prod.	Conven. prod.
2	1	3	4	5	6
3	2	1	4	5	6
4	2	1	3	6	5
3	2	1	4	5	6
2	3	1	4	6	5
3	1	2	5	4	6
3	2	1	4	5	6
3	2	1	4	6	5
3	2	1	4	5	6
3	2	1	4	5	6
2	3	1	4	6	5
2	1	3	5	5	6
3	2	1	4	5	6
3	2	1	4	5	6

Source: Delphi survey

4.3.3.3 Retail channels (Q5)

Considering that one of the main constraints identified by the experts during the first round was the limited market for organic produce and weak marketing structures, the respondents were asked to suggest different retail channels as most important for the development of organic market. Table 4-3 presents the ranking of the relevance of different channels. Almost all respondents (92,86%) considered "multiple retailers and supermarkets" as most important, followed by "specialist organic shops" (85,71%). "Specialist shops stocking some organic food (e.g. green grocers, bakers, butchers, health food stores)" was ranked third (78,57%), followed by "direct marketing (box schemes, farm shops, farmers markets)" (85,71%) and "catering/public services (hospitals, school restaurants, restaurants etc.)" (92,86%) (the classification and denomination of different retail channels was based on OMIaRD classification).

Table 4-3. Retail channels

RETAIL CHANNELS														
Multiple retailers	1	2	1	1	1	1	1	1	1	1	1	1	1	1
Direct marketing	4	4	4	5	4	4	4	4	4	4	4	4	3	4
Spec. org. shops	2	1	2	2	2	2	2	3	2	2	2	2	2	2
Spec. shops + org.	3	3	3	4	3	3	3	2	3	3	3	3	4	3
Cater./Pub. serv.	5	5	5	3	5	5	5	5	5	5	5	5	5	5
Source: Delphi survey														

4.3.3.4 Constraints to the development of organic supply and how to overcome them (Q6)
In relation to the development of organic market, as the major policy area, participants were asked to assess the importance of given constraints for the development of organic farming in Albania from a given list of options (Table 4-4). Most the constraints listed are taken from the results of the first round.

Table 4-4. Constraints to the development of organic supply (% of respondents)

CONSTRAINTS	*Very important*	*Important*	*Not Important*	*Not at all important*	*Don't know*
Limited market for organic produce	92,86%	7,14%	0%	0%	0%
Limited experience of farmers with organic techniques	21,43%	57,14%	14,29%	0%	0%
Low level of agricultural education among farmers	64,29%	14,29%	21,43%	0%	0%
Lack of subsidies or other incentives to convert	28,57%	42,86%	21,43%	7,14%	0%
Limited awareness of consumers	85,71%	14,29%	0%	0%	0%
Low enforcement of laws on consumer protection/food safety	14,29%	50,00%	14,29%	7,14%	7,14%
Low credibility of inspection and certification bodies to ensure trust	28,57%	35,71%	21,43%	0%	14,29%
Low level of cooperation between governmental and private sectors on policy formulation	50,00%	35,71%	14,29%	0%	0%
Low level of education of extension officers with OF techniques	64,29%	14,29%	14,29%	0%	7,14%
Bad financial situation of farmers	14,29%	21,43%	57,14%	7,14%	0%
Source: Delphi survey					

In line with the methodology under OMIaRD as well as EU-CEE-OFP, participants were asked in an open question to suggest policy actions for overcoming the most important obstacles in the supply for organic products (Table 4-5).

Table 4-5. Policy actions to overcome the most important obstacles in the supply for organic products (% of respondents)

POLICY ACTIONS	*%*
Pilot organic farming support scheme under Rural Development Programme	78,57
Adoption of organic farming method and practices among eligibility conditions (and priority criteria) for access to agriculture support schemes	71,43
Inclusion of organic agriculture in public extension services' programmes of activities	64,29
The establishment of a national information system (organic database, website and Market Information System)	50,00
Special support schemes for organic farming marketing and processing	35,71
Encouragement of local producer/consumer networks as well as marketing organizations for small organic producers	21,43
MAFCP will seek to facilitate the integration of the production chain by contract arrangements between actors and the emergence of inter-professional agreements	21,43
Adoption of a number of carefully designed indirect support measures (e.g. fiscal benefits on imported organic inputs and raw materials or charge reductions for processed food sample analyses) by MAFCP in cooperation with other concerned Ministries	14,29
Source: Delphi survey	

4.3.3.5 Constraints to the development of organic demand and how to overcome them (Q7)
In line with the previous question on the supply side, participants were asked to assess the importance of given constraints for the development of demand in the organic market from a given list of options (see Table 4-6).

Table 4-6. Constraints to the development of organic demand (% of respondents)

CONSTRAINTS	*Very important*	*Important*	*Not Important*	*Not at all important*	*Don't know*
High consumer price	7,14%	92,86%	0%	0%	0%
Poor availability of organic produce	21,43%	57,14%	7,14%	7,14%	0%
Low purchasing power of citizens	14,29%	21,43%	64,29%	0%	0%
Lack of promotion of "organic"	28,57%	57,14%	14,29%	7,14%	0%
Lack of consumer information	85,71%	14,29%	0%	0%	0%
Lack of credibility of organic certification system	64,29%	35,71%	0%	0%	0%
Competition from near-organic alternatives	50,00%	28,57%	21,43%	0%	0%
Poor product presentation	21,43%	42,86%	21,43%	7,14%	7,14%
Lack of consumer awareness for nutritional, health and environmental issues	85,71%	14,29%	0%	0%	0%
Source: Delphi survey					

Again, in line with previous research, participants were asked to describe briefly in an open question how the most important constraints on organic demand could be overcome. Answers are periphrased and grouped to be categorised under different themes in Table 4-7.

Table 4-7. Policy actions to overcome the most important obstacles in the demand for organic products (% of respondents)

POLICY ACTIONS	*%*
Implementation of national information, promotional and educational campaigns to raise consumer awareness about organic farming's multiple benefits in terms of health, environment and local development	85,71
The setting up of "organic corners" in local markets and supermarkets and the promotion of direct contacts and permanent links between consumers and organic producers	78,57
The participation of Albanian organic producers and processors in international organic fairs and events	64,29
The building up of synergies with sustainable tourist initiatives and events as well as with typical products	42,86
Special support schemes for organic farming marketing and processing	35,71
Market surveys and analyses to be included among priority projects to be funded by MAFCP in order to support the development of the sector	35,71
Serving organic meals on special events	21,43
Commercial appraisal on key Albanian organic products needs to be carried out.	14,29
Encouragement of local producer/consumer networks as well as marketing organizations for small organic producers	14,29
The establishment of a national information system (organic database, website and Market Information System)	7,14
For an effective and efficient deployment of public (and private) resources in the organic sector, an Albanian "organic basket" have to be identified and characterised.	7,14
Source: Delphi survey	

4.3.3.6 Expected market growth rates in the next five years (Q8)

Experts were asked to assess the likely future growth rates of the market for organic products in general and for specific product groups (Table 4-8).

Table 4-8. Expected market growth rates in the next five years (% of respondents)

	Less than 0	*0 - 2 %*	*2 - 5 %*	*5 - 10 %*	*More than 10%*	*Don't know*
Overall	0%	7,14%	64,29%	21,43%	7,14%	0%
Dairy products	0%	14,29%	57,14%	21,43%	0%	7,14%
Meat products	0%	42,86%	28,57%	7,14%	0%	21,43%
Fruit & vegetab.	0%	14,29%	21,43%	57,14%	7,14%	0%
Cereals	7,14%	71,43%	21,43%	0%	0%	0%
Convenience	7,14%	64,29%	7,14%	0%	0%	21,43%
Source: Delphi survey						

4.3.4 Communicating organic to consumers

4.3.4.1 Impact of food scandals on the development of organic farming (Q9)

As the results of the first round demonstrate, a major area for intervention is the communication with the consumer (i.e. to educate the consumer and raise its awareness). In order to better understand the actual level of consumer awareness, respondents were asked to assess the impact of food scandals

on the development of the organic farming, differentiating between impact on demand and supply in general and for specific product groups (see Table 4-9). This also applied to most product groups.

Table 4-9. Impact of food scandals - overall and on each product group (% of respondents)

	Positive	*Negative*	*Negligible*	*Don't know*
Supply	64,29%	14,29%	21,43%	0%
Demand	92,86%	0%	7,14%	0%
Meat, Supply	50,00%	7,14%	35,71%	7,14%
Meat, Demand	71,43%	7,14%	21,43%	0%
Dairy, Supply	64,29%	7,14%	21,43%	7,14%
Dairy, Demand	92,86%	0%	7,14%	0%
Fruit and vegetables, Supply	35,71%	14,29%	42,86%	7,14%
Fruit and vegetables, Demand	50,00%	7,14%	42,86%	0%
Cereal, Supply	7,14%	0%	92,86%	0%
Cereal, Demand	14,29%	7,14%	71,43%	0%
Convenience, Supply	7,14%	0%	42,86%	35,71%
Convenience, Demand	21,43%	0%	64,29%	14,29%
Source: Delphi survey				

4.3.4.2 Impact of media on the development of the organic farming (Q10)

For the purposes of policy formulation, we asked the experts if the media would have a role in the promotion of organic, considering the low level of consumer awarenes. Table 4-10 presents the expert opinion on this issue. The answers to this question correspond closely with the answer to question 9 (food scandals).

Table 4-10. Impact of media on the development of the organic farming (% of respondents)

	Positive	*Negative*	*Negligible*	*Don't know*
Overall impact	71,43%	0%	14,29%	7,14%
Source: Delphi survey				

4.3.4.3 Policy actions to develop consumer education and awareness (Q11)

With the intention to define policy actions which would establish a consumer education in order to raise their awarenness, experts are provided with a list of actions ("best practice") in order to consider their relevance in the particular case of Albania (Table 4-11).

POLICY ACTIONS	Strongly agree	Agree	Dis-agree	Strongly disagree	Don't know
Public information and promotion campaigns	85,71%	7,14%	0%	0%	7,14%
Organic farming in school education	28,57%	50,00%	14,29%	0%	7,14%
Support open days on organic farms	35,71%	50,00%	7,14%	0%	7,14%
Stimulate public procurement	21,43%	42,86%	21,43%	7,14%	7,14%
Comparison between conventional and organic	7,14%	71,43%	14,29%	0%	7,14%
Introduce an effective national logo	7,14%	7,14%	71,43%	0%	14,29%
Source: Delphi Survey					

4.3.5 Organic farming and rural development

4.3.5.1 Integration of organic farming with other initiatives (Q12&13)

In this section, participants were asked about the contribution that organic farming can make to rural development. Question 12 was related to the benefits of integrating organic with other initiatives whilst question 13 to the contribution that organic initiatives can make to rural development objectives. Respondents were asked to express their views on a four-point scale from "very important" to "not at all important", which again was converted into numerical scores. Table 4-11 and 4-12 shows the rating of answers on the basis of frequency.

Table 4-11. Integration of organic farming with other initiatives (% of respondents)

	Very important	*Important*	*Not Important*	*Not at all important*
Importance of integrating OA with other initiatives	7,14%	64,29%	21,43%	7,14%
Source: Delphi survey				

Many of the experts did not gave an answer to the open question in relation to integration of organic farming with other initiatives. Most of the respondents to this question have stated that the development of organic market is closely related with tourism development, especially with elite tourism development. On the other hand, organic market should be considered as closely related with environment issues.

Table 4-12. Role of organic farming in achieving rural development objectives (% of respondents)

	Very important	*Important*	*Not Important*	*Not at all important*
The role of organic farming in rural development	21,43%	71,43%	7,14%	0%
Source: Delphi survey				

Experts have not given many arguments to base their view. Most of them are limited to general importance in terms of increased economic activity, strong commitment to improvement environment ment, making region attractive. However, some of them state that we could not expect too much in the short to medium run.

4.3.6 Inspection and certification

4.3.6.1 Standards and certification (Q14)

One of the main policy areas identified by the experts was inspection and certification. For the purposes of identifying policy actions, we have listed several statements for consideration from experts.

Table 4-13. Standards and certification (% of respondents)

POLICY ACTIONS	Strongly agree	Agree	Dis-agree	Strongly disagree	Don't know
Governmental certification systems for organic produce are more credible for consumers than private sector schemes	0%	7,14%	85,71%	0%	7,14%
Government should run a common certification system for organic production in Albania	28,57%	50,00%	14,29%	0%	7,14%
Government should amend and enforce the national legal framework on organic agriculture	35,71%	50,00%	7,14%	0%	7,14%
Governmental efforts to streamline bureaucracy for inspection and certification procedures	14,29%	78,57%	0%	0%	7,14%
Government should enhance the efficiency and transparency of the inspection and control system	7,14%	71,43%	14,29%	0%	7,14%
Government should supervise the work of inspection and control bodies	7,14%	71,43%	14,29%	0%	7,14%
Government should introduce and promote a common logo for organic produce	0%	7,14%	85,71%	0%	14,29%
Adoption of the collective certification option considering the multiple benefits (in terms of reduction of certification costs and administration simplification)	7,14%	71,43%	14,29%	0%	7,14%
Constructive dialogue and negotiation among stakeholders will be promoted on GMOs and coexistence issues	7,14%	50,00%	35,71%	7,14%	0%
Source: Delphi Survey					

4.3.7 Research on organic farming and food

4.3.7.1 Constraints for organic research, education, training and extension (Q15)

The before last policy area identified in the first round of Delphi inquiry was research (and development). Experts were asked to list constraints for organic research, education, training and extension. The views of respondents are listed in Table 4-14.

Table 4-14. Constraints to organic research, education, training and extension (% of respondents)

	Very important	*Important*	*Not Important*	*Not at all important*	*Don't know*
Lack of financial resources for pertinent research	21,43%	57,14%	7,14%	7,14%	0%
Low priority among agriculture research priorities	21,43%	57,14%	7,14%	7,14%	0%
Lack of proper organic farms and industries to carry out research	21,43%	42,86%	21,43%	7,14%	7,14%
Limited introduction of "organic" in academic curricula	28,57%	57,14%	14,29%	7,14%	0%
Limited opportunities for employment of organic specialists	85,71%	14,29%	0%	0%	0%
Low priority among foreign donors operating in Albania	50,00%	28,57%	21,43%	0%	0%
Source: Delphi survey					

As for other constraints identified, experts were asked to suggest policy actions to overcome them, which are listed in Table 4-15.

Table 4-15. Policy actions to overcome the most important constraints to organic research, education, training and extension (% of respondents)

POLICY ACTIONS	*%*
Foster synergies and close cooperation among different actors (ministries, universities and other research and extension services concerned) with the aim to support the progressive creation of an integrated organic knowledge system	85,71
Specific priority research areas in organic agriculture will be identified and targeted allowing for adequate fund raising	64,29
Long-term studies on the positive effects of organic farming on the health and nature, consumer behaviour, quality research, etc should be initiated	42,86
Setting up of a multidisciplinary research group on sustainable/organic agriculture might be considered in the future	35,71
Encourage cooperation between research institutions and organic associations in order to enable academic capacities and scientific activities to be problem solving-oriented and effectively respond to organic farmers' needs.	21,43
Inclusion of organic agriculture courses in academic curricula and promotion of an adequate offer of professional training opportunities on organic farming and processing practices	14,29
Integration of organic agriculture in the extension services' plans (and programmes) of activities with the aim to promoting the transfer and diffusion of organic know-how among Albanian producers	7,14
Source: Delphi survey	

4.3.8 Fiscal policies to develop organic sector

4.3.8.1 Fiscal policy instruments for the development of organic sector in Albania (Q16)
This policy area is favourite for the promoters of organic farming in the EU context. However, the experts considered it as a low priority. For the purposes of identifying policy actions, we have listed several statements for consideration from experts.

Table 4-16. Fiscal policy instruments (% of respondents)

STATEMENTS	Strongly agree	Agree	Dis-agree	Strongly disagree	Don't know
Tax reduction/exemption for OF consumers	0%	7,14%	85,71%	0%	7,14%
Tax reduction/exemption for OF (processors)	28,57%	50,00%	14,29%	0%	7,14%
Taxes on polluting inputs	35,71%	50,00%	7,14%	0%	7,14%
Taxes on GMO products/seed	7,14%	50,00%	35,71%	7,14%	0%
Internalization of environmental costs	7,14%	64,29%	14,29%	0%	14,29%
Reduction of charges for processed food sample analyses	0%	85,71%	7,14%	0%	14,29%
Raising taxes on conventional farming practices (when it will be applied)	7,14%	71,43%	14,29%	0%	7,14%
Source: Delphi Survey					

4.4 Results of the 3rd Round of Delphi survey

As the results of the second round, do not show divergence of opinions, the third round questionnaire was used only for the purposes of institutional analysis.

Table 4-17. Factors that will stimulate the development of an organic farming policy in Albania (% of respondents)

STATEMENTS	*%*
State initiatives (legal framework, formulation of specific policies and financial support on their interpretation)	80
Private initiatives	20
Source: Delphi survey	

It is obvious that even the proponents of organic farming consider that state initiatives have a much more important role in the current development state of organic farming. This is based on factors analysed in the previous rounds, like the limited market for organic foodstuff.

Table 4-18 shows the percentage of respondents that have identified the above institutions as influencing agricultural policy in Albania. It becomes obvious that local government authorities where farmer's opinion and interest is expressed better are not involved in the policy-making process. It can also be seen that the biggest donors (World Bank, EU, Italian Cooperation and FAO) are orienting government policy through their funding. In the following table, the respondents have attempted to rank the five most important institutions influencing agricultural policy in Albania (Table 4-19 reports

the ranking given by the interviewers).

Table 4-18. Institutions influencing the agricultural policy in Albania (% of respondents)

INSTITUTIONS	%
MAFCP	90
Local government (municipality/commune)	10
Albanian Agribussines Council (AAC)	50
Agriculture University of Tirana (AUT)	20
EU Commission	50
World Bank	70
FAO	40
USAID	30
GTZ	30
Italian Cooperation	40
Consumer's association	20
Ministry of Health	20
Local and international NGOs dealing with agriculture	30
Spanish Cooperation	10
Source: Delphi survey	

Table 4-19. The most important actors influencing agricultural policy in Albania (% of respondents)

MOST IMPORTANT STAKEHOLDERS										
MAFCP	1	1	1	1	1	1	3	0	1	2
AAC	0	5	3	4	2	0	2	5	4	4
AUT	0	3	0	0	0	0	0	0	0	0
EU Commission	5	0	0	2	5	2	5	2	2	1
World Bank	2	2	2	3	2	3	4	3	3	3
FAO	0	0	5	0	3	4	0	0	0	5
USAID	3	4	0	5	4	5	0	1	5	0
GTZ	0	0	0	0	0	0	0	0	0	0
Italian Cooperation	4	0	0	0	0	0	0	4	0	0
Consumer's association	0	0	0	0	0	0	0	0	0	0
Ministry of Health	0	0	0	0	0	0	0	0	0	0
Local & international NGOs	0	0	4	0	0	0	0	0	0	0
Local government authorities	0	0	0	0	0	0	1	0	0	0
Source: Delphi survey										

The same type of question were asked in relation to organic farming policies and the following tables report the opinion of interviewers. As expected, MAFCP is still considered as the main actor. Regarding other important actors, the interviewers have replied on the basis of their knowledge regarding projects or papers issued by the institutions listed below. This does not mean necessarily that such an

organisation is trying to lobby for organic.

Table 4-20. Institutions influencing the organic farming policy in Albania (% of respondents)

INSTITUTIONS	%
MAFCP	90
Local government (municipality/commune)	0
Albanian Agribussines Council (AAC)	30
Agriculture University of Tirana (AUT)	20
EU Commission	30
World Bank	20
FAO	30
USAID	50
GTZ	40
Italian Cooperation	60
Organic Agriculture Association	80
BioAdria	90
Swiss Cooperation	80
AlbInspekt	10
Source: Delphi survey	

Table 4-21. The most important actors influencing organic farming policy in Albania (% of respondents)

MOST IMPORTANT STAKEHOLDERS										
MAFCP	1	1	1	1	2	1	0	1	1	1
AAC	0	2	0	0	0	0	2	0	3	0
AUT	0	0	0	5	0	0	0	0	0	0
EU Commission	0	0	2	0	0	0	5	0	2	0
World Bank	0	0	0	0	0	0	0	4	4	4
FAO	0	0	0	0	0	5	0	2	0	2
USAID	2	0	0	4	5	4	0	0	5	5
GTZ	0	0	0	0	0	0	4	0	0	0
Italian Cooperation	5	0	0	3	4	3	0	5	0	3
Organic Agriculture Association	3	3	5	2	0	0	1	0	0	4
BioAdria	0	5	4	0	3	0	0	0	0	0
Swiss Cooperation	4	4	3	0	1	2	3	3	0	0
Source: Delphi survey										

We can see from the both tables that MAFCP is more reputed, even in terms of organic farming policies, with a P_r = 90%, followed by BioAdria, Swiss Cooperation and OAA.

Figures 4-8 and 4-9 serves to compare the density of the networks constituted by actors influencing the agricultural policy of the country (4-8) and those influencing the organic farming policy in terms of exchange of information and agreement.

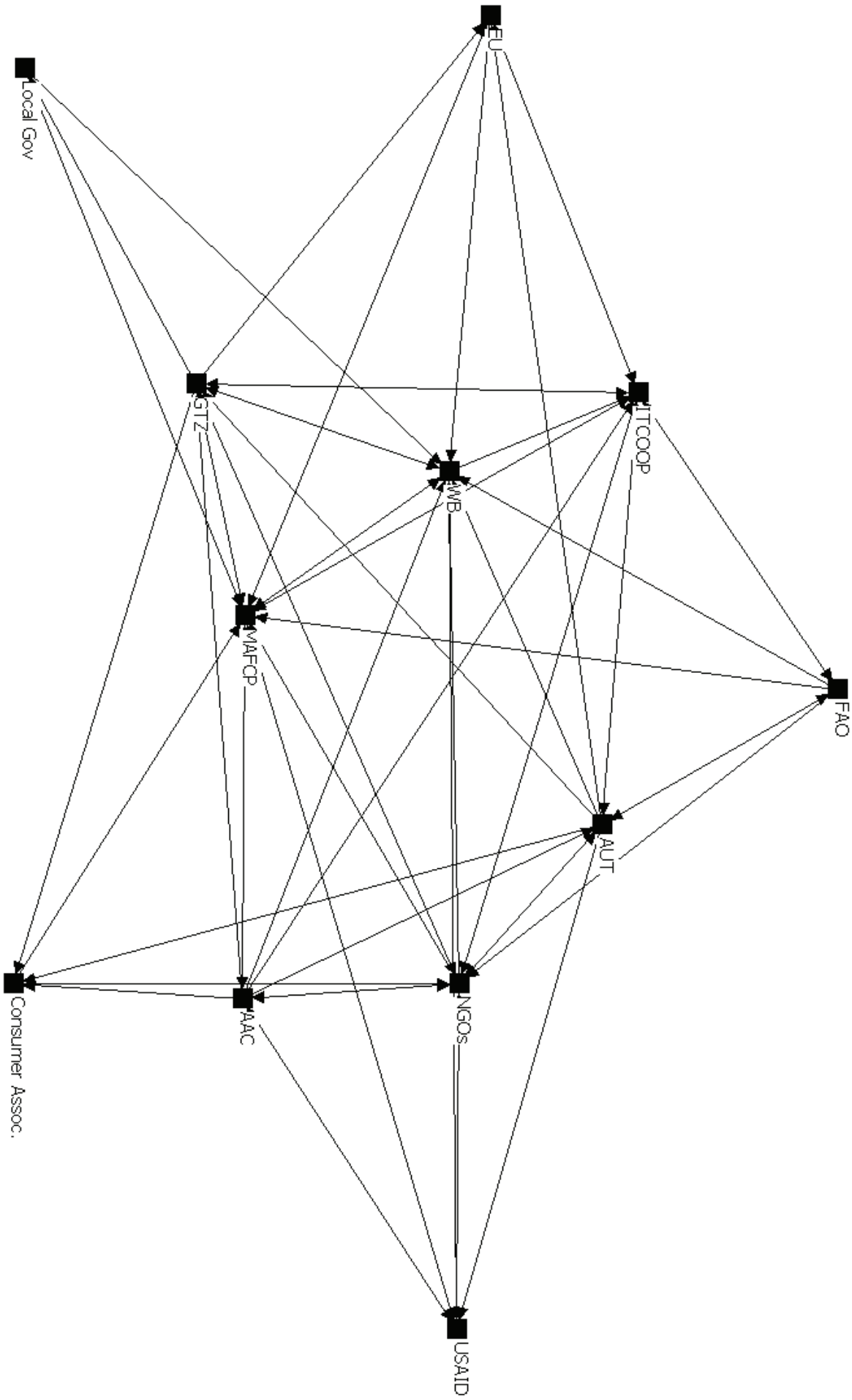


Figure 4-8. Agricultural policy network in Albania (source Delphi Survey)

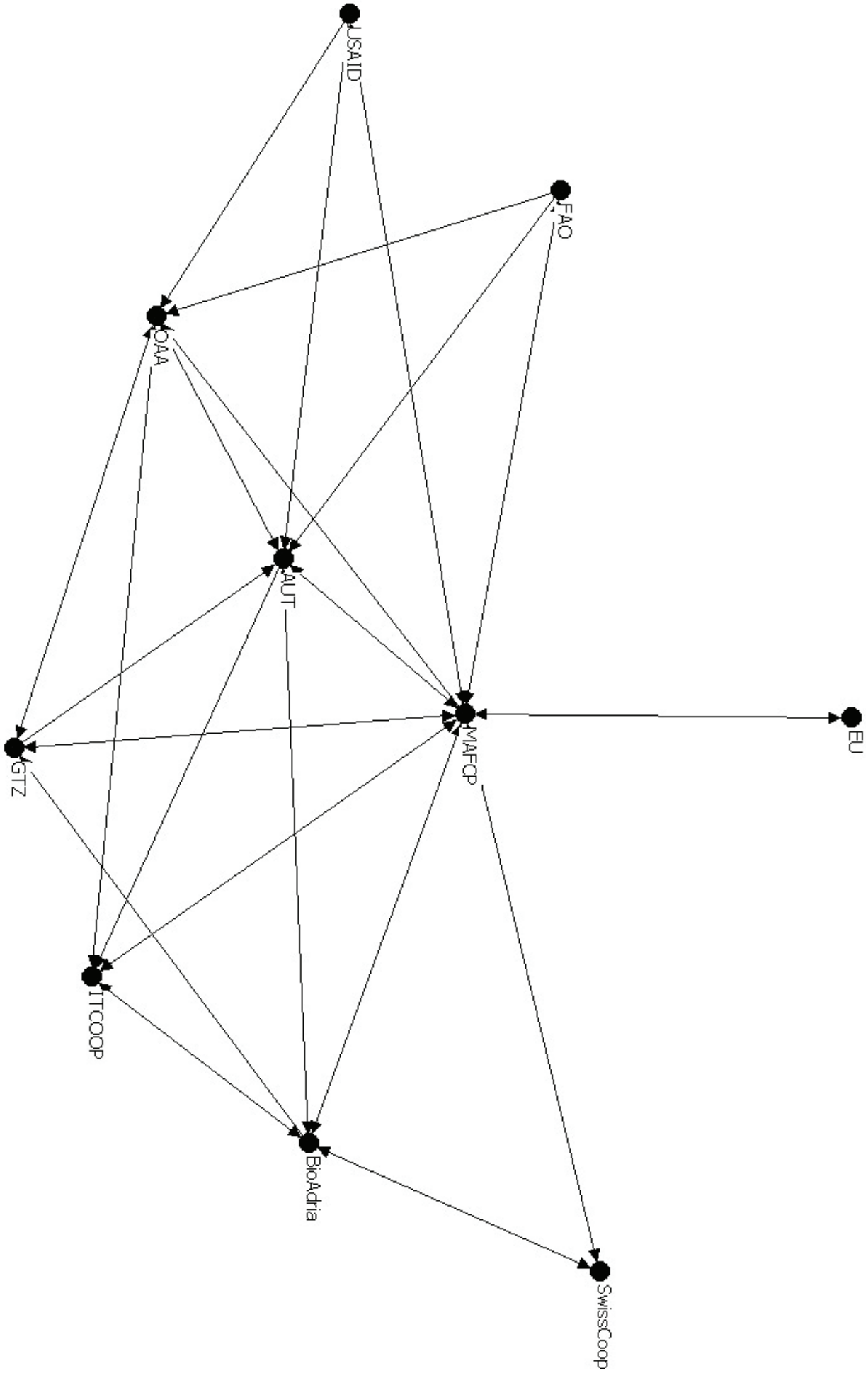


Figure 4-9. Organic farming policy network in Albania (source Delphi Survey)

Some of the network measures given below gives us an idea about the interaction between the actors in the network. Thus, density (Δ) in the case of agricultural policy network is equal to 51,48% while in the organic network is 34,2 %. Regarding other measures, it is obvious that MAFCP is the central actor in terms of agricultural policies, having the highest C_D (degree centrality) (in-degree, $d_I = 10$ and out-degree, $d_0 = 6$, followed by Italian Cooperation ($d_I = 8$; $d_0 = 6$) and World Bank ($d_I = 9$; $d_0 = 4$). It is also the central actor for organic farming policies, ($d_I = 8$; $d_0 = 9$), followed by AUT ($d_I = 6$; $d_0 = 4$) and BioAdria ($d_I = 4$; $d_0 = 5$).

Table 4-22. Disagreements among actors influencing the organic farming policy in Albania

MAFCP	*vs.*	*OAA*
AAC	*vs.*	*OAA*
OAA	*vs.*	*BioAdria*
BioAdria	*vs.*	*OAA*
Swiss Cooperation	*vs.*	*OAA*
AlbInspekt	*vs.*	*OAA*
Source: Delphi survey		

This tables shows the divergence of opinions among different stakeholders as reports by them. It seems that OAA is against everyone and the reason for that is because of the old conflict between OAA and the MAFCP on organic law and the new conflict between BioAdria/AlbInspekt and OAA due to the shift of the donors (SDC, Spanish Cooperation) and organic farmers from OAA to BioAdria/AlbInspekt. As this is a recent schism, some of the other stakeholders are not aware and they continue to consider activities carried out by BioAdria as part of OAA activities. What is more important for the movement is the confusion that this separation has created among farmers, the majority of which has moved to BioAdria. This may also support a previous hypothesis that these farmers are mostly "project driven" rather than "philosophy driven".

Table 4-23. Institutions involved in direct lobbying at policy-making institutions

INSTITUTIONS	
AAC	yes
AUT	yes
EU Commission	no
World Bank	partly
GTZ	yes
Organic Agriculture Association	yes
BioAdria	yes
AlbInspekt	yes
Source: Delphi survey	

This table lists only those who have given an answer about this question. Despite what the representatives report here, it should be said that, this lobbying activity is not systematic and structured.

4.5 Results of the Farm Survey

The farm survey yielded a diverse and representative sample on which to base subsequent analysis. While there is a disproportion between the organic and conventional sample, the 34 organic respondents to the survey represent approximately 80% of all registered organic farms in Albania. Their counterparts, 189 conventional farmers, represent only 0,05% of all households in Albania.

The analysis of data will consist mainly in the tabular or graphical representation of data with few comments. The purpose of this exercise is to characterise those who constitute the organic sector in Albania by revealing possible relevant distinctions between the characteristics of organic and conventional farms and farmers. The aim is to analyse not only differences stemming directly from differences in farming systems but also to reflect differences in the people who operate organic farms as well as distinctive business configurations (in terms of diversification, routes to market, etc).

In total, respondents to the survey managed an agricultural area of 475,7 ha, of which 60,4 ha were in the hands of the operators of organic farms. Average (mean) farm size in the sample is 1,98 ha (median = 1,5 ha), but this varied by both survey region and organic/non-organic status (see Table 4.24).

As far as regards the distribution of organic farms by size and type, the data for the other organic farmers (not interviewed) is not readily available as they are not under the certification scheme of AlbInspekt (a total of 42 farmers with organic satus were provided by AlbInspekt). These farmers are certified by Organic Agriculture Association under their private standard but there is uncertainty regarding their organic status. However, as Tables 4-25 to 4-27 illustrate, the farm survey has captured a representative sample of organic farms. Considering the regional differences of agriculture systems in Albania, we have provided also at regional level. This type of information is helpful to explain some phenomena accordingly (see Appendix 2).

In terms of farm size, there is no significant difference between organic and conventional farms while regarding farm type, it is very obvious that organic farms are mostly horticultural (Table 4-26).

Turning to the respondents themselves, a range of personal and demographic data points to some differences between the people who operate organic farms and their conventional counterparts. For example, the mean age of organic farmers in the sample is 52 compared to 47 for non-organic farmers, even though, there are fewer organic farmers aged 65 or over[1]. As Table 4-27 indicates, there is a mush greater proportion of young (<45) conventional farmers compared to their organic counterparts (at both < 35 and 35-44 ranges), almost the same middle age category (45-54) and much more organic farmers than conventional ones at the older category (55-64). Perhaps partly as a result of the different age structure between the two categories of farmers, there are also some differences in their level of education. Organic farmers have a slightly higher formal middle-level education (High School, general plus agriculture) than conventional ones who perform better in terms of high education (University degree) (see Table 4-28).

It is clear from Table 4-29 that there is no significant dinstinction among organic and conventional farms in terms of gender. This applies also to the figure at national level.

It is well established (see Section 2.2) that Albanian farmers have all started "in the same date" (average 10,6 for organic and 12,6 for conventional); therefore, there are relatively few new entrants in Albanian agriculture. Clearly, it is possible to operate a range of definitions of new entrant and also to distinguish between 'new entrants' and 'recent entrants'. For example, in a strict sense, a new entrant can be defined as a farmer who is the first member of his/her family to farm the current farm and who

1 The difference between the mean age of organic and non-organic farmers is significant using *t*-test.

Table 4-24. Mean and median farm size for all farms, organic and conventional and regional variations

	All farms	All organic	All convent.	All lowland organic	All lowland conv.	All intermed. organic	All intermed. conv.	All southern organic	All southern conv.	All north.&cnt. organic	All north.&cent. conv.
	(ha)	(ha)	(ha)	(ha)	(ha)	(ha)	(ha)	(ha)	(ha)	(ha)	(ha)
Mean	1,98	1,77	2,19	1,70	2,5	1,88	2,4	1,2	2,3	-	1,4
Median	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,2	2	-	1,3
Min	0,2	0,2	0,2	0,2	0,2	0,2	0,2	1.2	0,4	-	0,2
Max	20	4,7	20	4,7	20	4	20	1,2	10	-	6
Total area farmed	475,70	60,40	415,33	29	58,20	30,2	217,13	1,2	81,2	0	58,8
N	**223**	**34**	**189**	**17**	**189**	**16**	**189**	**1**	**189**	**0**	**189**
Source: Farm survey											

Table 4-25. Size distribution of conventional farms

	Farm survey respond. (organic)	Farm survey respond. (conventio.)	Organic respond. (lowlands)	Conventio. respond. (lowlands)	Organic respond. (intermed)	Conventio. responden. (intermedi.)	Organic respondets (south.high.)	Conventio. respondents (south.high.)	Organic respondets (north&cent.)	Conventio. respondents (north&cent.)
< 2 ha	61,76	58,73	64,70	60,87	56,25	57,30	100	44,44	-	73,17
2-4,9 ha	38,23	34,92	35,30	34,78	43,75	33,71	0	50,00	-	24,39
5-7 ha	0	2,65	0	0,00	0	3,37	0	2,78	-	2,44
8-10 ha	0	2,12	0	0,00	0	4,49	0	2,78	-	0,00
> 10 ha	0	1,59	0	4,35	0	1,12	0	0,00	-	0,00
Total	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %
N =	**34**	**189**	**17**	**23**	**16**	**89**	**1**	**36**	**0**	**41**
Source: Farm survey										

has not previously farmed elsewhere.

Table 4-26. Farm type distribution

Farm type	Farm survey respondents (organic)	Farm survey respondents (conventional)	Farm survey respondents (all farms)
Cereals	0	9	9
General cropping	2	40	42
Horticulture	30	38	68
Pigs & Poultry	0	4	4
Cattle & Sheep	0	9	9
Dairy	0	7	7
Mixed	2	81	83
Other	0	1	1
N=	**34**	**189**	**223**
Source: Farm survey			

Table 4-27. The Age Structure of organic and conventional farmers compared

Respondent's age	Organic farmers	Conventional farmers	All farmers	MAFCP' census (all farms)
< 35	8,82	11,11	9,97	-
35-44	11,76	23,81	17,79	-
45-54	38,23	41,80	40,06	199'471[1]
55-64	38,23	19,05	28,68	89'695
>65	2,94	4,03	3,48	85'351
	100 %	100 %	100 %	100 %
Mean	*51,67*	*46,96*	*47,59*	-
Median	*53*	*47*	*48*	-
N =	**34**	**189**	**223**	**374'517**
Source: Farm survey; MAFCP's Statistic Yearbook 2005				

[1] - The figure represents the range from 25-54.

This definition can be further refined to distinguish recent new entrants; people who match the above definition and have been farming five years or less. On the basis of these definitions, it can be seen from Table 4-30 that the 'recent new entrant' operators of organic farms form 8.82% of the organic sample and are responsible for farming only 2.5% of land farmed organically. If the definition is extended to include all new entrants, a further 8.4% of organic land, compared to 17.0% of non-organic land, is farmed by those new to agriculture. It is obvious that organic farmers are much more established than their counterparts. **Here we can formulate an important question: did they choose to convert or they were converted?** Moreover, 35% of both organic and conventional farmers have been farming elsewhere but only 25% of organic farmers are still working outside farming while their non-organic counterparts almost 50%.

Inheritance is an important aspect of family farming. Many farmers succeed to and eventually inherit their farm while many also 'inherit' the occupation of farming. In our case, almost all farmers interviewed were the head of family farms and propietaries of land. After the land privatisation in the early

90s, many people working outside farming became propietary of land and changed their occupation as their workplace was closed. Even though 80% of organic farmers and 58% of conventional farmers have a traditional farming occupation, in most of the cases (45% for organic farmers and 65% of conventional farmers) this traditional farming occupancy was interrupted for several decades as this people were working outside farming. This has strong implications in relation to farm management as well as in the acquisition of farming skills.

Table 4-28. Highest level of formal education: organic and conventional farmers compared

Highest level of formal education*	Organic farmers	Conventional farmers	All farmers	MAFCP' census (all farmers)
Titles (Dr. Prof., etc.)	2,94	0,53	1,73	-
University Degree	8,82	14,59	11,70	-
High School (general)	55,88	33,86	44,87	31,38[1]
High School (agriculture)	8,82	25,93	17,37	-
Elementary school	23,52	24,87	24,19	64,72
No formal education	0	0,53	0,26	3,90
	100 %	100 %	100 %	100 %
N =	**34**	**189**	**223**	**374'517**
Source: Farm survey				

[1] - The figure represents both high school & university.
*The association between organic/conventional status and highest educational qualification is significant using Chi Square test.

Table 4-29. The gender of organic and conventional farmers

Gender	Organic farmers	Conventional farmers	All farmers	MAFCP' census (all farmers)
Female	5,88	2,65	4,27	5,12
Male	94,11	97,35	95,73	94,88
	100 %	100 %	100 %	100 %
N =	**34**	**189**	**223**	**374'517**
Source: Farm survey				

Table 4-30. Entry into farming: organic and conventional farmers compared

Entry into farming	Organic respondents	Area farmed	Conventional respondents	Area farmed
Recent new entrant	8,82	2,5	7,94	10,5
New entrant	8,82	8,4	18,52	17,0
Recent established farming entrant	2,94	3,5	13,23	14,0
Established farmers	79,41	85,6	60,32	58,5
Total	100 %	100%	100 %	100%
N =	**34**		**189**	
Source: Farm survey				

A further dimension of the distinctive socio-economic characteristics of organic farmers themselves is revealed through a series of proxy indicators of the degree to which respondents can be said to be embedded in their local community and locality. The questionnaire employed three proxy measures of embeddedness: distance from place of birth, distance from majority of close family and distance from majority of close friends. Looking at Tables 4.31 to 4.33 we do not find a very consistent picture indicating, on the basis of these measures, that the operators of organic farms are more embedded in their local community than their non-organic counterparts.

Table 4-31. Embeddedness by place of birth: organic and conventional farmers compared

Embeddedness by birth	Organic respondents	Conventional respondents	All farms
Same location	79,41	82,01	81,61
Within 10 km	14,70	7,41	8,52
Within 25 km	5,88	3,17	3,59
Within 50 km	0,00	2,12	1,79
Within 100 km	0,00	3,17	2,69
Over 100 km	0,00	2,12	1,79
	100 %	100 %	100 %
N =	**34**	**189**	**223**
Source: Farm survey			

Table 4-32. Embeddedness by distance from family: organic and conventional farmers compared

Embeddedness by distance from family	Organic respondents	Conventional respondents	All farms
Same location	67,64	56,61	58,29
Within 10 km	23,52	10,58	12,55
Within 25 km	5,88	12,70	11,66
Within 50 km	2,94	6,35	5,83
Within 100 km	0	4,76	4,03
Over 100 km	0	8,99	7,62
	100 %	100 %	100 %
N =	**34**	**189**	**223**
Source: Farm survey			

For example, almost 94% were born either on their current farm or within 10 km compared to almost 95% of conventional farmers. Moreover, almost 91% described most of their close family as living on their current farm or within 10 km and none within 100 km or over, while their conventional counterparts only 67% on their current farm or within 10 km and 13% within or over 100 km. While a comparable proportion of organic and non-organic farmers reported that most of their close friends live within 10 km of their farm, in relative terms conventional farmers were more likely to have most of their close friends living at least 100 km away (over 5%). These results are also consistent with the emerging picture of at least a significant proportion of organic farmers being established farmers.

Table 4-33. Embeddedness by location of friends: organic and conventional farmers compared

Embeddedness by location of friends	Organic respondents	Conventional respondents	All farms
Same location	67,64	66,14	66,37
Within 10 km	20,58	11,11	12,55
Within 25 km	8,82	13,23	12,56
Within 50 km	2,94	4,23	4,03
Within 100 km	0	3,17	2,69
Over 100 km	0	2,12	1,80
	100 %	100 %	100 %
N =	**34**	**189**	**223**
Source: Farm survey			

The farm survey collected a number of different types of data that can be used as proxy indicators for various elements of social capital. In these indicators, we find more attenuated differences between organic and conventional farmers. As Tables 4-34 and 4-35 indicate, there is a significant difference in terms of participation in a agricultural and environmental association, while the conventional farmers are much more involved in political parties, local government authorities as well as sport activities.

Table 4-34. Participation in industry and community groups

	% of organic respondents	% of conventional respondents	% of all respondents
Agricultural Association	91,17	34,92	43,50
Environmental Association	15,88	6,40	7,85
Processors' Association	2,94	4,05	3,88
Marketing Cooperative	0	1,59	1,35
Political Party	8,82	29,63	26,46
Local Government Authorities	2,94	32,28	27,81
Sports Club	0	3,70	3,14
Hunting Club	2,94	8,47	7,63
Other	0	3,70	3,14
N =	**34**	**189**	**223**
Source: Farm survey			

*The association between organic/conventional status and participation in industry and community groups is significant using Chi Square test.

The distinctiveness of organic farmers is also reflected in the characteristics and organisation of their businesses. As Table 4-36 indicates, organic farms are more likely to have diversified into a range of additional activities. However, compared to their non-organic counterparts, organic farms are less likely to have diversified into the provision of accommodation (2,94) and recreation/leisure (2,94) compared to non-organic farms (6,35 and 7,41 respectively). Organic farms are also more likely to be involved in multiple diversification (55.88% compared to 49.74% of conventional farms).

In terms of differences regarding 'routes to market', as Table 4-37 indicates, direct sales through local shops, farm shops, box schemes, farmers' markets and marketing co-operatives are significantly more important routes to market for organic farms. Sales via livestock markets are not existing as the majority of the organic farms are horticultural ones.

Table 4-35. Participation in community activities

	% of organic respondents	% of conventional respondents	% of all respondents
Regular competitive sport	0,00	3,17	2,69
Regular non-competitive sport	2,94	5,82	5,38
Other physical exercises	5,88	4,76	4,93
Go to Mosque/Church/Worship	35,29	45,50	43,94
Visit Pubs/Restaurants	61,76	64,55	64,12
Go to Community Events	41,17	51,32	49,77
Involved in other community activities	0,00	0,53	0,45
N =	**34**	**189**	**223**
Source: Farm survey			

Table 4-36. Diversification activities: organic and conventional farmers compared

Diversification	% of organic respondents	% of conventional respondents	All respondents
Agricultural Services	20,59	17,46	17,94
Accommodation	2,94	6,35	5,83
Recreation/Leisure	2,94	7,41	6,73
Trading Enterprises	11,76	13,23	13,01
Processing	11,76	10,05	10,31
Unconventional Crops	2,94	2,12	2,25
Unconventional Livestock	2,94	2,65	2,69
Any diversification	55,88	49,74	50,68
Multiple diversification	11,76	11,11	11,21
N =	**34**	**189**	**223**
Source: Farm survey			

Table 4-37. The importance of different marketing routes: organic & conventional farmers compared

	Organic respondents	Conventional respondents	All respondents
Local shop	35,29	27,51	28,70
Farm shop	17,65	14,29	14,80
Farmers market	38,23	55,03	52,47
Contract with processor	2,94	5,29	4,93
Wholesale Contract	11,76	15,34	14,79
Marketing co-operative	5,88	0,53	1,35
Livestock market	0,00	7,94	6,73
Other marketing route	2,94	1,59	1,80
N =	**34**	**189**	**223**
Source: Farm survey			

A significant difference uncovered by the survey of organic and conventional farms emerge in terms of farm household dependency on farm income (see Table 4-38). For example, approximately 74% of organic farms gain 75% of their total household income from farming compared to 30% of their conventional counterparts. This difference is a valuable indication for policy makers in terms of strategic development of agricultural sector in Albania.

Table 4-38. Comparison of organic/conventional household income sources

Level of income dependency	High agricultural income dependency (≥75% of income)			Lower agricultural income dependency (<75% of income)		
	Organic respond.	Conv. respond.	All respond.	Organic respond.	Conv. respond.	All respond.
Income from agriculture	73,52	30,16	51,84	26,47	69,84	48,15
Income from on farm diversification	0	1,06	0,53	100,00	98,94	99,47
Income from off farm business	2,94	0,00	1,47	97,05	100,00	98,52
Income from off-farm employment	2,94	4,76	3,85	97,05	95,24	96,14
Income from emigration	0	2,12	1,06	100,00	97,88	98,94
Income from social security payments	0	0,00	0	100,00	100,00	100
N =	**27**	**72**	**99**	**7**	**117**	**124**
Source: Farm survey						

In contrast with other industrial sectors, farming, in general, has been slow to adopt information and communication technology. On this basis, we justified the ICT adoption in the running of the business as a (crude) proxy for the degree of business innovation. However, we were fully aware of the extremely low level of ICT usage, especially at farm level. The results, for both organic and conventional farms proved this conviction.

In measuring economic connectivity (both in terms of purchases and sales) data was collected on the proportion (by value) of sales/purchases made by a business locally, regionally, nationally, internationally and also the actual value (totals and means) of these economic transactions. Consequently, it is possible to distinguish between businesses that are 'highly connected' in terms of the proportion of their sales and purchases made locally but which nevertheless make a relatively small impact due to low sales and purchase values and business which may be associated with a greater local impact even though their business is orientated towards more distant markets. However, beside the fact that such a methodology is originally designed for measuring the economic impacts of organic and conventional farming on rural development, in this case, such data are collected for the purposes of proper characterisation of organic community, which is valuable for policy-making purposes.

Although the interviewers were instructed to persuade the farmer in order to give their financial data, we still are not very sure about the accuracy of the figures given. Firstly, farming activities in Albania are not taxed as other businesses and therefore most of the farmers do not keep accounts. Secondly, as a taxation scheme may eventually start, farmers are inclined to report lower figures. As the two samples are not proportionate, we will not consider the absolute figures but the relative values in terms of patterns of distance. Methodologically speaking, such definitions of 'locality' may be debatable as while pragmatic and easily understood by respondents, perhaps such distances employed are not ideal and changing the definition of local will clearly have a impact on results. There is no fixed definition of local and distances travelled to access 'local' services will vary considerably between remote upland areas for instance compared to urban fringe countryside. There is a need to recognise "degrees of localness".

As Tables 4-39 to 4-41 indicates, for farms in the organic sample, 47% of purchases (by value) were made very locally (within 10 km) and a total of 50% were made either very locally or within the rest of the commune. For conventional farms, these figures are significantly different (55% very locally and 67% within the rest of commune).

Table 4-39. Purchasing patterns: organic farms

	Value of purchases	% of purchases	Mean purchases* per hectare (Lek)
Up to 4 km from farm	1'320'000	16,49	21'854,30
Between 4 - 10 km	2'490'400	31,11	41'231,78
Elsewhere in commune	218'500	2,73	3'617,54
Elsewhere in city	2'815'100	35,17	46'607,61
Elsewhere in Albania	484'000	6,04	8'013,24
Outside Albania	675'000	8,43	11'175,49
Source: Farm survey			

	Value of purchases	% of purchases	Mean purchases* per hectare (Lek)
Total	**8'003'000**	**100 %**	**22'083,33**
Source: Farm survey			

Table 4-40. Purchasing patterns: conventional farms

	Value of purchases	% of purchases	Mean purchases * per hectare (Lek)
Up to 4 km from farm	9'353'630	31,71	75'244,38
Between 4 - 10 km	7'070'120	23,97	56'719,77
Elsewhere in commune	3'540'830	12,00	92'329,33
Elsewhere in city	7'425'210	25,17	81'291,98
Elsewhere in Albania	2'044'010	6,93	58'450,38
Outside Albania	68'000	0,23	40'476,19
Total	**29'501'800**	**100 %**	**71'037,32**
Source: Farm survey			

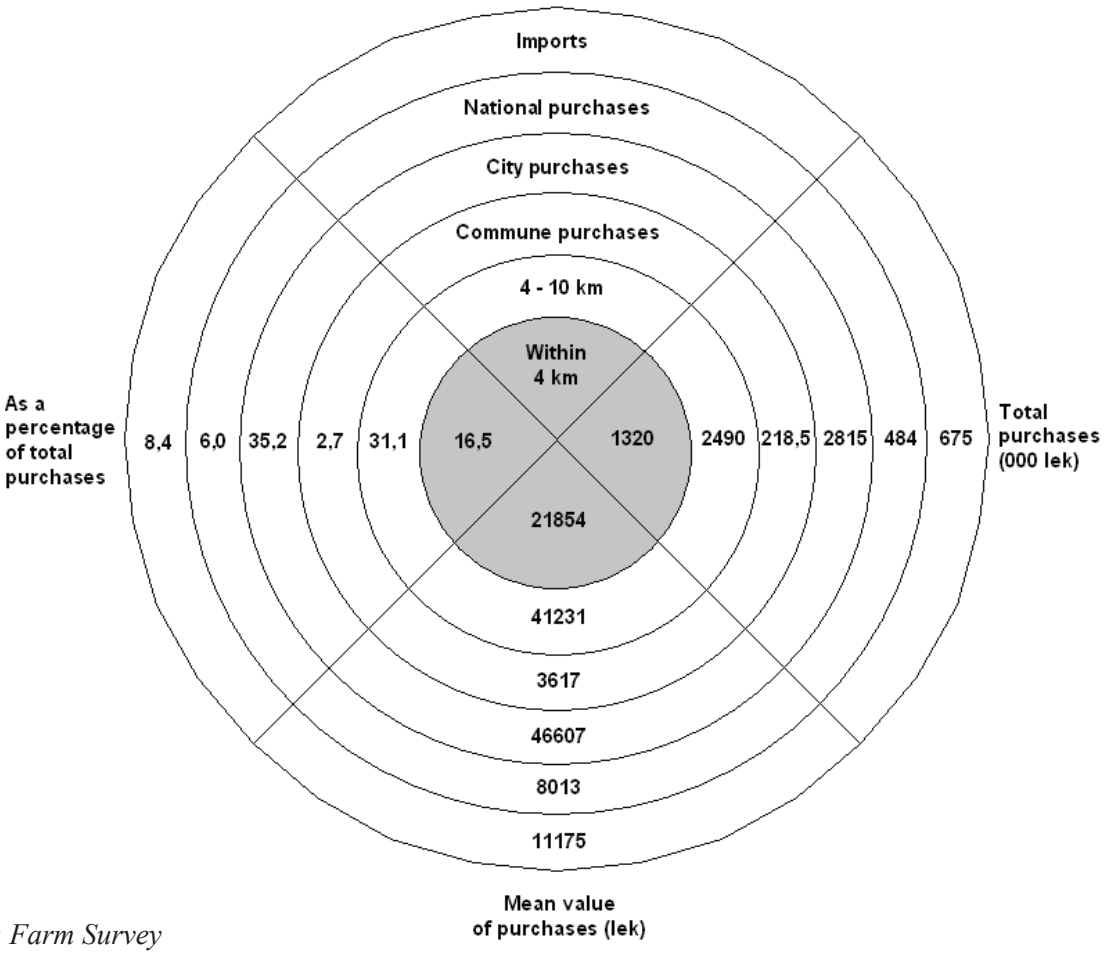
*Means purchases per hectare between organic and conventional farms are significant (ANOVA).

Such a great linkage it can be explained with the size of farms. Smaller farmers are more strongly tied to local economies. Both organic and conventional samples contain mostly very small or micro-holdings. Another limitation of the methodology is the fact that it was impossible to identify if the purchases, although nominated local may be from an outlet of a regional, national or even international supplier and apparent local spending will largely and quickly leak from the local economy to the parent company.

Table 4-41. Farm business purchasing behaviour by farm type and organic/conventional status (000 Lek)

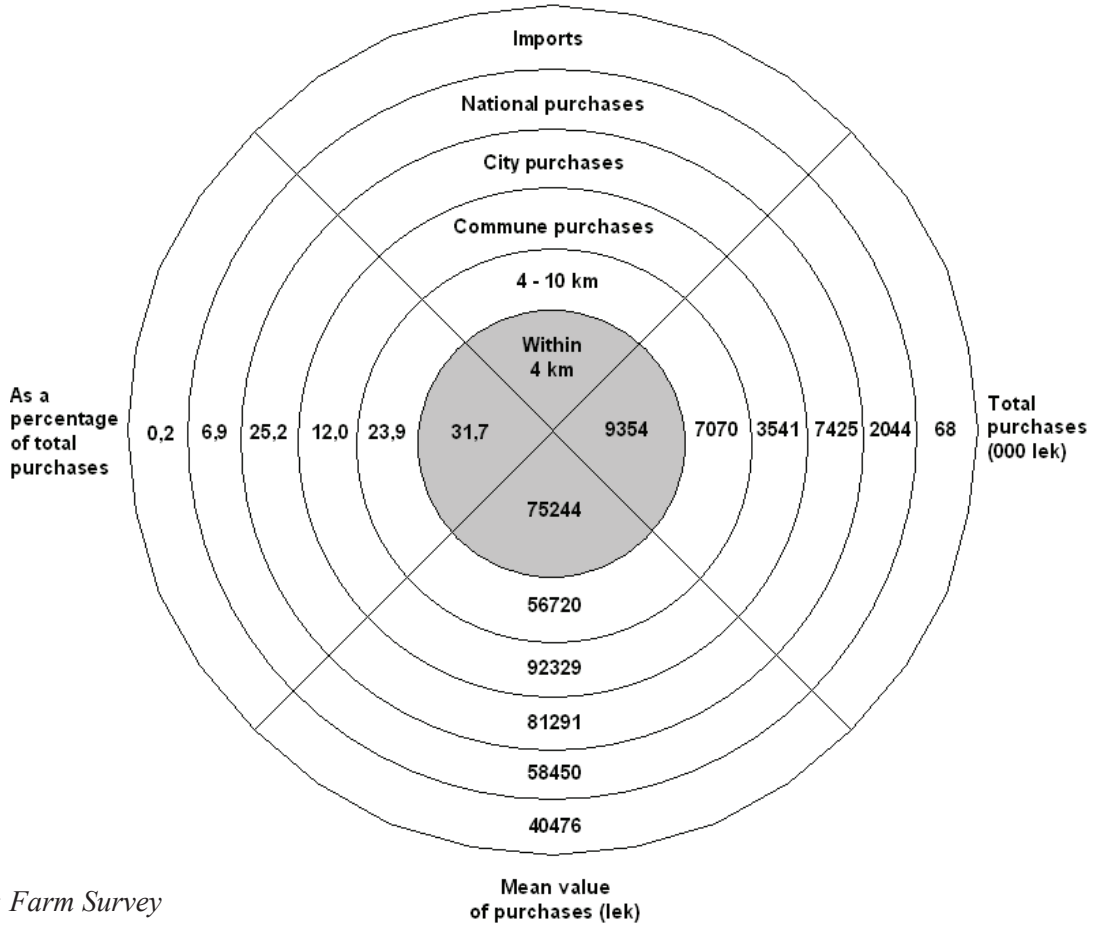
Farm type	Total purchases		Local Purchases			Commune Purchases			City Purchases			National Purchases			Imports		
	Value	Mean	Value	%	Mean	Value	%	Mean	Value	%	Mean	Value	%	Mean	Value	%	Mean
ORGANIC																	
Cereals	0	-	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-
General Cropping	200,00	100,0	160,00	80	80,0	0	-	-	40,00	20	20,0	0	-	-	0	-	-
Horticulture	7653,00	255,10	3590,40	47	156,1	218,50	3	31,21	2685,10	35	157,94	484,00	6	80,66	675,0	9	225
Pigs& Poultry	0	-	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-
Cattle & Sheep	0	-	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-
Dairy	0	-	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-
Mixed	150,00	75,00	150,00	100	75,0	0	-	-	0	-	-	0	-	-	0	-	-
Other	0	-	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-
CONVENTIONAL																	
Cereals	1182,83	131,42	702,08	59	140,41	148,61	13	148,61	253,58	21	126,79	77,33	7	77,33	1,23	0	1,23
General Cropping	6643,66	166,09	3775,93	57	171,63	769,38	12	153,87	1671,37	25	167,13	412,59	6	137,53	14,39	0	14,39
Horticulture	6452,56	169,80	3602,13	56	171,52	700,91	11	157,22	1692,89	26	169,28	440,96	7	146,98	15,67	0	15,67
Pigs& Poultry	502,44	125,61	237,59	47	118,79	63,93	13	63,93	157,14	31	78,57	42,25	8	42,25	1,43	0	1,43
Cattle & Sheep	1096,80	121,82	682,03	62	454,68	158,61	14	79,30	153,58	14	76,79	98,33	9	49,16	4,23	0	4,23
Dairy	951,73	135,96	518,28	54	129,57	140,14	15	140,24	215,00	23	107,50	76,70	8	76,70	1,51	0	1,51
Mixed	12515,62	154,51	6818,75	54	154,97	1540,50	12	154,05	3242,23	26	154,39	885,00	7	147,50	29,14	0	29,14
Other	156,16	156,16	86,89	56	86,89	18,73	12	18,73	39,38	25	39,38	10,81	7	10,81	0,35	0	0,35

Source: Farm survey



Source: Farm Survey

Figure 4-10: Purchases by organic farm businesses



Source: Farm Survey

Figure 4-11: Purchases by conventional farm businesses

Table 4-42. Sale patterns: organic

	Value of sales	% of sales	Mean sales* per hectare (Lek)
Up to 4 km from farm	5’142’500	19,43	85’140,73
Between 4 - 10 km	2’959’000	11,18	48’990,07
Elsewhere in commune	1’527’000	5,77	25’281,46
Elsewhere in city	14’500’500	54,81	240’074,50
Elsewhere in Albania	1’194’280	4,51	19’772,85
Outside Albania	1’130’220	4,27	18’712,25
Total	**26’453’500**	**100 %**	**72’995,31**
Source: Farm survey			

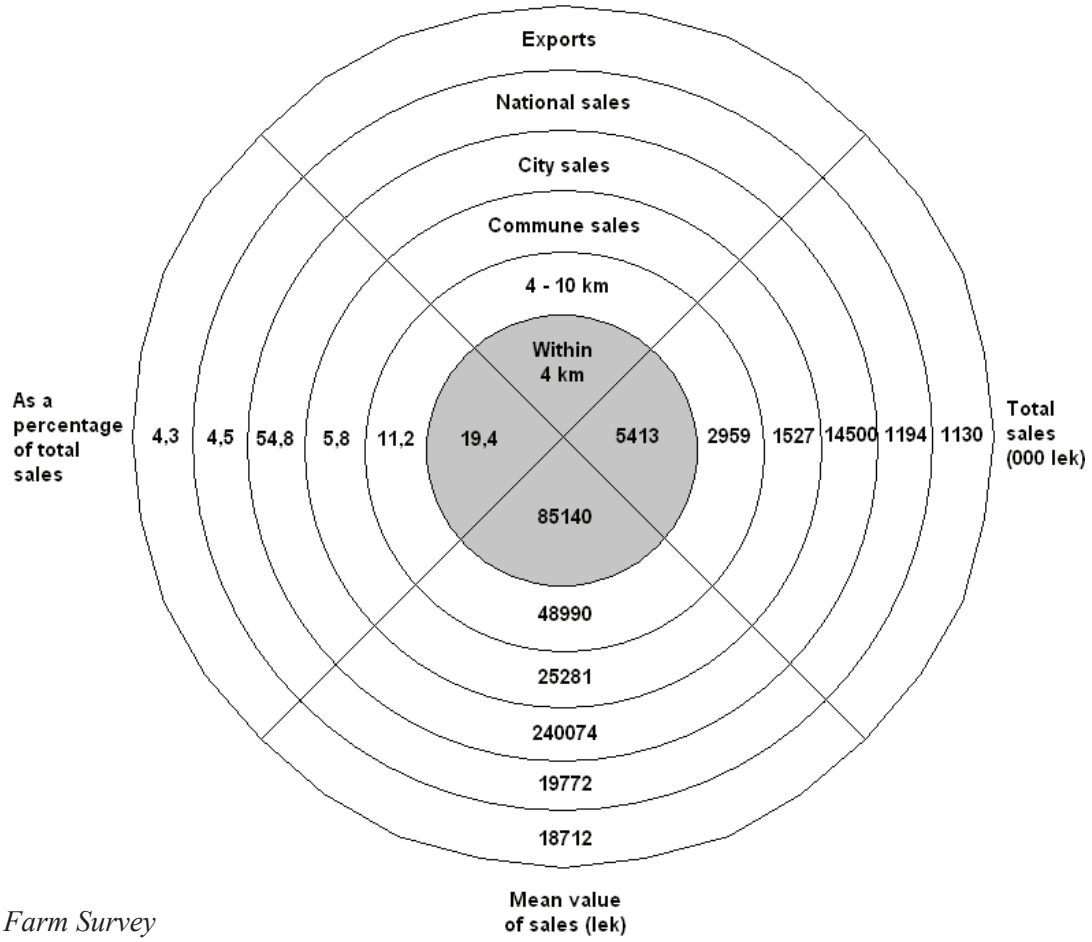
Table 4-43. Sale patterns: conventional

	Value of sales	% of sales	Mean sales* per hectare (Lek)
Up to 4 km from farm	53’293’134	38,76	428’711,56
Between 4 - 10 km	20’201’476	14,69	162’065,59
Elsewhere in commune	11’347’947	8,25	295’904,75
Elsewhere in city	41’284’679	30,03	451’989,04
Elsewhere in Albania	11’372’550	8,27	325’208,75
Outside Albania	0	0,00	0,00
Total	**137’343’785**	**100 %**	**331’085,44**
Source: Farm survey			

*Means sales per hectare between organic and conventional farms are significant (ANOVA).

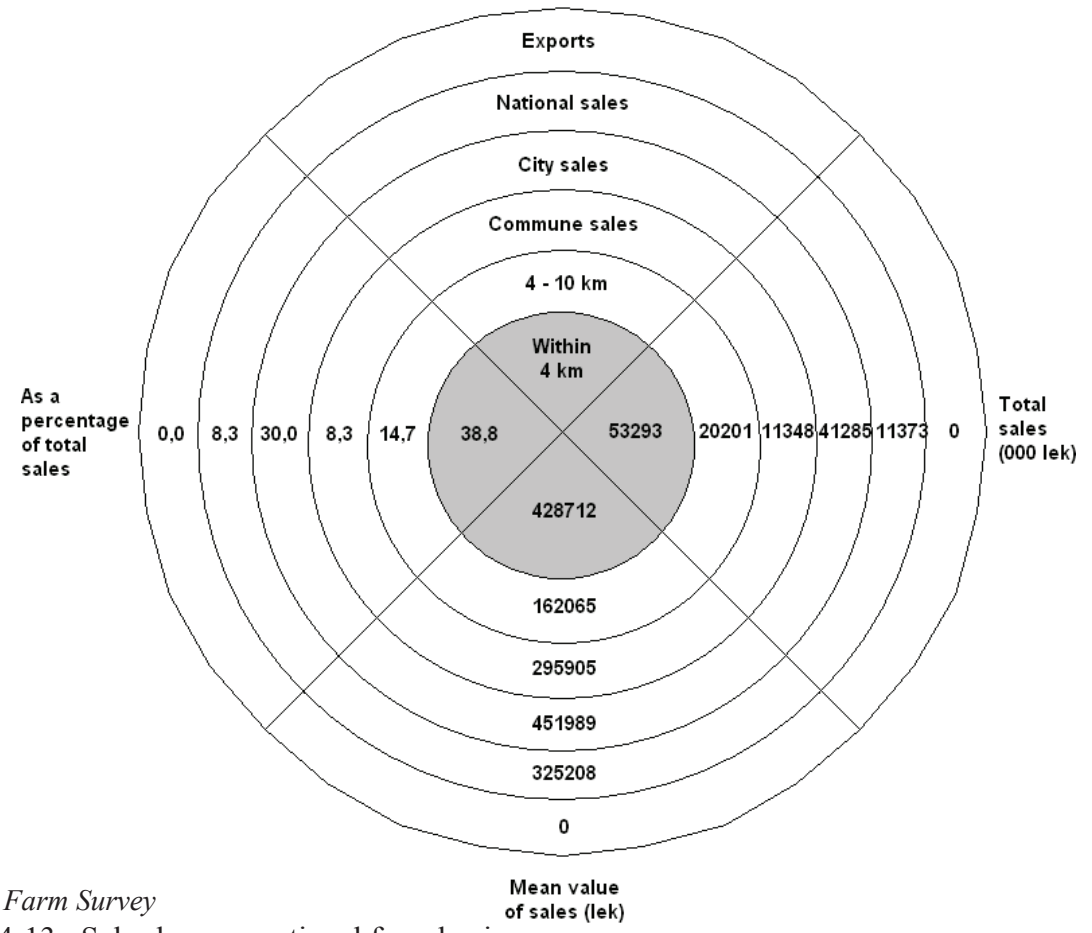
Table 4-44. Farm business sales behaviour by farm type and organic/conventional status (000 Lek)

Farm type	Total sales		Local sales			Commune sales			City sales			National sales			Exports		
	Value	Mean	Value	%	Mean	Value	%	Mean	Value	%	Mean	Value	%	Mean	Value	%	Mean
ORGANIC																	
Cereals	0	-	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-
General Cropping	300,00	150,0	90,00	30	45,0	210,00	70	105,0	0	-	-	0	-	-	0	-	-
Horticulture	25643,50	854,78	6221,50	24	311,07	1487,00	6	495,66	16550,50	65	973,55	1174,28	5	146,78	210,22	1	210,2
Pigs& Poultry	0	-	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-
Cattle & Sheep	0	-	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-
Dairy	0	-	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-
Mixed	510,00	255,0	204,00	40	102,0	0	-	-	306,0	60	153,0	0	-	-	0	-	-
Other	0	-	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-
CONVENTIONAL																	
Cereals	5547,60	616,4	2999,74	45	599,94	462,37	7	462,37	1643,94	25	574,98	441,55	7	441,55	0,00	0	0
General Cropping	28100,48	702,51	14776,69	51	703,65	2401,69	8	600,42	8615,50	30	717,95	2306,60	8	768,86	0,00	0	0
Horticulture	29645,45	780,14	15776,69	53	788,83	2781,59	9	695,39	8600,63	29	781,87	2486,54	8	828,84	0,00	0	0
Pigs& Poultry	2710,04	677,51	1425,44	53	712,72	220,16	8	220,16	827,76	30	411,88	240,68	9	240,68	0,00	0	0
Cattle & Sheep	6747,60	749,73	3899,74	58	779,94	540,37	8	540,37	1865,93	28	621,97	441,56	7	421,56	0,00	0	0
Dairy	5192,58	741,79	2722,02	52	680,50	420,29	8	420,29	1639,06	32	819,53	411,21	8	411,21	0,00	0	0
Mixed	58828,47	726,27	31497,69	54	732,50	4563,40	8	760,56	17793,43	30	711,73	4973,95	8	828,99	0,00	0	0
Other	727,51	727,51	238,50	33	238,50	300,41	41	300,41	118,43	16	118,43	70,17	10	70,17	0,00	0	0
Source: Farm survey																	



Source: Farm Survey

Figure 4-12: Sales by organic farm businesses



Source: Farm Survey

Figure 4-13: Sales by conventional farm businesses

Table 4-45. Sales and purchases of organic and conventional businesses

	Organic farm businesses		Conventional farm businesses		All farm businesses	
	Value of purchases	Value of sales	Value of purchases	Value of sales	Value of purchases	Value of sales
Up to 4 km from farm	1'320'000	5'142'500	9'353'630	53'293'134	10'673'630	20'027'260
Between 4 - 10 km	2'490'400	2'959'000	7'070'120	20'201'476	9'560'520	16'630'640
Elsewhere in commune	218'500	1'527'000	3'540'830	11'347'947	3'759'330	7'300'160
Elsewhere in city	2'815'100	14'500'500	7'425'210	41'284'679	10'240'310	17'665'520
Elsewhere in Albania	484'000	1'194'280	2'044'010	11'372'550	2'528'010	4'572'020
Outside Albania	675'000	1'130'220	68'000	0	743'000	811'000
Total	**8'003'000**	**26'453'500**	**29'501'800**	**137'343'785**	**37'504'800**	**67'006'600**
Source: Farm survey						

One of the most common claims made for organic farming in a rural development context relates to employment creation. Quite simply, employment is necessary in order to earn income to purchase other goods and services. In addition, employment also brings with it a range of less tangible benefits such as social contact and a feeling of self worth. While employment is not the only goal of rural development, it can be seen as a principal means of meeting several objectives. However, as we have previously explained, we do not expect great differences between the two samples as conventional farmers have also a great labour input due to the lack of financial means to mechanise the processes.

As Table 4.46 indicates, this preliminary convinction is true. The differences between the mean total family and non-family labour are not significant.

Table 4-46. Labour use on organic and conventional farms

	Total family labour	Total non-family labour	Total labour (family + non-family employees)	Mean total family labour	Mean total non-family labour	Mean total labour (family + non-family employees)
Organic farm businesses	138	55	193	4,1	1,6	5,7
Conventional farm businesses	723	259	982	3,8	1,4	5,2
All farms	**861**	**314**	**1175**	**3,95**	**1,5**	**5,45**
Source: Farm survey						

Given the differences in the composition of the total labour force within the survey, a more meaningful comparison is to standardise labour into Full Time Equivalents (FTEs). The calculation of FTEs was based on the definition from Errington and Gasson (1996) where: full-time = 1 worker, part-time = 0.5 of a worker, casual = 0.33 of a worker and seasonal = 0.125 of a worker).

Table 4-47. Labour use by FTE/HA by farm type

Farm type	FTE Employee/ HA	FTE Family/HA	FTE per ha excluding other
ORGANIC			
Cereals	-	-	-
General cropping	0,00	2,40	2,40
Horticulture	0,29	1,86	2,15
Pigs & Poultry	-	-	-
Cattle & Sheep	-	-	-
Dairy	-	-	-
Mixed	0,00	0,83	0,83
Other	-	-	-
CONVENTIONAL			
Cereals	0,17	0,84	1,01
General cropping	0,33	1,32	1,65
Horticulture	0,43	1,49	1,92
Pigs & Poultry	0,13	0,85	0,98
Cattle & Sheep	0,11	1,08	1,19
Dairy	0,19	0,72	0,91
Mixed	0,27	1,14	1,41
Other	0,22	1,28	1,50
TOTAL			
Source: Farm survey			

The data on the salaries of family labour must be treated with some caution, particularly where this represents a farmer and spouse as many farmers do not pay themselves a wage that is easily comparable with salaried workers either within farming or beyond. Moreover, as with all the financial data, there is an uncertainty regarding the accuracy. Bearing that in mind, Table 4-48 presents salary information for organic and non-organic farms of different types but it reveals no considerable differences both within the organic sector and between organic and non-organic farms of the same type.

Table 4-48. Salary levels: organic and conventional farm businesses compared

	Total salary bill (FTE basis)	Salary/FTE	Salary/family FTE	Salary/non-family FTE
Organic farm businesses	14’471’000	140’716,6	134’582,6	184’805,1
Conventional farm businesses	80’806’000	128’331,4	130’444,9	119’719,7
Source: Farm survey				

Chapter Five: Conclusions and Policy Implications

5.1 Introduction

This Chapter discusses the findings of Chapter Four, "Analysis of Data", within the context of literature. It starts with the interpretation of the results from the Delphy survey which are very important in terms of policy formulation.

5.2 Characteristics of organic sector in Albania

5.2.1 Pre-conditions for the development of organic farming

Albania's agriculture seems to be, in many aspects, organic by default. Farmers use small quantities of chemicals due to unorganized demand and supply. The lack of financial means and technical know-how and location mostly on hilly and mountainous areas, make them find solutions within their farms. This makes it easier to convert this agriculture system to organic, maybe easier than in other EEC countries. Such a conversion can be stimulated by the European integration process considering that the reformed CAP, which has started to influence our agriculture policy, will create more opportunities for organic. These facts, and others, motivate the promoters of this sector, a precious resource for the movement itself. The recent proliferation of new initiatives and structures, even private, in the area of organic farming are confronted to other actors interested to the development of the sector in the country and new exigencies related to the progressive integration of Albania in EU.

Other factors, rather intrinsic, like the Mediterranean climate and the relief which offers a great biodiversity of microclimates and soil, plants and animals, can favour the production of organic foodstuff. The Albanian organic products are almost all "typical" products, connected to the local tradition. Such typicality and connection with the territory (a synonym of genuineness), seem to constitute a quality very much appreciated by the Albanian consumer, especially the urban one. The climate, matching Europe's largest producing areas (Spain and Southern Italy), can provide for off-season production and direct competition, with lower labour costs, against those areas. Plantations in the dry coastal weather are less prone to pests.

The favouring location in the middle of the Mediterranean sea enables ships from Albania to reach the European ports of Bari, Ancona, Trieste or Koper in a few hours, Marseille and Northern European ports such as Rotterdam, Le Havre or Hamburg in a few days. Albania also borders with Greece, a small but interesting (and chronically undersupplied) market for organic products.

From the strategic viewpoint of agriculture policy, Albanian competitiveness can be further attenuated if policy-makers will take into consideration factors like small size of land per capita which does not allow for intensification but only to match the smaller quantities required by the organic sector. Competitiveness from neighbouring countries, even Balkan ones, can be enhanced by producing organic. The value-added through conversion may become an incentive for many Albanian farmers who have abandoned their lands. As there is not so much space left for Schumpeterian revolutions in the conventional sector, there are in the organic sector. European organic companies will be more ready to listen than their industrial counterparts.

Organic farming conversion can be facilitated by the big educated labour force in rural areas of Albania, trust build up by the work of organic NGOs, competitive prices of Albanian organic products compared to foreign ones, the existence of a legal framework for organic farming, the willingness of the high management level of MAFCP to start implementing the law on organic farming, support from donors through projects on organic farming, tradition of consumption of tasty food, high water reserves for irrigation, etc.

Experts foresee that new changes in the CAP will run havoc among small European farmers. Given the small size of organic farms in Southern Italy, some of them might stop producing in the near future. Albania could then be ready to replace them, at lower costs.

As the Albanian economic regime is extremely free-trade oriented, with low tax rates and wages being a fraction of those in EU or even EEC countries, this can provide lower prices exactly where they are now needed the most: for labour-intensive organic products such as band onions, asparagus, artichokes, spinach, fennel, celery, grapes.

However, further development of the sector is impeded by the limited market for organic produce and limited experience of Albanian farmers with organic farming techniques. Beside the relatively high level of general education of rural inhabitants, their level of agricultural education is low. As we can deduct from the farm survey data, a large proportion has started to practice farming only after the '90s, either because they were doing another job which was closed down by the state or they were only doing a very small part of the work within the agriculture cooperative. Thus, they have a great lack of technical and managerial skills and a lot of farming tradition and know-how was lost during the communist regime. Even more concerning is the fact that policy-makers have not counteracted to this situation with the adequate education offer, especially at the secondary and professional level education. Such conditions would explain the lack of valorisation of agriculture potentials of the country which many are voicing, even within the conventional sector.

Other factors which limit the development of organic sector is the lack of subsidies or other incentives in the context of shortage of farm capital. Albanian consumer have a limited awareness regarding food safety issues and those who are developing organic farming has done very little to promote organic foodstuff. In general, marketing structures are weak. Albania is well-known for the low enforcement of laws, including those on consumer protection and food safety. Therefore, inspection/certification bodies have a low credibility to ensure consumer trust, especially foreign ones. Extension officers only recently have started to get some training on organic so their level of knowledge on organic farming techniques and standards is low. Furthermore, there is a lack of adequate agricultural inputs for use in organic farms because of the low quantity demanded.

The low cooperation between the governmental and private sectors on the formulation of policies has delayed the establishment of a national organic system, with stable and structured internal and external relationships. Beside the personal relations developed under projects funded by international donors, there is a very fragile capacity of international networking of the Albanian organic community. Moreover, conflicts have risen in relation to the role of the public and private in the development of the organic sector. For instance, there is a debate regarding the role of public and private extension. While the supporters of the public extension service claim a future strong role for them in supporting organic farmers there is mistrust from the private extension services about their efficiency. In fact, even the so-called "private extension bodies" are operating with public money coming from donors; it is obvious that, at this stage, their services would hardly be paid by the organic farmers. Furthermore, both public and private extension bodies do not have a systematic and structured collaboration with universities.

The Albanian Government, beside the strong willingness to support organic, partly due to the strong interest of donors toward organic farming as a form of sustainable agriculture, has no clear political vision regarding the role and the prospective of organic farming in the context of agricultural development and more generally, economic development of the country. There are only few vague references of organic in official policy and strategic documents. Beside the willingness declared, there is a risk that in the building up of the national organic no real participatory approach would be followed,

considering the lack of synergy between pertinent ministries (agriculture, environment, health, etc.).

Further weaknesses are the great difference between the Albanian and EU farmers regarding competitiveness and financial situation, low potential for export due to small volumes of produce, bad financial situation of farmers which makes them impatient to great and fast incomes. Furthermore, the strong dependency from donors constitutes for several reasons a weakness for the sector. It is difficult to imagine a future of this sector without such support, especially in the short run. The relationships between the different representatives of Albanian organic community seem to be far from collaboration and serenity. In the near future, there is a risk for the increase of competition with more acute contrasts with major consequences for a harmonious development of this sector.

At the moment, the Albanian farming community is not making use of the Albanian Agribusiness Council which is lobbying the Government for the interest of Albanian agri-food producers. The latest, established by USAID seem to be very susceptible about the future of organic in Albania, especially after their schism regarding the case of GMOs. However, even within the organic community, only few pioneers show a strong ideological and philosophical approach. Thus, it is very improbable that such ideological and philosophical approach will produce considerable changes in the behaviour of producers coming close to organic farming. The constitution of the organic movement mainly from professors and experts means that the farmers are not the first to support this sector. The discrete introduction of organic farming concepts at universities and research institutes in Albania impedes the dissemination of the concept among the new generations.

In view of the actual development of organic, organic farming sector in Albania is emerging. However, beside the limited growth in terms of surface under organic management and number of organic farmers, there is a growing trend in the perception of organic food as well as sympathy among farmers regarding organic production methods. There is a need to distinguish between real organic farming and "primitive" agriculture practiced in the most part of the territory due to the lack of financial means to practice a more intensive agriculture. This is also considered as a very important constrain for the development of demand for organic as competition from near-organic (natural products) will be very important. There is also predomination of the opinion, even among experts, that organic products are a luxury product, which will always be more expensive than the "food for masses".

5.2.2 Organic farmers and their farms

Data from the farm survey provide for the first time to the reader some important insights about the organic farming community in Albania.

It appears, as anticipated, that organic farmers are operating the same small surface of land available as the conventional ones, beside slight regional variations, which are characteristic also for the conventional farms. In terms of farm type, it is very obvious that organic farms are mostly horticultural. At the current stage of development, horticultural products (fresh fruits and vegetables) are predominantly required by the market.

Organic farmers seem to be older than the conventional ones whilst there is no difference in terms of gender, age structure and education level. Beside their relatively old age, all farmers are new farm managers although many of them have a considerable experience with farming. Based on these facts and taking into consideration the history of the organic movement in Albania (with NGOs/donors support), it seems that most of organic farmers were selected by the organic NGOs as the most experienced farmer(s) in a specific area and were converted. In the context of a poor agricultural activity and lack of market, such farmers were persuaded by the financial and technical support offered by the

organic NGOs as well as the opportunity for export, in many cases, with the donor being the intermediary (e.g. organic olive oil exported in Switzerland). This assumption is based also on direct experiences from the farm survey, in which occasion we noticed that these farmers were not driven into organic by their philosophy but rather from the project. Such a conclusion means that these farmers will stick to organic rules as far as there is a financial motivation, either a financial and technical assistance or a price premium. This partly explains why such a small number of farmers have converted in these 10 years of organic movement in Albania.

Our attempt to analyse the economic behaviour for the purposes of further differentiation between organic and non-organic farmers in Albania, did not reveal major differences. This is the case with proxy measures of embeddedness like the distance from place of birth, distance from majority of close family and distance from majority of close friends. Further use of proxy indicators for various elements of social capital reveals more attenuated differences between the two samples. It seems that organic farmers, relying more on incomes generated from agricultural activities are much more involved in agricultural and environmental associations; conventional farmers, relying very much on off-farm employment are keener to be member of political parties and local government authorities in order to secure/find their job.

Both groups are suffering in terms of marketing. Whilst conventional farmers are aiming at the local (city) market, organic farmers are looking for access to the market of Tirana and for exports in order to benefit from price premia. Despite this, there is no great difference in the characteristics and organisation of the business in terms of diversification, maybe due to the recent conversion and the lack of market for organic. Due to small average farm's size, purchases are made almost all locally. Organic and conventional farms are not different in terms of employment but they make more use of family members for farm activities.

5.3 Constraints to the development of organic sector in the future

In a situation of emerging organic sector with the current growth potentials and constraints, organic farming will have an overall growth rate from 2 - 5 %. It seems that "fruit and vegetables" category will have the highest growth with 5 - 10 % and it should be supported with priority. Cereals and convenience products seem to be a very low growth and priority in terms of support. Other product categories like "dairy", "meat" and "medicinal plants" are in the middle. Such estimations seem in line with the actual composition of organic farmer's community in terms of specialisation.

These organic products should be sold mostly through multiple retailers and supermarkets. At the moment, shopping in supermarkets in Albania constitutes an event for the local consumers and is an obligatory choice for the large community of foreigners living in Albania. These highly educated and rich consumers are, at this stage, the only potential consumers of organic foodstuff. However, supplying even a small organic corner in the supermarket with fresh products according to standards and all-year round it would be a great challenge for organic producers. Specialist organic shops may also play an important role as we have experienced in the last years but with a much smaller turnover of clients. At the current stage of development and with a low demand and supply, direct marketing and catering/public services have a low potential as retail channels.

Very important future constraints to the development of organic supply are linked to the limited market for organic produce. This may frustrate organic farmers who may abandon the system. Considering the limited consumer awareness, organic NGOs are trying to explore export opportunities to benefit for higher prices and to keep their farmers in the loop.

The low level of agricultural education among farmers and the low level of cooperation between

governmental and private sectors on policy formulation will continue to be future restraints to the development of organic sector in Albania. Due to the low enforcement of laws on consumer protection/food safety, organic foodstuff may suffer from fraud.

Very important constraints to the development of organic research, training and extension are related to the limited opportunities for employment of organic specialists and the low priority among foreign donors operating in Albania. Other important constraints are the lack of financial resources for pertinent research, low priority among agriculture research priorities, lack of proper organic farms and industries to carry out research and the limited introduction of "organic" in academic curricula.

5.4 Policies for organic farming

The leitmotif of all this thesis was to justify government's policy support for organic farming; it seems that all stakeholders in Albania agree on this. A general principle to be considered in terms of policy support is that the success of organic will not come from enforcing conventional agriculture or GMOs, but rather from promoting it as a better alternative. At present, the creation of a clear enabling institutional framework, on one hand, and the structuring of organic supply chains -focusing on key strategic products and on essential services- on the other, represent an obligatory double track for a sustainable development of the Albanian organic system which also has to progressively gain recognition and place itself in the international organic community.

The following policy areas are considered in order of their importance:

(a) Development of the organic market
(b) National Strategy (i.e. Action Plan) for Organic
(c) Consumer education and awareness
(d) Inspection & certification (including GMOs)
(e) Research, education, training & extension
(f) Fiscal policies

In relation to the envisaged development path, such priorities and actions are presented in the following sub-sections, all of them being essential complementary steps to be taken, in a convenient time span, with due consideration for their impact on the Albanian rapidly changing agriculture and institutional setting.

5.4.1 Development of the organic market

The first priority area focuses on the need to structure organic supply chains. Important activities in this regard would be the encouragement of local producer/consumer networks as well as marketing organizations for small organic producers, facilitation of the integration of the production chain by contract arrangements between actors and the emergence of inter-professional agreements, and the adoption of a number of carefully designed indirect support measures.

In line with the retails channels identified as most relevant for organic foodstuff, the setting up of "organic corners" in local markets and supermarkets and the promotion of direct contacts and permanent links between consumers and organic producers is another very important policy action. Establishment of weekly organic markets in some specific areas identified for the purposes of capturing a high level clientele could be an immediate solution to create confidence to organic farmers regarding the profitability of their choice. This can be further extended with the participation of Albanian organic producers and processors in international organic fairs and events. The integration of Albania in the international organic community and promoting national and international networking should be encouraged. The image of the Albanian organic agriculture should be actively promoted worldwide.

Moreover, the history and the experience of the Albanian organic movement and sector need to be adequately reported in publications and websites dedicated to organic agriculture.

Considering the importance of tourism for the development of the Albanian economy, the building up of synergies with sustainable tourist initiatives and events as well as with typical products should be considered as a priority action. The primitive style of the Albanian agricultural and rural landscape, although not good-looking to locals, it is attractive for the foreigners. Moreover, as in other Mediterranean countries, there is a strong food tradition which can be enhanced if such foodstuff are certified organic. On the other hand, organic market should be considered as closely related with environment issues. In this way, the role of organic farming in achieving rural development objectives can be further attenuated.

The creation of the demand for local tasty products due to concerns on the quality of domestic processed foodstuff as well as the introduction of low quality foodstuff from neighboring countries can serve as a good basis for the promotion of organic products. Product categories which would benefit more in both terms of demand and supply are dairy, meat, and fruit and vegetables. In this regard, the media can play a fundamental role in raising consumer awareness.

Market surveys and analyses should be part of projects to be funded by MAFCP and donors, in order to support the development of the sector. In view of a limited budged for support, commercial appraisal on key Albanian organic products needs to be carried out. Other activities that would boost the demand for organic are serving organic meals on special events, encouragement of local producer/consumer networks as well as marketing organizations for small organic producers.

Currently information about the organic market does not exist or is not credible (that is the reason for not providing statistical evidences about organic production in Chapter 2). Clearly, for businesses becoming more market facing it is imperative that they have accurate and timely information about that market. Co-ordination and standardisation of information and having it presented in an accessible form is a key part of allowing the sector to grow. Thus, a national information system on organic agriculture should be set up with the purpose of producing accurate and reliable data on the basis of which public decisions and private initiatives concerning the sector could be appropriately made. Organic NGOs should help in collecting and reporting such information while the Government in co-ordinating and verifying the data. The first three steps in this direction will be represented by the creation of:

- an organic agriculture database including statistical information on the extension and localisation of the organic land area, the number and the profile of organic operators, the main organic crops, etc. Information should be collected/produced taking into account Eurostat requirements;

- an official website on organic agriculture including the following sections: i) relevant official regulations and support measures; ii) statistics on the organic sector; iii) characterisation of the main Albanian organic productions (quantities, product characteristics, place and season of production) and producers; iv) zoning of the Albanian territory on the basis of vocation for organic farming; v) information on ongoing organic projects and initiatives funded by international donors; vi) information on studies and research work carried out in the field of organic agriculture; vii) organic sector periodical newsletter; viii) web resources;

- an organic market information system.

A organic competence office should be established at MAFCP with the aim of co-coordinating current and future projects, for the establishment of an organic information network as well as to offer technical assistance (also on-line) as well as information to support the decision-making with the help

of specific computerised tools. Furthermore, it should contain updated bibliography on organic farming, periodicals as well as an online catalogue which enables the consultation of all the international organic library pool, specialised on sustainable rural development.

5.4.2 National Strategy (i.e. Action Plan) for Organic

The second priority area relates to the design and implementation of a national organic agriculture strategy (i.e. Action Plan) allowing for synergies with other relevant institutions and development policies. Such a national organic agriculture policy needs to be developed on the basis of an integrated and participatory approach, through permanent consultation with the key stakeholders of the sector. Cooperation among the different departments of the Ministry of Agriculture, Food and Consumer Protection on one hand, and between the latter and other relevant Ministries, on the other, should be fostered. Whenever appropriate, organic agriculture should be included in the ongoing revision of agricultural and rural development, food safety, environmental protection, public health, education and sustainable tourism policies and programmes.

After due consideration of the State budget limitations and administrative complexities, targeted efforts should be made to design and implement direct and indirect measures to support the development of the organic sector. This would help numerous small farms to be able to survive through a niche market. The Government should take actions to establish the national organic system by implementing the law on organic, creating the necessary structures within the ministry to deal with organic issues, etc.

Adequate capacity building and participation into key events would support the representation of Albania in the international organic community and debates on strategic issues. The identity and the role of Albania in the Mediterranean organic community can be strengthened through intensification of relations and cooperation with Mediterranean partners aimed at experience and best practice exchange on organic and typical productions. This can encourage cooperation and networking among national organic organisations. At the same time, the building of "external" alliances beyond the organic sector should be fostered for a more balanced growth of the sector itself and a better dialogue between organic and mainstream agriculture communities.

5.4.3 Consumer education and awareness

The third priority area for action is to communicate organic to consumers. The most effective way would be the implementation of national information, promotional and educational campaigns to raise consumer awareness about organic farming's multiple benefits in terms of health, wellness, environment protection and local development.

Another long-term strategic approach is the introduction of organic farming in school education. Both government and donors can support open days on organic farms. This is an alternative way of farmers working together. The operators of existing direct sales organic farms could clearly have a role in providing a demonstration farm and in the provision of business reconfiguration advice. A number of pioneering farmers should be recruited to form part of a network of demonstration farms where the emphasis is on understanding the process of changing and sustaining the farm business rather than just the farm system. As part of this system, funding should be available for exchange visits within Albania and possibly abroad.

In the long run, public procurement should be stimulated. First initiatives can be implemented with some specific institutions like hospitals or orphanages supported by foreign donors. With the due media coverage , such activities can boost the demand for organic products.

Effective comparison between conventional and organic foodstuff by showing the advantages of the latest is an effective way for raising the consumer awareness. Labelling should also be carefully designed and promoted.

5.4.4 Inspection & certification (including GMOs)

The fourth priority area is to enforce the national legislation on organic agriculture and to structure the national organic system. The Government should amend and enforce the national legal framework on organic agriculture through consultation with relevant stakeholders and interest groups, taking into due consideration the recent revision of the EU regulation and the European integration process.

Efforts should be made to streamline bureaucracy for inspection and certification procedures which should be risk-assessment based. Adequate action should be taken to enhance the efficiency and transparency of the inspection and control system and an effective supervision on the work of inspection and control bodies should be guaranteed. Both farmers and Government should know that certificate for organic food is as important as the birth certificate for men; if you don't have one, you don't exist. Moreover, all the necessary links and synergies with the activities of the Food Safety and Consumer Protection Department as well as with the ongoing process eventually leading to the establishment of the National Food Authority need to be ensured.

The possibility to adopt the collective certification option should be evaluated considering the multiple benefits (in terms of reduction of certification costs and administration simplification) that the "group approach" may bring in the context of Albanian agricultural systems, characterised by extremely small farms, land fragmentation, poor concentration of the agricultural supply and limited market opportunities. An important role in this regard is envisaged for inspection and certification bodies in cooperation with extension services. Considering the land fragmentarisation, such initiatives would stimulate the conversion of farmers, and facilitate the application of organic practices without the fear of inputs used by their close neighbours.

The launch of the equivalency assessment process should be considered, after assessment of connected implications and costs of compliance. Constructive dialogue and negotiation among stakeholders should be promoted on GMOs and coexistence issues.

5.4.5 Research, education, training & extension

The fifth priority area is research, education, training and extension in order to develop and consolidate a national organic knowledge system. In this regard, synergies and close cooperation among different actors - ministries, universities and other research and extension services concerned - should be fostered with the aim to supporting the progressive creation of an integrated organic knowledge system.

A number of implications for future research activity arise from this research. Specific priority research areas in organic agriculture should be identified and targeted allowing for adequate fund raising. The following research areas are initially proposed for consideration: organic production practices and technologies; market and socio-economic aspects; organic policy design and implementation. Meanwhile, other long-term studies should be considered as studies on the positive effects of organic farming on the health and nature, consumer behaviour, quality research, etc.

Beyond these methodological concerns there are several easily identified areas where further information and a deeper understanding is required. These include developing an improved understanding of the networks of support between farmers and important agents of change. In the organic sector in particular, the decision making process at the farm level often appears to be heavily influenced by ex-

ample and exemplars. A greater understanding of the role of exemplars as agents of change would be helpful in understanding how change can be facilitated and encouraged. Linked to this is a need for research into the role and impact of certifying bodies, public sector agencies and policy measures. An understanding of how the policy context, key actors and policy measures interact to encourage and support the development of organic farming and direct sales to consumers may be useful in facilitating a more even distribution of the rural development benefits of certain business forms.

In the future, the setting up of a multidisciplinary research group on sustainable/organic agriculture should be considered. Cooperation between research institutions and organic associations should be encouraged in order to enable academic capacities and scientific activities to be problem solving-oriented and effectively respond to organic farmers' needs.

The inclusion of organic agriculture courses in academic curricula and an adequate offer of professional training opportunities on organic farming and processing practices should be promoted. In the ongoing reorganisation of public extension services, specific attention should be given to the integration of organic agriculture in the extension services' plans (and programmes) of activities with the aim to promoting the transfer and diffusion of organic know-how among Albanian producers. In this regard, collaboration between public extension services and local and foreign NGOs would interestingly increase levels of performance in service delivery. Therefore, cooperation and experience exchange will be strongly encouraged.

The Ministry of Agriculture, Food and Consumer Protection should include organic agriculture in public extension services' programmes of activities in order to raise farmers' awareness on the technical and administrative requirements and benefits connected to organic conversion and certification.

5.4.6 Fiscal policies

This policy area is favourite for the promoters of organic farming in the EU context but it has a low ranking in Albania due to limited budgetary funds. In due consideration of this budgetary limitation, actions like tax reduction/exemption for the consumers of organic foodstuff are considered as impracticable in the short run.

In the long run, an exemption or tax relief for organic processors could be considered, together with other measures like subsidisation of fuel used in organic production, loans with lower rates, taxes on polluting inputs, GMO products/seeds, internalisation of environmental costs, charge reductions for processed organic food sample analyses and lower tax rates on organic farming practices (when it will be applied). The management of an eventual organic farming scheme can be efficient due to the small population of organic farmers.

Actions to overcome the major constraints to the supply of organic produce, would consist in the establishment of a pilot organic farming support scheme under Rural Development Programme, adoption of organic farming method and practices among eligibility conditions (and priority criteria) for access to agriculture support schemes. Other important activities would be the initiation of special support schemes for organic farming marketing and processing. The beneficial impacts associated with organic farms identified in this research should convince the Government to develop a help organic farmers in Albania to operate a very different business model to supply customers directly. This package should recognise that it is a process rather than a simple switch and that on-going support will be required. The business reconfiguration package should be available to all farmers but in the organic sector it could be run in tandem with organic conversion. Given the greater benefits associated with the organic direct sales sector (compared to non-organic direct sales), a differentiated rate of support should be available. Such financial assistance should be combined with technical and

business advice for a long-term success.

For an effective and efficient deployment of public (and private) resources in the organic sector, an Albanian "organic basket" including olive oil, wine, honey, officinal plants, etc. have to be identified and characterised. Given the current drawbacks and the future agriculture policy in Albania in view of CAP influence, there is any chance to introduce organic bulk products from Albania in the EU at a decent profit. Things do look different for fresh or frozen products, as the fast internationalization of those markets prove. But producing and exporting frozen products requires machinery, know-how and utilities which are either not there or too unreliable at the moment. So far, fresh products is the best choice.

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ANNEXES

Annex 1 Round 1 Questionnaire[1]

Organic Farming Policies for a Sustainable Development of Rural Albania

This questionnaire is the first of three, successively more refined requests for expert opinion on promotion of policies for the development of organic farming in Albania, as a tool to sustainable rural development. In this round, the aim is to open up the subject and discover as wide a range of perspectives as possible. The aim is not to achieve consensus; therefore, please feel free to include your views, even if they are unusual or unpopular. There are eight questions overleaf; there is also space for you to address anything that you feel we might have omitted at this early stage. Please continue your answers on additional sheets, if needed (in the case of the questionnaire on hard copy).

Please return the completed questionnaire in the enclosed freepost envelope, or by e-mail if you prefer. The returns from this round will be coded, analysed and returned to you in the form of an initial report; they will also be used to construct the second round of the questionnaire, which will indicate the proportion of those suggesting particular perspectives in returns to the first round. This questionnaire will be followed by a third, more specific request for information, after which it is anticipated that the Delphi inquiry will be complete.

(For further guidance or assistance in completing this form, please contact Endrit Kullaj,
Mob. +355 69 21 28 112 or endrit.kullaj@unibo.it)

Thank you for your participation at this stage.

Q.1 What are the strong and weak points of organic farming development in Albania?

Strong points:

Weak points:

Q.2 How would you describe the current state of the organic farming in Albania?

Q.3 How do you expect the organic farming to develop over the next 10 years? (Please include important new influences not discussed in previous answers.)

Q.4 Please, give your suggestions regarding policy measures that will contribute to the development of organic farming in its actual stage by demonstrating also their potential effect?

Q.5 What advantages and disadvantages has organic farming compared to conventional farming for the economic, ecological and social development of rural areas of Albania?

Q.6 What characteristics make an organic farming policy measure successful? (Please give concrete examples, if appropriate.)

Please use this space to raise any issues relating to policies for the development of organic farming in Albania that have not been covered in previous questions.

1 Adapted from the same questionnaire used in OMIaRD Project

Annex 2. Round 2 Questionnaire[2]

Organic Farming Policies for a Sustainable Development of Rural Albania

This questionnaire is the second of three requests for expert opinion on the future development of the organic farming policies and the role of organic farming in the rural development of Albania.

Based on the analysis of the result of the first questionnaire, the aim of this second round, is to clarify some issues in relation to the development of the organic farming in Albania and to gain further insight into factors likely to further influence the future development including the role of government policy and their impact on rural development.

The questionnaire contains mostly closed questions and attitude statements, apart from a number of more open questions dealing with issues not widely covered in the first round. If your answer exceeds the space provided, please continue on an additional sheet if needed, identifying the number of the question to which it refers.

If you would like to complete an electronic version of the questionnaire or for further guidance or assistance in completing this form, please contact Endrit Kullaj,
Mob. +355 69 21 28 112 or endrit.kullaj@unibo.it

Thank you for your participation at this stage.

Section A DEVELOPMENT OF ORGANIC FARMING IN ALBANIA

In the report of the first round of this Delphi we classified Albania according to the state of development for organic farming as emerging.

Q1. Do you agree with the category in which Albania has been placed? Yes No Don't know

Q2. If you don't agree (q. 1) please could you re-classify it?

Established Growing Emerging Don't know

Comments_____

The responses to the previous round suggested that, from one hand, organic farming should be practiced in remote mountainous areas which cannot intensify, and from the other hand, that cultivation areas near major centres have more market opportunities. Questions 3 and 4 are aimed at clarifying this.

Q3. Please indicate in which areas organic farming should strategically be supported.
- Close to urban regions (near major centres)
- Remote rural areas (mainly mountainous)
- Other regions (please specify?)

Q.4 Please indicate which organic products should be supported in terms of policies. Please rank in order of importance, with 1 being the highest priority.
- Meat products
- Dairy products
- Fruit & vegetables
- Medicinal plants
- Cereal products
- Convenience products

2 Adapted from the same questionnaire used in OMIaRD Project

Q5. Which retail channels you would suggest as most important in for the distribution of organic products? Please rank the different retail channels in order of importance, with 1 being the most important retail channel.

- Multiple retailers and supermarkets
- Direct marketing (box schemes, farm shops, farmers markets)
- Specialist organic shops (stocking mainly organic produce)
- Specialist shops stocking some organic food (e.g. green grocers, bakers, butchers, health food stores)
- Catering/public services (hospitals, school restaurants, restaurants etc.)
- Other (please specify)_____

Q6. Please classify the following constraints to the development of the organic production according to their importance.

	Very important	Important	Not important	Not at all important	Don't know
- Limited market for organic produce					
- Limited experience of farmers with organic techniques					
- Low level of agricultural education among farmers					
- Lack of subsidies or other incentives to convert					
- Limited awareness of consumers					
- Low enforcement of laws on consumer protection/food safety					
- Low credibility of inspection and certification bodies to ensure trust					
- Low level of cooperation between governmental and private sectors on policy formulation					
- Low level of education of extension officers with OF techniques					
- Bad financial situation of farmers					
- Other (please specify)					

How can the very important constraints for the organic sector development be overcome?

_____

Q7. Please classify the constraints to the development of the demand for organic products in order of importance.

	Very important	Important	Not important	Not at all important	Don't know
- High consumer price					
- Poor availability (e.g. in specific outlets or small quantities)					
- Low purchasing power of citizens in general					
- Lack of promotion of "organic"					
- Lack of consumer information					
- Lack of credibility of organic certification system					
- Competition from near-organic alternatives (i.e. considering that most of domestic products are natural ("primitive agriculture")					
- Poor product presentation					
- Lack of consumer awareness for nutritional, health and environmental issues					
- Other (please specify)					

How can the very important constraints of the development of demand be overcome?

_____

Q8. At what growth rate (% per year) do you anticipate that the organic market will grow in the

next 5 years? Pease specify growth rate from 2007 to 2011 overall, for specific product groups.

	Less than 0%	0-2%	2-5%	5-10%	More than 10%	Don't know
- Overall						
- Meat products						
- Dairy products						
- Fruit & vegetables						
- Cereals products						
- Convenience products						

Section B COMMUNICATING ORGANIC TO CONSUMERS

Q.9 Do you think that food scares has an impact on the development of the organic market–overall and for specific product categories? Please tick for impact on supply and demand.

		Positive	Negative	Negligible	Don't know
- Overall	Supply side				
	Demand side				
- Meat products	Supply side				
	Demand side				
- Dairy products	Supply side				
	Demand side				
- Fruit & vegetables	Supply side				
	Demand side				
- Cereal Products	Supply side				
	Demand side				
- Convenience Prod.	Supply side				
	Demand side				

Q10. What impact will the media have on the development of the organic market in Albania?

	Positive	Negative	Negligible	Don't know
- Supply side				
- Demand side				

From the responses to the first round we have identified a number of major constraints to the development of the organic sector on which we would like your opinion.

Q11. Do you agree with the following policy actions to develop consumers education and awareness?

- Public information and promotion campaigns
- Organic farming in school education
- Support open days on organic farms
- Stimulate public procurement
- Comparison between conventional and organic
- Introduce an effective national logo

Section C ORGANIC FARMING AND RURAL DEVELOPMENT

Q.12 How important is the integration of organic agriculture with other initiatives, such as regional development or tourism initiatives for the future development of the organic farming?

- Very important

- Important
- Not very important
- Not important at all
- Don't know

Could you please briefly outline the main reasons for your answer:

Q.13 How important is the role of organic farming in achieving rural and regional development objectives

- Very important
- Important
- Not very important
- Not important at all
- Don't know

Could you please briefly outline the main reasons for your answer:

Section D INSPECTION AND CERTIFICATION

Q.14 Do you agree with the following statements in relation to inspection and certification of organic products?

- Governmental certification systems for organic produce are more credible for consumers than private sector schemes
- Government should run a common certification system for organic production in Albania
- Government should amend and enforce the national legal framework on organic agriculture
- Government should try to streamline bureaucracy for inspection and certification procedures
- Government should enhance the efficiency and transparency of the inspection and control system
- Government should supervise the work of inspection and control bodies
- Government should introduce and promote a common logo for organic produce
- Adoption of the collective certification option considering the multiple benefits (in terms of reduction of certification costs and administration simplification)
- Constructive dialogue and negotiation among stakeholders will be promoted on GMOs and coexistence issues

Section E RESEARCH ON ORGANIC FARMING AND FOOD

Q.15 Do you consider the following as constraints for organic research, education, training and extension?

- Lack of financial resources for pertinent research
- Low priority among agriculture research priorities
- Lack of proper organic farms and industries to carry out research
- Limited introduction of "organic" in academic curricula
- Limited opportunities for employment of organic specialists
- Low priority among foreign donors operating in Albania

How can the very important constraints of the development of research, etc. be overcome?

Section F FISCAL POLICIES TO DEVELOP ORGANIC SECTOR

Q.16 Do you agree with the following fiscal policy actions to develop organic sector in Albania?

- Tax reduction/exemption for OF consumers
- Tax reduction/exemption for OF (processors)
- Taxes on polluting inputs
- Taxes on GMO products/seed
- Internalization of environmental costs
- Reduction of charges for processed food sample analyses
- Raising taxes on conventional farming practices (when these will be applied)

Section G PERSONAL INFORMATION

Finally, we would like you to give us some details about yourself. This information gives us some background for the analysis of the data, but will be treated strictly confidential.

Q.25 Type of respondent

- Commercial Organisation
- Government Agency
- Organic Organisation
- Non-Organic Organisation
- Research

Q.26 What is you age?
- Under 30
- 30-44
- 45-64
- 65 or over

Q.27 What is your gender?
- Male
- Female

Q.28 Do you have any training or qualifications related to organic food and farming?
If so, please specify:

_____

Q.29 What is your job title? _____

Q.30 What type of organisation do you work in? _____

Q.31 How long have you been professionally involved with organic food or agriculture (please estimate in years or month) Years Months

Q.32 Do you buy organic food for your personal consumption? Yes No

Annex 3. Round 3 Questionnaire[3]

Organic Farming Policies for a Sustainable Development of Rural Albania

This questionnaire is the last of three requests for expert opinion on the future development of organic farming sector in Albania. The aim of this third round is to consolidate and deepen insights derived from the previous two rounds and to explore other ideas for the purposes of policy formulation. It gives experts the opportunity to re-consider their views in areas where divergence of opinion emerged in the second round, largely in relation to factors likely to influence future development, the role of government policy and of organic marketing initiatives and their impact on rural development.

If you would like to complete an electronic version of the questionnaire or for further guidance or assistance in completing this form, please contact Endrit Kullaj,
Mob. +355 69 21 28 112 or endrit.kullaj@unibo.it

Q.1 In your opinion, which factors (e.g. institutional changes, state initiatives, initiatives of the private sector,...) would stimulate the development of an organic farming policy in Albania?

Q.2 How would you classify your organization/ institution?

Q.3 In your opinion, which of the organizations and institutions listed here have an important influence on general agricultural policy in Albania?
- MAFCP
- Local government (municipality/commune)
- Albanian Agribussines Council
- Agriculture University of Tirana
- EU Commission
- World Bank
- FAO
- USAID
- GTZ
- Italian Cooperation

Q.4 Are there any further organizations or institutions you find important in this context?

Q.5 Which of the designated actors would you claim the 1st, 2nd, 3rd, 4th and 5th most important for general agricultural policy in Albania?
- MAFCP
- Local government (municipality/commune)
- Albanian Agribussines Council
- Agriculture University of Tirana
- EU Commission
- World Bank
- FAO
- USAID
- GTZ

3 The questionnaire is adapted from Moschitz, H., and M. Stolze. *Policy networks of organic farming in Europe*. Vol. 12. Organic Farming in Europe: Economics and Policy. Edited by S. Dabbert. Stuttgart: University of Hohenheim, 2006

- Italian Cooperation

Q.6 In your opinion, which of the organizations and institutions listed here have an important influence on organic farming policy in Albania?
- MAFCP
- Local government (municipality/commune)
- Albanian Agribussines Council
- Agriculture University of Tirana
- EU Commission
- World Bank
- FAO
- USAID
- GTZ
- Italian Cooperation
- Spanish Cooperation
- Organic Agriculture Association
- BioAdria
- Swiss Cooperation

Q.7 Are there any further organizations or institutions you find important in this context?

Q.8 Which of the designated actors would you claim the 1st, 2nd, 3rd, 4th and 5th most important for organic farming policy in Albania?

- MAFCP
- Local government (municipality/commune)
- Albanian Agribussines Council
- Agriculture University of Tirana
- EU Commission
- World Bank
- FAO
- USAID
- GTZ
- Italian Cooperation
- Spanish Cooperation
- Organic Agriculture Association
- BioAdria
- Swiss Cooperation

Q.9 Could you please indicate those actors on our list with whom you are working together or with whom you stay in regular contact in order to exchange your views on organic farming policy? It does not necessarily have to be an actor with whom you share the same opinions.
- MAFCP
- Local government (municipality/commune)
- Albanian Agribussines Council
- Agriculture University of Tirana
- EU Commission
- World Bank
- FAO
- USAID

- GTZ
- Italian Cooperation
- Spanish Cooperation
- Organic Agriculture Association
- BioAdria
- Swiss Cooperation

Q.10 Are there actors with whom you would like to work together more closely with regard to organic farming policy? If yes, who are they and what are the obstacles to doing so?

Q.11 For policy making it is important to be well informed. Using the list of organizations and institutions, could you indicate those actors to whom you regularly give information on organic farming policy issues?
- MAFCP
- Local government (municipality/commune)
- Albanian Agribussines Council
- Agriculture University of Tirana
- EU Commission
- World Bank
- FAO
- USAID
- GTZ
- Italian Cooperation
- Spanish Cooperation
- Organic Agriculture Association
- BioAdria
- Swiss Cooperation

Q.12 From which of the actors listed do you regularly receive information on organic farming policy issues?

Q.13 Could you tell us which of the actors listed share mainly the same position as your organization/ institution towards the main issues concerning the development of organic farming?
- MAFCP
- Local government (municipality/commune)
- Albanian Agribussines Council
- Agriculture University of Tirana
- EU Commission
- World Bank
- FAO
- USAID
- GTZ
- Italian Cooperation
- Spanish Cooperation
- Organic Agriculture Association
- BioAdria
- Swiss Cooperation

Q.14 With which actors do you mostly disagree on main decisions regarding the development of organic farming?

Q.15 Does your organization regularly engage in direct lobbying at policy-making institutions?

Annex 4. Delphi Expert List[4]

BEKA, Ismail	**Programme Manager, GTZ** has an outstanding experience in all sorts of development projects, especially in the area of agriculture. He is also member of the Organic Agriculture Association and has launched several initiatives to support local products from marginal areas. He has also a long carrier within the Ministry of Agriculture and Food as the Director of Project Implementation Unit.
CIVICI, Adrian	**Professor of Agriculture Policy** at the Department of Economy and Agrarian Policies, Faculty of Agriculture, A.U.T. He was recently Director in the Ministry of Finance coverning issue of provery reduc tion, millenium development goals, etc.
ÇOÇOLI, Fatos	**Media Adviser for SNV**, is a well-known journalist with particular experience with UNDP, Word Bank and othe donors.
FASLLIA, Ndoc	**Deputy Minister of Agriculture, Food and Consumer Protection**, is an ex-professor of botany at the Agricultural University of Tirana. He is also Director of State Committee for Organic Production at MAFCP.
FERRUNI, Lavdosh	**Executive Director of Organic Agriculture Association**, is the founder of organic farming in Albania. Before this assignment, he had an academic carrier as well being consultant for World Bank, FAO, etc.
GAÇE, Arjan	**Country Representative for GEF (UNDP)**, has a great experience in development project, especially concerning environmental issues.
GHOSE, Nimai	**Director of Marketing**, EDEM (USAID) has a great experience with marketing of agricultural products and in his project is assisting Albanian companies to build up their marketing skills and infrastructure.
HAÇKAJ, Ibrahim	**Responsible for Agriculture Credit, World Bank Albania** has a patrimony of experience with agriculture development project.
IBRO, Vjollca	**Professor of Plan Physiology at the Faculty of Agriculture**, was recently Deputy Minister of Agriculture for several years and one of the key promoters of organic farming at the Ministry of Agriculture and Food.
ISMAILI, Arben	**Producer of organic spices**, he is one of the pioneers of organic farming. He is exporting organic spices to Switzerland since many years.

4 The grouping of the experts according to affiliations may contradict the grouping given in Chapter 4, Table #. This is due to the fact that from the time when the Delphi survey was carried out their affiliation changed (especially from research to governmental and vice-versa).

ISUFI, Enver	**Director of BIOADRIA extension network** is the key adviser and promoter of organic farming in Albania. He has a great length of experience in plant protection as an ex-researcher at the Institute of Plant Protection.
JORGJI, Kristaq	**Agriculture Programme Manager, USAID**, with a great experience in agriculture development projects, including organic farming. Until recently, he was also an external lecturer at the Agricultural University of Tirana.
KORRA, Llazar	**Agriculture Officer, Office of European Commission in Albania**, is an experienced agriculture specialist.
KUÇI, Hajdar	**Organic producer and trader**, with a lot of experience in agriculture and marketing of organic products.
MARKU, Shkelzen	**Director General for Agriculture Policies** at the Ministry of Agriculture, Food and Consumer Protection has also a length of experience with non-governmental agencies as well as in consultancy for World Bank, FAO, etc. He was also lecturer of agriculture policy at the Agriculture University of Tirana.
MUSABELLIU, Bahri	**Head of Agro-business Department**, Faculty of Agriculture, A.U.T. has a great experience particularily in farm management.
MYRTA, Arben	**Researcher at Agronomic Mediterranean Institute of Bari**, was coordinator of PAB Project.
PEÇULI, Velesin	**Rector of Agriculture University of Tirana**, a Professor of Ecology at the Agricultural University of Tirana and one of the founders of Organic Agriculture Association and authors of two books on this subject.
PEPA, Zyhdi	**President of Organic Agriculture Association,** ex-Member of Parliament, has a very long experience with agriculture policy and development.
SHKALLA, Shpresa	**Producer of Organic Olive Oil**, is one of the main organic olive oil producers in Albania. She is exporting to Switzerland and is winner for two consequtive years of the price BIOL, as the best olive oil in the world.
SKRELI, Engjell	**Professor of Agriculture Policy** at the Department of Agrarian Economy and Policy, Agriculture University of Tirana. He returned a few years ago at the University after some years of experience as ex-Deputy Minister for Social Affairs at the Ministry of Economy.
STAFA, Sokol	**Manager of AlbInspekt**, a private inspection and certification body which is certifying almost all organic farmers in Albania. Sokol has a

	considerable experience with agriculture project management as well as with alternative agriculture methods (i.e. permaculture).
TEQJA, Zyhdi	**Director of Albanian Agribusiness Council**, has also a considerable experience with agricultural policies being Deputy Minister of Agricu lure as well as with development projects and agribusiness.
DOKO, Enilda	**Quality Manager of AlbInspekt**, is one of the most-experienced inspectors for the certification of organic products.

Annex 5. Delphi Leaflet[5]

Organic Farming Policies for a Sustainable Development of Rural Albania

An introduction to the Delphi inquiry

The Delphi method of increasing understanding about the future, or complex problems involving ambiguity, is named after the oracle of the same name in ancient Greece. Essentially, it is a method of sharing and integrating the opinions of a group of experts, without them having to be physically present at the same time. This leaflet is intended to answer some of the main questions for those invited to participate in this Delphi study, which focuses on the promotion of policies for the development of organic farming in Albania.

What exactly is a Delphi inquiry?

A Delphi study can best be described as a process using iterative questionnaires, which enables experts to share their knowledge anonymously, on complex issues or systems. It has been used widely since devised in the 1940s by the Rand Corporation; its major applications have been in the fields of health, education and business.

It is carried out in successive rounds. Each one provides written feedback, compiled by the organisers, on the answers of the preceding round. Thus, the participating experts share in the formation of the joint perspective of the panel on the basis of their own, and the group, response.

Why carry out a Delphi inquiry?

The reasons for carrying out a study of this type are usually either a lack of formal data, or the complexity of or uncertainty about processes that affect the system being studied.

In this instance, policies for the development of organic farming and the impact they may have on the rural development in Albania cannot be reliably analysed from existing data. Therefore the only way to understand the overall framework for future development is to draw on expert opinion, and this is best done by means of a Delphi inquiry.

What am I committing myself to?

Most Delphi inquiries gain enough information to conclude after 2-3 rounds. For this study, we envisage three rounds of questionnaires, with successively tighter questions to answer. For example, in the first round we may ask a few open questions, such as “What policy instruments, in your

opinion, may be used for the promotion of organic farming in Albania?” and encourage you to be as wide-ranging and reflective in your answer as you think appropriate. In later questions, we may, for example, ask you simply to state whether you strongly agree, agree, disagree, or strongly disagree with a statement such as “Fiscal policies (including subsidies) are indispensable for the development of organic farming”.

Each questionnaire should take no more than 30 minutes to complete, although we would ask you, if possible, to read the questionnaires and consider the issues raised for a day or so before completing and returning them. This time commitment will be required three times over the coming year and a half.

5 Adapted from the same leaflet used in OMIaRD Project

What will I gain from the process?

The exercise will provide you with three main benefits, over different timescales:

o Firstly, the feedback process provides knowledge of what other experts and professionals involved in this sector are thinking, and an opportunity to benchmark against it;
o Secondly, participants will be provided with copies, in advance of general publication, of the major reports of this study; they will also receive regular updates on the progress of the overall study;
o Thirdly, participants will be offered the chance to participate in a seminar to develop scenarios exploring future possibilities to propose policies for the development of organic farming, which will be based largely on results from the Delphi inquiry. Involvement will be limited, and so will only be possible for those completing all three rounds of the Delphi inquiry.

How can I get further information?

A team from the Agricultural University of Tirana is managing the Delphi inquiry. Further information concerning this exercise can be obtained by contacting them. The scientist in overall charge is:

Endrit Kullaj
Agricultural University of Tirana
Phone: 069 21 28 112
E-mail: endrit.kullaj@unibo.it

Annex 6. Farm survey questionnaire[6]

Questionnaire for Organic Farmers

(The content of this questionnaire will be used only for research purposes!)

0. Farm location:
- Farm No.:
- Survey date:
- Duration of interview:
- Village:
- Commune:
- Distance to the closest city (hours driving):
- Distance with the closest organic farm (hours driving):
- Is your farm located in a low populated area: Yes No

Q.1 Personal data
- Name
- Address
- Phone

Q.2 Are you the:
- Farmer
- Farm owner
- Farm manager
- Other (please give details)

Q.3 What is the total area of this farm?
- Total area (ha)
- Area owed (ha)
- Area rented (ha)

Q.4 What type of farm is it?
- Cereals
- General Cropping
- Horticulture
- Pigs & Poultry
- Dairy
- Cattle & Sheep
- Mixed
- Other (please specify)

Q.5 Are you the first generation in your family to be farming in this part of the country? Yes

Q.6 If *no*, in roughly what year did your family start farming here?

Q.7 If *yes*, did you previously farm somewhere else? Yes

Q.8 How long have you been responsible for the running of this farm?

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6 Adapted from the questionnaire used for the DEFRA study by Lobley *et al*. 2006. The organic and non-organic questionnaires are identical except for the section titled "Organic farmers". As such, only the organic questionnaire is reproduced in this appendix.

Q.9 Have you ever worked outside of farming? Yes No

Q.10 Do you still work outside of farming? Yes No

Q.11 How far do you live from where you grew up?
- same location
- within 10 km
- within 25 km
- within 50 km
- within 100 km
- over 100 km

Q.12 How would you describe where most of your close family live?
- same location
- within 10 km
- within 25 km
- within 50 km
- within 100 km
- over 100 km

Q.13 How would you describe where most of your close friends live?
- same location
- within 10 km
- within 25 km
- within 50 km
- within 100 km
- over 100 km

Q.14 How old are you?

Q.15 Are you male or female?
- female
- male

Q.16 Which is your level of education:
- elementary school
- high school
- high agricultural school
- university degree

Section B. ECONOMIC ACTIVITY

This section is extremely important to the success of our research.

Q.17 How much did you purchased for your farming activity? (except rent and labour)

Q.18 How much did you sold from your farming activity? (except grants, subsidies)

Q.19 Now, please complete the following table which asks you about the value of purchases and

sales in different locations. Please enter the percentage, to the nearest 5%, bought or sold in each zone. See the example in the table

	up to 4 km from the farm	4 – 10 km from the farm	elsewhere in the commune	elsewhere in the city	elsewhere in Albania	abroad	total
example	40	20	10	25	5	0	100
How much you bought							
How much you sold							

Q.20 How many people are employed at this address?
(Please include all those employed on farm and in any diversified businesses you operate such as processing, direct sales, etc. Full time is 30 hours or more.)

	Full time	Part Time	Seasonal	Casual	Total
Yourself and family					
All other employees					

Q.21 Please estimate the gross annual salary costs or payments for yourself and family workers and all other employees, in all of your businesses.

- Yourself & family
- all other employees

Q. 22 Please indicate which of the following types of contractors you use:
- Specialist agronomists
- Machinery contractor
- Veterinary contractor
- Labour contractor
- Marketing specialist
- Processing/storage specialist
- Management specialist
- Other (please give details)
- None

Q.23 Do you operate any of the following businesses? Please tick all that apply
- Agricultural services (e.g. contracting, labouring, consultancy)
- Accommodation & catering (e.g. campsite, holiday cottage)
- Recreation & leisure (e.g. fishing, hunting)
- Trading enterprises (e.g. farm shop, farmers market, sale to known clients)
- Unconventional crops and crop-based processing (e.g. Christmas trees, fuel wood)
- Unconventional livestock and livestock based processing (e.g. rare breeds, milk products, butchery, goats or other minority animals)

Q.24 Are you a member of a producer group? Yes No

Q.25. Are you a member of a producer co-op? Yes No

Q.26. What are your main marketing channels?
- Local shops & businesses
- Box scheme
- Farm shop
- Farmers market
- Contract with processor
- Supermarket contract
- Organic wholesale or pack house
- Marketing co-operative
- Livestock markets
- Other (please specify)

Q.27 Do you process any food products on your farm? Yes No

Q.28 If yes, do you employ anyone to work in that enterprise ?
- No, I use my own or family labour
- Yes, I use casual labour
- Yes, I employ part-time staff
- Yes, I employ full-time staff

Q.29 In total how many people do you employ in this processing enterprise?

Q.30 In the management of your farm business do you use any of the following ?
- A computer
- Internet
- Email
- Fax machine
- Farm accounts software

Q.31 In the management of your farm business do you use any of the following ?
- A computer
- Internet
- Email
- Fax machine
- Farm accounts software

Q.32 Please indicate what proportion of your household income is generated by the following sources:

Activity	% of income			
	25	50	75	100
- Farming activities on this farm				
- Non-farming activities on this farm				
- Off-farm businesses				
- Employment off the farm				
- Social security payments (including state pensions)				
- Other (please specify)				
		Total		100%

Q.33 In managing the production on your farm how would you describe your attitude:

- I like to stick to practices that have worked well in the past.
- I will follow new practices as long as they have been well tested.
- I like to be one of the first to try out new practices

Section C. YOU AND THE COMMUNITY

(This section is designed to collect information about your role in the community. We are interested in learning more about your activities and contacts both professional and social).

Q.34 Do you actively participate in any local organisations, groups or committees ? please tick all that apply

- Agricultural association
- Environmental association
- Processors association
- Marketing cooperative
- Political party
- Local government authorities
- Sport club
- Hunting club
- Other

Q.35 Do you regularly take part in any of the following ?
- Regular competitive physical sport
- Competitive non-physical sport
- Other physical exercise
- Go to Mosque/Church/Worship
- Visit Pub/Restaurant
- Go to community events
- Other (please specify)

Section D. ORGANIC FARMERS

(This section is to collect information about your background and how you manage your farm. We are interested in learning more about the background of organic farmers and how they manage their farms.)

Q.36 How long have you been in full Organic production?

Q.37 Have you ever farmed any way but Organic? Yes No

Q.38 If yes for how long?

Q.39 Did you convert the farm to Organic status? Yes No

Q.40 Are any of your neighbours Organic farmers? Yes No

If yes how many

Q.41 How many other Organic farmers are within 10 km of your farm?
Q.42 As part of your conversion to Organic farm did you increase your diversification? Yes No

Q.43 Since conversion have you increased your diversification activities? Yes No

Q.44 Since conversion to Organic status do you employ more people in your farm business? Yes No

Q.45 If yes how many :
- full time
- part time
- seasonal
- casual

Q.46 Since conversion is your farm business more profitable? Yes No

Q.47 Since conversion to Organic status do you employ more people in your diversified enterprises? Yes No

Q.48 If yes how many:
- full time
- part time
- seasonal
- casual

Q.49 Have you received any funding from any organisation?

Q.50. Which of the following statements best summarises your attitudes to your future in Organic farming:
- I intend to stop farming Organically as soon as I can.
- I will stop farming Organically in the next 5 years.
- I will farm Organically as long as I make a profit doing so.
- I will not farm any other way but Organically.

Q.51 People Important to your Farm Business
(Please name up to 15 people or organisations who are important to your farm business, they may be friends, neighbours, business associates or professional advisors (see examples). They can be in any order. Please be assured that we will not make any attempt to trace or contact the people listed.)

Name	How they are know to you	Role in business
Endrit Kullaj	*Organic farming specialist*	*Advice*

Thank you for your co-operation in completing this questionnaire. If you have any questions about this research please feel free to get in contact with the research team, whose details are at the bottom of the questionnaire.

If you would be prepared to be contacted again as part of a more in-depth research into the topics raised in this questionnaire please tick the box below.

I would be happy to be contacted as part of in-depth research into these topics

Thank you once again.

Please use this space to make any additional comments

Please return the questionnaires in the following address:

Endrit Kullaj
Faculty of Agriculture
Agriculture University of Tirana, Tirana
Mobile: 069 21 28 112
E-mail: endrit.kullaj@unibo.it

Annex 7. List of farmers interviewed

No	Name	Address (village-commune-DISTRICT)	Phone
CONVENTIONAL FARMERS			
1	Pjeter Ademi	Paplekaj, Lekbibaj, TROPOJA	-
2	Pal Mirashi	Varg, Lekbibaj, TROPOJA	-
3	Ndoc Kola	Varg, Lekbibaj, TROPOJA	-
4	Pashk Ndoci	Varg, Lekbibaj, TROPOJA	-
5	Lazer Pali	Varg, Lekbibaj, TROPOJA	-
6	Gezim Aliaj	Varg, Lekbibaj, TROPOJA	-
7	Gjergj Rosaj	Nderzhysh, Lekbibaj, TROPOJA	-
8	Agim Peci	Nderzhysh, Lekbibaj, TROPOJA	-
9	Gjon Uka	Nderzhysh, Lekbibaj, TROPOJA	-
10	Martin Kola	Nderzhysh, Lekbibaj, TROPOJA	-
11	Pjeter Ndou	Nderzhysh, Lekbibaj, TROPOJA	-
12	Myftar Kola	Burrel, Kausi, BURREL	-
13	Mustafa Kola	Burrel, Kausi, BURREL	-
14	Aleksander Radani	Lis, Burrel, BURREL	0692963189
15	Sadik Malaj	Lis, Burrel, BURREL	0692990869
16	Ylber Malaj	Lis, Burrel, BURREL	0693150106
17	Qemal Marqeshi	Lis, Burrel, BURREL	0693176330
18	Mustafa Bojdani	Lis, Burrel, BURREL	0692290721
19	Hazis Marqeshi	Lis, Burrel, BURREL	0693114827
20	Abdulla Cuka	Lis, Burrel, BURREL	0682269026
21	Fadil Marqeshi	Lis, Burrel, BURREL	0682918254
22	Qazim Cnuka	Lis, Burrel, BURREL	0682309540
23	Bujar Cupi	Lis, Burrel, BURREL	0682393855
24	Hamit Cnuka	Lis, Burrel, BURREL	-
25	Hamit Hoxha	Lis, Burrel, BURREL	-
26	Abdulla Kadiu	Lis, Burrel, BURREL	-
27	Gramoz Mataj	Zapod, Zapod, KUKES	0692465701
28	Abdi Saliu	Zapod, Zapod, KUKES	-
29	Abdulla Gjinaj	Gjinaj, Gjinaj, KUKES	-
30	Selim Malzi	Gjinaj, Gjinaj, KUKES	-
31	Prele Musa	Gag, Shale, SHKODER	0682828269
32	Fran Mlogja	Gimaj, Shale, SHKODER	-
33	Mehill Gjinesh	Gimaj, Shale, SHKODER	-
34	Pjeter Maci	Abat, Shale, SHKODER	-
35	Prek Maci	Abat, Shale, SHKODER	-
36	Ndoc Delia	Dednikaj, Shale, SHKODER	-
37	Lec Pali	Nenmavriq, Shale, SHKODER	-
38	Nikoll Frani	Nenmavriq, Shale, SHKODER	-
39	Pellumb Haka	Shqiponje, Stravaj, LIBRAZHD	0692491501
Source: Farm survey			

No	Name	Address (village-commune-DISTRICT)	Phone
40	Dilaver Haka	Shqiponje, Stravaj, LIBRAZHD	-
41	Arber Vreto	Farret, Stravaj, LIBRAZHD	-
42	Astrit Terziu	Mirak, Polis, LIBRAZHD	0514/ 3107
43	Hysen Roca	L. Katund, L.Qender, LIBRAZHD	-
44	Lulzim Dragoti	Narte, Skenderbegas, GRAMSH	-
45	Gezim Muha	Bersnik, Kodovjat, GRAMSH	-
46	Ahmet Zani	Pishaj, Pishaj, GRAMSH	0692525114
47	Besim Rrodhe	Pishaj, Pishaj, GRAMSH	0692901664
48	Mehdi Xhakolli	Kulle, Sukth, DURRES	0682685505
49	Ylli Zeqiraj	Vlashaj, Maminas, DURRES	0692775382
50	Ndricim Rameta	Maminas, Maminas, DURRES	0682679011
51	Bilal Rameta	Korrec, Maminas, DURRES	0682679011
52	Besim Gega	Kapedane, Ishem, DURRES	-
53	Ismail Gjozi	Kapedane, Ishem, DURRES	0682783184
54	Bujar Barushi	Ishem, Ishem, DURRES	0682938638
55	Luati Kertusha	Fikmetaj, Ishem, DURRES	0683276273
56	Sinan Visha	Gjuricaj, Ishem, DURRES	0683221907
57	Vath Visha	Gjuricaj, Ishem, DURRES	0682207571
58	Ilir Fili	Gjuricaj, Ishem, DURRES	0692903862
59	Daut Dona	Gjuricaj, Ishem, DURRES	0682379591
60	Lavderim Danaka	Gjuricaj, Ishem, DURRES	0692621948
61	Asllan Visha	Gjuricaj, Ishem, DURRES	-
62	Enver Gjura	Gjuricaj, Ishem, DURRES	0682999967
63	Agim Jordita	Gjuricaj, Ishem, DURRES	0682470427
64	Abdyl Alushi	Gjuricaj, Ishem, DURRES	-
65	Lavderim Tema	Gjuricaj, Ishem, DURRES	0693041648
66	Bujar Shehu	Gjuricaj, Ishem, DURRES	0682809238
67	Gezim Toma	Gjuricaj, Ishem, DURRES	0682603684
68	Hysni Mjerdita	Gjuricaj, Ishem, DURRES	-
69	Sadi Kulli	Fushe-Preze, Preze, TIRANA	0682538478
70	Ylli Subashi	Marikaj, Vore, TIRANA	0682201433
71	Sami Dunga	Marikaj, Vore, TIRANA	-
72	Kujtim Tusha	Marikaj, Vore, TIRANA	-
73	Musa Kuci	Marikaj, Vore, TIRANA	-
74	Sabri Subashi	Marikaj, Vore, TIRANA	-
75	Avduall Xhixha	Marikaj, Vore, TIRANA	0682180241
76	Gezim Kodra	Marikaj, Vore, TIRANA	-
77	Sabaudini	Marikaj, Vore, TIRANA	-
78	Nuri Bumja	Vilez, Zall Bastar, TIRANA	-
79	Bilbil Kamina	Mner i Siperm, Zall Bastar, TIRANA	-
80	Shkelqim Deda	Mner i Siperm, Zall Bastar, TIRANA	0682442536
81	Shaqir Velia	Krrabe, Krrabe, TIRANA	-
Source: Farm survey			

No	Name	Address (village-commune-DISTRICT)	Phone
82	Ramazan Hasmuca	Kafja Xhafes, Berzhite, TIRANA	-
83	Zyber Skora	Ibe e Siperme, Berzhite, TIRANA	-
84	Gezim Lami	Ibe e Siperme, Berzhite, TIRANA	-
85	Shkelzen Rrumbullaku	Ibe e Siperme, Berzhite, TIRANA	-
86	Emin Kulli	Ibe, Berzhite, TIRANA	0684022317
87	Lutfi Sala	Ibe, Berzhite, TIRANA	-
88	Shefik Sula	Ibe, Berzhite, TIRANA	-
89	Kadri Sula	Ibe, Berzhite, TIRANA	-
90	Halil Sallaku	Ibe, Berzhite, TIRANA	-
91	Lulezim Selba	Ibe, Berzhite, TIRANA	-
92	Shefki Begteshi	Ibe, Berzhite, TIRANA	-
92	Arben Duka	Ibe, Berzhite, TIRANA	-
93	Qemal Sherifi	Ibe, Berzhite, TIRANA	-
94	Ymer Kurtari	Ibe, Berzhite, TIRANA	-
95	Festim Kurtari	Berzhite, Berzhite, TIRANA	-
96	Fatime Gjuzi	Berzhite, Berzhite, TIRANA	-
97	Agim Asllanaj	Berzhite, Berzhite, TIRANA	-
98	Baftjar Gjuzi	Berzhite, Berzhite, TIRANA	-
99	Flamur Shaba	Berzhite, Berzhite, TIRANA	-
100	Mustafa Gjuzi	Berzhite, Berzhite, TIRANA	-
101	Ajet Muco	Pellumbas, Berzhite, TIRANA	-
102	Shefki Duqi	Pellumbas, Berzhite, TIRANA	-
103	Xhevahir Duqi	Pellumbas, Berzhite, TIRANA	-
104	Shyqyri Durishti	Mullet, Petrele, TIRANA	-
105	Qemal Haka	Hekal, Petrele, TIRANA	-
106	Shpetim Hyka	Hekal, Petrele, TIRANA	-
107	Edison	Menkular, Devoll, DEVOLL	30382183099
108	Agron	Baban, Hocisht, DEVOLL	873803432
109	Ilir	Vlocisht, Libonik, KORÇA	-
110	Vasil	Hocisht, Hocisht, KORÇA	06882800929
111	Bardhyl	Stopan, Hocisht, KORÇA	306945448239
112	Adem Tahillari	Lozhan, Gore-Opar, KORÇA	-
113	Myrvet Yzollari	Mesmal, Gore, KORÇA	-
114	Luan Metullari	Selc, Gore, KORÇA	-
115	Nafiz Agolli	Zvarisht, Gore, KORÇA	0692890328
116	Suke Sulejmani	Plase, Pojan, KORÇA	-
117	Asllan Tela	Plase, Pojan, KORÇA	-
118	Raif	Plase, Pojan, KORÇA	-
119	Selam	Plase, Pojan, KORÇA	-
120	Qemal	Plase, Pojan, KORÇA	0682356388
121	Nexhmi	Plase, Pojan, KORÇA	0692745561
122	Ramadan	Plase, Pojan, KORÇA	-
Source: Farm survey			

No	Name	Address (village-commune-DISTRICT)	Phone
123	Fejzi	Zemblak, Pojan, KORÇA	0682360025
124	Ladi	Zemblak, Pojan, KORÇA	0682568409
125	Filljon	Zemblak, Pojan, KORÇA	-
126	Mehmet	Orman, Pojan, KORÇA	-
127	Ramadan	Orman, Pojan, KORÇA	-
128	Bujar	Orman, Pojan, KORÇA	0692256843
129	Agim	Bucimas, Bucimas, KORÇA	-
130	Qerami	Bucimas, Bucimas, KORÇA	-
131	Eqerem Qeraxhiu	Moglice, Moglice, KORÇA	-
132	Yqmet Seitllari	Petrushe, Çërravë, KORÇA	-
133	Yllson Goce	Vishocice, Bilisht, KORÇA	0811/ 33 61
134	Shyqyri Cacka	Leminot, Pirk, KORÇA	0682557003
135	Ernold Shoko	Bucimas, Bucimas, POGRADEC	-
136	Fadil	Petrushe, Cerave, POGRADEC	-
137	Grliso	Cerrave, Cerrave, POGRADEC	-
138	Aferdita	Petrushe, Cerave, POGRADEC	-
139	Erjon	Memelisht, Hudenisht, POGRADEC	-
140	Aurora	Petrushe, Cerave, POGRADEC	-
141	Bedri	Gurras, Bucimas, POGRADEC	-
142	Sadik	Gurras, Bucimas, POGRADEC	-
143	Zaim Metani	Galigat, Pishaj, ELBASAN	0682915688
144	Bajram Boja	Galigat, Pishaj, ELBASAN	0682788261
145	Xhevit Kasa	Plangarice, Gracen, ELBASAN	-
146	Arsen Latifi	Duzhe, Tunje, ELBASAN?	0693164973
147	Qemal Rama	Grekan, Grekan, ELBASAN	0683011642
148	Petrit Gjeni	Grekan, Grekan, ELBASAN	0682209335
149	Misir Gomeri	Grekan, Grekan, ELBASAN	-
150	Faslli Tarani	Grekan, Grekan, ELBASAN	0682361471
151	Faik Kurani	Grekan, Grekan, ELBASAN	0683324041
152	Islam Rusta	Grekan, Grekan, ELBASAN	0682655248
153	Qemal Gjoni	Grekan, Grekan, ELBASAN	0682361471
154	Shyqyri Kuroni	Grekan, Grekan, ELBASAN	0682070416
155	Mecan Ferro	Vlosht, Kurjan, FIER	-
156	Aqif Kazma	?, Qender, FIER	06820202222
157	Bujar Hajdari	Kutalli, Kutalli, BERAT	0682181582
158	Marenglen Hoxha	Drenovice, Kutalli, BERAT	0682340467
159	Fecor Zeka	Drenovice, Kutalli, BERAT	-
160	Mynyr Zeka	Drenovice, Kutalli, BERAT	-
161	Zemun Zeka	Drenovice, Kutalli, BERAT	0682529672
162	Fatos Zeka	Drenovice, Kutalli, BERAT	0682525624
163	Astrit Zeka	Drenovice, Kutalli, BERAT	0682212477
164	Qerim Metushi	Imesht, Bubullime, LUSHNJA	0692338214
Source: Farm survey			

No	Name	Address (village-commune-DISTRICT)	Phone
165	Silo Novruzi	Terbac, Has, VLORA	0682828818
166	Xhevat Liskaj	Mavrove, Drashovice, VLORA	0682459241
167	Ago Rexhepi	Gumenice, Kote, VLORA	0682248551
168	Avni Memaj	Mavrove, Kote, VLORA	0682300159
169	Ibrahim Bejaj	Mavrove, Kote, VLORA	0682618557
170	Servet Metaj	Kote, Kote, VLORA	0682312535
171	Faik Shehaj	Kote, Kote, VLORA	0682802523
172	Toli Serjani	Kote, Kote, VLORA	-
173	Lefter Sino	Mallkeq, Kote, VLORA	0682231918
174	Lum Begaj	Gumenice, Kote, VLORA	0682409454
175	Vizhdan Kamberi	Gumenice, Kote, VLORA	0682451875
176	Qemal Dregjoni	Pete, Kote, VLORA	0682380029
177	Lame Hodaj	Pet, Kote, VLORA	0692560907
178	Luan Karabolli	Hysoverdh, Kote, VLORA	0682445718
179	Fiqiri Runej	Drashovice, Kote, VLORA	0682294130
180	Lilo Taraj	Shkoze, Mavrove, VLORA	0692355190
181	Arben Jaupaj	Velce, Brataj, VLORA	0682378449
182	Lazer Litaj	Brataj, Brataj, VLORA	0682320710
183	Hasim Meminaj	Trevllazen, Novosele, VLORA	0682428387
184	Vilson Xhavara	Hoshtime, Novosele, VLORA	0692280692
185	Nazif Selimaj	Drashovice, Kanine, VLORA	0682300219
186	Avni Skenderaj	Rexhepej, Gorisht, VLORA	0682329533
187	Baftjar Mucaj	Vllahine, Gorisht, VLORA	0682768197
188	Ferik Zykaj	Selenice, Selenice, VLORA	0682624012
189	Balil Begaj	Selenice, Selenice, VLORA	0692572803
ORGANIC FARMERS			
1	Vath Dedja	Ndroq, TIRANA	-
2	Ruzhdi Duka	Bletas, POGRADEC	-
3	Agim Shehu	Gjokaj, Vore, TIRANA	-
4	Qazim Calliku	BishtKamez, Katund i Ri, TIRANA	0692258410
5	Zyber Dardha	Lagjia e Re, Ndroq, TIRANA	-
6	Petrit Tresa	Baldushk, Baldushk, TIRANA	0682277326
7	Shpresa Shkalla	Lunder, Lunder, TIRANA	-
8	Luan Kertusha	Ishem, Ishem, DURRES	0683276273
9	Bahri Alibejsi	Romanat, DURRES	0682366345
10	Reshit Hoxha	Kashar, Kashar, DURRES	0682365380
11	Enver Aliu	Sukth, Sukth, DURRES	0692126558
12	Jetmir Bulqeza	Vrine, Rrashbull, DURRES	-
13	Tofika Balla	Pjeze, Xhavzotaj, DURRES	0682127854
14	Abdulla Bleta	Rromanat, Rrashbull, DURRES	0692140486
15	Mynyr Harrizi	Harizaj, KAVAJA	0692164799
16	Enver Harizi	Harizaj, KAVAJA	0682260224
Source: Farm survey			

No	Name	Address (village-commune-DISTRICT)	Phone
17	Niazi Xhami	Luzi Madh, Lekaj, LUSHNJA	0682145080
18	Stavri Gjini	Mertish, Gradisht, LUSHNJA	0692260307
19	Dritan Lici	Kemishtaj, Gradisht, LUSHNJA	0692217577
20	Maksim Kuqi	Kemishtaj, Gradisht, LUSHNJA	0682800780
21	Petraq Capuni	Fier-Seman, Gradisht, LUSHNJA	0693240641
22	Gjergji Mileti	Fier-Seman, Gradisht, LUSHNJA	0682363248
23	Anastas Prifti	Divjake, Divjake, LUSHNJA	0682798369
24	Naum Janku	Divjake, Divjake, LUSHNJA	0682225954
25	Stavri Doko	Divjake, Divjake, LUSHNJA	0682291373
26	Vesaf Musaj	Skrefotine, Novosele, VLORA	0692294213
27	Baudin Begaj	?, Cerkovine, VLORA	0692857125
28	Gjoleke Begaj	?, Cerkovine, VLORA	0692358477
29	Xheto Tushaj	Llakatund, Shushice, VLORA	0682377664
30	Melsen Tahiri	Llakatund, Shushice, VLORA	0692175915
31	Bardhosh Tushaj	Llakatund, Shushice, VLORA	-
32	Rozi Danaj	Llakatund, Shushice, VLORA	39620040
33	Ismet Alinaj	Llakatund, Shushice, VLORA	39620316
34	Boboce Dalipi	Llakatund, Shushice, VLORA	0692140442
Source: Farm survey			

Annex 8. Statistical analysis of farm survey data

An 8.1 Respondent's age

	Respondent's age
Org.	64, 52, 50, 60, 42, 62, 53, 73, 60, 60, 53, 54, 60, 50, 50, 43, 32, 59, 59, 57, 38, 42, 45, 47, 33, 56, 63, 48, 48, 58, 55, 53, 48, 30.
Con.	53, 47, 54, 43, 54, 38, 56, 37, 55, 46, 46, 32, 49, 62, 36, 56, 36, 56, 46, 47, 46, 45, 55, 44, 60, 65, 65, 55, 72, 37, 34, 43, 45, 34, 54, 30, 45, 32, 42, 66, 37, 38, 45, 48, 47, 40, 49, 46, 47, 33, 40, 47, 37, 43, 64, 34, 49, 54, 52, 60, 51, 47, 25, 31, 57, 49, 54, 58, 48, 47, 48, 19, 20, 22, 19, 57, 55, 65, 63, 42, 47, 42, 56, 65, 42, 23, 55, 45, 22, 27, 25, 19, 38, 30, 43, 45, 43, 46, 49, 44, 51, 42, 42, 53, 43, 49, 62, 45, 40, 53, 46, 53, 44, 49, 45, 45, 45, 54, 50, 45, 48, 45, 35, 36, 59, 46, 45, 48, 44, 35, 52, 60, 55, 56, 62, 37, 52, 40, 44, 34, 48, 47, 62, 59, 62, 38, 42, 52, 54, 49, 50, 43, 53, 35, 43, 49, 56, 52, 62, 57, 58, 50, 35, 62, 65, 54, 49, 54, 47, 45, 57, 53, 43, 54, 41, 47, 62, 49, 53, 43, 44, 28, 62, 55, 53, 38, 56, 54, 52.

***t*-Test: Two-Sample Assuming Unequal Variances**		
	Organic	*Conventional*
Mean	51,67647059	46,96296296
Variance	94,10427807	106,5677699
Observations	34	189
Hypothesized Mean Difference	0	
df	47	
t Stat	2,582356839	
P(T<=t) one-tail	0,006494145	
t Critical one-tail	1,677926775	
P(T<=t) two-tail	0,01298829	
t Critical two-tail	2,011738616	

An 8.2 Respondent's age structure

	Respondent's age					Total
	< 35	35-44	45-54	55-64	>65	
Organic farmers	3	4	13	13	1	**34**
Conventional farmers	21	45	79	36	8	**189**
Total	**24**	**49**	**92**	**49**	**9**	**223**
Organic expected	*3,659192825*	*7,470852018*	*14,02690583*	*7,470852018*	*1,372197309*	***34***
Conventional expected	*20,34080717*	*41,52914798*	*77,97309417*	*41,52914798*	*7,627802691*	***189***
Total	***24***	***49***	***92***	***49***	***9***	***223***
Result of Chi^2 test: 7,078; *df* = 4; *p*<.05; 7,078<9,488; *Phi* = 0,131783674						

An 8.3 Education level

	Highest level of formal education					Total
	Titles (PhD, Prof.)	University degree	High School (general)	High School (agriculture)	Elementary school	
Organic farmers	1	3	19	3	8	**34**
Conventional farmers	1	28	64	49	47	**189**
Total	**2**	**31**	**83**	**52**	**55**	**223**
Organic expected	*0,304932735*	*4,726457399*	*12,65470852*	*7,928251121*	*8,385650224*	***34***
Conventional expected	*1,695067265*	*26,2735426*	*70,34529148*	*44,07174888*	*46,61434978*	***189***
Total	***2***	***31***	***83***	***52***	***55***	***223***
Result of Chi^2 test: 10,002; *df* = 4; *p*<.05; 10,002>9,488; *Phi* = 0,040379059						

An 8.4 Gender of organic and conventional farmers

	Gender		Total
	Females	Males	
Organic farmers	2	32	**34**
Conventional farmers	5	184	**189**
Total	**7**	**216**	**223**
Organic expected	*1,067264574*	*32,93273543*	***34***
Conventional expected	*5,932735426*	*183,0672646*	***189***
Total	*7*	***216***	***223***
Result of Chi^2 test: 0,992; *df* = 1; *p*<.05; 0,992<3,841; *Phi* = 0,910859088			

An 8.5 Entry into farming

	Entry into farming				Total
	Recent new entrant	New entrant	Recent established entrant	Established farmers	
Organic farmers	3	3	1	27	**34**
Conventional farmers	15	35	25	114	**189**
Total	**18**	**38**	**26**	**141**	**223**
Organic expected	*2,744394619*	*5,793721973*	*3,964125561*	*21,49775785*	***34***
Conventional expected	*15,25560538*	*32,20627803*	*22,03587444*	*119,5022422*	***189***
Total	***18***	***38***	***26***	***141***	***223***
Result of Chi^2 test: 5,894; *df* = 3; *p*<.05; 5,894<7,815; *Phi* = 0,207184541					

An 8.6 Embeddedness by birth

	Embeddedness by birth						Total
	Same location	Within 10 km	Within 25 km	~~Within 50 km~~	~~Within 100 km~~	~~Over 100 km~~	
Organic farmers	27	5	2	~~0~~	~~0~~	~~0~~	**34**
Conventional farmers	155	14	6	~~4~~	~~6~~	~~4~~	**175**
Total	**182**	**19**	**8**	~~**4**~~	~~**6**~~	~~**4**~~	**209**
Organic expected	*29,6076555*	*3,090909091*	*1,301435407*				***34***
Conventional expected	*152,3923445*	*15,90909091*	*6,698564593*				***175***
Total	***182***	***19***	***8***				***209***
Result of Chi^2 test: 2,130; *df* = 2; *p*<.05; 2,130<5,991; *Phi* = 0,711801149							

An 8.7 Embeddedness by distance from family

	Embeddedness by distance from family						Total
	Same location	Within 10 km	Within 25 km	Within 50 km	~~Within 100 km~~	~~Over 100 km~~	
Organic farmers	23	8	2	1	~~0~~	~~0~~	**34**
Conventional farmers	107	20	24	12	~~9~~	~~17~~	**163**
Total	**130**	**28**	**26**	**13**	~~**9**~~	~~**17**~~	**197**
Organic expected	*22,43654822*	*4,83248731*	*4,487309645*	*2,243654822*			***34***
Conventional expected	*107,5634518*	*23,16751269*	*21,51269036*	*10,75634518*			***175***
Total	***130***	***28***	***26***	***13***			***209***
Result of Chi^2 test: 5,025; *df* = 3; *p*<.05; 5,025<7,815; *Phi* = 0,284660445							

An 8.8 Embeddedness by location of friends

	Embeddedness by location of friends						Total
	Same location	Within 10 km	Within 25 km	Within 50 km	~~Within 100 km~~	~~Over 100 km~~	
Organic farmers	23	7	3	1	~~0~~	~~0~~	**34**
Conventional farmers	125	21	25	8	~~6~~	~~4~~	**179**
Total	**148**	**28**	**28**	**9**	~~**6**~~	~~**4**~~	**213**
Organic expected	*23,62441315*	*4,469483568*	*4,469483568*	*1,436619718*			***34***
Conventional expected	*124,3755869*	*23,53051643*	*23,53051643*	*7,563380282*			***179***
Total	***148***	***28***	***28***	***9***			***213***
Result of Chi^2 test: 2,457; *df* = 3; *p*<.05; 2,457<7,815; *Phi* = 0,652296825							

An 8.9 Participation in industry and community groups

	Participation in industry and community groups									Total
	Agricultural Association	Environmen. Association	Processors' Association	~~Marketing Cooperative~~	Political Party	Local Gov. Auth.	~~Sports Club~~	Hunting Club	~~Other~~	
Organic farmers	31	5	1	~~0~~	3	1	~~0~~	1	~~0~~	**42**
Conventional farmers	66	12	8	~~3~~	56	61	~~7~~	16	~~7~~	**219**
Total	**97**	**17**	**9**	**~~3~~**	**59**	**62**	**~~7~~**	**17**	**~~7~~**	**261**
Organic expected	*15,6091954*	*2,735632184*	*1,448275862*		*9,494252874*	*9,977011494*		*2,735632184*		***42***
Conventional expected	*81,3908046*	*14,26436782*	*7,551724138*		*49,50574713*	*52,02298851*		*14,26436782*		***219***
Total	***97***	***17***	***9***		***59***	***62***		***17***		***261***
Result of Chi^2 test: 36,717; $df = 5$; $p<.05$; 36,717>11,070; Phi = 3,83467E-07										

An 8.10 Participation in community activities

	Participation in community activities							Total
	~~Regular competitive sport~~	Regular non-competit. sport	Other physical exercises	Go to worship	Visit Pubs/Restaurants	Go to Comm. Events	~~Involved in other activities~~	
Organic farmers	~~0~~	1	2	12	21	14	~~0~~	**50**
Conventional farmers	~~6~~	11	9	86	122	97	~~1~~	**325**
Total	**~~7~~**	**12**	**11**	**98**	**143**	**111**	**~~1~~**	**375**
Organic expected		*1,6*	*1,466666667*	*13,06666667*	*19,06666667*	*14,8*		***50***
Conventional expected		*10,4*	*9,533333333*	*84,93333333*	*123,9333333*	*96,2*		***325***
Total		***12***	***11***	***98***	***143***	***111***		***375***
Result of Chi^2 test: 0,859; $df = 4$; $p<.05$; 0,859<9,488; Phi = 0,930234231								

An 8.11 Diversification activities

	Participation in industry and community groups									Total
	Agricultural Services	Accomoda-tion	Recreation/ Leisure	Trading Enterprices	Processing	Unconvent. Crops	Unconvent. Livestock	Any Diversificat.	Multiple Diversificat.	
Organic farmers	7	1	1	4	4	1	1	19	4	**42**
Conventional farmers	33	12	14	25	19	4	5	94	21	**227**
Total	**40**	**13**	**15**	**29**	**23**	**5**	**6**	**113**	**25**	**269**
Organic expected	*6,24535316*	*2,029739777*	*2,342007435*	*4,527881041*	*3,591078067*	*0,780669145*	*0,936802974*	*17,64312268*	*3,903345725*	***42***
Conventional expected	*33,75464684*	*10,97026022*	*12,65799257*	*24,47211896*	*19,40892193*	*4,219330855*	*5,063197026*	*95,35687732*	*21,09665428*	***227***
Total	***40***	***13***	***15***	***29***	***23***	***5***	***6***	***113***	***25***	***269***
Result of Chi^2 test: 1,968; $df = 8$; $p<.05$; 1,968<15,507; $Phi = 0{,}778603255$										

An 8.12 Importance of different marketing routes

	Importance of different marketing routes								Total
	Local shop	Farm shop	Farmers market	Contract pro-cessor	Wholesale Contract	Marketing co-operative	~~Livestock market~~	Other market-ing route	
Organic farmers	12	6	13	1	4	2	~~0~~	1	**39**
Conventional farmers	52	27	104	10	29	1	~~15~~	3	**226**
Total	**64**	**33**	**117**	**11**	**33**	**3**	**~~15~~**	**4**	**265**
Organic expected	*9,418867925*	*4,856603774*	*17,21886792*	*1,618867925*	*4,856603774*	*0,441509434*		*0,588679245*	***39***
Conventional expected	*54,58113208*	*28,14339623*	*99,78113208*	*9,381132075*	*28,14339623*	*2,558490566*		*3,411320755*	***226***
Total	***64***	***33***	***117***	***11***	***33***	***3***		***4***	***265***
Result of Chi^2 test: 9,599; $df = 6$; $p<.05$; 9,599<12,592; $Phi = 0{,}589820568$									

An 8.13 Comparison of high agricultural income dependency

	Income from					Total
	Agriculture	Farm diversificat.	~~Off farm business~~	Off-farm employment	~~Emigration~~	
Organic farmers	25	~~0~~	~~1~~	1	~~0~~	**26**
Conventional farmers	57	~~2~~	~~0~~	9	~~4~~	**66**
Total	**82**	~~**49**~~	~~**92**~~	**10**	~~**9**~~	**223**
Organic expected	*23,17391304*			*2,826086957*		***26***
Conventional expected	*58,82608696*			*7,173913043*		***66***
Total	***82***			***10***		***223***
Result of Chi^2 test: 1,845; *df* = 1; *p*<.05; 1,845<3,841; *Phi* = 0,764178418						

An 8.14 Purchasing patterns: organic/conventional farms

Distance	Organic farmers	Conventional farmers
Up to 4 km from farm	21’854,30	75’244,38
Between 4 - 10 km	41’231,78	56’719,77
Elsewhere in commune	3’617,54	92’329,33
Elsewhere in city	46’607,61	81’291,98
Elsewhere in Albania	8’013,24	58’450,38
Outside Albania	11’175,49	40’476,19

Anova: Two-Factor Without Replication				
SUMMARY	Count	Sum	Average	Variance
- 4 km	2	97098,68	48549,34	1425250321,0
4 - 10 km	2	97951,55	48975,78	119938917,1
Commune	2	95946,87	47973,44	3934890843,0
City	2	127899,59	63949,80	601502761,1
Albania	2	66463,62	33231,81	1271952546,0
Import	2	51651,68	25825,84	429265510,2
Organic	6	132499,96	22083,32667	325217941,6
Conventional	6	404512,03	67418,67167	359009072,9

ANOVA						
Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Rows	1804214693	5	360842938,6	1,115833975	0,453599547	5,050338814
Columns	6165880519	1	6165880519	19,06674131	0,007245522	6,607876912
Error	1616920379	5	323384075,8			
Total	9587015591	11				

An **8.15 Purchasing behaviour by farm type and organic/conventional status (total)**

Farm type	Organic farmers	Conventional farmers
General Cropping	100’000	166’090
Horticulture	255’100	169’800
Mixed	75’000	154’510

Anova: Two-Factor Without Replication				
SUMMARY	Count	Sum	Average	Variance
General Cropping	2	266090	133045	2183944050
Horticulture	2	424900	212450	3638045000
Mixed	2	229510	114755	3160920050
Organic	3	430100	143366,6667	9519503333
Conventional	3	490400	163466,6667	63607433,33

ANOVA						
Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Rows	10789327433	2	5394663717	1,28798661	0,437065495	19,00002644
Columns	606015000	1	606015000	0,144687277	0,74026338	18,51276465
Error	8376894100	2	4188447050			
Total	19772236533	5				

An 8.16 Purchasing behaviour by farm type and organic/conventional status (local)

Farm type	Organic farmers	Conventional farmers
General Cropping	160’000	3’775’930
Horticulture	3’590’400	3’602’130
Mixed	150’000	6’818’750

Anova: Two-Factor Without Replication				
SUMMARY	Count	Sum	Average	Variance
General Cropping	2	3935930	1967965	6,53747E+12
Horticulture	2	7192530	3596265	68796450
Mixed	2	6968750	3484375	2,22361E+13
	3	3900400	1300133,333	3,93402E+12
	3	14196810	4732270	3,2726E+12

ANOVA						
Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Rows	3,30892E+12	2	1,65446E+12	0,297985067	0,770424888	19,00002644
Columns	1,76693E+13	1	1,76693E+13	3,182428639	0,216367081	18,51276465
Error	1,11043E+13	2	5,55216E+12			
Total	3,20826E+13	5				

An 8.17 Purchasing behaviour by farm type and organic/conventional status (city)

Farm type	Organic farmers	Conventional farmers
General Cropping	20’000	167’130
Horticulture	157’940	169’280

Anova: Two-Factor Without Replication				
SUMMARY	Count	Sum	Average	Variance
General Cropping	2	187130	93565	10823618450
Horticulture	2	327220	163610	64297800
Organic	2	177940	88970	9513721800
Conventional	2	336410	168205	2311250

ANOVA						
Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Rows	4906302025	1	4906302025	1,064335858	0,490078137	161,4462235
Columns	6278185225	1	6278185225	1,361941769	0,45102954	161,4462235
Error	4609731025	1	4609731025			
Total	15794218275	3				

An 8.18 Sales patterns: organic/conventional farms

Distance	Organic farmers	Conventional farmers
Up to 4 km from farm	85’140,73	428’711,56
Between 4 - 10 km	48’990,07	162’065,59
Elsewhere in commune	25’281,46	295’904,75
Elsewhere in city	240’074,50	451’989,04
Elsewhere in Albania	19’772,85	325’208,75
~~Outside Albania~~	~~18’712,25~~	~~0,00~~

Anova: Two-Factor Without Replication				
SUMMARY	Count	Sum	Average	Variance
- 4 km	2	513852,29	256926,145	59020457613
4 - 10 km	2	211055,66	105527,83	6393036612
Commune	2	321186,21	160593,105	36618482545
City	2	692063,54	346031,77	22453886132
Albania	2	344981,6	172490,8	46645544504
Organic	6	437971,86	83851,922	8289782529
Conventional	6	1663879,69	332775,938	13493544253

ANOVA						
Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Rows	70909814073	4	17727453518	4,370810518	0,091092444	6,388233942
Columns	1,54908E+11	1	1,54908E+11	38,19348	0,003482804	7,708649719
Error	16223493052	4	4055873263			
Total	2,42041E+11	9				

An 8.19 Sales behaviour by farm type and organic/conventional status (total)

Farm type	Organic farmers	Conventional farmers
General Cropping	150’000	702’510
Horticulture	854’780	780’140
Mixed	255’000	726’270

Anova: Two-Factor Without Replication				
SUMMARY	Count	Sum	Average	Variance
General Cropping	2	852510	426255	1,52634E+11
Horticulture	2	1634920	817460	2785564800
Mixed	2	981270	490635	1,11048E+11
Organic	3	1259780	419926,6667	1,44579E+11
Conventional	3	2208920	736306,6667	1582155233

ANOVA						
Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Rows	1,76E+11	2	88000239017	1,51303945	0,397924513	19,00002644
Columns	1,50144E+11	1	1,50144E+11	2,581521239	0,249357759	18,51276465
Error	1,16322E+11	2	58161232350			
Total	4,42467E+11	5				

An 8.20 Sales behaviour by farm type and organic/conventional status (local)

Farm type	Organic farmers	Conventional farmers
General Cropping	45’000	703’650
Horticulture	311’070	788’830
Mixed	102’000	732’500

Anova: Two-Factor Without Replication				
SUMMARY	Count	Sum	Average	Variance
General Cropping	2	748650	374325	2,1691E+11
Horticulture	2	1099900	549950	1,14127E+11
Mixed	2	834500	417250	1,98765E+11
Organic	3	458070	152690	19625418300
Conventional	3	2224980	741660	1876837300

ANOVA						
Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Rows	33530657500	2	16765328750	3,539283861	0,220299067	19,00002644
Columns	5,20328E+11	1	5,20328E+11	109,8451608	0,008981264	18,51276465
Error	9473853700	2	4736926850			
Total	5,63333E+11	5				

An 8.21 Sales behaviour by farm type and organic/conventional status (commune)

Farm type	Organic farmers	Conventional farmers
General Cropping	105’000	600’420
Horticulture	495’660	695’390

Anova: Two-Factor Without Replication				
SUMMARY	Count	Sum	Average	Variance
General Cropping	2	705420	352710	1,2272E+11
Horticulture	2	1191050	595525	19946036450
Organic	2	600660	300330	76307617800
Conventional	2	1295810	647905	4509650450

ANOVA						
Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Rows	58959124225	1	58959124225	2,697352719	0,348181835	161,4462235
Columns	1,20808E+11	1	1,20808E+11	5,526927652	0,256033667	161,4462235
Error	21858144025	1	21858144025			
Total	2,01626E+11	3				

An 8.22 Sales behaviour by farm type and organic/conventional status (city)

Farm type	Organic farmers	Conventional farmers
Horticulture	973’550	781’870
Mixed	153’000	711’730

Anova: Two-Factor Without Replication				
SUMMARY	Count	Sum	Average	Variance
General Cropping	2	1755420	877710	18370611200
Horticulture	2	864730	432365	1,5609E+11
Organic	2	1126550	563275	3,36651E+11
Conventional	2	1493600	746800	2459809800

ANOVA						
Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Rows	1,98332E+11	1	1,98332E+11	1,408821358	0,445714177	161,4462235
Columns	33681425625	1	33681425625	0,239250708	0,710391505	161,4462235
Error	1,40779E+11	1	1,40779E+11			
Total	3,72792E+11	3				

An 8-23. Labour use on organic and conventional farms

	Organic	Conventional
Mean total family labour	4,1	3,8
Mean total non-family labour	1,6	1,4
Mean total labour (family + non-family employees)	5,7	5,2

***t*-Test: Two-Sample Assuming Unequal Variances**		
	Organic	*Conventional*
Mean	3,8	3,466666667
Variance	4,27	3,693333333
Observations	3	3
Hypothesized Mean Difference	0	
df	4	
t Stat	0,204593544	
P(T<=t) one-tail	0,423939212	
t Critical one-tail	2,131846486	
P(T<=t) two-tail	0,847878424	
t Critical two-tail	2,776450856	

An 8-24. Labour use by FTE/HA by farm type

	Organic	Conventional
General cropping	2,40	1,65
Horticulture	2,15	1,92
Mixed	0,83	1,41

***t*-Test: Two-Sample Assuming Unequal Variances**		
	Organic	*Conventional*
Mean	1,793333333	1,66
Variance	0,711633333	0,0651
Observations	3	3
Hypothesized Mean Difference	0	
df	2	
t Stat	0,262037467	
P(T<=t) one-tail	0,408906276	
t Critical one-tail	2,91998731	
P(T<=t) two-tail	0,817812552	
t Critical two-tail	4,302655725	

An 8-25. Salary levels: organic and conventional farm businesses compared

	Organic	Conventional
Salary/FTE	140’716,6	128’331,4
Salary/family FTE	134’582,6	130’444,9
Salary/non-family FTE	184’805,1	119’719,7

Anova: Two-Factor Without Replication				
SUMMARY	Count	Sum	Average	Variance
Salary/FTE	2	269048	134524	76696589,52
Salary/family FTE	2	265027,5	132513,75	8560280,645
Salary/non-family FTE	2	304524,8	152262,4	2118054647
	3	460104,3	153368,1	750620215,8
	3	378496	126165,3333	32276362,36

ANOVA						
Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Rows	472467411	2	236233705,5	0,432137826	0,698256817	19,00002644
Columns	1109985771	1	1109985771	2,030475869	0,290224909	18,51276465
Error	1093325745	2	546662872,6			
Total	2675778928	5				

APPENDICES

Appendix 1 Albania at a glance

Ap 1.1 Albania in figures

INDICATOR	2000	2004	2005
PEOPLE			
Population, total	3.1 mil.	3.3 mil.	3.5 mil.
Population growth (annual %)	-0.0	0.6	0.6
Life expectancy at birth, total (years)	73.3	74.0	..
Fertility rate, total (births per woman)	2.3	2.2	..
Mortality rate, infant (per 1,000 live births)	22.0	16.5	..
Mortality rate, under-5 (per 1,000)	25.0	18.6	..
Births attended by skilled health staff (% of total)	99.1	..	..
Malnutrition prevalence, weight for age (% of children under 5)	13.6	..	..
Immunization, measles (% of children ages 12-23 months)	95.0	96.0	..
Primary completion rate, total (% of relevant age group)	102.0	..	..
School enrollment, primary (% gross)	109.1	..	..
School enrollment, secondary (% gross)	72.8	..	..
School enrollment, tertiary (% gross)	16.1	..	..
Ratio of girls to boys in primary and secondary education (%)	97.2	..	..
Literacy rate, adult total (% of people ages 15 and above)	..	98.7	..
ENVIRONMENT			
Surface area (sq. km)	28,750.00	28,750.00	28,750.00
Forest area (sq. km)	7,690.00	..	7,490.00
Agricultural land (% of land area)	41.8	..	..
CO_2 emissions (metric tons per capita)	0.7	..	..
Improved water source (% of population with access)	..	96.0	..
Improved sanitation facilities, urban (% of urban population with access)	..	99.0	..
Energy use (kg of oil equivalent per capita)	550.3	..	..
Energy imports, net (% of energy use)	54.1	..	..
Electric power consumption (kWh per capita)	1,197.00	..	..
ECONOMY			
GNI, Atlas method (current US$)	3.6 billion	6.5 billion	8.1 billion
GNI per capita, Atlas method (current US$)	1,180.0	2,090.0	2,580.0
GDP (current US$)	3.7 billion	7.5 billion	8.4 billion
GDP growth (annual %)	7.3	5.9	5.5
Inflation, GDP deflator (annual %)	4.3	6.0	3.5
Agriculture, value added (% of GDP)	29.1	25.2	..
Industry, value added (% of GDP)	19.0	19.5	..
Services, etc., value added (% of GDP)	51.9	55.3	..
Exports of goods and services (% of GDP)	17.6	21.8	23.5
Imports of goods and services (% of GDP)	37.5	43.9	46.2
Gross capital formation (% of GDP)	24.7	24.1	25.1
STATES AND MARKETS			
Time required to start a business (days)	..	41.0	41.0
Military expenditure (% of GDP)	1.2	1.3	1.4
Fixed line and mobile phone subscribers (per 1,000 people)	59.6	154.3	..
Internet users (per 1,000 people)	1.1	24.1	..

INDICATOR	2000	2004	2005
Roads, paved (% of total roads)	39.0	..	..
High-technology exports (% of manufactured exports)	1.1	1.1	..
GLOBAL LINKS			
Merchandise trade (% of GDP)	36.6	38.9	39.4
Foreign direct investment, net inflows (BoP, current US$)	143.0 mill.	426.0 mill	..
Long-term debt (DOD, current US$)	936.2 mill.	1.5 bill.	
Present value of debt (% of GNI)	..	17.4	..
Total debt service (% of exports of goods, services and income)	2.0	..	..
Official development assistance and official aid (current US$)	319.0 mill.	362.5 mill	..
Workers' remittances and compensation of employees, received (US$)	598.0 mill.	1.2 bill.	1.3 bill.

Source: *World Development Indicators database, April 2006*

Appendix 2 Inter-regional differences:

The geographical position, relief, climate, economic policies, and other factors have caused great differences in the regional development of the country. For the purposes of highlighting the regional differences of agro-environmental resources and therefore the structure of agriculture, the territory of Albania is divided into four broad regions which represent different agro-ecological zones:

(1) lowland region, comprising Durres, Fier, Kavaja, Kuçova, Laç, Lezha, Lushnja and Peqin districts.
(2) intermediate region, consisting of Berat, Delvina, Elbasan, Kruja, Mallakastra, Saranda, Shkodra, Tirana and Vlora districts;
(3) southern highlands region, consisting of the upland districts located in the southern part of Albania. The districts included are Devoll, Korça, Kolonja, Përmet, Pogradec, Tepelena and Gjirokastra.
(4) northern and central mountains region, consisting of Bulqiza, Dibra, Gramsh, Has, Kuksi, Librazhd, Malësi e Madhe, Mat, Mirdita, Puka, Skrapar and Tropoja districts.

The four district groupings do not correspond exactly with the agro-ecological zones since the borders of the districts do not correspond exactly with the border of the zones, therefore many districts contain more than one zone (Figure #). However, the four regions' division reflects a gradation from lowlands to mountains with differences in the climate and terrain which has great effects on the cropping patterns although the most notable trend is the large percentage of non-cropped agricultural land. The difference in relief is the main cause of different levels of infrastructure development between the regions which is strongly related to the market development.

Figure #-1. Agro-ecological regions

This section follows with description of the agro-environmental characteristics of these regions, pointing out the main resources that can be used for ag-riculture production and generally for an eventual tourist development.

The Lowland region consist of the coastal plains along the Adriatic Sea, with alti-tudes below 200 m. The soils of this plain are mostly alluvial (fluvisols, luvisols and cambisols). It receives precipitation seasonally, is poorly drained, and is alternately arid or flooded. Due to the surface of the region, soils are variable; there are deep, well-drained and fertile soils as well as soils of poor quality.

The inappropriate use of land over the past decades has caused environmental degradation including erosion, salination, and pollution by urban

Ap 2.1 Intra-regional differences (lowlands)

Structure	Durres	Fier	Kavaja	Kuçova	Laç	Lezha	Lushnja	Peqin
Land structure								
Total Land Area (ha)	43,344	78,530	41,422	8,410	27,338	47,867	71,239	20,917
% Arable Land	61%	72%	61%	65%	38%	39%	72%	40%
% Field crops	52.4%	62.0%	51.2%	54.0%	33.8%	35.5%	65.5%	31.2%
% Trees	9.6%	10.0%	9.8%	11.0%	4.2%	3.5%	6.5%	8.8%
% Forest	18%	8%	9%	13%	39%	38	6%	3%
% Pastures and Meadows	1.5%	1.1%	1.6%	1.5%	5.9%	9.5%	0.6%	4.3%
Educational Level								
No diploma	15.8%	16.1%	19.3%	14.3%	17.8%	18.2%	16.5%	19.0%
Lower Elementary	54.6%	57.8%	62.0%	54.9%	58.0%	60.3%	60.8%	65.8%
Upper Vocational	2.5%	3.1%	1.5%	4.8%	2.0%	2.2%	1.9%	1.1%
Upper General	15.3%	12.0%	10.5%	13.7%	16.3%	10.9%	12.6%	8.8%
Upper Technical	6.4%	7.8%	4.1%	8.6%	3.4%	5.0%	5.4%	3.7%
Universitary&Post-universitary	5.4%	3.3%	2.6%	3.7%	2.5%	3.4%	2.8%	1.5%
Cropping Structure								
Total Agricultural Land (ha)	43,344	78,530	41,422	8,410	27,338	47,867	71,239	20,917
% Cereal Crops	9%	20%	16%	20%	2%	9%	19%	15%
% Forage Crops	18%	23%	16%	20%	12%	15%	33%	7%
% Vegetables	3%	3%	7%	4%	2%	3%	4%	3%
Agricultural Holdings								
Total Number	15.758	27.796	11.515	3.880	7.033	11.630	22.382	5.294
Area per Holding (ha)	2.75	1.45	1.26	1.19	1.10	1.54	1.25	1.52
Crop Input Use								
Irrigated Area (% of Ag. Land)	25%	22%	26%	27%	20%	1%	34%	11%
Potential Irrigated Area	34%	41%	37%	37%	29%	28%	52%	17%
Fertilizer Use (kg/ha)	162	261	386	576	144	51	297	273
Tractor Availability (ha/tractor)	146	60	212	103	197	144	86	299
Land Preparation (% of farmers)								
Mechanical	81.9%	87.4%	86.8%	80.2%	73.0%	78.6%	87.0%	68.8%
Draft Power	1.2%	3.0%	4.2%	9.9%	3.6%	3.0%	2.0%	6.0%
Manual	13.9%	9.5%	9.0%	9.9%	23.4%	18.3%	11.0%	15.3%
Crop Production and Yields								
Wheat Yield (t/ha)	2.5	3.5	3.2	3.3	2.8	3	3.1	3.1
Maize Yield (t/ha)	3.3	3.4	3.6	2.6	5.2	4.3	4.8	4.7
Vegetables (t/ha)	24.2	24.7	17.6	22.7	12.9	17.6	32.8	19.1
Forage Production (t/ha)	26.8	31.1	26.7	34.3	40.1	27.0	30.1	48.7
Grapes (t/ha)	9.2	9.9	7.5	15.0	12.0	11.0	11.9	11.6
Fruit (kg/tree)	38.3	16.4	24.5	27.6	10.7	32.1	15.4	32.1
Livestock Numbers and Output								
Number of Cattles	32.700	54.700	29.100	6.800	13.800	20.500	34.600	12.800
Number of Cows	17.500	34.200	16.000	3.700	7.600	15.700	28.400	8.300
Number of Sheep and Goats	26.200	80.300	23.700	9.000	32.000	28.500	66.500	27.200
Milk Production (kg)	52.769	85.287	34.596	9.976	27.035	25.976	85.801	18.622
Meat Production (kg)	4.107	7.155	3.283	681	1.475	5.033	9.033	1.776

and industrial discharges. Low fertility and shallow terrain has caused the abandonment of specific categories of arable land (as in Fier, Lushnja, etc.).

The agronomic vocation of the farmers in this region is ranked average to high if we compare it with other regions. Especially in this region, one can found the attitude of commercial farming, i.e. production with a focus on the market, being a farmer as a profession, generating the main income from this profession. The agriculture system in the region is, in large degree, a market-oriented one but still in limbo.

Located along the Adriatic Sea, the lowlands are the most productive agricultural areas in the country. The fertile lowlands create favourable conditions for agricultural production and the region has good irrigation possibilities. Overall, these conditions allow production of a wide range of crops, especially cereals, forages, potatoes, sunflower, forages, vegetables and grapes, the latest being more and more planted in the field considering the specialization and profitability of the farmers. This is also the region where the protected cultivation (mainly vegetables) is concentrated (e.g. Lushnja) as well as market-oriented open field production can be found.

The Intermediate region includes some areas within the coastal plains zone, but also include some hilly and mountainous areas. In this region, the typology of the agriculture is more diverse as it is the landscape of these districts. Located about 200 to 900 m of altitude, the relief consists primarily of hills stretching from north to south, between the coastal plains and mountains. Most of the ar-able land in the region consists of fields at an angle of above 5% and extends to the outskirts of towns and along the valleys.

The soils of this region are mostly luvisols, fluvisols and cambisols with some exceptions (rendzinas). The soil structure is average to deep with varying mechanical composition levels from medium to heavy as well as averagely good fertility rates. The arable land over the hills has a slope of 7 – 25% and a medium depth soil structure. Limestone outcroppings and soils are also prevalent in the northern mountains, north-east of Tirana and east of Saranda. Although these soils may be used for crop production, many are shallow, stony, acid if not formed on limestone, relatively low in fertility, and subject to erosion on steep slopes. In some districts (e.g. Shkodra) a large part of the agricultural land is either abandoned or refused. About 100.000 ha of land in the hilly and mountainous areas were terraced during the previous regime primarily to grow wheat and tree crops. Most of the land is possible to irrigate, but currently the irrigation systems are not functioning properly.

Another threat for the basins of this region is soil sealing (i.e. the use of agricultural land for buildings). A large part of fertile lands of this region, as in the case of coastal strip of Shkodra (see photo below), which is ideal for plant production, is endangered by the increasing urban sprawl, a problem all along the coastal strip in Albania. The movement of people down from the mountain areas and the setting up of farmhouses on arable land are the main reasons for this waste of land.

Having less agricultural land, agricultural land holdings tend to be smaller in this region. They have less access to agricultural services, inputs and markets compared to the lowland region. Entering into this region, we have a decrease of the share of staple crops substituted by more vegetable, grapes, temperate fruit trees and especially olive and citrus in the more extensive hilly areas considering the slope degree of 26-40%. However, as explained in the rationale for the four-zone division, there are also exceptions within each zone.

An example is the coastal strip west of Shkodra where ideal conditions exist for vegetable production and there is a long tradition. Investments in green-houses, comparable to Lushnja, as well as

Ap 2.2 Intra-regional differences (Intermediate region)

Structure	Berat	Delvina	Elbasan	Kruja	Mallakas.	Saranda	Shkodra	Tirana	Vlora
Land structure									
Total Land Area (ha)	93,905	32,016	127,180	33,298	39,300	77,667	197,375	123,849	160,921
% Arable Land	38%	25%	31%	45%	37%	22%	15%	25%	23%
% Field crops	27.0%	15.2%	25.4%	36.4%	24.8%	15.0%	12.4%	18.7%	15.8%
% Trees	11.0%	9.8%	5.6%	8.6%	12.2%	7.0%	2.6%	6.3%	7.2%
% Forest	30%	31%	34%	33%	27%	19%	27%	40%	22%
% Pastures and Meadows	8.7%	7.4%	6.9%	1.3%	5.2%	32.8%	12.9%	6.2%	27.3%
Educational Level									
No diploma	16.4%	18.5%	17.1%	18.5%	18.5%	16.2%	16.2%	14.1%	16.0%
Lower Elementary	61.1%	59.6%	59.1%	60.9%	65.8%	57.3%	58.4%	45.5%	54.9%
Upper Vocational	2.2%	2.5%	2.5%	1.7%	2.7%	2.3%	1.7%	2.3%	2.6%
Upper General	10.9%	12.8%	10.8%	12.6%	11.2%	12.4%	13.7%	18.1%	14.6%
Upper Technical	6.4%	3.5%	6.9%	3.5%	5.9%	6.0%	5.4%	9.0%	7.0%
Universitary&Post-univer.	3.0%	3.0%	3.6%	2.8%	1.9%	5.7%	4.6%	11.1%	5.0%
Cropping Structure									
Total Agricultural Land (ha)	35,437	8,052	39,012	15,020	14,720	17,422	30,217	31,445	37,810
% Cereal Crops	31.2%	3.9%	33.2%	15.0%	26.2%	5.5%	20.2%	8.0%	16.9%
% Forage Crops	16.0%	7.6%	34.4%	44.1%	19.2%	10.1%	34.1%	31.7%	13.3%
% Vegetables	3.1%	1.2%	4.8%	5.6%	2.3%	4.0%	7.7%	10.2%	4.9%
Agricultural Holdings									
Total Number	17.583	2.073	28.670	9.834	6.612	5.661	23.653	36.345	14.602
Area per Holding (ha)	1.25	1.17	1.23	0.98	1.16	1.23	1.25	1.42	1.36
Crop Input Use									
Irrigated Area (% agr. land)	18.3%	10.8%	26.1%	40.1%	10.6%	26.7%	34.4%	28.6%	30.2%
Potential Irrigated Area	24.4%	22.4%	53.8%	60.5%	33.1%	66.8%	71.8%	38.2%	48.5%
Fertilizer Use (kg/ha)	268	14	281	164	145	68	205	216	97
Tractor Availability (ha/tract)	79	146	90	70	196	102	65	123	99
Land Preparation (% of farmers)									
Mechanical	56.4%	45.6%	60.0%	63.2%	69.9%	36.8%	55.4%	54.9%	64.0%
Draft Power	28.2%	1.7%	14.6%	3.9%	15.4%	1.0%	17.9%	7.4%	7.0%
Manual	15.4%	52.7%	25.4%	32.8%	15.3%	62.2%	26.7%	37.7%	29.0%
Crop Production and Yields									
Wheat Yield (t/ha)	3.4	2.5	2.5	3.2	2.1	2.8	3.7	2.6	3.1
Maize Yield (t/ha)	3.4	9.0	4.1	3.9	2.4	9.0	6.2	3.5	3.8
Vegetables (t/ha)	30.2	17.6	22.4	19.4	11.6	26.6	26.3	15.8	17.8
Forage Production (t/ha)	27.2	38.0	23.9	22.2	17.4	16.7	42.7	24.7	32.1
Grapes (t/ha)	14.9	5.6	6.0	8.3	5.4	8.0	9.5	8.5	12.0
Fruit (kg/tree)	21.4	6.5	15.0	13.4	14.5	5.9	24.2	16.5	20.3
Livestock Numbers & Output									
Number of Cattles	26.600	2.000	42.900	19.000	8.100	4.800	33.300	38.800	20.100
Number of Cows	18.800	1.500	29.500	11.000	5.200	3.400	26.700	27.900	15.100
Number of Sheep & Goats	125.800	70.000	125.000	31.000	50.500	171.000	65.200	98.400	266.400
Milk Production (kg)	52.571	6.900	67.590	28.770	7.419	17.100	85.747	49.866	44.857
Meat Production (kg)	7.119	1.375	6.160	3.205	795	2.179	10.115	5.467	8.356

market-oriented open field production can be found there.

The Southern Highlands region consists of the upland districts located in the southern part of Albania. Largely hilly and mountainous, they include some important upland agricultural areas such as the Korça basin.

The soils of the region are luvisols, fluvisols, vertisols and cambisols with few exceptions (histosols, rendzinas and lithosols).

The practicing of late vegetables cultivation is of great interest for the eastern districts of the region as Korça, Devolli, Pogradeci, etc.

In the region of Korça, which is one of the most developed agricultural areas in the country, we find stronger as in the lowlands, the attitude of commercial farming. The high yields of several cereals, the fame in fruit tree production, like apples, has given to this area the status of an area of particular genetic resources which deserve special attention and programmes.

Vineyard development, especially in the districts of Përmet and Tepelenë is of great potential.

The Northern and Central mountains region includes largely mountainous districts with no extensive agricultural areas. This region consists of intermountain remote valleys and high mountain peaks and has harsh winters. The structure of the landscape affects the situation and efficiency of agriculture.

Especially in the hilly and mountain areas, the agricultural land is frag-mented, sometimes into 5-6 parcels. The soils of the region are cambisols (brown soils), rendzinas and in few parts, rankers. Much of the land is steep, stony and infertile and was cultivated before ‘90s. In steep mountainous parts, limestone rock dominates. In irrigated areas, the soil is deeper whereas in the non-irrigate areas the soil is shallower and stonier. Along the Black Drin there is good soil for agriculture (river clay).

The main agronomical problems in this Region are related to land degradation due to uncontrolled deforestation, livestock grazing, and illegal construction and rapid urbanization. Deforestation took place mainly after transition and does not only affect forest but also fruit plantations being in large part already destroyed or endangered by erosion, the latest being very high in Kukes and Dibra.

Moreover, land fragmentation, lack of mechanization, insufficient access to credit, privation of access to external markets due to poor transport infrastructure afflicts the agriculture sector giving it a subsistence character unable to make a profit. Also there is a lack of secondary processing facilities available for any agricultural products or produce. However, destitution of infrastructure would have closed the opportunities for delivering goods to markets outside of this Region.

Furthermore, cooperation among farmers is mainly found within the families. Even farmers travelling to Tirana to sell their goods, have no interest in sharing or cooperating with others to reduce costs. According to local experts, the spirit of mutual interest and cooperation still needs to be developed for farmers’ groups in the more remote areas.

For different reasons, agriculture in the northern and central mountainous region is unlike agriculture in other regions. Due to subsistence farming and the limited development perspective, interest in agriculture is limited, therefore, the agronomic vocation is quite low and there is no proper use of land types and elevations for different crop growth. In the north, farmers mainly produce for home consumption; the remaining amount is intended for the market.

Ap 2.3 Intra-regional differences (Southern Highlands region)

Structure	Devoll	Korça	Kolonja	Përmet	Pogradec	Gjirokas.	Tepelena
Land structure							
Total Land Area (ha)	42,856	175,212	80,463	92,958	72,501	113,734	81,734
% Arable Land	37%	27%	14%	16%	24%	16%	16%
% Field crops	32.6%	23.7%	13.3%	13.1%	20%	13.4%	13.2%
% Trees	4.4%	3.3%	0.7%	2.9%	4.0%	2.6%	2.8%
% Forest	34%	31%	43%	41%	39%	27%	21%
% Pastures and Meadows	5.2%	13.7%	27.3%	25.1%	7.2%	40.2%	36.7%
Educational Level							
No diploma	13%	13.4%	12.6%	14.8%	16%	15.8%	16.5%
Lower Elementary	67.2%	60.2%	58.4%	58.9%	57.4%	55.3%	60.5%
Upper Vocational	1.2%	2.0%	2.4%	2.1%	2.0%	2.4%	2.0%
Upper General	12.1%	13.3%	15.1%	12.9%	15.6%	13.0%	12.3%
Upper Technical	3.3%	6.0%	6.1%	6.4%	5.2%	7.3%	4.9%
Universitary&Post-universitary	3.0%	5.0%	5.4%	4.8%	4.2%	6.3%	3.6%
Cropping Structure							
Total Agricultural Land (ha)	15,975	46,806	11,246	14,479	17,506	13,055	17,663
% Cereal Crops	32.1%	30.5%	19.1%	18.6%	19.0%	14.6%	8.0%
% Forage Crops	22.1%	20.0%	11.6%	19.9%	13.6%	41.5%	16.0%
% Vegetables	2.5%	2.5%	0.6%	3.9%	2.4%	3.2%	3.2%
Agricultural Holdings							
Total Number	6.413	19.235	2.335	3.790	10.839	7.524	4.729
Area per Holding (ha)	1.56	1.78	1.29	0.96	1.67	1.24	1.35
Crop Input Use							
Irrigated Area (% of Ag. Land)	19.2%	32.4%	28.9%	13.8%	13.6%	22.5%	20.3%
Potential Irrigated Area	28.2%	39.5%	52.7%	34.5%	20.8%	80.7%	29.3%
Fertilizer Use (kg/ha)	133	62	46	201	109	95	65
Tractor Availability (ha/tractor)	84	81	152	213	213	88	315
Land Preparation (% of farmers)							
Mechanical	76.6%	72.4%	56.6%	44.9%	43.7%	55.0%	54.2%
Draft Power	25.2%	19.5%	35.0%	67.2%	69.8%	3.8%	40.9%
Manual	4.1%	13.5%	23.5%	24.9%	25.8%	42.9%	23.6%
Crop Production and Yields							
Wheat Yield (t/ha)	2.0	2.6	1.8	2.0	2.3	2.5	2.4
Maize Yield (t/ha)	3.0	2.7	3.0	5.0	3.0	4.3	3.1
Vegetables (t/ha)	20.2	22.1	19.1	11.2	22.9	12.7	8.1
Forage Production (t/ha)	30.2	25.3	36.4	15.3	38.0	14.2	19.1
Grapes (t/ha)	7.0	4.3	9.0	7.4	11.5	5.1	10.2
Fruit (kg/tree)	8.9	9.6	16.6	8.3	19.5	14.7	27.1
Livestock Numbers and Output							
Number of Cattles	9.000	26.300	5.400	6.100	11.600	7.600	11.900
Number of Cows	6.200	20.100	4.100	4.600	9.000	4.900	8.100
Number of Sheep and Goats	26.000	143.200	60.700	92.600	58.100	181.100	206.600
Milk Production (kg)	14.805	59.644	9.687	14.738	19.510	18.848	19.401
Meat Production (kg)	1.109	6.677	1.419	1.416	1.736	3.242	2.871

Market orientation is limited and so are possibilities to develop the farm. However, it is observed that agriculture becomes more relevant, especially in the areas with good potential for certain crops. Examples can be found in regions like Peshkopi, where farmers are traditionally good at fruit production and where investments are made in the development of production. Another example is potatoes from Shishtavec which is well known for potato production, especially seed potatoes.

Cereal crops, mostly rye, maize and wheat can be grown in small areas providing quite high yields. Other fodder crops, the main source of winter-feed and pasture, which already cover considerable areas in the region with an increased trend, other crops can be grown successfully like soya, cabbage and sugar beat.

Some part of the arable land in this region is devoted to vegetable growing. The products grown are typical of Albania: tomato, paprika, watermelon, onions etc. Vegetable production is found on every farm for home consumption, but with growing interest in marketing, especially those planted close to the urban centres for convenient marketing, potentially even for markets outside the region.

Due to tradition and especially favorable climatic conditions, fruit is grown widely in this Region. Recently, the planting of strawberries in the vicinity of urban areas has become popular because of the great market demand. With growing interest, farmers are producing grapes. At present, with some exceptions, processing of grapes is mainly done on-farm for home consumption or to supply local restaurants. Thus, a potential source of income is not being fully utilized.

Ap 2.4 Intra-regional differences (Northern and Central mountains region)

Structure	Has	Diber	Bulqize	Gramshi	Kuksi	Librazhd	M. Madhe	Mat	Mirditë	Puka	Skrapar	Tropoja
Land structure												
Total Land Area (ha)	39,300	90,771	75,337	69,463	93,750	110,892	55,455	83,934	86,700	103,369	77,495	104,298
% Arable Land	17%	21%	12%	15%	12%	14%	27%	16%	7%	5%	16%	7%
% Field crops	14.5%	16.5%	10.0%	13.0%	10.6%	12.5%	24.6%	14.3%	6.3%	4.3%	12.9%	5.2%
% Trees	2.5%	4.5%	2.0%	2.0%	1.4%	1.5%	2.4%	1.7%	0.7%	0.7%	3.1%	1.8%
% Forest	48%	38%	51%	59%	43%	50%	72%	41%	74%	80%	32%	41%
% Pastures & Meadows	18.1%	14.6%	13.7%	16.7%	19.8%	18.4%	0.1%	7.6%	4.7%	2.9%	28.7%	20.7%
Educational Level												
No diploma	21.1%	19.2%	19.6%	18.0%	19.8%	18.4%	19.7%	19.2%	18.1%	19.8%	15.0%	19.4%
Lower Elementary	63.9%	64.2%	64.1%	61.5%	61.3%	63.7%	66.4%	60.1%	57.4%	58.1%	60.8%	54.4%
Upper Vocational	1.1%	1.3%	1.0%	1.6%	1.6%	1.4%	0.8%	1.9%	1.7%	1.9%	2.5%	1.9%
Upper General	8.2%	8.3%	8.1%	12.1%	11.2%	10.9%	8.6%	11.0%	13.9%	14.8%	13.7%	17.2%
Upper Technical	3.9%	4.7%	5.5%	3.9%	3.2%	3.3%	2.7%	5.0%	5.8%	2.8%	5.2%	3.8%
Universitary&Post-univ.	1.8%	2.3%	1.7%	2.9%	3.0%	2.4%	1.7%	2.8%	3.1%	2.6%	2.7%	3.4%
Cropping Structure												
Total Agricul. Land (ha)	6,492	19,117	8,419	10,338	11,413	15764	15,215	13,542	6,318	5,165	12,095	7,387
% Cereal Crops	21.7%	21.4%	24.0%	36.3%	24.4%	27.3%	4.6%	11.3%	16.8%	26.2%	17.3%	16.0%
% Forage Crops	19.5%	26.4%	23.2%	12.2%	14.2%	24.5%	22.0%	27.8%	24.1%	7.1%	20.8%	35.0%
% Vegetables	3.1%	2.0%	2.8%	1.9%	2.5%	2.3%	5.3%	2.8%	4.1%	5.6%	1.5%	2.8%
Agricultural Holdings												
Total Number	3.153	14.240	6.844	5.132	9.575	12.556	8.103	10.277	5.968	6.298	3.574	4.544
Area per Holding (ha)	0.68	0.89	0.78	2.01	0.85	1.24	1.81	0.69	0.64	0.82	0.74	0.71
Crop Input Use												
Irrigated Area	27.1%	37.3%	42.5%	22.0%	19.1%	32.5%	30.2%	34.3%	29.4%	30.5%	11.4%	40.6%
Potential Irrigated Area	57.6%	52.8%	53.5%	37.6%	42.0%	39.6%	72.9%	45.0%	42.4%	54.7%	11.6%	83.7%
Fertilizer Use (kg/ha)	157	139	86	256	234	131	39	85	69	72	115	45
Tractor Availab. (ha/tr.)	79	102	162	154	83	263	211	376.0	211	215	417	168
Land Preparation												
Mechanical	41.7%	13.1%	2.6%	18.3%	14.2%	12.2%	33.0%	7.6%	14.3%	0.9%	16.3%	14.8%
Draft Power	15.6%	65.0%	68.7%	62.1%	64.5%	23.4%	30.5%	37.4%	20.5%	54.1%	56.8%	61.0%
Manual	42.7%	21.9%	28.7%	19.6%	21.2%	63.5%	36.5%	55.0%	65.2%	44.9%	26.9%	24.2%
Crop Production and Yields												
Wheat Yield (t/ha)	2.5	3.2	3.4	2.2	2.5	2.3	2.5	4.0	2.5	1.5	2.1	2.7
Maize Yield (t/ha)	3.5	4.9	3.7	2.4	2.9	2.8	3.8	4.1	4.7	3.3	1.8	4.2
Vegetables (t/ha)	10.1	24.7	14.8	13.8	14.2	17.0	7.9	20.1	17.6	12.4	8.7	15.3
Forage Production (t/ha)	9.1	23.6	32.2	20.4	17.6	25.1	37.1	24.6	15.9	24.8	11.2	13.8
Grapes (t/ha)	0.0	10.2	12.3	8.0	11.5	5.5	9.4	14.0	6.2	13.5	8.2	10.0
Fruit (kg/tree)	10.7	14.6	6.3	11.1	20.5	5.2	21.3	35.4	11.1	17.0	13.7	6.5
Livestock Numbers and Output												
Number of Cattles	1.300	24.400	13.800	13.700	31.200	27.000	19.600	18.800	10.000	8.200	5.700	20.100
Number of Cows	6.300	17.100	8.800	7.500	17.000	13.000	10.700	11.300	5.000	5.200	3.600	9.900
No. of Sheep & Goats	45.200	90.800	44.800	92.000	93.000	105.000	43.700	107.100	40.000	44.200	78.200	69.800
Milk Production (kg)	9.674	40.330	15.296	13.435	27.838	19.380	17.349	20.651	6.287	10.204	8.318	14.100
Meat Production (kg)	860	4.323	1.394	1.742	3.154	3.672	3.068	3.153	1.983	1.176	1.823	1.350

Ap 2.5 Regional differences

Structure	Albania	Lowlands	Intermediate	South. Highl.	N.&C. Mount.
Land structure					
Total Land Area (ha)	2,874,800	339,067	885,511	659,458	990,764
% Arable Land	24%	60%	26%	21%	13%
% Field crops	20%	52%	19%	18%	11%
% Trees	4%	8%	7%	3%	2%
% Forest	36%	15%	29%	33%	52%
% Pastures and Meadows	15%	3%	14%	23%	14%
Educational Level					
No diploma	16.3%	16.7%	15.7%	14.4%	19%
Lower Elementary	57.0%	58.4%	53.6%	59.5%	61.7%
Upper Vocational	2.2%	2.5%	2.2%	2.1%	1.6%
Upper General	13.4%	12.8%	14.5%	13.5%	11.0%
Upper Technical	6.2%	6.1%	7.3%	5.8%	4.2%
Universitary&Post-universitary	4.9%	3.5%	6.7%	4.7%	2.5%
Cropping Structure					
Total Agricultural Land (ha)	699,021	201,891	229,135	136,730	131,265
% Cereal Crops	22%	25%	20%	23%	20%
% Forage Crops	26%	34%	12%	12%	22%
% Fruit Trees	17%	13%	25%	13%	15%
% Vegetables	4%	6%	5%	3%	2%
Agricultural Holdings					
Total Number	466,670	120,197	123,542	62,237	122,306
Total Area of Holding (ha)	457,581	159,886	117,941	68,441	61,900
Area per Holding (ha)	0.98	1.33	0.95	1.10	0.51
Crop Input Use					
Irrigated Area (% of Ag. Land)	30%	36%	26%	24%	30%
Potential Irrigated Area	51%	61%	48%	39%	48%
Fertilizer Use (kg/ha)	185	275	158	80	111
Tractor Availability (ha/tractor)	90	64	92	114	172
Land Preparation (% of farmers)					
Mechanical	58%	91%	61%	64%	16%
Draft Power	21%	3%	15%	21%	49%
Manual	21%	7%	24%	15%	35%
Crop Production and Yields					
Wheat Yield (t/ha)	2.9	3.0	2.9	2.2	2.6
Maize Yield (t/ha)	3.9	4.1	5.0	3.3	3.5
Vegetables (t/ha)	20.9	21.2	20.9	16.6	14.7
Forage Production (t/holding)	9.6	17.4	10.4	7.5	3.7
Grapes (t/ha)	9	10.4	8.7	7.8	8.9
Fruit (kg/tree)	15.9	24.2	15.3	15	13.5
Livestock Numbers and Output					
Cattle (no./holding)	1.6	1.7	1.9	1.5	1.6
Milk Yield (kg/cow)	1.609	2.130	1.862	1.538	1.113
Sheep and Goats (no./holding)	6.5	2.3	8.7	12.8	7.3
Milk Production (kg/holding)	2.031	2.536	2.368	2.029	1.328
Meat Production (kg/holding)	241	237	259	223	216