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PROCESSOR DRIVEN INTEGRATION OF SMALL-SCALE FARMERS INTO VALUE CHAINS IN UKRAINE

Olena Borodina

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Acronyms and Abbreviations

GDP	Gross domestic product
WMAP	Wholesale markets of agricultural products system
CPT	Corporate profit tax
NGOs	Non-Governmental Organizations
VAT	Value-added tax
IFOAM	International Federation of Organic Agriculture Movements
IMO	Institute for Market (Switzerland)
OECD	Organization of Economic Cooperation and Development
ISTA	International Seed Testing Association

1. EXECUTIVE SUMMARY

The report provides the results of the current institutional environment analysis for integrating small agro-producers into value chains established by processing enterprises. The purpose of the study is to define agro-enterprises which have managed to establish mutually beneficial relations with local small-scale agro-producers and integrated them into value chains; to discover the main characteristics of such interactions and the key success factors to develop recommendations, support lines and extending mutually beneficial relations between small-scale agro-producers and agro-processing enterprises.

The analysis revealed that the government has created favourable conditions for large-scale agro-production in this period and provided positive results in terms of increased output. It has also helped Ukraine take up a key position on the global agro-food market. Leading agro-companies have mastered large-scale market management methods. They make significant profits by using global market infrastructure and preferences for agriculture stipulated in legislation.

However, uncontrolled production concentration has resulted in structural alterations in the agricultural sector and a dual production structure has emerged. The agricultural sector is segregated with a corporate sector that monopolizes economic power thanks to state interventions on the one hand, and a family farm sector that receives no state support on the other. The small-scale farming sector accounted for more than a half of gross agricultural output in the entire period. Corporate households produce the most commercially attractive and export-oriented types of product and possess well-developed value chains. Individual small-scale farms and farming households are not well organized and produce low-gain and labour-intensive products (potatoes, vegetables, fruit, milk etc.) They are aimed at food self-sufficiency and the domestic food market.

An increase in the production of export-oriented agricultural products has been followed by distortions of sectoral and food production structure. This leads to a low level of consumption of domestic food products, unbalanced diet and consumption of imported food products of questionable quality.

According to official data, the domestic food processing industry of Ukraine provides consumers with more than 90 percent of food products and preserves. However, official data does not reflect the actual situation in which imports are becoming more and more prominent. The volume of products manufactured in Ukraine includes products made from domestic raw materials, as well as products undergoing the final stage of processing. Information about the origin of raw materials is lacking as a rule, and as a result, finished products made of imported raw materials appear as domestic products on the market.

Linkages between domestic production and trade are very weak on the domestic market and many assortment groups of domestic products continuous disappear in food products trade, which is exacerbated by imported analogous products. Serous negative consequences follow the development of small and medium-sized businesses in trade, including lack of investments and low competitive power (they are can sometimes almost be pushed out of the market by retail trade networks). National scale networks, which are developing their businesses in most of the regions, function in the Ukrainian market. Retail trade networks are represented by domestic and foreign operators, although foreign companies dominate the market. These companies include: Auchan, Novus, Metro Cash&Carry and Billa. Non-transparent schemes of acquiring land and complicated procedures of coordinating construction make network growth on the Ukrainian market more costly and reinforce the monopoly of already existing networks.

Supermarket networks have intense power over producers, processors and other supply chain actors. They establish strict standards for the products they buy, introduce specific rules and standards, establish

their own certification and audit systems and control product conformity in line with consumer requirements. Supermarkets pay attractive prices to direct suppliers for products of the appropriate quality and quantity. Small-scale producers find it very difficult to comply with these rules and standards, which creates additional constraints for their participation in the beneficial sales channels.

The dynamics of changes in the processing industry also include intensive mergers with and acquisitions of small and medium-sized processing enterprises, which can result in monopolies being formed. Nearly 70 percent of the food market is controlled by ten large companies.

Under conditions of food industry reorganization, processing enterprises have to put up capital directly for agro-production development in order to increase the quality of raw materials and to ensure the required standards. The possibility of signing a free trade agreement with the EU in 2013 on the one hand would have given access to the European markets for Ukrainian products, and on the other hand, steps up competition on the domestic food market. This urges some companies to search for new markets and to develop new relations with small-scale producers. The main sectors this kind of developing interaction include pork and fresh fruit and vegetable production. Successful stories of this kind of cooperation are studied in detail in the case studies.

The process of involving small-scale agro-producers into value chains, initiated by agro-processing enterprises is not a widespread phenomenon in Ukraine. Constraining factors from the point of view of agro-industry companies are as follows:

- Considerable fragmentation of small-scale producers in rural areas with unfavourable transport connections. Remoteness from the processing enterprises makes provision of services to potential value chain actors very expensive in the process executing contracts.
- Small-scale producers lack the necessary funds to invest in production and supply of products/raw materials according to the requirements of processing enterprises.
- Lack of awareness and information infrastructure results in considerable technical assistance on the part of the processing company per unit of output, provided to small-scale producers.

This is why it is easier for agro-companies to conclude contracts with several agro-enterprises, instead of a great number of small-scale producers, as it cuts operating expenses.

The integration of small-scale agricultural producers into value chains along with capital and sales management may significantly increase productivity of the sector. However, involving individual agro-producers into value chains cannot be expected to solve all the structural problems faced by Ukrainian agriculture. It is hard to imagine that the 2.6 million people that currently produce agro-products will be involved in these processes.

Developing value chains does not represent a social policy direction that can include everyone. However, the policy in this domain should be aimed at development goals; namely, equality, gender, sustainable development, and poverty reduction.

The value added chain approach is good for commercial, market-oriented, and semi-commercial small households, which produce excess agro-products to be sold (in Ukraine 19 percent and 41 percent respectively). The 40 percent of rural households that produce products for their own consumption are automatically excluded from the chain and poor and isolated rural households cannot act as drivers of value chain development. It is necessary to introduce broad rural development measures, including the creation of employment opportunities beyond agriculture, for the purpose of expanding the development process.

The model for developing the value chain may represent only one part of such strategy. Political efforts in this context should be aimed at strengthening the economic power of small-scale producers and their

linkages with agro-processors on a group basis.

Successful policy in establishing value chains should ensure that all participants are able to make enough profit once the support period has expired. Each actor in a chain should be capable of using his or her own discretion to obtain sufficient profit on a permanent basis without extended subsidies or other types of support. It is necessary to pay more attention to increasing the potential of small-scale producers to increase their competitiveness in relations within a chain. Experience shows that value chain business-models, established with the help of donor organizations, are not durable as they are always waiting for external support, which is why are destined to fail in the medium term.

The advantages of group participation in value chains are obvious. In terms of other participants' interests, cooperation with a group is more attractive than acting unilaterally among a large number of small-scale producers. Groups of small-scale producers may gain more benefit from integration; namely, they can combine their resources and gain access to credit and services to develop technologies and skills necessary for producing improved products; it is easier for groups to obtain the information necessary to access certain markets; groups are more capable of taking risks, setting rules and specifying quality standards, and may appoint members who will control adherence to them. Moreover, groups can get access to professional consultations and undergo the necessary certification and inspection procedures on advantageous terms in order to sell products on high quality export markets. Groups can combine available resources and receive external funds to invest in irrigation or storage facilities. Group members may organize internally (with each other) to grow cultures, ripening at adjusted times, thus ensuring constant supply within a chain.

2. INTORDUCTION

Global trade policy has led to a more liberalized and integrated agro-food market in recent years, and has established close supply networks. Buyers and sellers all over the globe conclude direct contracts for producing and trading in a wide range of individual products. Buyers can discuss contract conditions directly with producers instead of buying from trading companies. This kind of supply chain organization is new for many small-scale farmers. It is followed by market concentration with a small number of powerful transnational companies, which control a significant share of agro-food system. Growth in the processing and retail sector intensifies market concentration. Purchasing power is centred in the hands of a limited number of large processing companies and supermarkets, which have huge power over producers and other actors in a supply chain, while small-scale producers and processors have little market power and are pushed out of the profitable markets.

Conceptual approaches to solving this problem are more and more focused on mechanisms for increasing the competitiveness of small-scale producers in order to strengthen their market power. The best way out for farmers in such conditions is to find ways of integrating into value chains with processors on an equal basis. This can be done through better economic and institutional harmonization. Small farmers must be able to establish relations with various food chain actors and cooperate for mutually-beneficial activities and investments, thus integrating into existing or developing value chains on a group basis. Competition growth in the domestic market through liberalization creates additional challenges for processing enterprises as well; namely, the necessity for improving the quality of finished products; ensuring reliable sources of quality raw materials and increasing capacity and production efficiency to maintain price competitive advantages. In other words, consolidating efforts for establishing successful chains both for small farmers and agro-processing enterprises.

Ukraine does not have any policies for integrating small agricultural producers into value chains. There are two possible approaches in this sphere. The first one is based on concluding individual partnership agreements with agricultural producers and processing or sales companies. The other one involves development of collective partnership relations.

Collective partnership is implemented via the creation of informal organizations (marketing groups), formal organizations (cooperatives) and producers' associations. The establishment of small-scale producers' associations in Ukraine is limited by various institutional factors. Formal producers' organizations and agricultural service cooperatives in particular, are facing various institutional and taxation problems. Agricultural service cooperatives are subject to double taxation and corruption in the allocation of state support. This discourages agricultural producers from becoming members of cooperatives regardless of extended political support for cooperation development in Ukraine. Informal small-scale producers' organizations are more viable under current conditions in the country and are implemented as marketing groups in practice. Marketing groups are devoid of the organizational shortfalls peculiar to cooperatives, which stipulate their attraction. At the same time, they have limited access to financial resources and state support owing to their lack of official standing.

Individual partnerships are more available to Ukrainian small commodity producers, as they have been better integrated into the former practice of relations between households and collective agricultural enterprises that prevailed during the Soviet period. Processing or marketing organizations, interested in the supply of stable raw materials and finished products, act as initiators for integrating small-scale producers into value chains.

The main objectives of the study are to analyse current possibilities in the agro-food sector and institutional environment of Ukraine for developing cooperation in the field of establishing effective value chains; to define agro-enterprises that have managed to establish effective relations with local agro-

producers and integrated them into value chains; to define the driving forces which improve these relations, and to design recommendations for assistance policies in establishing relations between producers and agro-enterprises, also on a group basis.
The information for the study comes from the official data of the State Statistic Service of Ukraine, reports of the Ministry of Agrarian Policy and Food of Ukraine, materials of the Federation of Organic Development of Ukraine (website), scientific publications and reports of Ukrainian and foreign researchers and materials and financial and production reports of the enterprises studied, as well as the results of interviews with the executives of the enterprises studied and FH owners.

The report consists of three sections, a set of conclusions, and five annexes. The first section is dedicated to major trends and environmental conditions for establishing relations between processors and agricultural producers. The section analyses the main production and market trends in agriculture and food industry development in Ukraine. It also provides industry production patterns and analyses the level of employment and investment activity. This section also contains an analysis of trade exchange of agro-food products.

The second section reveals the conditions and external business and interaction environment of agricultural producers and processing enterprises, namely: market infrastructure; taxation peculiarities; development of innovative activity and professional organizations in industries and state support measures.

The third section is dedicated to evaluating the prospects for developing business relations between processors and agro-producers through establishing effective value chains. This section provides the results of the field study of value chain establishment and functioning in two regions of Ukraine (Kherson region – crop, especially vegetable, production and in Chernivtsi region – livestock production, especially pork).

The conclusions and recommendations summarize the results of the study and explain the lessons learned in terms of establishing relations between small-scale producers and processors. This section evaluates the resources and possibilities for cooperation and suggests recommendations for institutional, socio-economic, and financial and credit spheres to contribute towards establishing and developing mutually beneficial relations between small-scale producers and processors.

3. CONTEXT AND ENABLING ENVIRONMENTAL CONDITIONS FOR THE DEVELOPMENT OF FARMER PROCESSOR RELATIONSHIPS

3. 1. Overview of major production and market trends in Ukraine

The agricultural sector represents an important branch of Ukraine's economy. Between 2000 and 2011, agriculture contributed 11 percent to GDP on average. Notwithstanding the insignificant decrease in the agricultural sector's role in in state economic development, there has been steady growth in its production and export potential. Ukraine has taken a position among global leading exporters of agricultural products owing to fast growth in grains, oil seeds and oil exports in recent years. In 2012, Ukraine's share among global production and export indices were: wheat – 3.2 percent and 3.6 percent respectively; corn – 2.6 percent and 14.5 percent respectively; barley – 6.8 percent and 10.0 percent respectively; and sunflower seeds and oils – 25 percent and 50 percent respectively [Minagro].

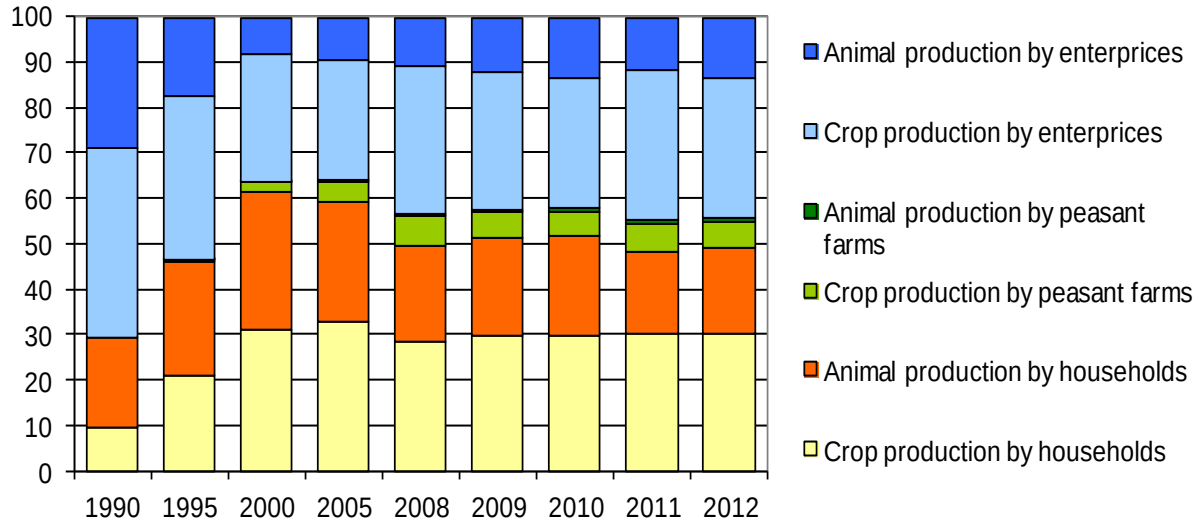
The organizational structure of production: Agrarian transformations in Ukraine are followed by structural distortions, production disproportions and the creation of a dual organizational structures. There are two separate sectors in present-day agriculture; namely the corporate sector (agricultural enterprises) and the individual sector (peasant farms and household plots). The corporate sector has a better access to market resources, marketing channels, favourable prices, state support, and influence on national agricultural policy. Nonetheless, household plots and family farms ensure production for almost half of gross agricultural output [2].

The corporate sector has been characterized by dynamic changes, especially since 2004. There is a large-scale land use concentration, which is evident from an increase in leased land areas, as well as from the fact that agro-holdings are being established at fast rates. Vertically and horizontally integrated structures, which include not only agrarian formations, but also processors, grain elevators, transportation and trade organizations, and scientific research institutions are also signs of this. Hundreds of thousands of hectares of land are covered by such establishments and they monopolize benefits from international trade in agricultural products and food.

The commitment of the corporate sector to export-oriented production has caused skews in the agricultural produce structure. In 2011-2012, the share of crop production in total gross output was almost 70 percent (Figure 3.1, Annex A), whereas at the beginning of the 1990s crop and animal production contributed more or less equally. An agricultural crisis in the 1990s negatively affected total agricultural production. This decline in agricultural output was compensated for by small-scale producers, and especially those with household plots. As a result, in 2000 the share of households involved in agricultural production increased to 70 percent (from 30 percent in 1990). After 2000, the share of households decreased and in the following period it stabilized at 50 percent, owing to the increase in output of agricultural products by agro-enterprises. About 5 percent of all agricultural output is produced by farmers, focusing on crop products (Figure 3.2). Sunflowers account for almost 20 percent of all cultures produced by farmers, while rape accounts for 15-16 percent and grains for 12 percent (Table 3.1, Annex A).

In 2011, Ukraine achieved its highest level of agricultural production since independence (Figure 3.3, Annex A). In recent years, the basis of agricultural gross output has been ensured through the production of gains, technical cultures and vegetables. On average, the production of these cultures exceeds rates seen in the 1990s. Regardless of positive trends in the output of animal products, it is still far from 1990s rates. The exception is egg production, which has surpassed 1990s rates by almost 15 percent. A decrease in the numbers of cattle (including cows) and pigs remains a steady trend (Table 3.2).

Figure 3.2: Dynamics of gross agricultural output structure by types of producers



Source: State Statistics Service of Ukraine

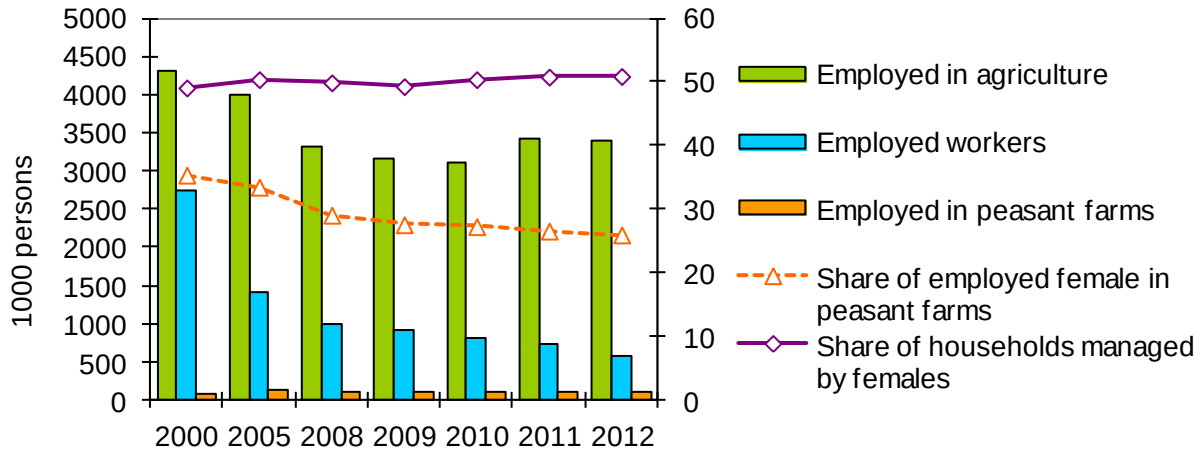
Land-use: Land is the most valuable manufacturing resource in Ukrainian agriculture. At the beginning of 2013, there were 41.5 million hectares of total agricultural land in Ukraine (69 percent of the territory), with 27 million hectares belonging to small land-owners, who lease out 17.3 million hectares. In 2011, based on experts' estimations, the size of the consolidated land banks of agro-holdings accounted for nearly 6 million hectares, or 35 percent of the total agricultural area leased out by small land-owners. According to estimations, agro-holdings will increase their controlled agricultural land area by an additional 2-3 million hectares by 2015-2016. One peculiarity of land-use by agro-holdings is that they do not till all of their land. This may be a sign that they are accumulating land assets for the purpose of subsequent transactions. Therefore, according to the data provided by Eavex Capital, in 2010 Landcom LLC accumulated 39 000 hectares of land (52.7 percent of total area), while Agricultural company "Agroton Public Limited" had 127 000 hectares (accounting for 84.1 percent of the total), "Dakor-West" PJSC had 82 000 hectares (77.4 percent) and Sintal PLC had 87 000 hectares (86.1 percent).

Building of value chains: In the late 1990s there were a number of intermediaries in relations between producers and consumers. These intermediaries limited producers' direct access to markets and monopolized value chains. The volumes of raw materials supplied directly from producers to processors have significantly decreased. Processors started having to develop their own raw material zones. This resulted in the development of vertically integrated structures on the basis of processing and trading enterprises. These structures have closed-circuit production cycles, covering all stages: from raw materials to finished products. With increasing output, processing and sales volumes, these enterprises turned into holding type corporations, which currently represent well-organized closed value chains.
The small-scale farm sector has limited access to creating added value. Primarily, it is integrated into value chains at the lowest level as suppliers of raw materials. Step by step some of them are getting involved in higher levels of processing, storage and sales under a common trademark. Usually, similar value chains are created within the framework of projects for technical support and are not widespread in business practice.

Employment: Agricultural production still remains a major source of employment for the rural population. In 2012, over 3.4 million people were employed in agriculture. However, since 2000 this has decreased by 20 percent. Employment in the corporate sector is decreasing quickly; namely, from over 2.5 million

people in 2000 to less than 570 000 people in 2012 (Figure 3.4). A breakdown by gender shows that more men are employed in the corporate sector, which also happens to have higher wages.

Figure 3.4: Employment in agriculture



Source: State Statistics Service of Ukraine

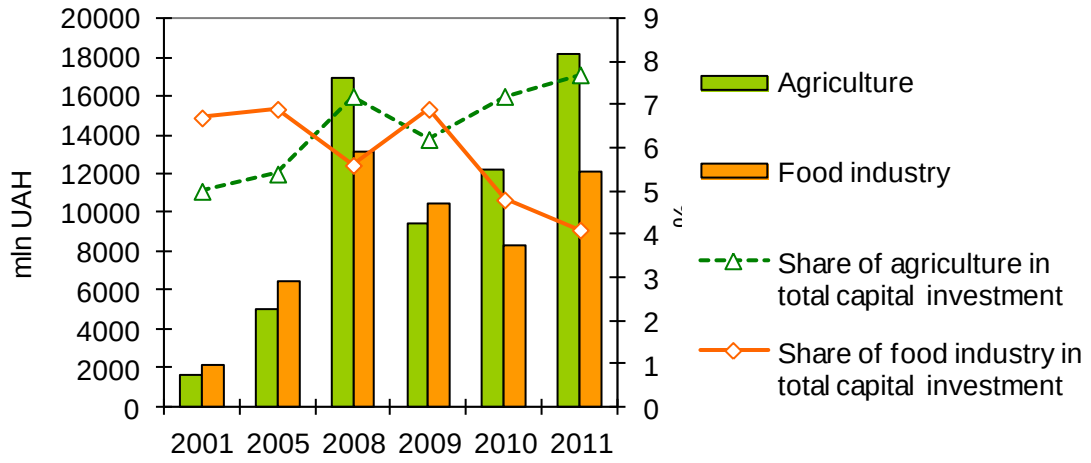
The majority of the rural population is employed in the small-scale farm sector. Nearly 75 percent of all employees work on household plots. Most of these people are women of economically active age.

Almost 3 percent of the population are employed on peasant or family farms. Before 2005 this number was increasing: from 71 000 persons in 2000 to 130 000 in 2005; after 2005 there was a progressive reduction of employment (in 2012 it was less than 100 000 persons). The number of women employed on peasant farms has also fallen; from 35 percent in 2000 to little more than 25 percent in 2012 (Figure 3.4, Annex A).

Employers have taken advantage of the difficult situation in rural areas by reducing wages. Therefore, while in 1990 wages accounted for 37.8 percent of the average farm production budget, in 1995 this figure was 23 percent and in 2010 it was 12.3 percent. Within the whole period the level of wages in agriculture was the lowest in the national economy, even though it increased gradually. In particular, in 2000 salaries paid to agricultural workers were only 38 percent of the salaries paid to industrial workers. In 2004 this figure was about 40 percent, and in 2010 it was 57 percent (and 65 percent compared to the average level in national economy). On average the salaries of women employed in agriculture are 11 percent lower than those received by men.

Investments: The growth of agricultural output in Ukraine has contributed to the increase of attractiveness of the agricultural sector for investors. Over the last 11 years, investments in agriculture have multiplied by more than 10 times, thus leading to the growth of a share in aggregate investments in the economy from 5 percent to almost 8 percent (Figure 3.5).

Figure 3.5: Dynamics of capital investment *(in actual prices)*



Source: Statistical Yearbook "Agriculture of Ukraine 2011"

3.1. Food industry overview

The food processing industry in Ukraine ranks second in terms of production output after the metallurgy and metal working industries. In 2011, annual food industry turnover was USD 19.5 million, or 15 percent of total industrial output. The food industry is the third principle choice for foreign direct investments in Ukraine (after the financial sector and metallurgical production). In 2011, nearly 4 percent (USD 2.07 billion) of total foreign direct investments in Ukraine were directed to food, beverage and tobacco production. The food industry generates direct employment for 13 percent of the working population.

Food industry exports account for almost a quarter of total Ukrainian exports; while imports of industry food products make up 10 percent of total country imports.

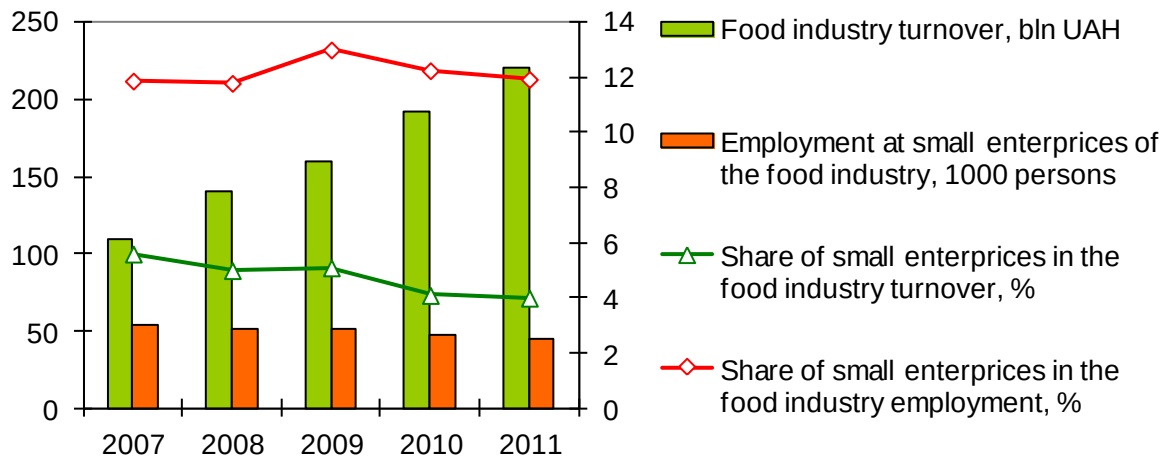
Organizational structure of production: The food industry provides a positive trade balance for the economy of Ukraine and demonstrates growing dynamics of production (Table 3.4, Annex B). Based on the data shown in Table 3.4, the dynamics of production differ in terms of types of products: output of oil and fats increased by 38.7 percent in 2011 compared to 2007, output of meat and meat products decreased by 4.1 percent, processing and preserving of vegetables and fruits by 29.0 percent, dairy products and ice-cream by 12.5 percent, flour-milling products by 20.4 percent, and beverages by 16.9 percent).

A large proportion of the output is provided by large processors, while small enterprises cover a small share of food production. On average, between 2007 and 2011, their share in the volume of sales was decreasing each year and in 2011 it accounted for only 4 percent (Figure 3.6, Annex B). In terms of financial indices, the industry is experiencing stagnation. The losses of small enterprises multiplied by almost eight times between 2007 and 2011. The number of loss-making enterprises increased by almost 30 percent within the period analysed (Table 3.6).

Employment and salaries: Over 370 000 people are employed in food production (2011). The majority are concentrated in meat and meat product production (about 15 percent), milk processing and cheese production (16 percent), and bakery product production (19 percent). However, some significant changes in the employment structure of the food processing industry occurred within the period studied, in particular: the share of the population employed in the production of dairy, meat and bakery products decreased, while the share of people employed in confectionary, oil, fat, and alcoholic drinks production

increased. The reason for this is the modernization of enterprises, which are implementing new technologies. Small enterprises generate employment for over 11 percent of the population employed in the food industry (Figure 3.6).

Figure 3.6: Small enterprises in the food industry turnover and employment*



Source: State Statistics Service of Ukraine
* On the left - turnover and employment, on the right – share of employment.

The wages of workers employed in the food industry are 97 percent of average wages countrywide. However, the wages of workers employed in small enterprises in the food industry are only 58 percent of the country average (Table 3.5, Annex B).

Trade: An analysis of the commodity pattern of trade with industrial food products (Table 3.7, Annex B) shows that there is a positive balance in fats and oils of animal and plant origin, which account for approximately 50 percent of the total export volume of industrial food products, as well as exports of milk, flour-milling and cereal products, sugar, cocoa confectionary, cocoa-containing products, processed grain products, and food-industry left overs and waste.

The following commodity groups are those most commonly imported: fats and oils of animal and plant origin; cocoa and coca-containing products; alcoholic drinks and beverages; vinegar; and tobacco and commercial tobacco substitutes. The food industry has a positive trade balance, although the import structure needs to be improved by reducing imports of low quality products which can be harmful to health. This primarily relates to alcoholic drinks, tobacco[1], and palm-oil imported by processors to make their products cheaper.

According to official statistical data (Table 3.9, Annex B), the domestic food market supplies almost 90 percent of meat products and preserves, smoked and salted meat, sausages; milk and dairy products; fat and oil products; sugar; low alcoholic and non-alcoholic beverages; and mineral waters (Table 3.9, Annex B). Difficulties are shown in the provisioning of fresh domestic fruit and vegetables, as well as fruit and berries preserves (60 percent). In recent years, domestic processors have lost 10 percent of the domestic market owing to stiff competition from foreign companies. Domestic producers tend to have outdated equipment and obsolete storage practices with 30-40 percent of raw materials being lost due to inappropriate storage conditions in households and at processing enterprises. At the same time, since

[1] According to estimations, 30-60 percent of alcoholic drinks and tobacco products, sold in Ukraine, are counterfeit.

Ukraine's WTO accession in 2008, the import of fresh vegetables has increased by 3.3 times and fruit by two times. Imports increased 67 percent and 16 percent in 2010 and 2009 respectively.

A decrease of the home market share of the following domestic product groups was also seen between 2007 and 2011: smoked and salted meat, sausages; preserves and processed fish products; rennet, processed and lactic cheese, macaroni products; vegetable preserves; wine and beer.

It is worth mentioning that official statistical data does not reflect the real situation regarding import expansion on the domestic market. Statistical data on food products produced in Ukraine includes data on products manufactured from domestic raw materials, as well as products undergoing only final stage processing. Information regarding the origin of raw materials is not, as a rule, indicated on labels. As a result, sausages made from Brazilian meat, or milk made from Polish powder are available on the market as domestic products. Another threat for Ukrainians is that a significant share of food products are of poor quality, or are adulterated, which poses a danger to the health of consumers.

3.2. Conditions for farmers commercialization and development of small food industry enterprises

The development of Ukraine's agrarian market infrastructure stems from creating wholesale markets for agricultural products (WMAP). The programme for development of WMAP was launched in 2011 on the basis of a public private partnership. The volume of privately owned capital involved in the implementation of the projects for the construction of wholesale markets, is estimated at over UAH 4 billion. In 2011, the Government invested UAH 198 million (almost 100 percent of the projected investment); in 2012 actual financing made up less than 10 percent. There are no provisions in the budget programme for creating wholesale markets in 2013. In 2011, the early production facilities of four wholesale markets for agricultural products were put into operation on the area of 240 hectares in Kyiv Oblast – "Stolychnyi", in Donetsk – "Hospodar", Lviv – "Shuvar" and in Zaporizhzhia Oblast. The construction of the wholesale markets of agricultural products was launched in Kherson and Odessa Oblast as well, and by 2015 a network of wholesale markets of agricultural products will have been created, which will include all regions of Ukraine.

The WMAP network is supplemented by a system of local markets, the number of which is gradually increasing (Figure 3.7, Annex C). There are 35 accredited commodity exchanges in Ukraine, about 500 wholesale markets for livestock and poultry, almost 700 wholesale markets of fruit and vegetables and over 900 retail food markets. The majority of the objects are not in operation and a lot of obstacles for trade, especially for small-scale producers, still remain.
Small-scale producers face a lack of access to potential markets for several reasons: 1) a lack of confidence and unstable relations between producers and potential buyers; 2) low volumes of production and products range; 3) poor logistical infrastructure (bad roads, insufficient transport connections); 4) lack of reliable information about markets and financial resources to obtain it; 5) lack of quality seeds and fertilizers and mechanization, which reduces the product quality characteristics; 6) administrative and shadow barriers of access to profitable markets (private traders limit supply on the markets to keep high prices, relatively high mandatory payments to access the trading facility at the market etc.)

Agricultural enterprises (including peasant farms) may choose between a simplified tax system or the general one. If the share of revenue of an agricultural enterprise, gained from its own production or rendering agricultural services to other agricultural enterprises, accounts for over 75 percent of total turnover, that enterprise has the right to take advantage of the flat-sum agricultural tax. The flat-sum agricultural tax combines the profit tax, land tax, the fee for special water use and the fee for trading activity.

Food processing companies are liable to corporate profit tax (CPT). The most recent changes to the Tax Code of Ukraine with subsequent amendments, which came in force in 2012, provide a reduction of the

tax burden. Prior to the adoption of a new Tax Code of Ukraine, CPT was fixed at 21 percent. The rate was lowered to 19 percent on 1 January 2013 and to 16 percent on 1 January 2014.

Small business entities and entrepreneurs are liable to the simplified taxation system (payment of a single tax). With the adoption of a new Tax Code of Ukraine, imposing a single tax on small business entities has undergone significant changes, relating to the segregation of different categories and the application of graded taxation rates.

Food production activity is controlled by the government by means of establishing mandatory standards for food safety, specifying minimum quality requirements in technical standards and defining veterinary and sanitary requirements for production facilities and employees, involved in food production, for selling (supplying) and storing, as well as standards for food products.

In order to produce, process or to sell food products on a commercial basis it is necessary to obtain a special permit. Food production activity is liable to state inspections according to a range of the state government requirements and standards applicable to different types of products. In particular, products of animal origin must have veterinary documents and fresh milk and dairy products are liable to certification (i.e., certification of meeting mandatory requirements, established by the respective law). Some types of food product are liable to compulsory certification (a procedure, according to which a particular food product meets the requirements of a certain government standards).

All food products sold on the domestic market, are liable to labelling. The labels should include information about genetically modified organisms and additives (if any). Food additives and flavourings may be used in food production only after being registered at the central health care executive body.

The national policy for food safety and quality is aimed at adjusting Ukrainian legislation to international standards. There are 318 national quality control standards for agricultural products that have been harmonized so far in the field of agriculture (86 percent of all international standards). In the food industry, 379 documents (56 percent of all international standards) have been introduced.

The management system for food and environmental safety and quality has only been implemented in 5 percent of Ukrainian food industry enterprises.

The Law of Ukraine on Safety and Quality of Food Products N 2809-IV d/d 06.09.2005 as subsequently amended, is the major legislative act in the area of food safety and quality. Certain types of food products (such as baby food, milk and dairy products, fish and fish products etc.) are additionally regulated by separate legislative acts. Moreover, the food industry is liable to the legislation on the protection of consumers and price control.

Total expenditure on innovative activities in food industry enterprises between 2007 and 2011 were more halved: from UAH 1.7 billion in 2007 to UAH 0.9 billion in 2011. Enterprises spend a major part of their capital on acquiring machinery, equipment and software (84-90 percent). Expenditure on scientific-research efforts and knowledge do not exceed 3 percent.
According to The State Statistics Service of Ukraine, in 2011, 384 food industry enterprises were involved in innovative activities (16 percent of the total number). Compared to 2007, the number of food industry enterprises that introduced innovations increased by 8 percent. Although the number of such enterprises is slowly increasing, fewer and fewer new product types are being mastered (Figure 3.8, Annex C).

Since Ukraine's independence, a number of industrial associations of agricultural producers and food processing enterprises have been established (Table 3.10, Annex C). For the most part, a struggle for state financial support, privileges and preferences was the main reason for the establishment of such

associations. This resulted in several NGOs being established in one industry. The number of NGOs is rapidly increasing. They are established by agro-industrial corporations for the purpose of elaborating and lobbying regulatory documents, which support big business interests. Medium and small-scale producers are more fragmented and less structured in their use of leverage of social influence on agrarian policy.

The Ukrainian Agrarian Confederation was established in 2002, and includes a number of industrial associations (almost 80), in particular: professional associations in the agricultural sector, business organizations and consulting structures of the agro-industrial complex, insurance and banking structures. The Farmers and Private Land Owners Association of Ukraine was established in 1991 as one of its members. The purpose of the Association is to contribute to the development of the mass farmers' movement in Ukraine. In practice, this process runs in the opposite direction as the number of the peasant farms is constantly decreasing. The activity of the association does not relate to the small land owners and to lobbying interests of their managerial personnel. The list of NGOs working in the agricultural sector is shown in the Table 3.10, Annex C.

3.2. Policies and programs for improved functioning of agri-food chains

The system and mechanisms of the state support policy in agriculture are mainly aimed at ramping up production, rather than developing extended value chains. The most typical mechanisms of support include connecting producers and processors, especially in meat and dairy production. However, these programmes are inefficient. Between 1998 and 2010, the Subsidy programme for Milk and Meat Producers was in effect in Ukraine. Subsidies were provided through accumulation of VAT to processing plants. Consequently, the government created a mechanism to bind raw material zones to milk processing plants, which ensured an uninterrupted supply of dairy resources but did not stimulate production. Over the 13 years that this programme was operational, UAH 10 billion of government subsidies was paid out, with a reduction of cow herd and milk production output to 2.5 billion (from 5.4 billion) and to 10 million (from 18 million) tonnes respectively.

Another budgetary programme for extra payments for 1 kg of milk and meat, being sold to processing enterprises, did not have a positive effect on the growth of the domestic milk and meat production either. The programme was mainly aimed at supporting large agricultural producers, rather than individual households, with the latter being the main producers of these raw materials.

In 2012, the Ministry of Agricultural Policy and Food of Ukraine implemented new types of subsidies aimed at supporting small and medium-sized producers. Subsidies were introduced to natural persons that breed livestock. These subsidies came from the special State budget fund, composed of VAT sums transferred by the processing plants (30 percent), in the following rates: UAH 250 for 3-5 month old animals; UAH 500 for 6-8 month old animals; UAH 750 for 9-11 month old animals and UAH 1000 for 12-14 month old animals.

At the same time, a programme for supporting the reconstruction and construction of livestock breeding complexes was launched. This was aimed at ramping up meat production for domestic processing. There are provisions in the State budget for this programme amounting to UAH 650 million. Budget limitation and a lack of transparency regarding access to these budgetary programmes leaves their feasibility in doubt.

A programme for supporting gardening and winegrowing was launched in 2000 and a programme for hop-growing was launched in 2008. Over this period almost 50 000 ha of various fruit plantations and 45 500 ha of vineyards were planted; drip irrigation systems were constructed on 31 000 ha of land. Owing to these factors, for the last three years the average gross fruit output has increased by 33 percent and 12 percent respectively. The Compensatory programme for the cost of constructing refrigerators with

regulated gas distribution was launched in 2009. During the last four years of this programme, 22 modern storage facilities for fruit with capacity of 50 900 tonnes have been constructed.
In 2013 financing for the budgetary programme for support of horticulture, winegrowing and hop-growing was significantly reduced. The state budget for 2013 makes provisions only for UAH 100 million of state support for laying out gardens, vineyards, berry-fields and hop yards, which is 10 times less than in 2012.

The major mechanism of support for including small-scale producers in marketing chains and increasing value added is the development of cooperation. A purpose-oriented programme for cooperation development in Ukraine was adopted in 2009. However, it did not receive sufficient financing: while in 2009 out of a designated UAH 90 million, only UAH 35 million was assigned and in 2012 only UAH 5 million was assigned.

Ukraine now has more than 900 agricultural services cooperatives. Only half of these are active (nearly 100 are supported by international donors and funds), while the rest are phantoms.

The major obstacle for the cooperative movement in rural areas is an inappropriate institutional environment for agrarian and rural development. The Law "on agricultural cooperation" was adopted in 1997 and has been amended by improvements several times. But members of co-ops are still not free from double taxation when transferring their products to the co-op for further sales. Ukrainian tax officials have interpreted these kinds of transactions as ordinary sales, so apply either a 15 percent or 17 percent tax rate is applied. In 2012, some amendments were made to the tax code, which partly resolved this problem. However, the problem of paying VAT has still not been resolved. Agricultural services cooperatives are still not tax exempt for VAT as all other agricultural producers favoured for this exempt and use secured funds for its development.

A lack of transparency and corruption during the division of budgetary funding for the agricultural sector also influences agricultural cooperatives. For instance, according to data from the laboratory of agribusiness and management of the Zalichinski agrarian college named by E.Khrapliviy (Ternopil region)[2], only three people in the Borcshivskiy rayon of Ternopil region registered to use funds from state programme for support of coop development in 2009: a couple and their daughter. For a long period of time the coop was unknown by the village council. Nevertheless in 2011 this coop was admired as the best agricultural service coop in the region and was granted budgetary support.

This tendency has also been observed in other regions of Ukraine and is called pseudo-cooperation. Experts have mentioned that there are many such coops in Ukraine. It registered to report on the expansion of the cooperative movement and for assignment of budgetary funds to interests of separate political groups.

The system of advisory services in agriculture began to expand actively after 2000 owing to active donation support. After the termination of financing technical support programmes, the network of consulting services has stopped functioning in practical terms.

UAH 44 million was provided in the budget for supporting the development of advisory services through extension services in 2008–2011. In practice, only UAH 7 million, or 15 percent of the projected amount, was used for agricultural extension services. State support for agricultural extension services shows a downtrend owing to non-use of funds by extension services. Thus, UAH 3.49 million was used for the

[2] Svitlana Michko. Cooperation in prostration : why in Ukraine do not work mechanisms of agribusiness successfully implemented in whole world //«Ukrayna moloda», № 120, 22.08 2013

purpose specified in 2008, UAH 1.86 million in 2009, UAH 1.66 million in 2010, and in 2011 state budget funds were not used at all [15].

4. VALUE CHAIN PERSPECTIVE OF PROCESSOR-FARMER BUSINESS LINKAGES

4.1. Trends analysis of the food market in Ukraine

Consumption: On average over half of Ukrainians' total expenditure goes on food products. Between 2007 and 2011 this figure was 61.6 percent. Regardless of the growth in agricultural output and a gradual increase in incomes, there are positive, as well as negative, trends in food consumption. An increase in the consumption of major basic products was recorded between 2007 and 2012, especially meat and meat products (by 39 percent), eggs (by 28 percent), vegetables (by 35 percent) and fruit by 42 percent. At the same time, the consumption of milk and dairy products and fish and fish products decreased by 5 percent. Consumption of oil and sugar remained almost the same. Regardless of certain shifts, Ukrainians still consume smaller amounts of basic products than the nutrition rates, approved by the Ministry of Healthcare of Ukraine: the largest difference is in consumption of dairy products (56 percent), meat and meat products (68 percent), fish (68 percent), and fruit (59 percent).

Incomes and purchasing power: The potential capacity of the major food markets is 40-50 percent larger than its current capacity. However, increase in the consumption of food products is limited by the low purchasing power of Ukrainians. The first decade of the transition period to the market economy was characterized by increasing consumer prices (by 3.5 times), and population incomes (by 1.5 times). In other words, the purchasing power of the average consumer halved. Since 2000, salary increases and pensions have accelerated. However, the burden of taxation, inflation and increasing food prices compared to consumer prices for commodity goods have actually made it impossible to increase the real purchasing power of the population. As a result, increase in demand for agricultural products and agricultural market capacity has been slowing down. This is especially true of the markets for meat, milk, eggs, fruit and vegetables. These types of products are the least profitable for agricultural producers. Considering that Ukrainian incomes are increasing only very slowly, and prices of food products are constantly increasing, this triggered decrease of consumption volumes and demand re-orientation towards goods with a significant content of cheap substitutes of animal and plant origin, with significant content of preservatives, artificial flavouring and, colouring agents and other impurities, which enter Ukrainian market largely through imports. Regulating these processes by establishing boundary prices and resale mark-ups do not solve the problem. Often this leads to phasing out domestic production or worsening consumption values of goods, as with the bakery and infant food markets, in particular.

Food prices: Consumer prices for food products almost doubled between 2007 and 2012. The highest price increase was recorded in 2008 (Figure 4.1, Annex D). Along with this, owing to high crop yields – mainly of vegetables and fruits – insignificant food price reductions were recorded in 2012 (by 3.1 percent compared to 2011). Among commodity groups, within the period studied, consumer prices mostly increased on fruits (2.8 times) and vegetable oils and milk and dairy products (2.4 times), which explains downtrends in the consumption of dairy products in Ukraine.

Consumer prices on food products depend to some extent on seasonality. Thus, save for 2008 and 2009, consumer prices tend to grow slowly during summer and autumn compared to winter and spring (Figure 4.2, Annex D).

4.2. Value addition: Costs, prices and profits analysis

Value added, generated at producer level, depends on a number of factors, including production expenditure, sales prices and the availability of sales channels.

Costs and production efficiency analysis: The costs of production create a future basis for adding value to products produced in competition with other producers. A comparative analysis of costs of products in the relation to product groups shows that production efficiency for major products on peasant farms is higher than on agricultural enterprises; save for grapes, potatoes and sugar. Small-scale farmers spend 5 percent less than agricultural enterprises on growing commercial crops (grains and oil) and 10 percent less on producing products of animal origin (Table 4.2, Annex D). As a result, the profitability of peasant farms is 2 percent higher in the production of commercial crops, 10 percent higher in the production of vegetables and fruit and 20 percent higher in the production of animal origin products.

Increasing profits requires higher expenditure per a hectare of cultivated area: thus, small farmers invest 5 percent more than enterprises on growing sunflower seeds, 13 percent more on sugar beets and 6 percent on growing rye. Along with this, the costs related to a hectare of planted wheat is 8 percent lower for farmers. Output of products of animal origin is usually cheaper (8-19 percent), save for pork with farmers spending by 5 percent more to obtain 1 kg more meat (Table 4.3, Annex D).

Approximately three quarters of direct production costs in crop production cover expenditures on seeds, fertilizers, fuel and greasing substances (approximately 22-25 percent per each element). Along with this, farmers use lower quality seeds, compensating for possible yield losses by spending more on mineral fertilizers.

Price formation: The advantages that farmers gain from lower production costs are limited by unfavourable prices. There are several traps in creating favourable prices for the purpose of generating value added. One of them relates to the regional differences in the sales price of agricultural products. In particular, according to data (Table 4.4, Annex D), prices for grains, sunflower seeds, livestock cattle and pigs differ throughout the regions within the range of -15…+20 percent across the country. For other agricultural products, regional differences in prices are more significant: for example, fruit prices reach a twofold deviation toward decrease and increase compared to the average level of prices. Potato prices also differ from region to region (by up to 50 percent) with north-eastern and central-western oblasts of Ukraine having low prices and eastern oblasts seeing high prices.

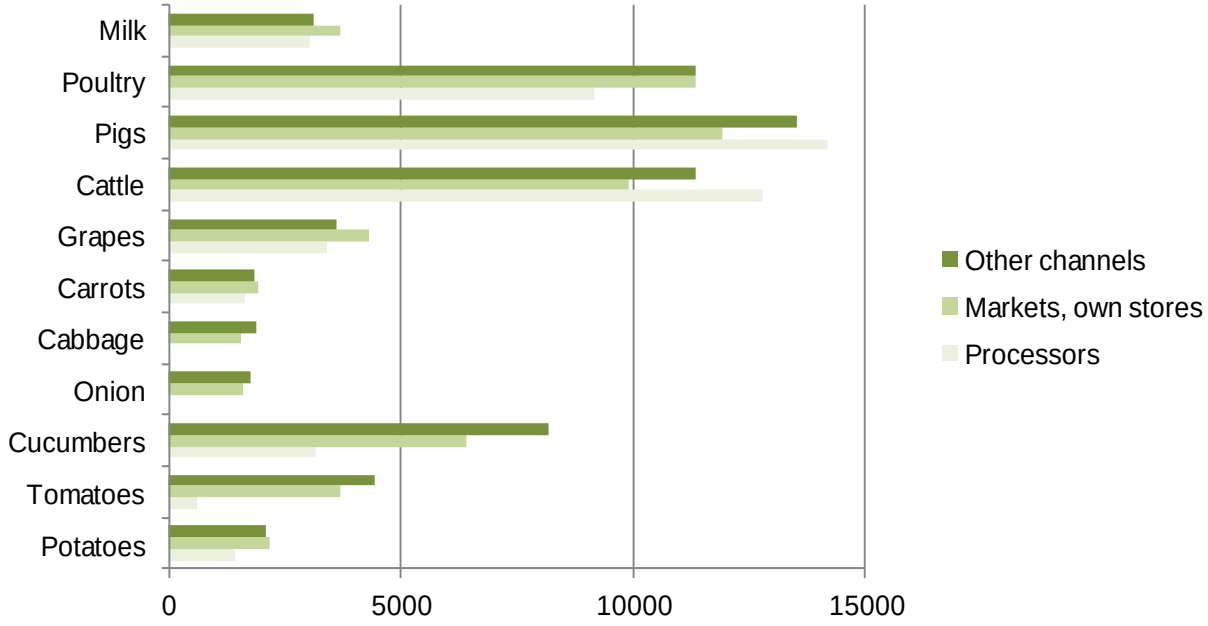
Another problem lies in discrepancies between sales prices of agricultural products by types of producers. In particular, corporate enterprises sell commercial crops at 4-5 percent more than peasant farms, vegetables at 40 percent higher and fruit and grapes at 10 percent higher (Table 4.2, Annex D). Moreover, prices for products of animal origin differ slightly, with farmers getting higher prices for cattle and poultry.

This situation has partially occurred due to the distinct level of access to and control of sales channels for agricultural products. Farmers have limited choice of sales channels for their produce, with processing enterprises remaining the major sales channel for them. A small share of farmers attempts to sell their own products directly on the city markets and in the retail trade system. However, the prices that processing enterprises pay remain lowest for the major types of agricultural products (Figure 4.3). For example, sales prices on the market or in trade networks for major types of vegetables are 2.7 times higher than prices proposed by processing enterprises. For potatoes prices are 1.5 times higher, for cucumbers they are twice as high and for tomatoes they are over 6 times higher.

Agro-producers also lose a significant share of value added due to seasonal fluctuations in prices. Prices of products significantly decrease owing to increases in agricultural product supplies during the summer and autumn season (Figure 4.4, Annex D). In particular, prices of grain and oil cultures start falling in August, while milk prices fall between May and July. Similar trends are peculiar to prices proposed by industrial food producers, but these seasonal fluctuations are not as significant as those associated with agricultural

producers (Figure 4.5, Annex D). For example, in 2011, average prices of sunflower seeds fell by 12 percent each month during the August-October period, and sunflower oil prices fell by 3 percent in the same period. Similar calculations give the following figures regarding milk: fall by 5 percent and 0.7 percent of the respective prices. Thus, processing enterprises pass losses in value added on to agricultural producers to a considerable extent.

Figure 4.3: Difference of sale prices by channels for main products, *UAH per ton (2011)*



Source: Statistical Bulletin "Products Realization by Agricultural Enterprises in 2011"

4.3. Storage of agricultural products

In comparison to the levels required, the presence of storage facilities in Ukraine is 20-30 percent (2011), depending on the region: in the west it is 19 percent, in the east it is 20 percent, in the central region it is 28 percent and in the south it is 33 percent. Total demand for creating additional storage facilities is estimated in approximately 1.7 million tonnes, of which (621 000 tonnes in the west, 381 000 tonnes in the east, 418 000 tonnes in the central region and 311 000 tonnes in the south (2011).

A total of 104 facilities for storing vegetables with a total capacity of 492 000 tonnes were constructed between 2011 and 2012 thanks to the State support programme.
Volumes of agricultural products kept in long-term storage facilities increased only insignificantly in 2012. In particular, vegetables kept in storage increased from 0.9 million tonnes to1.4 million tonnes [Minagro].

The lack of an extensive network for storing agricultural products makes it much more difficult to make efficient value chains. Large corporate enterprises (agro-holdings), as a rule, have their own adjusted networks for storing products, being an integral part of a closed value chain system (production-storage-processing-selling of agricultural products). On the other hand, only a minority of small-scale producers (including, peasant farmers) have facilities (usually low quality) for storing products. The lack of storage facilities forces small-scale producers to sell their products immediately after harvesting, when prices are significantly lower than in the winter or spring.

4.4. Agricultural products processing

Over 10 000 enterprises and local representatives are involved in the industrial processing of agricultural products in Ukraine. Most of them (97 percent) are privately owned enterprises. Concentration of production leads to reduction of processing enterprises by 1.5-2 percent each year due to pushing out of enterprises that are inefficient.

Meat-processing industry: The majority of meat-processing enterprises are concentrated in industrial regions and regions with powerful raw material bases. The central region covers 35 percent of the meat processing market, dealing with processing of chicken and pork meat and sausage manufacturing. The eastern region covers a quarter of the market and specializes in the same products. Enterprises of the western region specialize in pork, beef and sausage production (market share: 10 percent). Enterprises in the leading regions produce an average of 2.7 tonnes a day, while enterprises in other regions produce and average of 0.8 tonnes a day [12].

The following trends are observable in the meat-processing industry: reduction in beef and veal and growth in chicken output; reduction in meat preserves and growth in sausage and semi-processed product output. Demand for and output of cooled and frozen semi-produced products is constantly increasing and is outrunning the development of sausage output. Semi-processed products include products that differ significantly in terms of technological, functional, and organoleptic characteristics, as well as in terms of level of preparation (from raw to prepared semi-processed products that only need to be heated up).

The largest beef processing enterprises include PJSC "Kozyztyn Meat Plant" and JSC "Agroproducts"[11], Subsidiary Enterprise Illich-Ahro Donbas, Raiz-Maksymko and Zernoproduct; in pork production: APK-Invest, Ahropromyslova Kompaniia, Kalita Agriculture Complex та Danosha. Chicken Production Market is one of the most monopolized: Agro-holding Mironovskii khleboproduct covers one half of domestic market, and agro-holding Agromaks covers 15 percent [1].

Milk-Processing Industry: The industry is comprised of almost 200 enterprises, although this number was constantly falling between 2008 and 2010 (by 20 percent). The companies that currently dominate the Ukrainian milk and dairy market are Unimilk-Ukraine[3], Milkiland-Ukraine[4] and Wimm-Bill-Dann Ukraine[5]. In 2009, the cumulative share of the three largest companies in the industry was 22 percent, while in 2010 they controlled 21 percent of the market. The other leading companies include Herkules[6], Western Milk Group[7], Lactalis-Ukraine[8], Loostdorf, JSC[9], Rainford (trademark "SHchodnia" (literary - "every day"), Halychyna[10], industrial complex Prydniprovskyi (trademark "Zlagoda"), Danone Group[11] [13].

Sugar Industry: There are 63 plants in Ukraine that are involved in sugar beet processing. These plants meet the domestic demand for sugar, even only at 70 percent capacity. In recent years there has been a constant reorganization of the industry and as a result between 2005 and 2012 the number of operating plants more than halved (from 116 to 63). Many plants have ceased operations while others have reoriented towards bioethanol production.

Confectionary industry: The production of confectionery is mainly carried out by large enterprises (approximately 30), which account for almost 60 percent of the total. In addition, over 750 small specialized enterprises operate in this industry. Confectionary enterprises use mainly raw materials of domestic origin. Annual volumes of raw materials are 500 000 tonnes of sugar, 300 000 tonnes of flour

[3] TM «Bio-Balance», «Halacton», «Kremez», «Prostokvashyno», «Ukrainian»
[4] TM «7-ia», «Dobriana», «Koliada», «Krynka»
[5] TM NEO, «Funny Milkman», «House in village», «Slovianochka»
[6] TM «Herkules», «Dobrynia», «Hlechyk», «Utrechko»
[7] TM Optimal, «Hurmanika», «Milky family»
[8] TM «Funny», «President»
[9] TM «Good health», «Selianske», «Burionka», «Totosha»
[10] TM «Halychyna», «Molochar», «Chabany»
[11] TM «Activia», «Actimel»

and 60 000 tonnes of oil-fat products. There are over 100 domestic enterprises in this area. Almost all confectionary products are produced according to new formulations and using improved facilities. Nearly 70 percent of the market is controlled by eight companies: Roshen, Konti, AVK, Biskvit-Shokolad, Zhytomyrski Lasoshchi, Poltavakondyter, Kraft Foods Ukraine and Lagoda Confectionery Factory.

Fat and oils industry: One of the most important industries in the economy is the fat and oil industry. However, it is also the most monopolized industry, with the 25 largest enterprises producing over 90 percent of the total output. Production capacities of domestic enterprises exceed 12 million tonnes per year, showing consistent year-on-year increases.

4.5. Agricultural product certification and quality Control

Food safety is controlled by a number of state bodies including, but not limited to: the State Committee for Technical Regulation and Consumer Policy, the State Veterinary and Phytosanitary Service of Ukraine, the State Plant Quarantine Service of Ukraine, the Ministry of Healthcare of Ukraine, the State Sanitation-and-Epidemiological Service of Ukraine, the Ministry of Agrarian Policy and Food of Ukraine and the Ministry of Ecology and Natural Resources of Ukraine. Diagnostics on laboratory analysis and veterinary-sanitary inspection is provided by the State Research and Development Institute, 26 regional state laboratories of veterinary medicine and 1 175 state laboratories at markets.

The State Inspectorate of Ukrainian Agriculture is a central executive body that implements state policy in the field of supervision and control in agro-industrial production. It was established by the Decree of the President of Ukraine No. 1088 d/d 12.09.2010. The State Inspectorate of Ukrainian Agriculture includes 27 territory divisions, which, in turn, include 539 laboratories with 5 770 employees. It controls 22 000 agricultural producers, 73 certified grain stores, 1 400 producers of seeds and planting materials, over 60 million hectares of land, and over 25 million landowners. The major functions of the Inspection are specified in Annex D.

Development and certification of organic farming in Ukraine: The International Federation of Organic Agriculture Movements (IFOAM)[12] plays a leading role in establishing standards and international accreditation of institutions, involved in organic product certification regarding their conformity with standards.
The output of organic products in Ukraine is certified by the representatives from the foreign companies, acting in conformity with the norms and standards, in force for the EU countries and sometimes the United States and others. There are approximately 12 foreign certifying institutions in Ukraine, including: the Control Union (the Netherlands), the IMO (Switzerland), as well as representatives from Italy, Germany, Hungary and Poland. Since 2009, the Ukrainian institution "Organic Standard" has gained an international accreditation for the right to perform organic certification.

The first steps towards certification are to sign a contract between an enterprise and an accredited certifying institution. The next step is for the unit in question to be inspected, which is the most important way of controlling adherence to all requirements of the procedures, stipulated by the standards. It is then necessary to take soil samples so it can be analysed for the presence of harmful remainders. The

[12] International NGO, which combines over 700 active organizations-participants in almost 110 countries across the world. As early as 1980, the Federation elaborated first "Basic standards of IFOAM regarding organic production and processing", and soon it started assessing certified institutions regarding adherence to the specified basic standards, using for this purpose "Accrediting criterion IFOAM" (elaborated personally). Currently these basic standards and accrediting criteria, which were improved in the process of long and intensive consultations, are generally excepted all over the world, in particular, registered as "International ISO Standards". Basic standards IFOAM are actually performing the function of the "standards of standards", having some variations, and that is why they represent a basis for a number of standards in private sector, as well as state regulation in different states, in particular, Regulation of the EU N 834/2007.

inspectors perform initial examination and a description of the enterprise: determining plan of the premises and lands (e.g., in order to control adherence to the requirements as to minimum land area for animals at animal farms); specifying information about the total land area, plant species used, seeds, sources of its origin and seed-stock, own and permitted fertilizers; preparing report on each crop growing technologies; examining register of field history with crops grown there; inspecting accountancy documents on a selective basis.

Save for obligatory documentation, enterprises that are inspected should have: annual plant growing plans, crop rotation, permitted fertilizers and crop protecting agents; reports on animal flows, information about mortality, feeds used and rations, disease preventive measures, information about therapeutic treatments; reports on origin, type, composition and use of products bought by the enterprise; reports on origin, type, content and use of products sold and report on sales of products on a local market.

Analysis of the processed products must be performed on a selective basis or in the event of reasonable suspicions. The enterprise in question shall inform a certifying institution about significant changes in the production process. Decision on certification shall be made upon inspections being carried out and data obtained being analysed. When the decision on certification is made, the entity shall have a right to sell its products as products produced according to organic standards, which has to be confirmed each year.
The production of organic agricultural products is underdeveloped in Ukraine, although it is improving. For the last 11 years the number of certified farmers involved in organic production has increased by over five times (Figure 4.6, Annex D). The average size of organic farms is 1 500 hectares with lots of small (2-10 ha) farms, as well as some extremely large (10 000 ha) farms.

Certification of organic products is developing more slowly than the sector itself. As of 2012, 58 food products and beverages from 11 domestic producers have been certified [6].

4.6. Marketing and advertising in the agro-industrial sector

In order to integrate Ukrainian producers into international value chains, a state support programme for advertising and promoting agricultural production on international markets was launched at national level. For this purpose we may see a provision in the budget of the Ministry of Agrarian Policy and Food of Ukraine for arranging and helping national producers to participate in exhibitions both in Ukraine and abroad. UAH 23.2 million was used for these purposes between 2008 and 2011. A large proportion of the funds were spent on rental payments and technical equipment for arranging exhibitions and for preparing information materials as well. The Ministry of Agrarian Policy and Food of Ukraine constantly supports the representation of domestic production at:

- The annual international exhibition, titled – “Green Week” (Germany, Berlin),
- The Russian Agro-Industrial Exhibition – “Golden Fall” (Russia, Moscow),
- The annual national agro-industrial exhibition – “Kyiv Autumn” (Kyiv),
- Exhibitions on the occasion of Agricultural Workers’ Day

To a large extent, access to such arrangements is limited for small-scale producers, save for corporate enterprises, aimed at export-oriented production.

4.7. Overall assessment of value chain performance and constraints for improved processor-farmer linkages

The agro-industrial market in Ukraine has large development potential, especially in the meat, dairy, fruit and vegetable sectors. It is characterized by a gradual increase in its capacity owing to an increase in the consumption of basic food products.

Under such conditions, domestic food producers gain additional possibilities for ramping up production, as Ukrainians prefer domestic food products. However, the benefits in the chain "production of raw materials and finished products" are divided disproportionately. In the context of an excessive supply of raw materials (agricultural products), processing enterprises impose their own terms and conditions on their relations with agricultural enterprises, and especially with small entities. These small enterprises often have limited choice of sales channels, with processing enterprises taking advantage of this. The food industry being highly monopolized is a major benefit for large processing enterprises.

Despite this, small-scale farmers' access to export markets it is very limited. Under such conditions the best option for small-scale farmers to is to seek ways of integrating into value chains with processing enterprises under equal terms and conditions. Improving competition on the domestic market due to its liberalization creates additional challenges to processing enterprises, relating to: the need to improve the quality of finished products; ensuring reliable sources of quality raw materials; increasing production capacities; and increasing production efficiency with the aim of maintaining price competitive advantages.

The advantages of integrating the producers of raw materials and processed products have been used for a long time by large agro-holdings and agro-corporations, which have established closed value adding chains. However, under such conditions of cooperation, agricultural producers lose any kind of independence in making organizational or production related decisions.

There are a number of constraints on establishing equal terms and conditions for cooperation between small-scale producers and processing enterprises, including:

- Low levels of trust between agricultural producers and processors;
- Lack of incentive mechanisms of agricultural policy for developing extended value chains; instead, a large share of state support programmes are aimed at ramping up agricultural production and retaining binding linkages of raw material producers to operating processing enterprises;
- Limited existing agricultural market infrastructure;
- Existing system of relations is good enough for processors;
- Non-compliance of products produced by small-scale producers with new agro-food market requirements.

5. APPROACHES TO THE DEVELOPMENT OF PROCESSOR-FARMER BUSINESS LINKAGES

According to official statistics, more than 70 percent of labour-intensive agricultural products (mostly consumption products – potatoes, fruits and vegetables, milk and meat) are produced by small households (4 700 000 households) and farms (42 400 farms). Many of these can be classified as subsistence production units, which farm less than a hectare of land and produce primarily for their own consumption needs while others produce on larger plots of land (1-5 ha) for commercial purposes. A recent study of small and medium-sized agricultural producers in the Lviv region of Ukraine, prepared by International Finance Corporation, indicated that on average, rural small and medium-sized producers (e.g. households and farmers) consume 22 percent of all vegetables produced and sell up to 28 percent, with an average of 50 percent product losses due to poor postharvest handling technologies. By reducing this huge amount of wastage, the research estimated that a 1 percent increase in sales could add around UAH 11 million to the income of households and farmers. At the same time, small and medium-sized producers often face problems of accessing the markets due to a lack of developed market infrastructure, logistics facilities (cold storage, roads, transport, etc.) and the huge power of private traders, which use non-market (monopolistic and oligopolistic) methods to reduce farm-gate prices. In such situations, local

formal or informal organizations of small and medium-sized producers increase their capacity to be more viable market players, to negotiate better prices and find better marketing channels. Also, local organizational initiatives that are supported on a higher level (by a local processor for example, who can propose acceptable methods of cooperation) are 50 percent more likely to succeed.

When we speak of the organization of agricultural producers ("producers' organizations" or "PO"), it often means formal or informal groups of producers, typically growing a certain product or group of products, which can benefit from the enhanced market power available through the use of joint actions to improve access and reduce the cost of production inputs, including equipment, buildings and credit, and/or improve access to marketing channels and gain additional profit by eliminating traders. Usually, producers' organizations can be in the form of:

- Formal organizations (e.g. agricultural service cooperatives)
- Informal organizations (e.g. marketing groups)
- Business associations

Agricultural service cooperatives are legally registered organizations that operate under the Cooperative Law of Ukraine. They feature legal membership relationships and facilitate bulk input purchase for members and sales of products produced by members. A defined part of the cooperative income is used to cover administrative costs (salaries and other costs). Input service cooperatives operate as business entities and facilitate wholesale input buying, and then these inputs to members at wholesale prices, which reduces per unit costs and thus reduces the costs of inputs for members. Such cooperatives often have equipment and can thus provide members with machinery services such as ploughing, sowing and harvesting. Another type of cooperative are marketing service cooperatives, which operate as buyers for members' products, which are then sold on to one or more retailers or wholesale buyers. By carrying out logistical and negotiating functions, such cooperatives can receive better prices and thus increase the income of members. Therefore, similar to input supply service cooperatives, marketing service cooperatives take ownership of the products prior to sale, which results in two types of problems. First, a general problem is that the Ukrainian Tax Service, lacking an understanding of how cooperative activity works, prefers to tax these service cooperatives as limited liability companies, which significantly reduces the benefits transferred to their members. The second problem relates mainly to marketing cooperatives, which often experience difficulties with ensuring that members supply all or the majority of their products to the cooperative (producers often prefer to sell the higher quality products themselves and the lower quality products to the cooperative). These actions often undercut the benefits of joint action and in practice, marketing service cooperatives are quite successful in the sphere of raw milk products, but not in the others. Mainly due to taxation problems, cooperatives are not very popular and effective in Ukraine.

Informal organizations (often in the form of marketing groups) are more common in Ukraine for household producers and small-scale farmers. Households with sales commercial focus often specialize in the production of a particular product and work together in small informal groups (five to ten members) to be able to form relatively large produce lots which they can then sell wholesale to traders or supply to the markets in other regions of Ukraine. As such informal groups maintain control over their own products, they often do not suffer from the constraints faced by marketing service cooperatives. The benefits of such organizations come from sharing the transportation costs associated with getting produce to market and the higher prices for wholesale lots.

Formal business associations are coordination bodies for producers. They coordinate input supplies (which can include credit) and the marketing of members' products. To function properly, business associations require members to enter into legal contracts that set out strict obligations of each party. For example, members are required to purchase from a specific set of input suppliers who agree to sell a given quantity and type of inputs at a fixed price. Similarly, to benefit from group marketing principles, members are contractually bound to sell a stated quantity (often with defined quality) at a negotiated price (which could be a current market price at the time of sale). Many small and medium-sized producers do not risk

joining associations with such strict contractual requirements. The advantage gained from membership in formal business associations is that the contractual production and marketing obligations provide members with a documented cash flow and access to trade credits from input suppliers.

The gender dimension of participation in producer organizations demonstrates limited access for women-producers into formal producer organizations. For example, as long as there is a membership fee or charge per household member in the producer organization, each household will designate one person to attend meetings and contribute to decisions. Usually, this person is a man, as gender stereotypes remain strong in rural areas. The engagement of fewer women results in some failure to impart knowledge and to gain perspectives about who should participate in decision-making. If, for example, an organization has to decide between options, such as what to produce or whether to focus on transport to markets or cold storage, women and men may have different perspectives depending on their roles on the farm or household, thus under-participation of women pushes them out of the economy of cooperatives and the community. This is especially risky in Ukraine, where women have better education and health (life expectancy is higher for urban women then for rural) as it leads to losses of significant economic assets in rural areas.

LLC Navigator-Agro and Shyroke marketing group case study

The Limited Liability Company "Navigator-Agro" was established in southern Ukraine (Kherson oblast) in 2002. The company focuses on the wholesale and export of the following fresh and cooled products:

- Large onions, shallots, leeks and garlic;
- Melons and watermelons, papaya;
- Other vegetables;
- Flax seeds, split and whole;
- Sunflower seeds, split and whole;

The company was founded by former managers of the all-Ukrainian large retail chain "Furshet". This provided the company with good connections with retailers from the outset, mostly focused on the wholesale supply of retail chains with cooled fruits and vegetables, buying them on the famous wholesale market in Kherson region – Velyki Kopani. The company has fixed contracts with five trucks for logistics and leases a cold storage facility on the abovementioned wholesale market. The processing role of the company is in cooling, packing and marketing of the products. The company currently has 20 employees in the local office of Kherson and three affiliated representatives-buyers in the Crimea region.

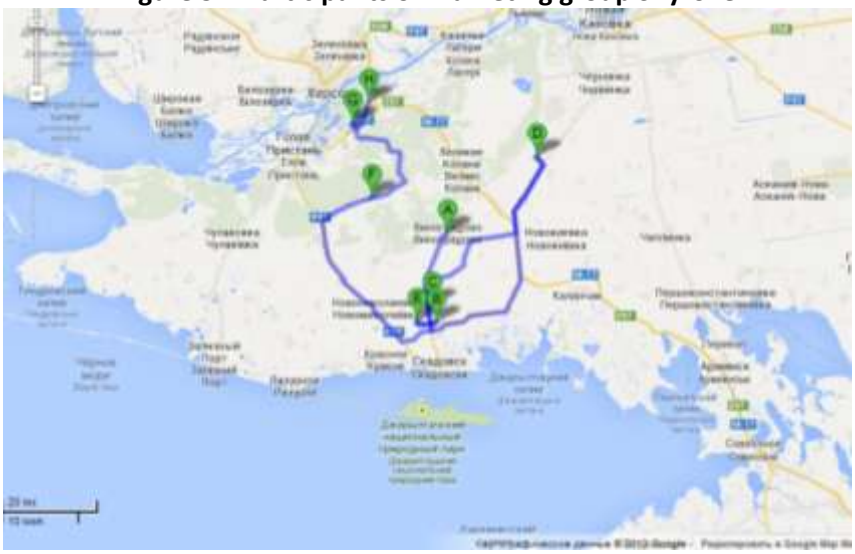
The company's sales were UAH 4 300 000 in the 2012 season. The main products for wholesale supply on the domestic market were melons and watermelons (produced in Kherson region and Crimea), bell peppers, tomatoes, eggplant, garlic and onions of different types. The main product for import was melons, which are delivered to a processor in Poland for further production of bubble gum and fillings for cakes.

In 2009-2010, the company started a proactive expansion of its business into external markets by supplying fruit and vegetables to Poland, Romania and Moldova. This brought up additional competitiveness issues as the supplied products should have been less expensive than local products, should have been of higher quality, and should also have been delivered on time. To eliminate the costs of having products delivered to the wholesale market, the company decided to start working directly with farmers and small-scale fruit and vegetable producers and buy the products directly from the farm gate. The initial idea was to contract a number of farmers to supply a particular number of products at a particular time.

In reaching out to farmers, the experts of LLC Navigator-Agro experienced a complete lack of trust regarding collaborating on a contractual basis. Rural citizens also demonstrated a significant lack of social capital within community; for example, a very limited level of trust between neighbours in one village. The problem of social networks was not the only one, rural producers demonstrated an unwillingness to diversify their production structure so as to favour the products that the company needed. During negotiations, the rural community proposed that the company first sell all the products they traditionally produced, after which the producers would supply the products that the company needed.

After a number of unsuccessful negotiations, the company decided to facilitate the creation of a local informal group of producers and start collaborating with them. As mentioned above, the simple way for small and medium-sized producers to cooperate with large processors is through marketing groups operating under joint agreements without the establishment of legal entities. In 2010 the first such marketing group in Ukraine – Shyroke – was set up in Kherson oblast with the help of LLC Navigator-Agro. The marketing group unites 119 members (43 percent female and 57 percent male) from individual households of different villages in the Skadovsk region. The group includes nine villages – Shyroke, Gostropodolyanske, Stara Mayachka, Vynogradovo, Shevchenko, Mali Konapi, Tsurupinsk, Pravi Solontsi and Livi Solontsi. The 58-year old female M., a former geography teacher at the local school in Shyroke was elected leader of the group. The geographical distribution of the participating villages within the Kherson region is shown on the map below.

Figure 5.1 Participants of marketing group Shyroke



Source: Google Maps Ukraine

Shyroke village was selected as the economic centre of the group, as the majority of producers are located in or around the village (spots B, C, E and A on the map). LLC Navigator-Agro agreed with the producers' preliminary list of products to be delivered in the 2011 season and provided investments of UAH 20 000 (USD 2 500) to found a small logistics centre in the village with the technical weights and parking for trucks.

The group started operating in the 2011 production season in the following way. LLC Navigator-Agro received an order (type of product or products, timeline) for supplying products internally or externally and then planned production – estimated possible stock, defined per unit price and facilitated logistics. The information was then passed to the leader of the marketing group together with an initial cash transfer for delivered products. The leader then facilitated the delivery of the requested products at the requested time and proposed prices to the logistics centre in Shyroke village. Upon arrival of the truck to the centre, farmers (usually by themselves) load the trucks with their own products, with the maximum load of the truck determining the amount. The leader of the group keeps records and reports the

delivered amounts to Navigator-Agro. Once the buyer has made payment to LLC Navigator-Agro – usually by bank transfer – the company makes a final cash payment to the members of the marketing group. The initial cash payment that goes to marketing group comes from LLC Navigator-Agro's own funds. This was considered necessary to develop a trust between group members and the company.

In 2012, as part of an expansion of collaboration between the marketing group and LLC Navigator-Agro (through the participation of donor organizations working in the Ukrainian agricultural sector), the marketing group together with marketing experts from Navigator-Agro developed a business plan and received a grant of UAH 300 000 to buy a medium sized cold storage facility in Shyroke village. The total cost of the project exceed UAH 1 000 000. A part of it was covered by a grant, another part was covered by LLC Navigator-Agro and the group members also covered some costs. The cold storage facility is expected to be used for cooling berries (mainly strawberries), produced in the greenhouses of the group members in the early season, during the hot season the facility will be used for melons and watermelons and then in the late season it will be used for other products.

This expansion benefits both the marketing group and LLC Navigator-Agro. It allows group members to obtain a better price for their products as cooled fruit is easier to transport and losses are much lower. The company will be able to decrease processing costs (cooling and packing) or refuse to lease cold storage facility. It can expand its supply structure and develop a trustful connection with the marketing group. Value-added will be distributed between the company and small households.

As a future plan for the 2014 season, LLC Navigator-Agro plans to develop a programme to supply members of the marketing group with innovative seedlings and to expand production of better types or vegetables, in particular tomatoes and eggplant. For now, the company has received inquiries from people in other villages regarding joining this particular marketing group.

Although the majority of value-added is received by LLC Navigator-Agro (as the company receives payment for cooled and packed products while farmers are paid for raw materials) we cannot state that household producers do not benefit from the cooperation. First of all, members of the group stated that they are quite satisfied with sales, which are more or less stable, and they do not have to think about how to deliver their goods to the local market or waste time selling them there. They get a competitive price for their products and can supply large lots on the market. Also, farmers do not have to carry the products to the market and thus significantly decrease their costs for fuel, access to market and machinery depreciation. Moreover, they do not need to do any administrative or tax work, as most of it done by the LLC Navigator-Agro.

LLC Navigator-Agro states it is quite interested in expanding collaboration with households, based on the good experience with the cold storage facility. Even though this means lower price surpluses the company thinks it will increase sales, as it will have more quality products to supply and their administrative costs will decrease as cooling and packing will be passed on to marketing group members.

In the 2012 season, the average price for melons and watermelons (the main products supplied by the marketing group) on the local wholesale market Velyki Kopani fluctuated between UAH 0.9-1.2 per kilo while members of the marketing group supplied them at the local logistics centre for UAH 0.8-1.1 per kilo (proposed by LLC Navigator-Agro). The final price in the supermarkets for melons and watermelons in Kiev was UAH 3.5-4 per kilo. There, the largest share of added value is not received by small-scale producers.

This marketing group is broadly promoted as being quite successful. In spite of many attempts to establish good cooperation between small-scale producers and processors in the region, none of them have been really successful. Many of the companies were not able to provide households with flexible conditions such as initial payments. Many large processors of fruit and vegetables in the region had been delaying payments for supplied products for a number of months, which made it difficult for households to get by.

Additional problems associated with creating this kind of organizational structure is initiative. Rural people tend to only be able to cooperate with a maximum of 10 others, which is insufficient for processing companies, as such a small number of producers cannot supply the required amount of raw materials. Therefore, it is very important to have demand for such groups from big companies and the processing company should also initiate the creation of such groups. According to the leader of the group: "The process of creating such a group became possible due to the interest shown by the large scale organization Navigator-Agro and its director". In most cases this is the key factor for the success of such initiatives; if the company is interested it can be flexible in the terms of cooperation to the benefit of all participants.

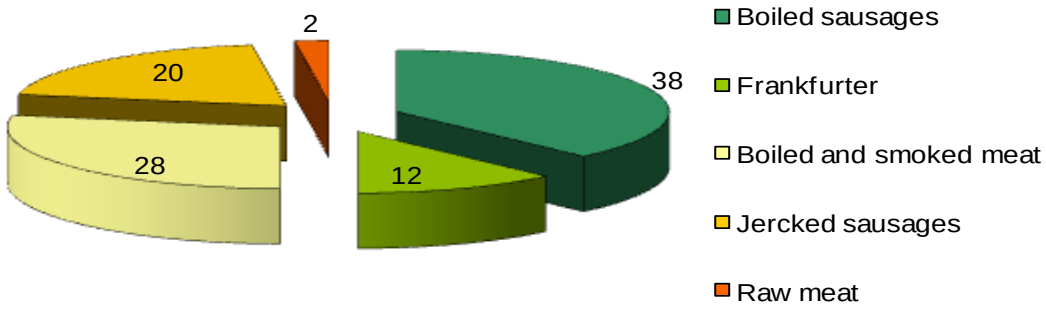
"Kolos for farmers" case-study

During the 1990s, Ukraine experienced a significant decline in meat production, especially in the traditional pork sector. The number of pig herds declined by 2.6 times during this period. At the beginning of the 2000s, 70 percent of all pig herds were kept by private households, while in western regions of Ukraine this share was around 90 percent. The most common breed was the great white, which, according to its characteristics (too much fat and not enough lean meat) was not suitable for modern processing technologies. The lack of raw materials affected processors and required new approaches to raw meat production.

The private enterprise Kolos (PE Kolos) was founded on 14 August 1991. It is now a vertically integrated company with a closed technological cycle. The company processes 1 100 tonnes of meat per month. It has a breeding complex with 1 500 pigs, along with three pig farms (with their own mixed fodder plants) with annual production of 56 000 animals and a total cultivated land of 5 000 ha. It has its own chain of retailers as well as sections in large supermarkets. It has a total of 1 600 employees, including 500 in retail. The average wages are UAH 2 100 per month.

The chart below shows the production structure of the enterprise. Raw meat production is quite insignificant at only two percent. This is sold in its own retail stores and sections in large supermarkets. However, there is good potential for raw meat as supermarkets propose good prices. Processed products including boiled sausages and frankfurters account for 50 percent and boiled and smoked meat for 28 percent, while jerked sausage accounts for 20 percent.

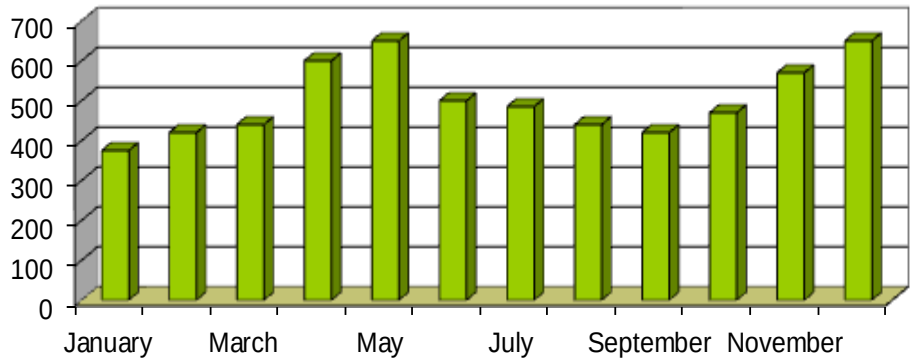
Figure 5.2 Production structure of PE Kolos



Source: Data provided by PE Kolos

Production volumes usually fluctuate during the year as a result of seasonal demand (Figure 5.3). Demand peaks are usually observed during spring (April-May) and winter (November-December) periods due to New Year and Easter holidays.

Figure 5.3: Monthly production volumes of PE Kolos, tonnes



Source: Data provided by PE Kolos

Kolos enterprise has over 50 percent of the meat market in the Chernivtsi region of Ukraine, where its main office is located. Its products are also retailed in almost all regions of Ukraine with the exception of south-western and south-eastern regions. Approximately 85 percent of the company's products are sold through supermarket retail chains (Silpo, Fora, Velyka Kyshenya, Furshet, etc.), nine percent are sold through its own retail chain and about seven percent are sold through retail spots on the local markets.

The idea of cooperation with small meat producers appeared in 2003. The enterprise developed a programme "Kolos for farmers". Key specialists of the enterprise (zootechnicians, vets, economists) together with Kamyanets-Podilsky University professors calculated and developed an economic background of the programme, a technological card of production, and prepared informational materials. To ensure the proper quality of the meat to be delivered, the enterprise created a breeding and reproduction system for the landrace breed of Dutch selection (as one of the best-known for its production qualities). For on-site demonstrations and teaching purposes the company constructed an experimental mini-farm, where farmer-students could gain practical knowledge on the production process.

During the first stage of the programme, information was disseminated by employees of the enterprise among their relatives and neighbours. Later on, an information campaign was conducted through mass-media and the dissemination of advertising leaflets.

Many households were quite cautious about participating in "Kolos for farmers". Potential participants were suspicious about new breeds and technologies and about changing their production processes. They were also wary about not keeping their own herds. To solve these issues, the enterprise took the following steps:

- Proposed signing commodity credit agreements (Annex E), which enabled six-month delayed payment for received animals, fodder and equipment. Actual interest rate was 0.01 percent of supplied goods;
- Allowed households to keep 1-2 pigs for their own consumption.

Potential participants were organized into small groups (up to 12 people) to participate in the educational programme based on a module system; namely theoretical seminars and practical classes. The first participants of the programme were 36 households, which received 76 breed animals. Relations between

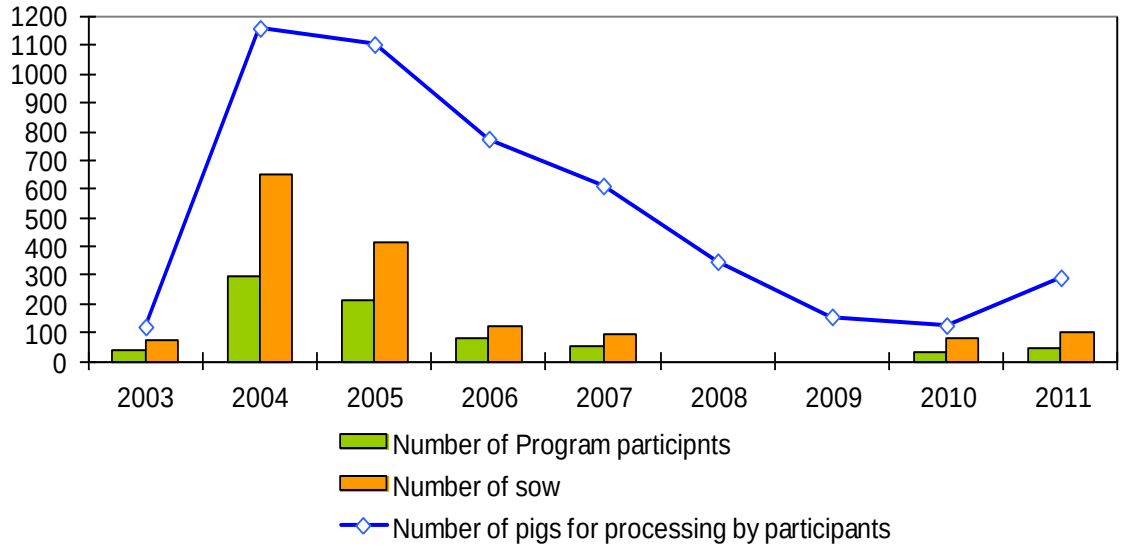
the enterprise and households were regulated by sales agreements for animals and equipment. In the first stage, the majority of participants used fodder they produced themselves. With time, vets observed animals growing at a slow pace and performed a number of tests on both animals and fodder. This revealed a bowel infection caused by fungus in fodder grains. To eliminate this problem, the enterprise offered to disinfect and prepare household fodder (commission good scheme) or to supply households with fodder.

As a result of the flexible policy and the active mass-media campaign, the number of interested potential participants increased significantly. Potential participants outside the target region of Chernivtsi (from Ivano-Frankivsk, Ternopil, Vinnitsy, Zakarpattya regions) expressed interest in the programme. In 2004, the total number of households participating in the programme was 300 and the total supply was 15 000 animals (Figure 5.4). The state subsidy programme for good-quality animals supplied to the processing enterprises played a significant role in the expansion of the programme in 2004.

During the economic crisis of 2008-2009, the production volumes of raw and processed meat dramatically decreased. As a result, the enterprise lowered the scale of cooperation with small households. During the past few years, Kolos has been making attempts to revitalize the programme and gradually increase the number of households it cooperates with.

As of now, Kolos' share of raw meat received from households involved into "Kolos for farmers" on average accounts for 30 percent of the total.

Figure 5.4 Main achievement of the programme "Kolos for farmers"



Source: Data provided by PE Kolos

Quality control is conducted at various levels. Firstly, controls are applied to the breeding herd and conducted by the enterprise. Secondly, quality control is conducted at participating households by PE Kolos vets. Veterinarians support the whole production process from insemination to the ablactation of piglets. Households that participate must not keep any other pigs. The motivation for this condition is epidemiological, and aimed at preventing other pigs from infecting the landrace herds that are part of the programme. Other production (livestock, poultry, etc.) is not limited as it is epidemiologically safe. After piglet ablactation (after a 28-days term) veterinarians visit upon request. The third level of quality control is applied at the slaughtering stage by PE Kolos (meat output, its quality including damp level). Households have access to all levels of the quality control system so as to avoid any controversies.

During the programme implementation there were cases in which *mala fide* owners tried to increase the weight of animals with different methods just before supply. One such method is feeding animals salt, which makes them drink a lot of water. However, the third level of quality control easily uncovers this cheating and farmers that practice it receive penalties, sometimes including having their agreements discontinued.

To equip household production facilities with up-to-date technology some capital investments are required for the installation of feeding-racks, drinking bowls and disinfection. Such investments usually do not exceed UAH 6 000 (USD around 750). Buying herds breeding sows involve capital investments of UAH 6 200 (UAH 3 100 per sow). The depreciation period for equipment is 15 years and the period of productive herd use is six years.

Table 5.2 shows an estimation of value-added chain benefits for households. Calculations made based on the ability to keep two sows that breed twice a year. The total time it takes to fatten piglets to the optimum weight is 16 months.

The most considerable expenses for households is concentrated feed, which accounts for around 95 percent of all expenses (excluding wages). fattening one animal requires 350 kg of concentrated fodder, according to calculations by PE Kolos and external experts.

In spite of relatively high initial investments required, expected sale earnings (40 pigs) can be around UAH 26 663 (around USD 3 200). This means that households can make a profit of UAH 665 per animal. If total expected earnings are re-calculated, monthly income is UAH 1 667, which is 92 percent of the average Ukrainian salary (2011).

Compared to income gained for traditional breed animals (great white) raised with intensive technologies (using concentrated fodder) it can be seen, that raising the landrace breed ensures an additional 12 percent of income per head per month, which transforms into an additional 25 percent (due to shorter term of raising for landrace breed).

Besides this, participants of “Kolos for farmers” receive additional payments of UAH 25 per head (or UAH 500 for supplied herd of one farrow) as the landrace breeds produces more meat.

PE Kolos’ total costs can be split into the three following components: cost of buying raw materials; production costs (slaughtering, boning, etc.); other fixed costs (administrative, depreciation, etc.). Expenses for buying raw materials make up to 80 percent of total costs. Purchasing landrace pigs means that the enterprise adds more value due to the higher meat content per animal (20-25 percent more). Therefore, earnings are 8.5 percent higher and the enterprise receives net revenue of UAH 500 per animal.

In the retail chain of PE Kolos, one animal produces over 55 kg of meat, which is sold at an average price of UAH 39.6 per kilo. Pre-packing and packing costs increase the value by UAH 2 per kilo, while there is an additional UAH 1 for fixed costs (administrative costs and marketing). The retail price in the value chain in 2011 was UAH 55 per kilo, while the September-October price for some types of meat was over UAH 60. Retailers’ net revenue for one landrace pig is more than UAH 680. Thus, the majority of revenue goes to PE Kolos as it integrates into the structure processing and retail facilities.

Table 5.2 Advantages of integrating small-scale producers into value-added chain due to renovation of breeding herd

Indicator	Breed	
	Great white	Landrace
Renovation, equipment, UAH	-	400
Purchase of breeding herd, UAH	-	1033
Artificial insemination, UAH	280	280
Veterinary and sanitary expenses, UAH	150	150
Fodder per 1 kg of raise, units	3.8	3.4
Purchase of fodder, UAH	41 062	37 820
Other costs, UAH	500	500
Total costs	*41 992*	*40 183*
Sale price, UAH per kg	13.7	19.2
Average weight of animal, kg	120	120
Weight of carcass, kg	81	87
Sales revenue, UAH	*65 832*	*66 816*
Income, UAH*:* Per period Per month Per head	 *23 840* 1325 **596**	 *26 633* 1665 **666**
Purchase price, UAH per kg	13.7*	19.2**
Physical costs, UAH	210	210
Other costs, UAH	203	203
Total costs, UAH	2 059	2 083
Carcass content, kg: - meat - fat - other	 44.9 31.0 5.7	 54.8 19.1 13.1
Sale price (incl. VAT), UAH per kg: - meat - fat - other	 39.6 18.6 3.9	 39.6 18.6 3.9
Sales revenue, UAH	2 377	2 578
Income, UAH	**318**	**495**
Profitability, %	8.6	13.2
Meat purchase price (incl. VAT), UAH per kg	39.6	39.6
Physical costs, UAH	85	104
Other costs, UAH	54	54
Total costs, UAH	139	157
Retail meat price (incl. VAT)*,* UAH per kg	55	55
Sales revenue, UAH	2 468	3 015
Income, UAH	**552**	**687**
Profitability, %	21.9	25.1

Source: * - price of weight of live animal, ** - price per kilo of slaughtered meat

Domestic market players participate in the value-added chain created with the support of PE Kolos (Annex E, Figure 5.4). Small households are integrated into the chain as suppliers of high-quality raw materials. This type of value-added chain for pork production is quite profitable. Traditionally, the majority of small

households have quite limited access to sales channels and private traders often use this limitation to lower the purchase price. Only a limited number of households sell directly on local markets. Among the main barriers to access to local markets are poor logistical infrastructure (bad roads, insufficient transport connections), a lack of cold storage facilities, corruption and informal barriers (private traders limit supply on the markets to keep prices high) and relatively high mandatory payments to access trading facilities at the markets. Kolos provides a clear sales channel that small households see as quite attractive and profitable. On a macroeconomic level it helps to bring technological innovations into agricultural production and increases the profitability and attractiveness of agriculture.

6. CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The results of the study show that increasing the capacity of the small-scale farm sector is possible through the integration of small agro-producers into available supply chains. However, various economic, legal and institutional challenges hinder development of these processes in Ukraine. It is possible to draw the following conclusions:

1. The market concentration of agriculture includes a small number of powerful national agro-holdings and transnational corporations that dominate the agro-food system of Ukraine and exert pressure on other weak producers and processors. Concentration in the food industry and retail trading intensifies these trends and promotes monopolization of purchasing power with a small number of processing companies and supermarket networks, which have power over processors and other chain actors.

2. By looking at positive examples of integrating small-scale producers into value chains we can see that the benefits of joining efforts are distributed unequally among chain participants, which depends on the power of various actors in the chain. Small-scale participants do not have the relevant skills or enough authority to hold negotiations and to achieve more economic benefits. The majority of positive examples show the that advantages of households integrating into value chains go to commercial small households, which are the most educated, innovatively adapted, mobile and capable of overcoming distrust and risks.

2. There are a number of constraints on the integration of commercial and semi-commercial small households into value chains in Ukraine; these include:

    - Limited access of small agro-food producers to the programmes and mechanism of state support, investments and credit resources;
    - Reduction of possibilities to use agricultural land for increasing capacities due to the market power of large corporations in terms of leases;
    - Small output volumes and a tendency to traditional production;
    - Lack of high quality seeds, fertilizers, and mechanical appliances;
    - Lack of effective entrepreneurial and professional associations of small agro-producers;
    - Lack of credibility and uncertain relations between producers and potential consumers of agricultural raw materials and products;
    - Lack of reliable information about markets and financial resources.

3. Analysis of relations between processing enterprises and small agro-producers has provided an opportunity to learn certain ***lessons.*** Firstly, the rural population passively perceives new initiatives of cooperation with large agro-producers / processors. They integrate into production linkages more actively after project approbation and results identification (as a rule, after relatives and friends have participated in such projects). Secondly, certain financial support on behalf of large enterprises promotes the establishment of trust, as the rural population tends to be unwilling to invest their savings (or they do not have them at all). Thirdly, the results of cooperation increase when integrating formal and informal rural community leaders / social groups with high levels of trust.

4. There are certain possibilities and resources in Ukraine to develop cooperation between processors and small-scale producers. The development of cooperation on an equal basis can ensure mutual benefits for both parties. In particular, available processor capacities enable them to increase production. The integration of small-scale producers in joint business-chains can contribute to

improving product quality, establish access to reliable sources of high quality raw materials and increase production efficiency on the basis of price competitive advantages.

Against a background of growing competition and restructuring, food processing companies are looking for new markets oriented at the final consumer. As customer preferences are constantly changing companies should start producing a wider range of products. In these circumstances it is more attractive for processors to cooperate with small agri-producers than with large-scale producers. Small-scale producers are more flexible and are able to quickly adapt production to guarantee market channel demand. The other advantage for processors relates to value added from organic products and small-scale producers have higher potential than large-scale ones in this regard. Therefore, by building value added chains with small producers, processors are able to increase their own efficiency and compatibility by satisfying customer demand and increasing profitability.

Small-scale producers possess extensive land and labour resources, although they lack financial resources, knowledge and innovations. Underdeveloped infrastructure represents a shared problem for both groups of economic agents (lack of qualitative transport connections, procurement and logistics centres etc.). This results in them having a common interest in designing certain political measures for the purpose of state intervention into these problems.

6. The development of cooperation between processors and small-scale producers depends on an appropriate assessment of all positive and negative aspects, specified below in a form of SWOT-analysis.

Strengths:

- Mutual interest of processors and small-scale producers in developing partner relations;
- Increase of production due to efficient use of small-scale producers' potential, both in terms of land and human resources;

Weaknesses:

- Obsolete technologies and small volumes of production at FH;
- Use of uncompetitive species and breeds by small-scale producers;
- Legal level of capital investments in development of new production capacities at FH;
- Lack of human resources for disseminating knowledge and new technologies (as consultants) and implementation in production process as well (as labour resources);
- Juridical illiteracy and vulnerability of small-scale producers.

Opportunities:

- Gradual increase of food consumption in Ukraine, which creates preconditions for extending the scale and spheres of cooperation (according to the types of production);
- Increase of possibilities to export agro-food products to the EU;
- Scaling-up of the organic product market, which can be contributed by small-scale producers.

Threats:

- Bureaucratic constraints and corruption of controlling bodies able to influence the establishment of effective linkages between producers and processors;
- Tax liabilities in case of official registration of production activity of small-scale producers;
- Increased competition from European producers on the market of certain agro-products (dairy products, fruits, pork meat etc.), which might reduce the attractiveness of making large investments in the development of cooperation with small-scale producers;
- Increase of sanitation and epidemiological and veterinary requirements to agro-food production (in particular, requirements to slaughter livestock only at respective stations).

Recommendations

The following policy recommendations should be considered as: (i) a means of improving current conditions to extend integration processes of small-scale producers into chains, initiated by agro-processing enterprises, and (ii) a means of developing the capacities of small-scale producers to establish, maintain and manage their own value chains.

i) Regardless of discrepancies of the previous chain types in pork meat production and fresh fruits and vegetables sale, they need improvement under the following three dimensions: a) modernization of the final links of value chains; b) increased competition of small-scale producers; and c) initiation of their opportunities for development in terms of reallocation in the value chain.

For the purpose of successful extension of cooperation experience, described in a case study at Chernivtsi and Kherson region, it is desirable to establish intermediary organizations (development agencies), which can initiate chain development and integration of small-scale producers and promote the inclusion of all chain participants into the process of receiving services, necessary to overcome difficulties. Development agencies should also encourage the execution of contracts and obtain just compensation for all parties.

Intermediary organizations must ensure that small-scale producers use the benefits of the market approach, aimed at improving the welfare of the poor rural population.

Intermediary organizations should support small-scale producers in confronting the market power of the corporate sector in the following ways:

- Increased competition in production of local products;
- Economies on the scale as a result of the creation of producers' groups and their collective actions in provisioning with production resources, sales and access to services;
- Transition to production of new types of products according to the market needs;
- Receipt of value added due to sales at higher prices, product quality improvement or processing;
- Executing new types of contracts on the basis of the further volumes of supply and specified prices, which shall hold the buyer longer.

The final purpose of intermediary organizations is to develop a chain; ensuring sufficient profits for all participants after expiration of the support period. Each actor in a chain must be able to act at his or her sole discretion to obtain sufficient profits on a permanent basis without long-term support.

ii) In order to develop capacities of small-scale producers in establishing, maintaining and managing their own value chains it is necessary to design economic policy aimed at small-scale producers. This should have the potential to generate profits on products required by the market, as well as the ability to establish group participation in chains.

The advantages of group participation in value chains are obvious. A group of small-scale producers may establish its own value chain. They can combine their resources and receive access to credit and services and develop technologies and skills necessary for producing improved products. It is easier for groups to receive information, needed for accessing certain markets. A group is more capable of taking the risk, setting rules and specifying quality standards, and may appoint members who will adhere to them. Groups can get access to professional consultations, undergo required certification and inspection procedures on advantageous terms in order to sell products on high quality export markets. Groups can combine available resources and receive external funds to invest in irrigation or storage facilities. Group members may organize internally (with each other) to grow cultures, ripening at adjusted times, thus ensuring constant supply within a chain.

The main task of ensuring group integrity is establishing trust between potential members. This may be done through clear communication of members' roles and expectations; clear understanding of the organization purposes; guaranteeing, that it is possible to reach a business-idea of a group; informing and members involvement; and regular meetings.

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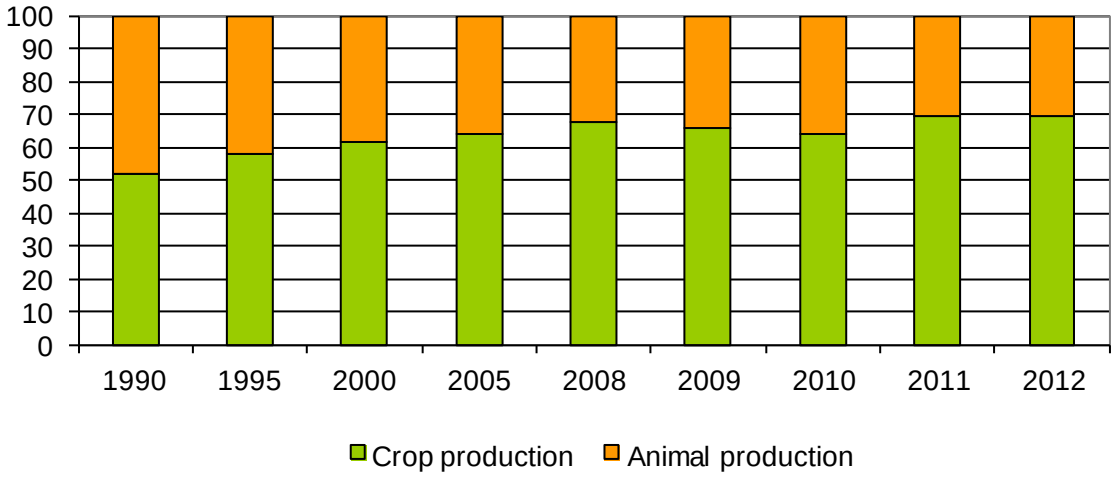
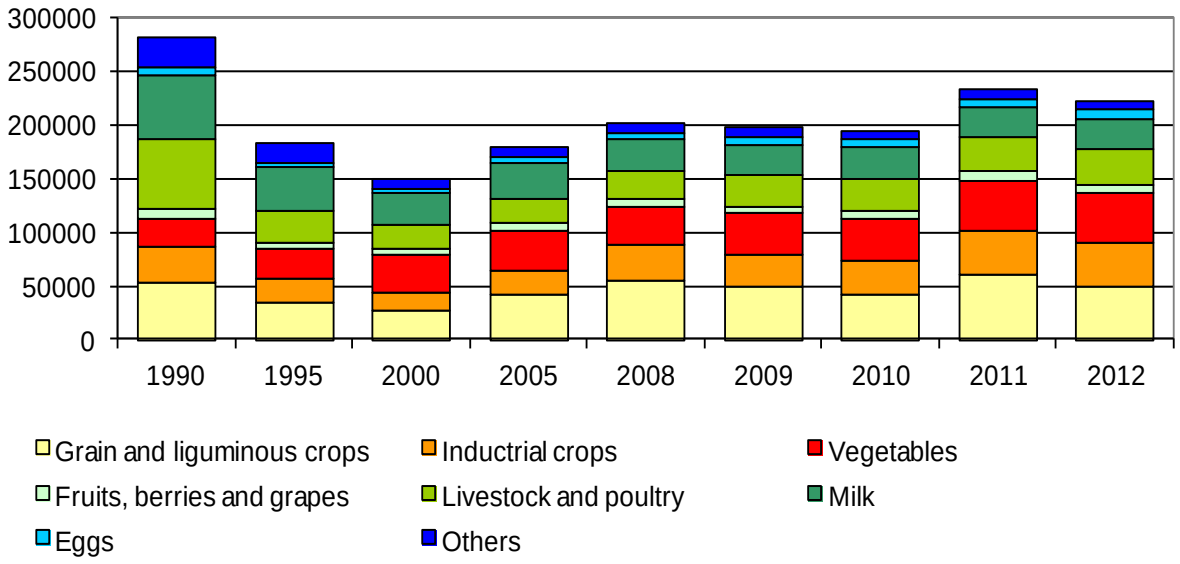
ANNEX A

Figure 3.1: Dynamics of gross agricultural output structure, *%*



Source: State Statistics Service of Ukraine

Figure 3.2: Gross agricultural output by main kinds of products *(in 2010 prices, mln. UAH)*



Source: State Statistics Service of Ukraine

Table 3.1

Shares of small-scale producers in agricultural development, *percentage to total*

Indices		1990	1995	2000	2005	2008	2009	2010	2011
Output									
Grain	Farmers	-	1.5	5.1	10.7	12.9	12.1	12.0	11.9
	Households	2.8	8.1	18.4	24.3	21.0	22.1	24.2	22.1
Sunflower seeds	Farmers	-	3.0	10.0	15.6	18.1	17.9	17.8	19.0
	Households	2.4	4.4	12.5	21.2	19.0	18.6	17.5	15.9
Rapes	Farmers	-	0.3	4.0	12.1	16.9	13.6	15.0	16.0
	Households	-	-	-	-	-	-	-	-
Vegetables	Farmers		0.5	1.4	2.1	3.5	2.7	2.6	3.9
	Households	26.9	72.7	83.1	89.3	86.1	86.6	88.1	84.3
Number of livestock and poultry									
Cattle	Farmers	-	0.2	1.1	1.7	1.9	2.0	2.1	2.3
	Households	14.4	22.0	46.5	61.7	66.1	66.3	66.0	65.9
inc. cows	Farmers	-	0.2	0.7	1.1	1.3	1.4	1.4	1.5
	Households	26.1	39.0	62.7	76.2	78.1	77.9	77.6	77.4
Pigs	Farmers	-	0.3	0.7	2.1	3.5	3.6	3.7	3.5
	Households	27.6	45.6	68.4	63.1	58.2	56.3	54.5	55.0
Poultry	Farmers	-	0.2	0.1	0.7	1.3	1.4	1.4	1.4
	Households	46.0	63.9	79.5	58.9	50.5	47.6	45.8	47.3

Source: Statistical Yearbook "Agriculture of Ukraine 2011"

Table 3.2

Main indices of agricultural development in Ukraine

Indices	1990	2000	2005	2007	2008	2009	2010	2011
Sown area – total, 1000 ha, inc.:	32406	27173	26044	26060	27133	26990	26952	27670
Grain and leguminous crops	14583	13646	15005	15115	15636	15837	15090	15724
Industrial crops	3751	4187	5260	5920	6778	6545	7296	7441
Potatoes and vegetables	2073	2277	2041	1997	1967	1950	1967	2028
Feed crops	11999	7063	3738	3028	2752	2658	2599	2477
Output, 1000 tonnes								
Grain and leguminous crops	51009	24459	38015	29294	53290	46028	39271	56746
Sugar beet	44264	13199	15468	16977	13437	10067	13749	18740
Sunflower	2571	3457	4706	4174	6526	6364	6771	8670
Potatoes	16732	19838	19462	19102	19545	19666	18705	24247
Vegetables	6666	5821	7295	6835.2	8341	8341	8122.4	9832
Fruits and berries	2901	1452	1689	1469	1618	1618	1746	1896
Number of livestock and poultry, 1000 heads								
Cattle	24623	9424	6514	5490	5079	4827	4494	4425
inc. cows	8378	4958	3635	3095	2856	2737	2631	2582
Pigs	19427	7652	7053	7019.9	6526	7577	7960	7373
Poultry	246104	123722	161993	169290	177555	191446	203840	200760
Production of main animal products								
Meat, 1000 tons	4357	1662	1597	1911	1905	1917	2059	2143
Milk, 1000 tons	24508	12658	13714	12262	11761	11600	11248	11086
Eggs, mln pcs.	16287	8809	13046	14062.5	14956.3	15908	17052	18689.8
Wool, 1000 tons	29.8	3.4	3.2	3.4	3.75	4.1	4.2	3.88

Source: State Statistics Service of Ukraine

Table 3.3

Structure of sale of the main kinds of agricultural production by channels of sale, *%*

Products	To processing enterprises			As rent payments			As wages			At market			Other channels		
	2000	2005	2011	2000	2005	2011	2000	2005	2011	2000	2005	2011	2000	2005	2011
Grain and leguminous crops	4.0	5.2	3.6	14.1	10.5	8.3	20.6	4.7	0.5	34.8	10.0	4.9	26.5	69.6	82.7
Oil crops	2.4	4.0	5.2	4.6	2.0	0.6	10.1	1.4	0.1	46.4	11.3	3.6	36.5	81.3	90.5
Sugar beet	93.0	90.4	92.9	0.0	0.0	0.0	0.5	0.1	0.0	4.0	0.1	0.0	2.5	9.4	7.1
Potatoes	16.9	11.3	7.8	1.6	0.4	0.1	20.4	4.0	0.5	44.8	17.2	4.1	16.3	67.1	87.5
Vegetables	13.3	13.5	44.4	2.9	0.9	0.1	21.1	3.5	0.3	47.0	31.8	7.6	15.7	50.3	47.6
Fruits	16.1	13.4	27.9	0.7	0.4	0.1	22.7	6.0	0.4	49.8	33.0	20.0	10.7	47.2	51.6
Livestock and poultry (in live weight)	21.6	30.9	24.2	0.5	0.4	0.0	31.9	4.5	0.7	38.4	19.1	6.9	7.6	45.1	68.2
Milk and milk products	66.3	85.0	94.6	0.2	0.0	0.0	7.5	1.5	0.2	21.2	3.8	1.8	4.8	9.6	3.4
Eggs	20.0	0.4	1.6	0.0	0.0	0.0	5.9	1.9	0.5	66.2	29.2	17.1	7.9	68.5	80.8

Source: Statistical Yearbook "Agriculture of Ukraine 2011"

ANNEX B

Table 3.4

Dynamics of main food industry products in Ukraine, *2007-2011, 1000 tons*

Products	2007	2008	2009	2010	2011
Meat and meat products	1501.8	1442.8	1352.4	1450.8	1439.7
Products of fruits, vegetables processing	1199.7	1151.6	919.6	924.2	851.2
Oils and fats	2545.0	2183.0	3149.0	3393.0	3529.2
Milk products and ice-cream	1932.0	1852.9	1734.6	1730.0	1691.1
Flour-grinding products	3226.0	3393.0	3131.0	2972.0	2569.1
Other edible food stuffs	4951.0	4631.0	4146.0	4699.0	5326.0
Drinks, mln dal	774.9	745.9	666.9	687.9	644.3
Cigarettes, bln pcs.	129	130	114	103	95.5

Source: calculated based on data: Statistical Yearbook of Ukraine 2011 (Electronic resource)/State Statistics Service of Ukraine. – Access at: http://www.ukrstat.gov.ua/

Table 3.5

Activities of small food industry enterprises

Indices	2006	2007	2008	2009	2010	2011
Number of employees, 1000 persons	59.2	53.9	51.4	50.7	47.4	45.1
Labour compensation fund, mln UAH	316.5	358.5	474.1	529.4	552.9	823.8
mln USD	62.67	70.99	90.01	67.95	69.99	103.39
Monthly wage of employees, UAH	445.48	554.06	768.23	869.84	971.43	1520.33
mln USD	88.21	109.71	145.85	111.64	122.97	190.57
Percentage monthly wage of employees to economy	42.8	41.0	42.5	45.6	44.4	57.7
Volumes of sold industrial products, mln UAH	5683.3	6722.5	7689.5	8725.9	8381.9	9299.5
in % to total volume of industrial products, sold by small enterprises	18.2	17.5	16.9	19.2	16.5	16.0
Ratio of products sold by small enterprises in general volume of products sold in food production	5.8	5.6	5.0	5.1	4.1	4.0

Source: Statistical Yearbooks "Activity of small enterprises" for the period of 2009–2011, State Statistics Service of Ukraine.

Table 3.6

Financial results of small food industry enterprises activities

Indices	2006	2007	2008	2009	2010	2011
Financial results (balance), mln UAH	-46.5	-158.3	-831.3	-580.3	-480.0	-1278.0
Enterprises, which gained profit in % compared to total number of enterprises	64.7	67.2	62.2	61.6	57.5	57.7
Enterprises, which gained losses in % compared to total number of enterprises	35.3	32.8	37.8	38.4	42.5	42.3
Operational activity profitability, %	-1.1	0.1	-5.9	-3.1	-1.4	-1.1
Whole activity profitability, %	-0.7	-2.0	-8.1	-6.4	-5.3	-9.1

Source: Statistical Yearbooks "Activity of small enterprises" for the period of 2009–2011, State Statistics Service of Ukraine.

Table 3.7

Balance of export-import relations based on industrial food products (code of Ukrainian Classification of Goods of Foreign Economic Activity 0401-0406, groups 09, 11, 15-24), 2008-2011, mln USD

Indices	2008	2009	2010	2011
Export	5334.7	4386.1	5824.2	7044.9
Export to total, %	8.0	11.1	11.8	10.4
Import	3695.3	2742.5	3331.7	3976.3
Import to total, %	4.4	5.9	5.4	5.0
Balance	1639.4	1643.6	2492.5	3068.6

Source: calculated based on data: Commodity structure of foreign trade (Electronic resource) / State Statistics Service of Ukraine. – Access at: http//www.ukrstat.gov.ua; Statistical Yearbook of Ukraine, 2011 (Electronic resource) / State Statistics Service of Ukraine. – Access at: http//www.ukrstat.gov.ua.

Table 3.8

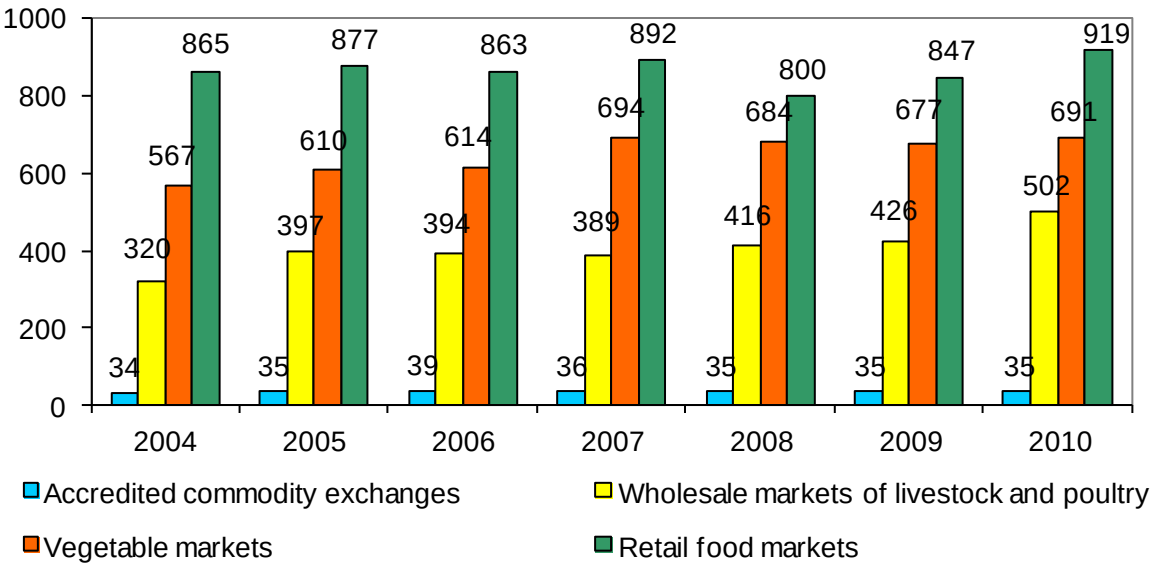
Sales share of industrial food products, produced in Ukraine, through distributive network of enterprises, 2007-2011, %

Figure	2007	2008	2009	2010	2011
Food products	88.2	88.2	88.4	88.2	87.2
Smoked meat, salted and sausages	95.5	96.3	96.5	97.0	96.2
Preserves, finished meat products	90.7	93.4	93.2	92.4	95.8
Preserves, finished fish products	75.0	77.3	74.6	73.8	72.4
Milk and dairy products	93.2	92.9	92.5	94.5	94.2
Ice-cream	94.6	94.9	94.4	97.7	98.1
Rennet cheese, processed cheese and lactic cheese	89.1	88.9	89.1	88.2	88.0
Dairy butter	95.1	96.0	96.9	97.7	98.3
Seed oils	92.9	92.9	92.6	93.3	94.0
Margarine	92.8	92.7	93.7	95.5	97.0
Sugar	95.4	97.2	96.8	98.8	98.4
Confectionary	90.0	90.1	89.5	90.2	89.6
Flour	98.0	97.0	95.4	97.6	97.2
Bakery products (save for confectionary)	98.8	98.6	98.4	99.1	98.5
Macaroni products	84.9	82.7	81.7	79.8	79.3
Vegetable preserves	81.6	80.7	80.8	81.4	80.1
Fruit and berry preserves	70.1	71.0	68.4	64.7	60.1
Alcoholic drinks – total	88.7	88.5	89.1	87.4	86.1
Vodka and alcoholic beverages	89.7	89.6	90.2	88.6	87.1
Low alcoholic beverages	93.7	94.2	94.9	94.8	94.0
Wines	81.9	81.4	82.5	78.7	75.4
Cognac	79.9	81.4	83.1	82.3	83.0
Sparkling wines (champagne)	91.8	92.0	91.8	89.2	88.1
Beer	93.9	92.9	93.4	92.2	90.9
Tea	62.3	63.7	65.9	67.2	69.1
Coffee	50.9	55.2	51.9	49.3	45.7
Non-alcoholic beverages	92.1	92.8	92.6	90.7	94.3
Mineral water	90.8	91.5	92.1	91.8	92.9

Source: calculated based on data: Sales share of industrial food products, produced in Ukraine, through distributive network of enterprises (2005-2011) (Electronic resource) / State Statistics Service of Ukraine. – Access at: http//www.ukrstat.gov.ua.

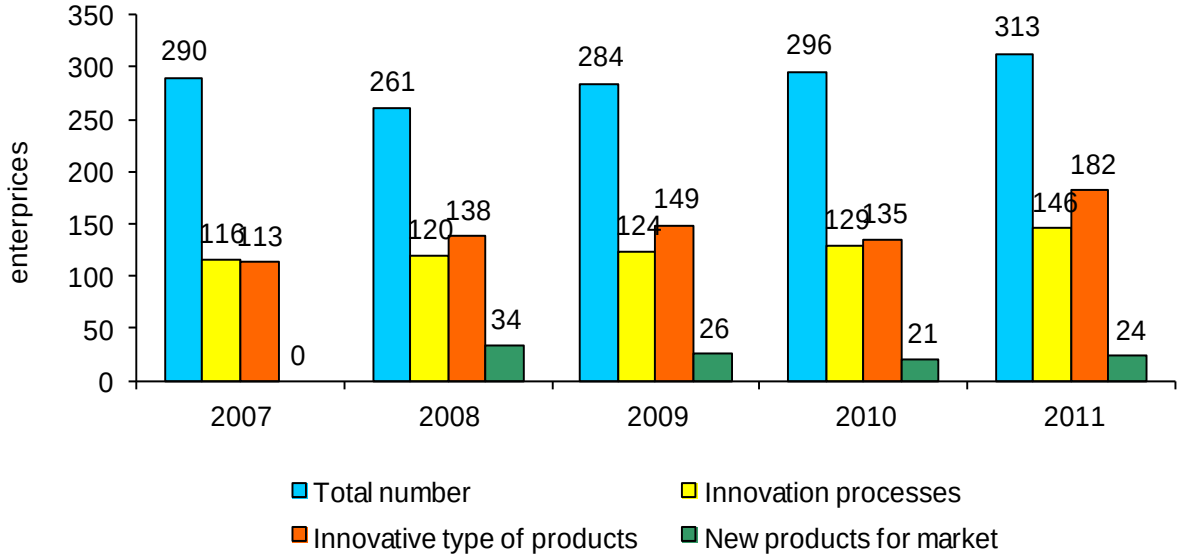
AANEX C

Figure 3.7: Dynamics of agrarian market infrastructure development



Source: http://www.dy.nayka.com.ua/?op=1&z=178

Figure 3.8: Innovations dynamics of food industry enterprises



Source: [1, P. 77-78]

Table 3.9

List of key agro-industrial complex NGO

Name	Contacts
Ukrainian Grain Association	53/80,Saksahanskoho Str. office 308, 3d floor, Kyiv, 01033 +38 (044) 246-62-01 +38 (044) 246-62-02 inbox@uga.kiev.ua www.uga-port.org.ua
National Association of Meat Producers "Ukrmyaso"	B. Grinchenka 1 ,of. 526 01001 Kiev +38 (044) 227 31 41, 229 64 13, 226 29 62 +38 (044) 279 66 83 mail@ukrsugar.com http://sugarua.com
Union of Poultry Farmers in Ukraine	Pimonenka str., 13, of. 6A-23 04050, Kyiv +38 (044) 494 4930 http://www.ptaha.kiev.ua office@ptaha.kiev.ua
National Association of Milk Producers of Ukraine "Ukrmolprom"	
Association "Ukroliyaprom"	B. Grinchenka str. 1 Kiev 01001 +38 (044) 226-31-38, 279-63-56, 279-82-45, 279-68-89 admin@ukroilprom.kiev.ua http://www.ukroilprom.org.ua
National Association of Sugar Producers of Ukraine "Ukrtsukor"	01001, Kyiv, B. Grinchenka str.,1, of.526 +38 (044) 2797212, 2797837, 227 31 41 t./f. +38 (044) 2795742, 279 66 83 kovel@ukrsugar.com, mail@ukrsugar.com http://sugarua.com
Association "Winergrowers and Winemakers of Ukraine"	
Association of Mushroom Producers of Ukraine	Solomenskaya str.1, off.802 Kiev For mailing : box 197, Kiev 03110 +38 (044) 228 51 27, +38 67 403 84 17 mushroomindustry@online.ua, office@vgo-agu.org.ua http://www.vgo-agu.org.ua
Association of Flax Producers of Ukraine	L.Gavro str. 9-E, Kiev +38 (044) 464 99 12, (050)311 20 49 +38 (044) 464 99 56 a-l-u@ukr.net www.a-l-u.ukrbiz.net
Ukrainian Bakers Association	V. Val str., 72, Kiev, 04070, Ukraine +38 (044) 494 00 65, 494 00 67, 494 00 68, 494 00 40 / 44 vap@vap.org.ua http://www.vap.org.ua

Union of enterprises of bread baking industry “Ukrhlibprom”	01033, Kiev Saksaganskogo str. 1 (044) 289-63-11 289-46-34 (044) 289 4238 http://ukrhlibprom.org.ua info@ukrhlibprom.org.ua
Ukrainian beer, soft drinks and mineral water production company "Ukrpyvo”	Grinchenka str. 1, room 416 t 01001, Kiev +38 (044) 279 72 86, 278 33 95 f. +38 (044) 2797286, 279 72 84
APK Inform	APK-Inform, P.O. #591, Dnipropetrovsk, Ukraine, 49006 Phone/Fax: +380 562 320795e-mail: info@agrimarket.info
Association Ukrainian Agribusiness Club	Velyka Zhytomyrska str., 20 A,office 53, Kiev, 01001 Phone: +380 44 201-4950 Fax: +380 44 201-4951 info@agribusiness.kiev.ua www.agribusiness.kiev.ua

Source: http://www.ukrexport.gov.ua/eng/assn/ukr/2866.html