



REPUBLIC OF ALBANIA  
MINISTRY OF AGRICULTURE, FOOD AND CONSUMER PROTECTION

**Sector Strategy  
of Agriculture and Food  
(SSAF)**

**2007 - 2013**

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## List of abbreviations

|          |  |
|----------|--|
| BIP      | Border Inspection Post   |
| CARDS    | Community Assistance for Restructuring and Development Support |
| CATT     | Center for Agriculture Technology Transfer                     |
| CMD      | Council of Ministers Decree                                    |
| CORIP    | Central Office for Registration of Immovable Property          |
| DWD      | District Water Directorate                                     |
| EU       | European Union   |
| EUROSTAT | European Statistics  |
| FAO      | Food and Agriculture Organization                              |
| FMD      | Food and Mouth Disease   |
| FTA      | Free Trade Agreements  |
| GDP      | Gross Domestic Product   |
| GTZ      | Gesellschaft für Technische Zusammenarbeit                     |
| HACCP    | Hazard Assessment and Critical Control Points                  |
| IA       | Interim Agreement  |
| IARA     | Institute of Albanian Rural Alternatives                       |
| IFM      | Integrated Farm Management                                     |
| ILM      | Integrated Land Management                                     |
| INSTAT   | Institute of Statistics  |
| IPA      | Instrument for Pre-accession Assistance                        |
| IPARD    | Instrument of Pre-accession Assistance for Rural Development   |
| IPM      | Integrated Pest Management                                     |
| IPN      | Integrated Plant Nutrition                                     |
| IPNM     | Integrated Plant Nutrition Management                          |
| IPP      | Institute of Plant Protection                                  |
| IPS      | Integrated Planning System                                     |
| IZR      | Institute for Zootechnic Research                              |
| LAG      | Local Action Group   |
| LORIP    | Local Office for Registration of Immovable Property            |
| MoAFCP   | Ministry of Agriculture, Food and Consumer Protection          |
| MTBP     | Medium - Term Budget Program                                   |
| MULR     | Management Unit for Land Registration                          |
| NATO     | North Atlantic Treaty Organization                             |

|        |   |
|--------|---|
| NSDI   | National Strategy for Development and Integration     |
| NSSSED | National Strategy for Socio-Economic Development      |
| OECD   | Organization for Economic Cooperation and Development |
| PIP    | Public Investment Program                             |
| PPP    | Plant Protection Product                              |
| RIP    | Rural Innovation Platform                             |
| SAA    | Stabilization – Association Agreement                 |
| SSAF   | Sector Strategy for Agriculture and Food              |
| UNDP   | United Nations Development Program                    |
| USAID  | United States Agency for International Development    |
| WUA    | Water Users Associations                              |

# Introduction

## The Strategy Goal

In the frame of Integrated Planning System in Albania, the National Strategy for Development and Integration (NSDI) will be prepared as a resume of the sector and crosscutting strategies. This document represents the Sector Strategy of Agriculture and Food.

The Sector Strategy of Agriculture and Food, as any other strategy, should represent:

- The government program;
- The program for the European and Euro-Atlantic Integration, that means the implementation of the stabilization - association agreement and the plan for membership in NATO
- The public investments program (PIP) and the foreign assistance

Aside from the contribution to the NSDI, the sector strategy aims to establish the link between the strategic goals, over the seven years horizon, and the expenditure program drafted in the frame of Medium - Term Budget Program (MTBP).

Other goals of the strategy are:

- To ensure the coherence of policies and the long - term orientation of agriculture and foods sector development;
- To originate clearness regarding the reforms and development processes of the public and private sector;
- To precede the needs for technical and financial support to agriculture.

## CHAPTER 1: CURRENT SITUATION

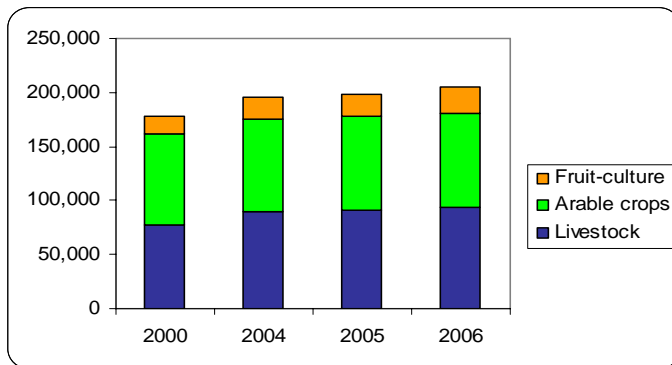
### 1.1. Role of agriculture in the national economy

Agriculture continues to be one of the most important sectors of the national economy. Its contribution has been decreasing over years and it is estimated at 22.8 % of the GDP in the year 2005 and 20.5% in year 2006. The rural families continue to dominate the national economy, more than 50 percent of the population lives in the rural areas, and agriculture is the main working alternative of people living in these areas. The real mean increasing rate of agriculture production during the last five years is estimated to about 3 percent per year.

Table 1: Agriculture against total GDP (in %)

| Branch       | 1996 | 2000 | 2005 <sup>1</sup> |
|--------------|------|------|-------------------|
| Agriculture  | 36.1 | 25.5 | 20.5              |
| Industry     | 9.7  | 7.6  | 9.7               |
| Construction | 5    | 8.1  | 14.8              |
| Services     | 49.2 | 58.8 | 55                |
| Total        | 100  | 100  | 100               |

Graph 1: Agriculture Production



However, the increasing rate of the agriculture sector is below the mean national rate, especially due to the specific problems that this sector has to overcome, the most predominant problems being the migration from rural areas, land ownership and very limited size of the agriculture farms, the marketing of products, the irrigation and the drainage

system, the low level of technologies in use, the weak organization of farmers, the low development level of agro - processing, etc. The consequence is lack of motivation and low interest of big investors toward agriculture oriented activities.

### 1.2. Agriculture land

The total agriculture land represent only 24 percent (about 699,000 ha) of the total area of the country. Moreover, only 561,000 ha is arable land. About 43 percent (about 304,000 ha) of the total agriculture land is in the lowland area, with relatively high productivity potential. Other 239,000 ha (about 34 %) are in the mountain areas, and the destination of about 159,000 ha (about 23 %) is almost the fruit - trees cultivation.

**Land reform.** By the end of third quarter 2006, the main indicators of agriculture land privatization process are:

- The process of land distribution has achieved 561,000 ha, or about 98.6 percent of the available agriculture area that is foreseen for distribution (about 569,000 ha).
- More than 65 percent of the Albanian population is involved in the land reform; about 445,000 families have benefited from land reform.

Land reform is actually facing problems that are related with conflicts on land ownership. These ownership conflicts are mostly evident in the periphery of great urban areas as well as in the coastal area.

**Land market.** The process of land ownership title or the distribution of the "land ownership act", has reached to 542,000 ha or to 97.2 % of the total area that is really distributed.

The distribution of the "land ownership act" to the rural families is executed by the legal commissions for land distribution established at the village level.

There are actually about 15,000 ha agriculture land that, for different known reasons, is in use by rural families without "land ownership act". This situation is more frequent in the regions of Shkoder, Kukes and Fier. The land ownership conflicts are obstacles for the distribution of "land ownership act" in these regions as well.

The process of the first agriculture land registration in the Local Office for Registration of Immovable Properties (LORIP), in the quality of an immovable property that is preliminary to a final "land ownership act" issued by the LORIP, is already finished in about 87.5 percent of all cadastral rural areas of the country.

Until the end of year 2005, the first agriculture land registration is performed by the Management Unit for Land Registration (MULR) in the Ministry of Agriculture, Food and Consumer Protection (MoAFCP). As by Government Decree nr. 159, dated 21.3.2006, this activity is now performed by the Central Office for Registration of Immovable Properties (CORIP). From the evidences of CORIP, there are actually realized more than 20 thousands transactions of immovable properties in the rural areas. The transactions rate is especially increased during the last two or three years, mainly in the periphery of big urban areas.

The rights for land use seem to be in contradiction with the owner's obligation to protect the land. The law on land protection and preservation is much more recent than the law on private land ownership. During the period between these two laws, the agriculture land has been exposed to human and natural harmful factors. One of these is that structures for land protection and preservation as required by the law have not yet established.

There are actually some thousands hectares of agriculture land that is damaged and can not be rehabilitated.

The radical change of land ownership asks for a radical change in the land administration modes. The current land administration is not at the required level, especially as required by the objective of integration in the European community.

The land ownership title of about 700,000 ha agriculture land is divided as follows: (i) about 562,000 ha are private ownership title of rural families; (ii) about 137,000 ha are state ownership title, from which about 110,000 ha are administrated from the communes and the municipalities and 27,000 ha remain state available land, according to the law nr.8312.

According to different estimation sources, during the last years the agriculture land rate use is about 80-85 percent. The inter-relation between the private ownership title and the obligation for land protection and preservation, considering the land as a national resource, is appropriately regulated by the law nr. 9244, dated 17.6.2004. Nevertheless, during the transition period it is not achieved to elaborate careful land use policies that could be comparative to other countries land use in the region.

There is evidence of agriculture land deterioration which has brought a decrease of the available agriculture land: illegal constructions, enlargement of urban areas which has been detrimental to the agriculture land, damage of river beds, etc. Besides the tendency of decreasing agriculture land surface, wrong agriculture practices have brought about serious damage to the agro - ecologic value of the land. The most serious negative

effects are land salting, transforming to marshland, land pollution, etc. From the other side, a current land information system is not yet established.

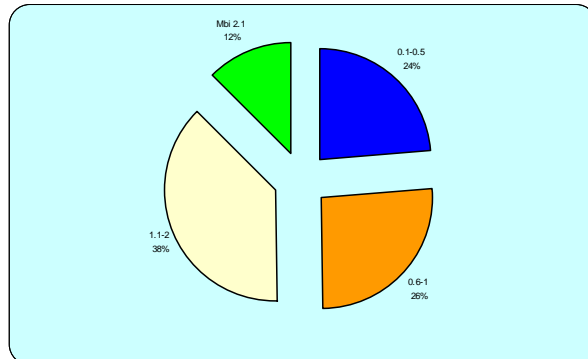
### 1.3 Farm size

The Albanian agriculture is dominated from small size farms (mean 1.1 ha) which are moreover fragmented on average in 3.9 parcels/farm. This is an important handicap to the improvement of agriculture productivity and to a sustainable development of the agriculture sector. The small size farms are mostly extended in the

mountain and north area of the country. The smaller size farms are in the regions of Kukes, Diber, Shkoder and Lezhe (the mean farm size is respectively 0.54 ha, 0.55 ha, 0.85 ha and 0.94 ha).

The yield of agriculture production in the fragmented farms is to much lower than the production potential, because of impossibility to use the mechanization. Moreover, an important part of agriculture land is has become wasteland because of the continuous migration from rural areas to big urban ones. The consequence of all these factors is the importation, mainly from neighbor countries, of awide range of unprocessed agriculture products.

Graphic 2. Farm size by groups



### 1.4. Agriculture mechanisation and inputs

The farmers are facing many problems regarding the mechanization. A great number of tractors and other mechanic equipments are imported to Albania over the last years. Nevertheless, the modern equipments are not yet enough available to the Albanian farmer. The owners of these equipments are applying very high service prices, not easily affronted by the farmers. All agriculture activities that need mechanization are facing high service prices. This brings about a very low use of agriculture equipments and a coming back to traditional means like animal power and handwork which then remain the only alternative for the farmer.

Only 73 percent of families working in agriculture are partially using mechanization for land plowing. More than 24 percent of families are using animals for land plowing, and 63 percent are using mechanization and handiwork. In the mountain areas and in the very small farms (sized from 0,1 to 0,5 ha) about 75 percent of the land plowing is made by handwork. However, the use of animals for land plowing, very common in mountain and hilly areas, it is also evident in the lowlands. The handwork is not related to a lack of mechanization or equipments (in Albania there is one tractor per 50 ha). It is moreover related to the high level of service fees and to low economic efficiency of Albanian farms due to a very small farm size and a very fragmented farm area.

In the whole country, about 70 percent of the farmers buy seeds, fertilizers, pesticides, etc. Pesticides represents about 40 percent of the inputs bought by the farmers.

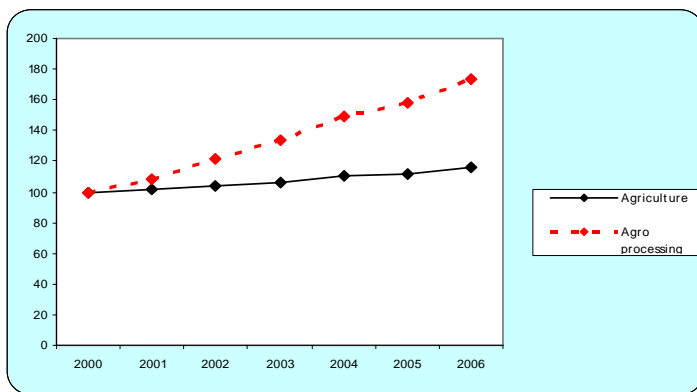
From 40 to 45 percent of the farmers by animal feed (maize, alfalfa, grain supplements, hay) for their livestock production. The number of farmers buying animal feed is greater in the mountain areas because the forage production is lower and the need for supplementary feed during winter is greater.

## 1.5. Agro industry

Agro industry is a sector composed by both small private industries that are created from the privatization of the former agro - processing state enterprises and from the new investments by private initiatives. The privatization of state agro - processing enterprises started in the year 1992 with the production of bread, flour, milk processing, alcoholic and non - alcoholic beverages.

Before year 1990, the food industry has done the collection and the processing of about 50 to 80 percent of all agriculture products, as well as their marketing. From the food industry was produced about 42 percent of the total value produced by the whole industry, and was employed about 47,000 people.

**Graphic 3: Growth of agriculture and agroprocessing Gross product**



During the last years as graph 3 can show, the development of the food industry has been rapid and sustainable, and it is now an important sector of the Albanian economy. The production value has reached the highest level of the last years with 48 billion lek. Starting from the year 2001, the mean annual growth rate of this sector is over 15 percent. The most important growth is evidenced in the milk and meat processing industry.

According to recent data, the production value of the food industry is about 19 percent of the total agriculture and processed production value. In year 2006 there are in total 2053 enterprises in the sector of food industry. Out of them, about 47 percent are producing bread and flour, and over than 20 percent are located in Tirana region.

In absolute figures, in year 2006 the bread and sweet production industry is leading with 966 enterprises or about 47 percent of the total. It is followed by the milk processing industry with 362 milk processing centers, and by the flour production industry with 272 enterprises. Considering some basic standards, the agro processing enterprises are in general very small and not compliant with EU food safety standards. For this, they can not reach the EU market. Investments and support by rural development policies are needed in order to increase the competitive capacity of the agro processing sector in Albania.

In the food industry are employed about 10,000 people. Only small fluctuations are observed from one year to another. The greater number of employees is involved in bread production (about 3.330 employees, or 33 percent of the total), followed by milk processing units with about 1.200 employees or 11% of the total.

Even in the cases of big and modern enterprises that are producing for export, the raw materials produced in the country have not the requested quality and quantity, and are not price competitive. The most representative example is the vegetable processing

industry using the deep freezing technology: more than 2,000 tons of vegetables per year (about 90 percent of raw materials used by that industry) are imported from Greece, Italy and Macedonia.

The investment level is another important indicator for the sustainable development of the food industry. Investments have increased, by achieving the highest level in the year 2005 with about 2.9 billion lek. Two main features can be observed when analyzing these investments: (1) the part of investment for technology improvement has increased from one year to another, comparing with investments for construction. It indicates that a qualitative improvement has started following the quantitative development of this industry. The technology is considerably improved having its positive effects on the whole sector development. (2) During the last years, the greatest part of investments is ensured by the local private investors themselves.

## 1.6. Trade and marketing of agriculture products

The small farm size being an important limitation for the agriculture development, the production is essentially oriented to self consumption. Only 30 percent of livestock and crop production is oriented to the market.

The marketing of agriculture products and food is still not appropriate. Provision of the Albanian market with domestic products is more a priority, without renouncing the improvement of export, taking into account that import of products is ten times more than the export.

Last year data show that export value did a big step forward.

Exports outpassed import in terms of rates, and they grew by 29% against year 2005. Exports in the region reached the highest level. This is a very good sign, but the export potential of domestic products is still very limited. The reasons are mainly: i-Low production level of agriculture and agro processing sectors; ii- Lack of trading facilities (stores, processing, packaging of products); iii-Low control level on the products quality and safety, including the veterinary control; iv-Low competition capacity of domestic agriculture products in the market because of their poor quality and relatively high production cost.

The export - import balance of food products is an important synthetic indicator for the development of food industry. According to last year's data, the evolution of export and import is presented in table 2. The trade is considerably deep, with a ratio of 1:8.3 in 2006.

Table 2: Trend of exports and imports (000 lek)

|                | 2004     | 2005     | 2006     |
|----------------|----------|----------|----------|
| <b>Exports</b> | 5148042  | 5566980  | 7154295  |
| <b>Imports</b> | 46295326 | 42699613 | 59631153 |
| <b>Ratio</b>   | 1:9      | 1:8.6    | 1:8.3    |

Source: Directory of Production Policies, MAFCP

The agriculture, which is a potential export sector, is facing many problems like high production cost of food commodities, serious food safety problems, a weak organization of exporters, lack of collection, storing and market facilities, weak processing industry, administration problems related to public control and legislation on

food control.

From one side, the increase of export has not been supported by the government policy. The private entrepreneurs should also increase their competitive level in the market by

identifying (i) what is requested in the market regarding the quality of the products, the packaging, the marketing channels, (ii) which are the most effective production capacities to respond to the market demand and competition, (iii) how the competitors have resolved these problems, etc.

The importance of increasing exports is not only related to the trade balance deficit reduction. It is also essential to promote the improvement of products quality, to increase the domestic production capacities, to increase employment, to improve the prosperity and the economic development of the country.

The quality improvement of the products will increase the Albanian export and will reduce the import of many products that can be supplied in the market by the domestic producers.

The regional Free Trade Agreements (FTA) and the Stabilization - Association Agreement with EU offers many opportunities to the Albanian economy that can increase the export of certain products like vegetables, wine, olive oil, fish, livestock products, etc.

Commerce with EU as well, grew substantially, especially with Italy, Greece, Turkey, etc. However, trade balance of Albania with these countries as well remains very negative and imports in 2006 grew faster than exports.

## **1.7. Irrigation and drainage**

The Ministry of Agriculture, Food and Consumer Protection (MoAFCP), based on the law nr.8518, date 30.7.1999 "On irrigation and drainage" is responsible for the administration of the irrigation, drainage, protection from inundation, and for the maintenance of the system: (i) for the irrigation of 360,000 ha through water users association; (ii) drainage of 280,000 ha through 16 drainage boards; (iii) protection from inundation of 130,000 ha through 16 drainage boards. The latter is financed by the budget state and the boards cover their territory, depending all from the MoAFCP

The irrigation systems are transferred to water users associations and federations. The utilization and the maintenance of the irrigation systems are under the responsibility of the water users associations and federations (farmers associations).

For the irrigation systems that have not been transferred to water users associations and federations, as by the law nr. 8518, date 30.7.1999 "On irrigation and drainage", article 7, responsible for the utilization and the maintenance of irrigation system were the District Water Directorate (DWD). During the last two years, the water users associations and federations are considered responsible for the utilization and the maintenance of the whole national irrigation systems and the DWD are no more functioning. The DWD are already transformed to Drainage Boards, and the utilization and the maintenance of the irrigation systems that is not transferred to farmers associations is abandoned. The same has happened with the most part of irrigation system that is not fully transferred to farmers association (they are still in the process of consolidation). In the actual phase, many of the farmers associations (water users associations and federations) have not the capacity to manage the maintenance of the irrigation system.

At present, the systems for irrigation, drainage and protection from inundation cover:

**Drainage and protection from inundation.** The total area that has been designed to be covered by the drainage system is 280,000 ha. In fact, the drainage system was realized in only 200,000 ha. However: (i) even the rehabilitated area of 200,000 ha need maintenance every three years (actually this area is in the same situation as before rehabilitation); (ii) the other 80,000 ha need basic rehabilitation and after that maintenance every three or four years.

The drainage system is designed to: (i) drainage 205,000 ha with the gravity technique; (ii) drainage 75,000 ha through pumping waterworks.

In the pumping system are included: 28 waterworks with 134 electric pumps and a designed capacity to pump 393 m<sup>3</sup> water/second or 34 million m<sup>3</sup> water/24 hours, in 10 districts in lowland area of the country (Shkoder, Lezhe, Kurbin, Durres, Kavaje, Lushnje, Fier, Vlore, Sarande, Berat). About 50 % of the electric pumps are used for more than 20 years.

The total area of the agriculture land under the continuous risk of inundation is about 130.000 ha (protected by dikes, a network of channels and waterworks), whereas dikes constitute a total of 850 km.

**Irrigation:** The total area that is potentially covered by the irrigation system is 180,000 ha (this area has a rehabilitated infrastructure and can be irrigated). The total area designed to be covered by the irrigation system is 423,000 ha. At present: (i) about 70,000 ha are no more covered by the irrigation system because from agriculture land it is transformed to urban area, or the existing irrigation system (pumping of the water) is abandoned because it is not efficient; (ii) 173,000 ha need the continuous rehabilitation.

From the total area covered by irrigation system (180,000 ha) there are: (i) 150,000 ha covered by gravity irrigation; (ii) 30,000 ha covered by irrigation by pumping.

Out of 639 pumping stations that have been constructed, only one hundred are working. The other pumping stations need investment for rehabilitation or they are completely destroyed.

The network of irrigation channels with constructed concrete and metallic structures has a total length of 25,000 km, and is classified as follows: (i) 2,000 km main irrigation channels; (ii) 6,200 km secondary irrigation channels; (iii) 16,800 km third irrigation channels.

The most important projects in agriculture have financed the rehabilitation of irrigation system. The first and second World Bank Projects have financed the rehabilitation of about 150.000 ha, while from the State Budget are rehabilitated about 30.000 ha (a total of 180.000 ha). Out of this total, about 130,000 ha are managed by the Water Users Associations and Federations (according to Irrigation and drainage Project).

**Maintenance and management of the irrigation and drainage systems** is ensured: (i) from the 16 Drainage Boards financed by the state budget; (ii) from 530 water users associations, and (iii) from 24 water users federations.

The situation of the irrigation and drainage systems is not satisfactory. This system is of crucial importance to increase the agriculture production and the incomes from this sector. For these reasons, it is realized the evaluation of the whole irrigation and drainage system for: (i) the actual situation of irrigation, drainage and protection from erosion caused by the rivers; (ii) the results achieved by the Water Users Associations and by the Boards for Drainage and Protection from inundation in the management of irrigation, drainage, and protection systems from inundation; (iii) By the Council of Ministers Decree nr. 121, date 19.5.2006 "The approval of action plan on the rehabilitation of the irrigation, drainage, and protection from inundation systems", is approved the plan of activities for the period 2007-2009, and the respective costs are estimated.

The irrigation and drainage system uses open channels and, considering a forty years experience, need for every year maintenance and constant rehabilitation. The process of maintenance and rehabilitation is cyclic every three or four years and has a relatively high cost which varies: (i) 40,000 - 60,000 lek/ha for the irrigation system; (ii) 15,000 - 20,000 lek/ha for the drainage system (without including the maintenance and the electric power consumption of the waterworks and pumps).

The removal of the soil from irrigation channels is an urgent work. In fact, because of lack of funds, it is only partially realized each year. So, it is accumulated a very big quantity of soil which must be removed through urgent action in order to bring to normal the situation in the irrigation, drainage and protection from inundation systems. After this, a cyclic process of soil remove should continue every year.

A total of cost of 2.5 billion lek is estimated the emergency intervention fund for the rehabilitation of the dikes for the protection of the agriculture land from rivers erosion and inundation.

**Critical issues.** The actual situation of the irrigation system can not ensure the service to the farmer, especially regarding the quantity of water and the period when the demand is higher. During the summer season, the gap of about 500 mm of water is only compensated by less than 50 percent (only 200-250 mm).

The positive impact that irrigation and drainage systems have on the agriculture productivity and the farmer's incomes is very low.

Very little investments and rehabilitation works have been done in the reservoir dikes. In 126 of them there is urgent need for rehabilitation to ensure their safe functioning

A lot of damages are caused in the rivers bed because of uncontrolled gravel collection.

The water used for irrigation in certain coastal areas is becoming salty, their quality is not monitored.

There is need for investments to increase the water collection capacity in order to respond to the future demand that is continuously increasing.

There is need to use modern technologies in the irrigation system to increase the efficiency.

A better planning is asked for an integrated use of water in specific areas.

The software for the evaluation and the management of water resources are not available. It can ensure a better use of the water considering all factors (soil, plant, climatic conditions, protection from inundation, drainage system, etc.).

The systems for irrigation, drainage and protection from inundation need an intensive rehabilitation work. From the other side, the management quality and potential by the Water Users Associations (WUA) should be improved. The WUA should manage the irrigation system, while the drainage system and the protection from inundation must be managed by the Drainage Boards financed by their own budget. The respective legal frame should be amended (law nr. 8518, date 30.7.1999 "On the irrigation and drainage". These measures will increase the responsibility and the efficiency of the water users and will decrease the financial participation of the state budget.

## **1.8. Food safety**

**Veterinary control.** The veterinary service in the MoAFCP is the competent authority for the protection of the national territory from infections coming from animals and the consumer protection from diseases coming from animals and animal products. There are 14 border inspection posts (BIP) in the whole national territory. They are responsible for the control of the export / import of animals and animal products. Their infrastructure has been improved but is still not fully compliant with required standards. With the contribution of the CARDS program it is foreseen the infrastructure improvement in 7 BIP - s.

There are 128 approved importers and processors of animal origin products in the country. On a monthly basis, the veterinary control covers the importers of animals and animal origin products, the food refrigerating stores, the producers of foods. The food control inspectorate covers about 90 percent of these points.

Even if the food enterprises are improving their hygienic and sanitary conditions, only a small number satisfy the standards to export to EU countries. The drafting of a new law on Food is a basic requirement for the development of the food industry in the country and for the introduction of HACCP system which can ensure a safer product.

The municipal veterinary service is responsible for the veterinarian and sanitary control of the markets and animal origin products that are in their territory. This is a dichotomy of the veterinary service that is not functioning well. The hygienic and sanitary conditions in the markets and shops are not at the required level, even if some common attempts to coordinate controls have been made between the municipal and MoAFCP veterinary service.

The food inspectorate is facing with many problems; the more important are as follows:

- The food safety inspectorate, responsible for the control in the customs and in the markets, has not the necessary equipments for sampling and for the implementation of rapid analyses.
- The legal frame for the official control of the food products that are imported or locally produced, need approximation with EU legislation.
- The food safety inspectors have not the necessary communication means to ensure an efficient control of food products.
- The food safety structure in the regional level have not the database for the identification, control and follow up of many problems during inspections of producers, storing points, traders, importers, etc. There is not an information exchange between different regions because the lack of database and information network.
- The national standards on the food safety and quality are not compliant with EU standards.
- There is need for the introduction of the international standards on food safety and quality, as the HACCP, ISO etc., to ensure a safety product to the consumer.
- The labeling in Albanian language of the imported food products must be enforced, as it is described in the Council of Ministers Decree nr. 554 "For the labeling of the imported food products"
- About 90 percent of all food producers are controlled by the food safety inspectorate. The aim of the control is to ensure the application of the legislation and the consumer protection.
- According to the Council of Ministers Decree Nr. 604 "for the labeling of food products", all approved food producers should ask to the food safety department in the MoAFCP the approval for the labeling of their products. About 85 percent of food producers have already approved labels for their products and about 10 percent are in the process of approval.
- In the customs, the food safety inspectorate makes the control of foods products for the labeling in Albanian language and takes samples to make analyses. The control for the enforcement of the CMD Nr.554 "For the labeling of the imported foods", has been continuous. About 70 percent of imported foods have resulted to apply the labeling in Albanian language. It is estimated that about 90 percent of the food products are regularly controlled by the food safety inspectorate in the customs.
- The implementation of food quality and safety systems by the producers (the auto - control) is realized by only 2 percent of the producers because of the relatively

high cost of this system. A round table is organized with all food producers on the subject "the implementation of international food safety systems, a challenge for the country integration in EU".

**Animal health.** After the years 90's, the transition from big state enterprises to small private ones created favorable premises for the introduction and persistence of different pathogenic which had a negative impact on the general epidemiological situation in the country. The risk of animal and human infection from zoonotic diseases was highly increased. From the other side, the not sufficient control of animal movement has brought a rapid increase of animal disease prevalence in the whole country.

Actually, Albania is free from Foot and Mouth Disease (FMD), from cattle contagious pleuromonia, the small ruminant's pest, the pig's vesicular disease, the African swine fever, etc.

Some OIE listed disease are present in the country and cause important economic losses to the farmers, as: Newcastle disease, classical swine fever, cattle anaplasmosis, cattle babesiosis, anthrax, tuberculosis, cattle brucellosis, brucellosis melitensis, contagious agalaxis, varoatosis in bees, etc.

From the other side, the humane infection cases from zoonotic diseases have increased: salmonelosis about 400 cases, brucellosis about 700 cases, leishmanosis about 100 cases, anthrax about 60 cases.

The screening of animals for the above infections on more than 30 percent of the total animal population (brucellosis of small ruminants, cattle tuberculosis) have the following results: prevalence from 0, 64 % to 5 % for brucellosis melitensis, and of 0, 19 % for tuberculosis in animals.

Based on year 2006 data, in Albania are there about 335,872 livestock farms with a total of 634,000 cattle, 2,770,000 small ruminants, 152,000 pigs, and 6,200,000 poultry. National programs are established for the control of animal diseases, especially for zoonotic diseases.

The veterinary budget is used for the control of diseases like tuberculosis, brucellosis, anthrax, classical swine fever, etc. There are also national programs for the Monitoring of Residues, Monitoring in aquaculture and fishery, implementation of the animal identification and registration system.

About 10 percent of the total veterinary budget is used for emergencies in animal diseases (the case of avian influenza).

**Plant protection.** Actually, the control of the production in the farms that want to export their production is supported by the state for the phytosanitary control. The export of plant products is accompanied by a phytosanitary certificate which is compliant with EU standards. Major records in this area are:

- The establishment of protected areas has just started. This is one of the main requests for the fulfillment of the EU standards in plant production. The potential plant production export and creation of protected area for potatoes production has started in Divjaka.
- The phytosanitary control of plant products has started since many years. The list of parasites to be controlled is signed by the Minister of Agriculture, Food and Consumer Protection. The cost of this control is covered by the state budget. However, the phytosanitary control is very difficult in the fragmented farms.
- There is a large network of importers and traders of Plant Protection Products (PPP). These products are all controlled and the expired products have been eliminated with EU funds (PHARE program).

- There is a good control of all PPP importers and traders, but the internal market is not yet safe.
- The quality analyses for active ingredients are not being done, nor the residue control in plant products, because the laboratory infrastructure is still poor.
- The active substances of the PPP that are registered in our country are all included in the EU list. All products declared by the EU to be removed from the market are immediately controlled in the internal market with a special Minister order.
- From the other side, all the commercialized PPP are first registered and have the labeling in Albanian language.
- The main problems related to the quality of the products are:
  - There are not suitable storing and trading facilities for the PPP, in respect of products safety and human health;
  - The sector is not well equipped (especially with standard pumps). This has a negative impact for the sanitary treatment of fruit trees, wine yards, green houses, etc.;
  - The use of chemical stimulants in plant production is at a low level, mainly in green houses and fruit trees. The technical criteria for their use are not well known;
  - The extensive service does not cover all the farmers' needs, especially for plant protection from parasites. There is a weak official structure to ensure that service, it is mostly offered by the traders of PPP. The extension service is more requested by the green houses and fruit producers;
  - The level of education and training for the protection against harmful effects of PPP is still low. The persons that use these products are not always well trained

The monitoring of residues in plant products is not carried out. The legal frame is not complete as regarding the Maximum Residue. The implementation of a complete legislation package needs big investments to create the laboratory network. For these reasons, it is foreseen that the application of the complete legislation package of the monitoring of residues will start after the year 2010.

## **1.9. Extension service, technology transfer and agricultural information**

**Extension service.** Actually, extension service system consists of a lot of public and private service's bidders. Public service is the most organized and dominant form outspread in all over the country. It is part of MoAFCP structures in central and regional level with an information unit's network. On national scale, about 245 agricultural specialists are employed in this service.

This technical assistance service provides knowledge and information for all farmers and other persons interested in agricultural activities.

Actual staff of extension is generally well-informed for its tasks and manages a well-defined concept on extension's methodology; it is in continuous contacts with farmers, through a well-planned program of activities in the base of groups and individuals as well. In collaboration with scientific research institutions, 7-8 technical booklets are prepared each year, made available to be used by farmers, a considerable number of leaflets and other informative materials are handed out.

To fulfill the needs and requests of interested persons it develops a training program, which contains issues on plant cultivation and animal breeding technologies, elements of the farm budget, financial management, marketing and farmers organization as well.

In collaboration with research staff and farmers it leads applied research at farm level and establish relationships between researchers, extension staff and farmers. A lot of extension activities as demonstrations, field-days, visits, fairs and other group meetings, planned in the annual working program, are also organized.

The contacts with farmers are attained through Agricultural Information Centers, which are already placed in all most important agricultural zones of the country. The main focus of these Centers is to provide the informative material with high quality. At present, 120 Agricultural Information Centers are set up and operate all over the country. The consolidation and increase of their efficiency will be the main focus for the extension service in the future.

**Agricultural research and technology transfer.** Until the midyear 2006, 9 research institutions were under the MoAFCP authority. The objective of the agricultural research was to increase the role and efficiency of the agricultural research, to involve it in the preparation of agriculture development strategy and policy.

According to CMD No. 515, date 19.07.2006 "*On restructuring of research institutions under the MoAFCP authority*", five Centers of Agricultural Technology Transfer (CATT) were created from existing six research institutions, in Fushe Kruje, Vlore, Shkoder, Lushnje and Korçe.

The main objective of CATT should be the technology transfer in accordance with the needs and regional priorities.

Some of the important problems that the extension service faces are: (i) the limited number of extension' specialists (in average an extension' specialist per 2000 farmers) and their engagement with a lot of tasks; (ii) insufficient financial support in form of investments for agricultural information units and operative costs for realizing the extension activities; (iii) high average age of extension' specialists and their limited skills in using the computers and information technology.

**Statistical Service.** Statistical Service in agriculture is organized in central and regional level. Statistical Sector in MoAFCP consists of one chief and 3 specialist. In regional level there are 12 regional offices with 47 employees, and also 26 statistical employees in each district work under them. Actually, statistical service has 73 employees all over the country. Every year two survey in agriculture have happened, with a selection of 2800 farmers in activity that represented about 375 000 farmers; one survey related with production activity of green houses interviewing about 600 farmers from a total of 5000 farmers, and an another one for production activity in Large Farms. Four monitoring survey are performed each year to evaluate agro-business. Progress has been made to bring the agriculture statistics to EUROSTAT standards.

Some of the important problems that the statistical service faces are: (i) adaptation of statistical system with the BE countries, to insure the needed statistical indicators; (ii) the small sample size, which has negative impacts on the accuracy and reliability of collected data and indicators; (iii) the lack of financial means to carry out special surveys for some specific but important activities, such as vineyard, olive, potato, etc.; (iv) lack of information and communication network; (v) improvement of the report system combining information related with the same indicator but different sources; (vi) problems with respondent openness during the interviewing process; (vii) The lack of financial means to design new improved software for better and larger variety of indicators; (viii) the small number of statistical specialists in the statistical sector within the Ministry.

## 1.10 Main development trends

Agriculture production and incomes has been continuously increasing. Based on table 6 below, one could calculate that the livestock production account for about 46 % of the total sector production. The contribution of plant and fruit production is respectively 44 % and 11 %. As next table shows, (Table 3), among production components, fruit and livestock production have the highest growth rate over the last years, with 57% and 21 % more than in year 2000 as against year 2000, what is important for the priority setting exercise.

However, as a rule, the level of production, efficiency, and incomes from agriculture in Albania is still very low in comparison with EU countries. As from national accounts, the added value of agriculture products and rural development is

estimated about 155 billion Lek. Approximately, about 756,000 people work in agriculture and the annual added value per employee is around 200,000 Lek or 1,700 €. This value is still too low compared with 26,000 € per agriculture employee in the 15 EU countries (EU15) and with 6,500€ per agriculture employee in new EU member countries. The income from livestock is 2.7 time higher than from arable crops.

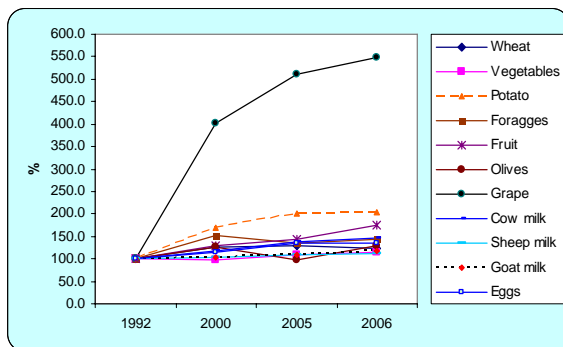
Farmers are still producing mainly for self consumption and the agriculture activities are much diversified and extensive farming systems are in use. The farmers are facing a destroyed public service and a poor basic infrastructure. Priority is given to subsistence production and very little agriculture products remains for market. The main agriculture products are grains (especially wheat), vegetables, potatoes and beans. The agriculture land is mainly cultivated with wheat, but incomes from this are very low. From the other side, grains are substantially cultivated for self consumption and very small quantities go to the market. Instead, vegetables, potatoes and fruits are more oriented to the market and becoming an important source of income for family farms. The forages (maize and alfalfa) are cultivated in about 30-35 percent of farm surface. The surface cultivated with these two forages is increasing while maize production for grain is decreasing and reduced in favor of forage production.

Table 3: Growth of major agricultural components (in %)

| Subsectors    | 2000 | 2004 | 2005 | <sup>1</sup><br>2006 |
|---------------|------|------|------|----------------------|
| Livestock     | 100  | 116  | 117  | 121                  |
| Arable crops  | 100  | 101  | 103  | 103                  |
| Fruit-culture | 100  | 132  | 134  | 157                  |
| Total         | 100  | 110  | 112  | 116                  |

Source: Statistical Yearbook, 2006, MAFCP

Graph 4: Trend of yields



During the transition period, some development tendencies are identified. Making reference to the year 1992, (look at graphs 4 and 5) to the data and the studies performed, and to the following graphics, the main development tendencies are:

Constant decrease of the surface cultivated with arable crops, especially with wheat and tobacco. The reasons are the low economic return of the wheat and the competition from the external market, as well as the lack of tobacco processing facilities.

Continuous increase of the surface cultivated with forages and potatoes. A first increase of the surface cultivated with vegetables, which is followed by stabilization. The reasons are related to the emergent demand in the market for livestock products and fresh vegetables, which is followed by a continuously increasing market demand.

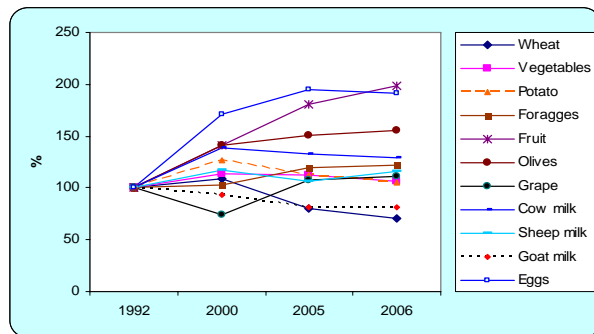
The vegetable production in greenhouses has notably increased. The main factors that have stimulated the increase of greenhouses are the market demand and the high level of incomes per unit surface.

Substantial increase of the yields in grapes, potatoes, milk from cattle and goats, eggs, fruits and forages.

During last years, the farmers are more interested to increase the surface with fruit - trees plantations and especially the surface with vineyard (mostly after the year 1996). This sub sector has the most rapid development in terms of surface cultivated and yields.

In livestock production, the number of farms with 5 - 10 and 11 - 50 calves for beef production or with cows for milk has increased. The same tendency is observed in small ruminants, the number of farms with 11 - 50 goats or with more than 500 sheep have increased as well. In general, it is observed the tendency of specialization in livestock and agriculture production.

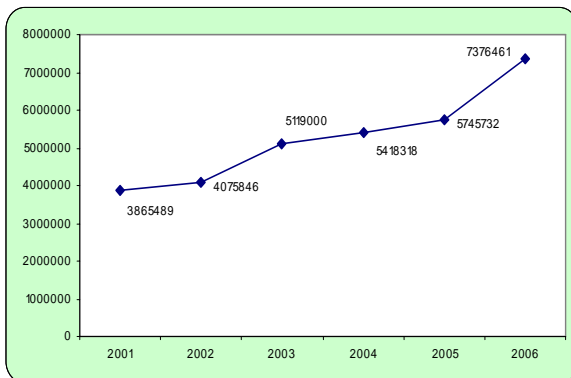
Graph 5: Trends of area planted, animals and fruit trees



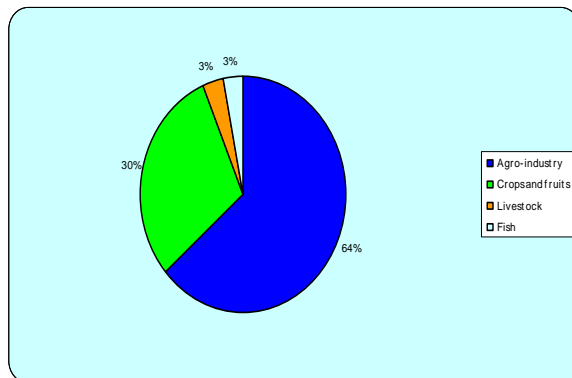
Some reallocation of development happened in different regions. In the regions of Korçe, Berat and Diber there fruit production grew very rapidly, in Fier grew livestock farming (milking cows), in Elbasan, Shkoder, Diber and Vlore grew small ruminants, in Shkoder and Lezhe pigs, in Fier, Tirane and Durres grew vegetable production, in Fier, Berat, and Vlore grew viticulture, etc. This is a regional development and specialization tendency.

There are some more or less clear tendencies for export as well. These tendencies are presented in the following tables and graphs (graphs 6 and 7).

Graph 6: Trend of exports

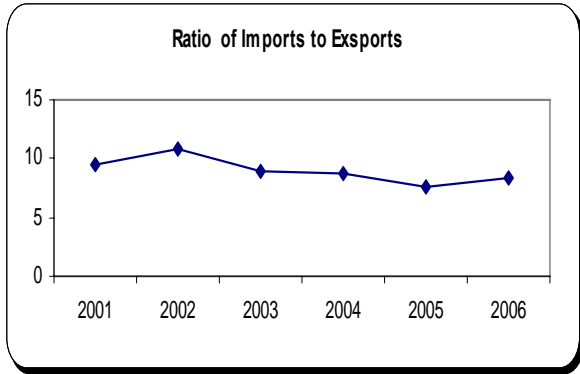


Graph 7: Structure of exports by sector in 2006



There is a clear tendency to increase the export, but it is dominated by processed products (very little fresh products). The most important export products are the vegetables. However, the exported quantities are very small and in some cases there is a tendency of decrease in some exported products.

Graph 8: Dynamic of the ratio import/export



A positive tendency in the ratio import/export is observed, mainly due to increase of exports. In the following table (table 8) it is demonstrated that the exports come mainly from dry apples, nuts, watermelon, etc., which are not the most important agriculture products in the country.

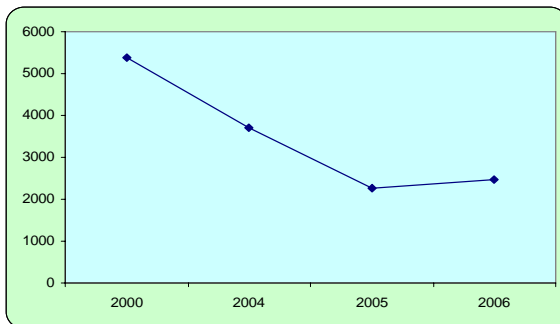
The low competitiveness of our products, mainly due to low quality, relatively high cost, and problems related to the safety of products, are the most important local handicaps for export.

## 1.11. Financial support in agriculture

### 1.11.1 Budget expenditure and investment in agriculture and food

As presented in the following graphic, the budget expenditure has a positive tendency until the year 2004, followed by a continuous decrease of the budget achieving the lower level in the year 2005.

Graph 9: Dynamics of total budget investment in agriculture



Source: Directory of Financial Planning, MAFCP, 2006

i- Since years a good stake of investment in the agribusiness sector in Albania has been through foreign loans and grant programs. World Bank, EU and various governments have been the major donor supporting Albania agribusiness sector. Associated with it, government of Albania has been contributing a portion of the investment cost under the local cost sharing.

ii- Trend of these investments since 2000 has been in decreasing, with a slight

increase in year 2006 as compared to year 2005.

iii- This situation calls for the emergent and new sources of support to agriculture. Local sources seem to be not sufficient as to compensate for the decrease in foreign sources, given that agriculture does not pertain to government's highest priorities for support. A detailed analysis of foreign and domestic investment and costs could be done based on the the related table in the annex.

iv- As for the agro-processing sector, during 2006 investment reached at 2045 million leks, but one could also observe a significant decrease of investment, at the figure of 30% as compared to year 2005. Major increases in investment during 2006 in the agro-processing sector have been in milk processing and bread making industry. Most of investment source have been private business, but it is to be mentioned that from 2006 one observes a faster increase of private bank loans for the agro-processing sector. See table 10 for details.

v- Private investment in the farming sector marks a rapid increase, as it is shown by Table 4 below. Bank loans have been increased more than 8 times as compared to year 2005, but there is a reduction of about 30% in investment by internal sources (savings). See table 4 for details.

Table 4: Private farming investment by sources

| Sources     | 2005    | 2006    | % increase |
|-------------|---------|---------|------------|
| Own savings | 1679585 | 1209351 | 72         |
| Bank loans  | 48278   | 411932  | 853        |
| Total       | 1727863 | 2077251 | 120.2      |

Source: Statistical Yearbook, 2006, MAFCP

This situation is a reflection of a positive change in the banking sector towards agriculture, but it reflects also the contribution of credits and grants given by a number of active projects in the area of agriculture

(Agricultural Services Project, 2KR, etc.). The good lesson we can draw from these facts is that some agriculture activities (mainly livestock and fruit-culture) have now started to become attractive to the banks.

### 1.11.3 Main agriculture policies and their results

Until now, the agriculture development policy is based on an indirect support. The main features of that policy are:

- i-Rehabilitation of infrastructures*
- ii-Create a favorable environment for the business*
- iii-Provide service to farmers*
- iv-Institutional strengthening*

*Indirect support* reflects the relative lack of credits and grants that could be given to farmers by the state. The indirect support is focused mainly in the rehabilitation of irrigation and drainage infrastructure, market infrastructure, and laboratory system. During the period 2000-2006, about 37 % of the foreign investments have been for irrigation infrastructure. Including the market infrastructure and laboratory network, these financements represent over 40 % of the total.

*The PHARE and 2KR Programs* are two other important components of the foreign investments during the same period. They have contributed to about 25 % of the total, especially for providing agriculture inputs (equipments, pesticides, seeds, etc).

Following these policies, is notably improved the irrigation and drainage capacity in agriculture. During that period, these policies are considered the most needed.

*Creation of a favorable environment for the business* concerns the privatization and liberalization of the economy and especially of agriculture sector. Land privatization and distribution (from ex-cooperatives and state agriculture farms) as well as the assets of agro processing enterprises, together with the liberalization of decision making of business, are the main columns of the favorable environment for the business. Fiscal facilities for the farmers as well as the process of land registration and titles have had an important impact on these developments. The policies for the development of information systems supported by different donors like USAID, GTZ, etc., have also been very important.

*Provide service to farmers* is mainly implemented through technical advice and extension service especially by the Dutch project. Thousands of farmers and agriculture specialists have been trained, and a new system and policy for agriculture extension service was conceived, approved and started to be implemented.

*Institutional strengthening* was implemented through transfer of know-how, new practices and technologies, training of technical staff and central administration in the Ministry and local structures. A special support was given by the foreign assistance for the elaboration of agriculture development programs and policies provide equipments, rehabilitation and construction of laboratory network for animal disease and food control, elaboration of legislation framework for the market economy, as well as approximation of agriculture legislation with EU.

During the year 2007, for the first time the Albanian farmers profit a grant for fruit growing and viticulture. This policy is expected to have notable impact for the increase of fruit and grape production and of the farm income.

Until now, the agriculture policies have had an important positive impact. There is clear evidence for a notable increase of the crop production yields, the agriculture sector is actually open to investors, the private initiative dominates the agriculture production, there is a great change and evolution in the farmers and agro processors mentality and business management capacity, the irrigation and drainage systems are considerably rehabilitated, there is an important improvement in providing farmers with agriculture inputs, the use of agriculture resources has become more efficient, the production structures, strategies and management, as well as the business decision making is strongly market oriented.

## **1.12. Short stakeholder analysis**

The Ministry of Agriculture, Food and Consumer Protection has been leading the agriculture development. The strategic priorities and policies have been supported by the central government and its institutions. An important support was given by the Ministry of Finance and the Ministry of Economy.

The MoAFCP have a good performance and staff motivation is ensured through adequate financial mechanisms. In general, there is need for future performance improvement, especially in regard of new integration engagements of the country, elaboration and implementation of more effective development policies. The MoAFCP should demonstrate more engagement in the future to a more efficient program elaboration and

implementation. A gradual, flexible process of capacity improvement, increase of knowledge and efficiency, is requested for this aim. A program of staff recruitment and training with a special target is very important to effectively respond to the requested actual and future level. The participator process in the planning, monitoring, implementation and evaluation activities of the MoAFCP, is very important. The democratic dialogue with all development actors, with farmers and their groups/associations is of crucial importance. The role of MoAFCP to facilitate the agriculture development will be further strengthened through its peripheral structures and the centers for agriculture technology transfer, that are expected to have strongest role and engagement in the future.

The MoAFCP has been constantly and effectively supported by a great number of development partners as the World Bank, USAID, EU, FAO, GTZ, Italian Cooperation, SNV, Spanish Cooperation, Japanese Government, etc. These important partners have supported the sustainable development of the Albanian agriculture, in the frame of a dynamic market and new regulatory frame. The Albanian government shares with donors and development partners the progress being made in the development of Albanian agriculture toward market economy and actually in the process of EU integration.

The future development concerns improvements in the communication, information exchange between MoAFCP and other institutions, as well as with international partners. The communication should be improved not only in programming activities but in the implementation process as well. This will ensure the agriculture support with constant new information and development projects which are very important for the development of Albanian agriculture in the future. A better communication and information exchange will help to an efficient coordination of all support activities and to match the efforts with strategic priorities. Starting from 2006, the MoAFCP has initiated a program to realize the coordination of actors and support activities, with the aim that the donors' financial support becomes more effective in the future. At the same time, the MoAFCP is making efforts to identify, schedule and facilitate all potential contribution and support and to include them in the strategy for agriculture development in the future.

### 1.13. Sector SWOT analysis

It is confirmed by different studies that the agriculture and agro processing sector has many advantages and a positive development tendency during years. This is a basis that must be considered in the programming activities for the future development of the sector. The following box summaries this analysis.

The most important explanations are the following:

i-The agriculture and agro processing sector are almost completely *private sectors*. It is a basic guarantee for the free development initiatives. The private initiative will continue to be the basis for future innovations, for constant support by international partners and different actors in the financial market. The private initiative is the most important guaranty for the sustainable development of the Albanian agriculture.

ii-Albania has very suitable *climatic, microclimatic and soil parameters*, diversified and rich biological resources, which are a good basis for safe and productive agriculture activities.

iii-In our country there is a *valuable and old agriculture tradition*, which effectively helps the strategic planning and development activities and is a strong basis for a constant development of agriculture.

iv-The agriculture population has a *relatively good education level*, which is a basis for the efficient agriculture production.

v-The Albanian agriculture have had a *considerable technical and financial support* during its difficult transition period. It has not only resolved very difficult and complex situations, but has also created new premises for effective and sustainable development in the future.

A realistic strategy must identify and evaluate objectively the sector weakness. The agriculture sector is suffering some inherent weakness created during the time. These weaknesses have a negative role in the development of the sector and at the same time constitute its proper specification. The weaknesses of the agriculture sector are:

*i- Small sized and fragmented farms.* This specific feature comes from the limited agriculture land in Albania and from the land reform that was implemented after the year 1990. This weakness will continue to be the major inhibitory factor for the development of the credit lines for the farmers, for the agriculture marketing, for the agro processing industry, and for the foreign investments in agriculture. It is very important that the agriculture development strategy and policies should be adapted to consider and to reduce the negative effect of this weakness.

*ii- A great number of farms and high agriculture population,* are another weakness of the sector. The management of the sector is consequently difficult, the employment policy is not effective, the management of the support schemes is difficult and costly, and is hard to elaborate the regulatory frame of the sector.

*iii- The new generation is not enough sensitive to agriculture activities.* This may create problems regarding the conservation and the development of the agriculture tradition and, furthermore, will be harmful for the sustainable use of the resources, especially of the agriculture land.

*iv- High diversification of farm production,* is one of the most important specific features of the Albanian agriculture. The main reason is the food insecurity of the farm families, the relatively high commercial risk for agriculture products and many difficulties in the agriculture marketing.

*v- Lack of direct financial support by the state.* During the transition period, the Albanian farmer has benefited from indirect support: privatization, liberalization, infrastructure, extension service, loans for equipments, grants, which however have been limited and not offered by the state. There have not been direct credits or subsidizes on agriculture products, inputs, land, export, etc.

However, the sector can benefit from the government program on rural roads which has a notable effect on agriculture marketing, from the big investments for the rehabilitation of irrigation and drainage systems, from the not used potentials in agro processing (especially in rural areas), from the support measures to promote the reciprocal collaboration between farmers, from the investments realized and programmed for rural markets and whole sale markets, from the public assistance and extension service, from public control and products certification.

More specifically, the agriculture sector can benefit from the support given in the frame of EU integration process, from the implementation of the SAA, etc. In the process of SAA, the Albanian economy, including agriculture and agro-processing can benefit from the two first components of IPA program. When Albania will achieve the status of the candidate

country, the benefit will be higher, because the IPARD program will be completed and the country becomes eligible for all its components. It is of crucial importance to fulfill the necessary and critical steps required by the program, such as the establishment of Payment Agency. It will be the EU support implementation structure of Albania for rural development in general, including agriculture activities.

Other factors and risks that can slow down the development of agriculture and agro processing sector are:

a- Potential delay in the resolution of the property conflicts and in the compensation of ex-owners. The situation of property will remain conflictual, the environment for business will be not favorable, the development of land market will be difficult, etc.

b- Insufficient foreign projects and programs to support agriculture development. The actual projects and programs will close by the end of 2009, and if are not identified new projects, the agriculture can be without donors support in the year 2010. It is so far important and emergent to identify, elaborate and propose new projects for agriculture development.

c- Delay in the approximation of Albanian legislation with *acquis communautaire*. There is insufficient local expertise to do this legal approximation and the cost is very high. There is a need to program, constantly implement and monitor all legal approximation activities.

d- It is indispensable to recruit technical young staff through more transparent and correct rules. It will increase and improve the results, better responding to the required quality level of the integration process. A new animation should be given to the agriculture development and integration process.

Of course, these are only potential risks that can be avoided if they are properly considered and correct measures are taken. In the frame of the Sector Strategy of Agriculture and Food, it is vital to avoid these risks in order to ensure a rapid and sustainable agriculture development.

## CHAPTER 2: THE VISION, PRIORITIES AND STRATEGIC GOALS

### 2.1 The Policy vision

Agricultural and agro-processing sectors should reach a higher production and competitiveness level, both in domestic and foreign markets, based on improvement of conditions for the private initiative, and also on a greater developing support, in a sustainable way, that is guaranteed by efficient institutions. They depend on technology and knowledge level and on effectiveness in using the land, labor, inputs, etc. The higher productivity and competitiveness are the foundations for the production enhancement, for improvement of market access for the farmers and agro-processing business, for income increase, and improvement of farmers' living standard and for their families - but not only theirs. Strategic vision of the SSAF (English acronyms for 'Sector Strategy of Agriculture and Food') sees the agricultural and agro-processing development in the perspective of European integration, that fosters the Government's vision for these sectors and that promises to meet better standards and demands for a faster integration of Albania into the EU.

### 2.2 Strategic priorities

The Sector Strategy of Agriculture and Food (SSAF) delineates five priorities, as shown in the box 1:

**Box 1: Strategic priorities**

- i. To increase the financial support for farms, agricultural and agro-processing businesses
- ii. To improve the management, irrigation, and drainage of agricultural land
- iii. To improve the marketing of agricultural and agro-processing products
- iv. To increase the level and quality of technologies, information, and knowledge of farmers and agro-processors
- v. To increase the quality and food safety of agricultural and agro-processing products

It is already clear that without a progressive escalation of financial support for farmers and agro-processors (as grants and loans for development, in order to enable and accelerate modernization of farms and businesses, to increase our products' productivity and competitiveness), progress will see poor rates. All the technical support that farmers and agro-businesses benefited so far in different ways (beginning with trainings

up to advice) have already improved 'the soft/program' for the development. Now, effectiveness and speed of this development will depend on interventions and improvements in the 'hard' system, i.e. in the technologic level improvement of production, which demands more direct investments. This is the reason why planning a larger financial support is considered a strategic priority.

Irrigation and drainage, up to now, took the 'lion's share' of the agriculture funds, as water is the main input for the agricultural production increase. Considering the actual situation, when the majority of irrigation and drainage system is still unsettled or inefficient, and by considering this factor's role, it will be necessary to complete and improve this process.

The market is the key factor leading to development stimuli for the production sectors. As identified in the first part, agricultural products' marketing is in outdated shape. In previous years, some development initiatives were implemented or are still ongoing, but they proved to be insufficient in increasing the agricultural marketing at the farm level or at required-standards market level. This makes it a special priority.

Technology and knowledge level (including information) is always a key factor for increasing the productivity, production itself, product's quality, to continue with competitiveness and market access degree for the farmers and agro-businesses. Although the technology level in farms and agro-businesses has considerably been improved compared to the first transitional years, it is still lower compared to other countries. For this reason, it is an important strategic priority.

Food safety for agricultural and agro-processed products is a crucial issue that deals with human beings living quality and consumer safety. The aspects of food safety are critical, very fragile and highlighted even in integration-related discussions of our country for joining the EU. Meanwhile, although we had improvements (as identified above), there are many critical elements and issues of food safety yet unconsolidated and still waiting for a further treatment. Therefore, guaranteeing a higher food safety for the population should be an absolute priority.

## 2.3 Strategic sub sectors

Strategic sub-sectors are those developed in a priority way. Basic factors considered in defining the priorities are: i) up to now trends of development, ii) the potential to get developed in the future, based in agro-climatic conditions and tradition, iii) impacts on the farmers' incomes, and iv) market conditions and competition (as a whole).

### Box 2: Strategic sectors

- ✓ **Fruit-growing (including olives) and viticulture**
- ✓ **Horticulture**
- ✓ **Livestock**
- ✓ **Industrial processing of fruits and vegetables**
- ✓ **Industrial processing of grapes**
- ✓ **Industrial processing of milk and meat**

Based on this, strategic sectors are as in box 2:

### Fruit-growing and viticulture

Fruit-growing and viticulture will be an important priority in agriculture development. There are many arguments in favor of that; but the main ones would be:

i) Albania used to have a fruit-growing and viticulture sector very developed (as for the production, productivity, and number of trees), and our country is not yet in the pre-transition period levels; ii) trends of recent years tell for accelerated increase of production and trees number, although it is not the same for the productivity; iii) profit margins are relatively higher; in some Korca areas, the farmers state that apple's cost of production is three times lower than sales price, and for the grape, this ratio is higher; iv) agro-climatic diversity and potential of Albania allow that in our county fruits be produced in a large variety; v) possibilities for generating added value (post harvest operations) in fruits and grapes are huge, and that will considerably increase farmers' profit margins; vi) our country imports huge quantities of fruits and grapes, so, lots of foreign currency is spent there. Therefore, fruits production increase (by priority) will have impacts on the trade deficit reduction, saving the foreign currency and investing it in the national economy; vii) finally, fruits consumption as part of the Albanian menu is growing and should grow more, that's why the demand for fruits will always be increasing.

This sub-sector could be developed even in new directions (non traditional) like strawberries, etc. that would be sold both in foreign and domestic markets.

Anyway, (in order to support this sub-sector) regional, climatic, and micro-zonal specifics will be considered; so that, it could generate maximal effects and to be fully coherent with the characteristics of environment, culture and growing tradition. Now, there is some research on regional specialization of trees and vine varieties that could be used to improve the situation if needed.

## **Horticulture**

Also, vegetables production will be a priority. In Albania, a large range of vegetables is produced. Horticulture as a priority is based on following arguments: i- although the domestic production is growing, that is still in deficits, the majority of vegetables that are consumed come from import, meaning foreign currency is spent, too; ii- Albania has good production potentials, with high expectations and low production cost, in many areas, there are fertile and appropriate lands, enough water, and expertise; iii- consumption demand for fresh domestic produce is never met, but the local products are more required compared to imported ones, if there is quality and safety; iv- farmers' profit margins are significant in vegetables growing, too.

## **Livestock**

Also, livestock sector is a priority. In fact, it is a sector with the fastest development during the transitional years. Livestock/dairy products make the basics of the food menu; and, this development came as a result of demands to meet crucial needs for human food. At the very beginning, this sector aimed at fulfilling the rural family needs, and now, livestock sector contributes mostly in meeting the consumers' demands (in general) including that urban, too. Anyway, livestock sector is considered as a priority for the following reasons: i- our country has optimal conditions to breed sheep, goats (in hilly and mountainous areas) and cows (in some flat areas); ii- our people have old traditions in livestock breeding; iii- productivity and efficiency in livestock sector are with problems which lead in search of policies that should be restructuring, orienting, regional, etc.; iv-

livestock/dairy products are very delicate and sensitive (in terms of food safety), therefore, policies dealing with management and animal health improvement are necessary.

Anyway, the support for the livestock sector will be differentiated, selective, based on specifics related to regions, breeds, products and their problems.

### **Industrial processing of fruits and vegetables**

Industrial processing of fruits and vegetables is closely related to the priority in fruits and vegetables production; but this is not the only reason it is considered a priority. Albania has no financial and technical capacities to build big industries; it could not establish compared advantages, for instance, in electronic industry (this comes, because it is a small market, too).

Our country should prioritize the fruits and vegetables processing because: i- fruits and vegetables domestically processed are in small quantities and foreign products prevail in the market; ii- with the fruits-growing and viticulture development, the relevant domestic raw materials will always be present; iii- developing this industry will ease the problems for the market of fruits and vegetables that farmers produce, this market will become more complex and agricultural offer will rapidly increase, hand by hand with the focus on fruits and vegetables; iv- their industrial processing will enhance possibilities for non-agriculture employment in urban areas, and in rural ones, as well; v- increase of processing industrial capacities will mean automatically increase of commercial demands for farm products; so, these three priorities cooperate dynamically, in a close cycle, consolidating and developing each other.

### **Industrial processing of grapes**

The priority of grapes production should go in parallel with the grape processing. Supporting grape industrial processing capacities would help to move the focus of processing from the farm houses into the processing plants that could well be in the farm's territory and owned by the farmers who produce grapes. This would influence the increase of Albanian wine quality and its competitive abilities, at least in the domestic market. Effects in reducing the trade deficit, and further, like payment, all would be significant.

### **Industrial processing of milk and meat**

Milk and meat industrial processing is actually among the most expanded industries in Albania. There have been important private investments and even with the updated technology. But in general, this sector suffers structural deficiency, while health conditions and food safety have still much room for improvements (regardless of developing interventions so far offered by the system). Priority support for this sector can be based on: i- the need to promote and guarantee food safety standards for this sector that are closely related with the requirements for entering the EU; ii- the need to answer better the actual production potential of the farming sector, but also considering the expected increase of supply of dairy products; iii- supporting the milk and meat industrial processing will generate strong incentives related to market demand and quality standards

for dairy products, i.e. it will motivate restructuring and innovative developments in livestock farms, in all livestock production system, and wider than that.

Anyway, the strategic sectors will be developed based on the studies identifying the most favorable areas and adequate support policies from the economic, social, and environment points of view; so that, the economic efficiency and productivity get higher, employment increases, environment be protected and production resources be well-used.

## 2.4 Strategic goals

Strategic purposes are long-term objectives that will be achieved by implementing the SSAF that guarantees agriculture and food be developed by the defined vision and based on strategic priorities and sectors as delineated above. The main goals of the SSAF are:

The SSAF should ensure a steady development of the land as the main agricultural resource and for agriculture itself. This means that land should be managed in a rational way, agriculture production and farmers' welfare should constantly go up. This also means that production resources, water, genetic resources, production livestock, fruit trees, agrarian environment, etc. will be better managed,

will be used more effectively and would not see any mismanagement; so that, their productive and generating abilities and life of next Albanian generations be saved. In a wider picture, sound agricultural development also supports country's firm economic development, social steadfastness and cohesion, biodiversity protection, and rural areas' life quality. Therefore, the sound agricultural development could not be left outside of SSAF's strategic goals.

### Box 3: Strategic goals

i. Sustained management of land, as a basic component for the sound agricultural development and completely in compliance with that

ii. Increase of employment, incomes, and farmers' and their families' life level

iii. Increase of agricultural and agro-processing sector's economic efficiency that is expressed through productivity enhancement and a higher quality of their products

iv. Guaranteeing a higher food safety standard for all the population

v- Improvement of the agricultural marketing

The SSAF is mainly an economic development strategy, but not limited there. None of strategies would have any meaning if that would not help in creating new jobs and not guaranteeing the farmers' life level go up as a result of its implementation. Specifically for Albania, employment in the agriculture sector is very limited and facing a lot of problems. Agriculture is the sector employing the majority of Albanians, but in the meantime, this employment sees strong seasonal fluctuations and employed people per hectare make a number which is among the highest in Europe. It suffices to say that agriculture labor productivity and incomes for an employee are very tiny. Therefore, employment and income increase is the essential part of the SSAF.

The economic efficiency is related with productivity of using productive factors and with the quality of produced goods, i.e. also with the cost level and sale prices. These are the basic factors of trade competitiveness and in selling the farmer's products. In order to increase efficiency, not only the availability of productive factors should be increased, but also a good compatibility should be realized. Otherwise, productivity and quality do not go up. Therefore, one of goals of the SSAF is to use more production factors in agriculture (fertilizers, mechanics, breeds, high potential seeds and seedlings) that all guarantee enhancement of productivity and quality as bases for production, incomes, and welfare increase.

High food standards of farm's and agro-processing products are unquestionable requirements of the SSAF. Health safety is vital, it is an absolute priority for the consumer, crucial requirement in negotiations and agreements that aim Albania's integration into the EU; therefore, guaranteeing the food-health safety is a strategic purpose for the SSAF.

Improving the agrarian marketing is an important moment because its upgrade tells about the public attention towards incentives of production and the latter coming from the demand. So, policies based on the demand or trade policies would occupy a special attention in political commitments of the country for the period covered by the SSAF.

The above-mentioned purposes will also help for a better food security in our country. Food security looks simple but its content is important. Regardless of the past colors and reminiscences, securing a critical food balance with the country's sources is always a strategic issue. Our country cannot be totally based on the market for resolving also the food security problem. Guaranteeing the food security is one of most spectacular fails for the market and this is accepted not only theoretically. In this context, it is the strategy's job to develop a harmonized and diversified agriculture; so that, in any time the country would be able to face emergent needs for basic commodities and not only for a limited time.

## CHAPTER 3: POLICIES

### 3.1 General policy concept for agricultural development of Albania

Agriculture strategy needs a clear conceptual political basis. Although the way, priorities and areas of interventions (through different policies, either public or private) are well-outlined in strategic plans (for many years) and in current ones (for one year), agriculture needs a more explicit and systematic reformulation concerning agriculture policy concept that should be implemented in Albania.

The new concept regarding agriculture policy should consist of important principles, as in box 1:

#### Box 4: The new policy concept

- Improve the participatory character of the policy-making process in all its steps: identification, drafting, approval, implementation, monitoring and evaluation.
- Ensuring the continuity of policy circle, by avoiding pauses and fractures; so that, agriculture support is secured and continuous.
- Higher focus on the direct support in order to enable 'the hit' in critical points, in the direct developing factors, such as technology (for agriculture production enhancement and improvement of its quality).
- Making obligatory and standardized monitoring and evaluation phase, in order to identify and evaluate effects of the policies and programs, as a condition not only for increasing commitment of policy management, but also to allow for higher effectiveness of development actions.
- Achievements or effects of development policies should be measured against SMART indicators.
- More attention for demand-oriented policies, and agriculture trade policies. In the future, a special focus should be dedicated to policies aiming at consumer's demand management, based on effectiveness it proved in other countries, and in some cases in our country, too.
- Integration of Millennium Development Objectives. Albania has officially agreed them, especially the objective of poverty reduction. This objective although not explicit, is implicitly reflected in above-mentioned principles for the new agriculture policy objective to increase productivity and employment in rural areas.

This reformulation, if accepted explicitly, would be an important condition for the agriculture strategy to be coherent, objective and to have remarkable effects on the results of agriculture and food development.

### 3.2 Policy instruments for agriculture development

A considerable and variable number of policy instruments will be needed to try or use in order to achieve the implementation of above-mentioned policies for meeting the strategic goals. Some of them would be:

- Loan schemes for investments in production technologies
- Grant schemes for agricultural inputs
- Drafting platforms for rural innovation at regional scale
- Establishing parallel partnerships (marketing associations of the farmers, local action groups)
- Establishing vertical partnerships (farmers and dealers or traders who cooperate in joint schemes of input sale/buying, and production and sale of commodities)
- Setting rules and improving monitoring in order to eliminate potential monopoly syndromes in the input market
- Facilitate licensing and reduce tax burden for dealers to increase the market competition
- Setting up farmers' field schools
- Strengthening the capacities for seeds and seedlings monitoring
- Subsidizing the interest rate (or introduce loan guarantee schemes) of private bank loans
- Sharing the local experience on production technologies, trading, and association organization
- Improvement of the AKIS system in different areas and throughout the country
- Motivating farmers to lobby in regional and country level
- Establishing local funds in order to motivate local initiatives
- Group discussions to identify ways how to foster the development of agro-tourism and organic products
- Market research to identify the *niche* markets
- Technical/financial assistance for activities that add value to farm products
- Public awareness campaigns
- Carrying out non-agriculture basic services in order to get the confidence and commitment of the community in agriculture projects
- Setting standards for the agriculture products
- Proposals for new projects in agriculture and agro-processing industry to ask for donor support
- Proposal changes or improvements in the legislation
- Improvement of activities for collecting, distribution, usage and publication of statistical information
- Improvements of procedures for on planning, monitoring, evaluating and publishing of policy implementation results
- Harmonization of the Albanian legislation with that of EU
- Applying the European norms and rules for food safety
- Improvement of agricultural information system

### **3.3 Policy approach for agriculture development**

Policy approaches that will be used in order to meet the objectives of the SSAF:

- Direct financial support
- Encouraging the intra sector resources
- Learning and linking
- Participation and dialogue with and between beneficiaries and stakeholders
- Empowering of beneficiaries through specific programs
- Create and consolidate a competitive business environment
- Stimulation of cooperation

### **Specific requirements for agriculture policies**

Meeting of strategic purposes could be identified only if some results or products are produced as a consequence of policy implementation. These results could be achieved only if proper policies are drafted or implemented; and these SSAF policies should be:

- a. **Specific**
- b. **Coherent with purposes and results**
- c. **Implementable, or being supported by sufficient resources**
- d. **Accepted, or supported by beneficiaries and related stakeholders**
- e. **Not distorting, or coherent with market mechanisms**

The system of indicators should make sure whether a defined policy has produced the right results; therefore, it is necessary that indicator system be complete, i.e. the indicators will:

- a) **Be specific**
- b) **Be measurable**
- c) **Be time bound**

In the following period, it will also be necessary that some important criteria of policy-making be better implemented, because in that way, this process will be healthier and it will generate higher effects for the sector's development. So, a policy will be carried out:

- If it contributes to the economic policy objectives
- If it has an influence on the increase of production and incomes

### **3.4 Agricultural policies according expected products**

Expected results or products for meeting every objective and relevant policies are listed in the following sections. In accordance with the strategy goals and expected results from the strategy implementation, the main policies that would enable the achievement of these results and purposes will be:

i- Sustainable management of land, as the basic component for developing a sustainable agriculture and in full coherence with it

*Results:*

1. The land reform is completed
2. Land damage is stopped and change of land destination is limited
3. Land management is improved
4. Land irrigation and drainage is improved

*Policies*

- Legal improvements dealing with land use and transfer
- Foreign and local public investments
- Strengthening of water users associations
- Strengthening the local government role (for land, water)
- Stimulating the private sector to get involved in setting up and managing small-scale private schemes of irrigation and drainage;
- Good agricultural practices
- Institutional strengthening for land management (land Inspectorate)
- Information system for land use
- Participation and empowering

ii- Improvement of employment, income and farmers' households' standard of living

*Results:*

1. Farm employment is increased
2. Farm incomes are increased
3. Farmers' living standard is improved

*Policies*

- Transfer of knowledge, skills, and experiences
- Loans and grants for farmers
- Information
- Mobilization of farmers' own savings. (Example in Albania: Saving and credit associations, Grameen Bank in Bangladesh)
- Establishment of rural markets
- Horizontal and vertical partnerships along the value chain

iii- Increase of efficiency of agriculture and agro-processing as reflected by the increase of the productivity and quality of products

**Results:**

1. Yields of important crops and livestock are increased
2. The cost for important crops and livestock (per unit) is reduced
3. Farmers' margins are increased

**Policies**

- Production loans and grants
- Stimulate introduction of new technologies
- Market information supply
- New knowledge and skills
- Open markets and competitive business environment
- Land consolidation
- Encouragement of specialization
- Improvement of rural road network
- Improve coordination among and the role of stakeholders

**iv- Guarantee a higher food safety standard for all the population**

**Results:**

1. Control legislation is improved
2. Control institutions are consolidated
3. Production technologies are improved
4. Production and marketing practices are improved
5. Quality of inputs and raw materials is improved.
6. Livestock management is improved

**Policies**

- Approximate or align the Albanian control legislation with that of EU
- Improve control labs and instruments
- Control staff more qualified and motivated
- The system of control agencies and offices is improved
- Loans and grants for investments, modern capacities in farms, trade and agro-processing
- Better extension service for agricultural and marketing good practices
- Support to the production quality agricultural inputs
- Awareness campaigns on food safety

**v- Improvement of agricultural marketing**

**Results**

1. Improvement of trade infrastructure
2. Increase farmers' negotiation power
3. Improve market monitoring and analysis

*Policies*

- Production and distribution of the reliable and timely information
- Construct new markets and set up collection points
- Promotion of parallel and vertical associations and partnerships
- Stimulation of post-harvest operations
- Encouragement of lobbying for appropriate farm policy
- Loans and grants for small agro-processing industries
- Fiscal relief for agro-businesses that settle in rural areas
- Setting up farmers' markets
- Consolidation of public structures for market monitoring and analyses
- Encouraging good production and marketing practices that improve commodity quality

## CHAPTER 4: ACCOUNTABILITY, MONITORING AND EVALUATION

### 4.1 General principles

Results from the strategy implementation will heavily depend on how much effective will be the modes and standards of monitoring and evaluation and for ensuring adequate accountability during the process of strategy implementation. To see results in this process; accountability, monitoring, and evaluation analysis:

- Will be considered and realized at each level of public management as an integral part of the integrated planning system.
- Will become obligatory by superior normative acts.
- Will be standardized in form, methods, reporting standards, and policies type.
- Will include (as integral part of a participatory and democratic process) other beneficiaries and actors involved; except for the implementation structures or agencies in conflict of interest.
- Will be based on a SMART-type system of products and indicators; explicit, preliminary approved and unchangeable during the monitoring or evaluation process.

### 4.2 Matrices of monitoring indicators

Following, there are formulated basic indicators for the evaluation of the results from the planned policies. As the tables show, for a considerable number of indicators, it is actually impossible to have estimates. This presumes that all statistics system should have necessary improvements or adaptations. This will make possible good monitoring and evaluation of the policy results. Also, we should emphasize that some indicators are impossible to be accurately predicted, because of their nature or because of the estimation complexity.

#### i- Sustainable management of land, as the basic component for developing a sustainable agriculture and in full coherence with it

Table 5: Results and indicators

| No | Results   | Indicators                                    | Basic level     | 2007 | 2008 | 2009 | 2010 | 2013 |
|----|---|---|-----------------|------|------|------|------|------|
| 1  | <b>Land reform is completed</b>   | 1.1 % of land registration and cadastre       | 87.5            |      |      |      |      |      |
|    |   | 1.2 % of approved ownership documents         | 97.2            |      |      |      |      |      |
|    |   | 1.3 State Inspectorate of Land is established | Na <sup>1</sup> | x    |      |      |      |      |
|    |   | 1.4 Land MIS is established                   | Na              |      | x    |      |      |      |
|    |   | 1.5 % of refused land                         | Ne              |      |      |      |      |      |
| 2  | <b>Land damage is stopped and change of land destination is limited</b> | 2.1 % of land threatened by erosion or floods | Ne              |      |      |      |      |      |
|    |   | 2.2 Land drainage is guaranteed (000 ha)      |                 |      |      | 120  |      | 280  |
|    |   | 2.3 Irrigation is improved in (000 ha)        | NA              |      |      | 120  |      | 360  |
|    |   | 2.4 Agriculture land per person (ha)          | 0.14            |      |      |      |      |      |
|    |   | 2.5 % of land with illegal constructions      | NE              |      |      |      |      |      |

<sup>1</sup> Na=Non-applicable, Ne=Non-existent (as data)

|   |  |   |  |      |      |      |      |      |
|---|--|---|--|------|------|------|------|------|
|   |  | 2.6 % of unused agricultural land                   | Ne   |      |      |      |      |      |
|   |  | 2.7 Cases of ownership conflicts                    | NE   |      |      |      |      | 0    |
| 3 | Land management is improved                  | 3.1 Tons of pesticides per 10 km2 agriculture land  | 0.63   | 0.63 | 0.65 | 0.70 | 0.75 | 0.80 |
|   |  | 3.2 Tons of fertilizers per 10 km2 agriculture land | 243  | 245  | 248  | 250  | 255  | 260  |
|   |  | 3.3 Farms implementing MIP                          | Ne   |      |      |      |      |      |
|   |  | 3.4 Farms implementing MIT                          | Ne   |      |      |      |      |      |
|   |  | 3.5 Farms implementing MIU                          | Ne   |      |      |      |      |      |
|   |  | 3.6 Farms implementing MIF                          | Ne   |      |      |      |      |      |
| 4 |  | Land irrigation and drainage is improved            | 5.1 % of irrigated land as per country scale | 27   |      |      |      |      |
|   | 5.2 % of drained land as per country scale   |   |  |      |      |      |      |      |
|   | 5.3 Drainage investments per 1000 ha         |   |  |      |      |      |      |      |
|   | 5.4 Irrigation investments per 1000 ha       |   |  |      |      |      |      |      |
|   | 5.5 Water quantity used per (ha) arable land |   |  |      |      |      |      |      |

## ii- Improvement of employment, income and farmers' households standard of living

Table 6: Results and indicators

| No | Results                              | Indicators   | Basic level | 2007 | 2008 | 2009 | 2010 | 2013 |
|----|--------------------------------------|--|-------------|------|------|------|------|------|
| 1  | Farm employment is increased         | 1.1 Work days for an employed person in a farm           | Ne          |      |      |      |      |      |
|    |                                      | 1.2 Work days per one (ha) of land                       | 338         |      |      |      |      |      |
|    |                                      | 1.3 Index of seasonal/temporary work                     | Ne          |      |      |      |      |      |
|    |                                      | 1.4 Time length of daily work (in hours)                 | Ne          |      |      |      |      |      |
|    |                                      | 1.5 Work days for post-harvesting operations             | Ne          |      |      |      |      |      |
|    |                                      | 1.6 Work days for food processing in home                | Ne          |      |      |      |      |      |
| 2  | Farm incomes are increased           | 2.1 Gross incomes per person (from farm)                 | Ne          |      |      |      |      |      |
|    |                                      | 2.2 Incomes from sales per person (000 leke)             | 45          |      |      |      |      |      |
|    |                                      | 2.3 Gross incomes for a hired person                     | Ne          |      |      |      |      |      |
|    |                                      | 2.4 Gross incomes from sales for a hired person          | Ne          |      |      |      |      |      |
|    |                                      | 2.5 Farms with multifunctional elements                  | Ne          |      |      |      |      |      |
|    |                                      | 2.6 Farms with many-activity elements                    | Ne          |      |      |      |      |      |
|    |                                      | 2.7 Farms with agro-processing business                  | Ne          |      |      |      |      |      |
| 3  | Farmers' living standard is improved | 3.1 % of farmers under the poverty line                  | Ne          |      |      |      |      |      |
|    |                                      | 3.2 Inequality index (Xhin)                              | Ne          |      |      |      |      |      |
|    |                                      | 3.3 % people in agriculture with middle school education | Ne          |      |      |      |      |      |

## iii- Increase of efficiency of agriculture and agro-processing as reflected by the increase of the productivity and quality of products

Table 7: Results and indicators

| No | Results   | Indicators                                   | Basic level | 2007 | 2008 | 2009 | 2010 | 2013 |
|----|---|--|-------------|------|------|------|------|------|
| 1  | Yields of important crops and livestock are increased         | 1.1 Yield of vegetables kv/ha                | 223         | 228  | 232  | 233  | 235  | 240  |
|    |   | 1.2 Yield of fruits                          | 21          | 18   | 22   | 23   | 23   | 26   |
|    |   | 1.3 Yield of grapes                          | 97          | 100  | 99   | 101  | 104  | 118  |
|    |   | 1.4 Yield of olive kg/tree                   | 12          | 9    | 12   | 11   | 15   | 18   |
|    |   | 1.4 Yield of dairy cow liter/cow             | 2275        | 2400 | 2530 | 2670 | 2800 | 3000 |
|    |   | 1.5 Yield of dairy sheep liter/sheep         | 53          | 55   | 57   | 58   | 59   | 60   |
|    |   | 1.6 Yield of dairy goat liter/goat           | 100         | 102  | 103  | 104  | 106  | 110  |
|    |   | 1.7 Yield of meat per cattle kg/animal       | 165         | 170  | 175  | 180  | 190  | 200  |
|    |   | 1.8 Yield of meat per sheep/goats            | 16          | 16   | 17   | 17   | 18   | 24   |
|    |   | 1.9 Farms with greenhouses                   | 5341        | 5350 | 5336 | 5380 | 5450 | 5580 |
|    |   | 1.10 Area with greenhouses, ha               | 695         | 740  | 790  | 850  | 1100 | 1300 |
|    |   | 1.11 Livestock farms with intensive breeding | Ne          | x    | x    | x    | x    | x    |
| 2  | Cost for important crops and livestock (per unit) are reduced | 2.1 Tomato cost reduced %                    | Ne          | X    | x    | x    | x    | x    |
|    |   | 2.2 Watermelon cost reduced %                | Ne          | x    | x    | x    | x    | x    |
|    |   | 2.3 Apple cost reduced %                     | 27          | 3    | 8    | 2    | 2    | 6    |
|    |   | 2.4 Grapes cost reduced %                    | 20          | 3    | 1    | 2    | 3    | 8    |
|    |   | 2.9 Olive cost reduced %                     | 45          | 2    | 18   | 1    | 13   | 1    |
|    |   | 2.5 Dairy cow cost reduced %                 | 2           | 0    | 0    | 2    | 3    | 5    |
|    |   | 2.6 Dairy sheep cost reduced %               | 17          | 0    | 0    | 0    | 0    | 0    |

|   |                                       |   |     |    |   |   |    |    |
|---|---------------------------------------|---|-----|----|---|---|----|----|
|   |                                       | 2.7 Dairy goat cost reduced %             | 14  | 0  | 0 | 0 | 0  | 0  |
|   |                                       | 2.8 Cost of meat per cattle reduced %     | 200 | 0  | 0 | 0 | 4  | 6  |
|   |                                       | 2.9 Cost of meat per sheep/goat reduced % | 200 | 0  | 0 | 0 | 3  | 5  |
| 3 | <b>Farmers' margins are increased</b> | 3.1 For apple                             | Ne  | 5  | 7 | 5 | 10 | 13 |
|   |                                       | 3.2 For grapes                            | Ne  | 10 | 6 | 6 | 10 | 13 |
|   |                                       | 3.3 For cow milk                          | Ne  | 5  | 5 | 6 | 7  | 7  |
|   |                                       | 3.4 For sheep milk                        | Ne  | 5  | 5 | 6 | 10 | 12 |
|   |                                       | 3.5 For goat milk                         | Ne  | 5  | 5 | 6 | 15 | 20 |
|   |                                       | 3.6 For cattle meat                       | Ne  | 10 | 8 | 5 | 15 | 20 |
|   |                                       | 3.7 For sheep/goat meat                   | Ne  | 15 | 8 | 7 | 15 | 18 |

## iv- Guarantee a higher food safety standard for all the population

Table 8: Results and indicators

| No  | Results   | Indicators  | Basic level                      | 2007                                   | 2008  | 2009  | 2010  | 2013  |
|---|---|---|----------------------------------|--|-------|-------|-------|-------|
| 1   | <b>Control legislation gets improved</b>                | 1.1 New laws are drafted                          | 2                                | 8                                      | 2     | 2     | 3     | 5     |
|   |   | 1.2 New by-laws are drafted                       | Na                               | 7                                      | 18    | 17    | 18    | 26    |
|   |   | 1.3 Existing laws are improved                    | Na                               | 1                                      | -     | -     | -     | -     |
|   |   | 1.4 Existing by-laws are improved                 | 62                               | 7                                      | 12    | 21    | 5     | 27    |
|   |   | 1.5 Improved standards                            | Ne                               | 0                                      | 3     | 5     | 8     | 8     |
|   |   | 1.6 Compatible legal acts                         | 16                               | 7                                      | 10    | 8     | 8     | 14    |
|   |   | 1.7 Compatible legislation pages                  | 906                              | 465                                    | 552   | 569   | 514   | 1263  |
| 2   | <b>Control institutions are strengthened</b>            | 2.1 Control labs in total                         | 13                               | 13                                     | 13    | 13    | 13    | 13    |
|   |   | 2.2 Labs adaptation (mln leke)                    | Ne                               | 83                                     | 33    | 36    | 35    | 40    |
|   |   | 2.4 Microbe pathogene incidence %                 | 1.9                              | 1.9                                    | 1     | 1     | 1     | 1     |
|   |   | 2.5 Inspections per year (food safety)            | 23400                            | 24500                                  | 25500 | 26500 | 27500 | 30000 |
|   |   | 2.6 Inspections per year (plant protection)       | 450                              | 500                                    | 500   | 550   | 550   | 600   |
|   |   | 2.7 Inspections per year (veterinary)             | Ne                               | 2800                                   | 3000  | 3000  | 3000  | 3000  |
|   |   | 2.8 Inspections per inspector of food safety      | 200                              | 220                                    | 240   | 260   | 280   | 360   |
|   |   | 2.9 Inspections per inspector of plant protection | 300                              | 300                                    | 300   | 330   | 330   | 350   |
|   |   | 2.10 Inspections per inspector of veterinary      | 10                               | 10                                     | 10    | 10    | 10    | 10    |
|   |   | 2.11 MIS for plant protection                     | Ne                               |  | x     |       |       |       |
|   |   | 3   | <b>Technologies get improved</b> | 3.1 No of businesses developing HACCAP | 14    | 16    | 18    | 20    |
| 3.2 No of businesses with certificate ISO | 18  |   |                                  | 20                                     | 23    | 25    | 26    | 30    |
| 3.3 No of food poisoning                  | Ne  |   |                                  | 0                                      | 0     | 0     | 0     | 0     |
| 3.4 Grants and loans for agro processing  | 21  |   |                                  |  |       |       |       |       |
| 4   | <b>Production and marketing practices are improved</b>  | 4.1 Businesses with good production practices     | 24                               | 28                                     | 32    | 40    | 50    | 55    |
|   |   | 4.2 Businesses with good trading practices        | 300                              | 300                                    | 350   | 350   | 400   | 450   |
|   |   | 4.3 No of cows inseminated                        |                                  |  |       |       |       |       |
|   |   | 4.7 No of chemical sprays in trees                | 4                                | 4                                      | 6     | 6     | 7     | 8     |
|   |   | 4.8 No of chemical sprays in vegetables           | 3                                | 3                                      | 3     | 4     | 5     | 7     |
| 5   | <b>Quality of inputs and raw materials is improved.</b> | 5.1 % of certified seedlings                      | Ne                               |  |       |       |       |       |
|   |   | 5.2 % of certified seeds                          | Ne                               |  |       |       |       |       |
|   |   | 5.3 Complaining cases for the seed quality        | Ne                               |  |       |       |       |       |
|   |   | 5.4 Complaining cases for the seedling quality    | Ne                               |  |       |       |       |       |
|   |   | 5.5 Complaining cases for the pesticide quality.  | 4                                | 4                                      | 4     | 5     | 5     | 5     |
|   |   | 5.6 Complaining cases for the fertilizer quality  | Ne                               |  |       |       |       |       |
| 6   | <b>Livestock management is improved</b>                 | 6.1 % of registered cattle                        | 13.5                             | 15.7                                   | 30    | 46    | 61    | 90    |
|   |   | 6.2 % registered sheep and goat                   | 2.6                              | 6.4                                    | 42    | 97    | 100   |       |
|   |   | 6.3 Farm diagnosing (000)                         | Ne                               | 470                                    | 200   | 150   | 150   | 110   |
|   |   | 6.4 Traced livestock for tuberculosis (000)       | Ne                               | 700                                    | 100   | 100   | 100   | 100   |
|   |   | 6.5 Traced livestock for brucellosis (000)        | Ne                               | 400                                    | 100   | 50    | 10    | 10    |
|   |   | 6.6 Vaccinated animals for anthrax                | Ne                               | 100                                    | 100   | 100   | 100   | 100   |

|  |   |     |     |      |     |     |     |
|--|---|-----|-----|------|-----|-----|-----|
|  | (000)   |     |     |      |     |     |     |
|  | 6.7 Vaccinated animals for brucellosis (000)  | Ne  | 65  | 65   | 65  | 65  | 65  |
|  | 6.8 Vaccinated animals for pestilence (000)   | Ne  | 50  | 50   | 50  | 50  | 50  |
|  | 6.9 No of registered cattle (000)             | 80  | 100 | 650  | 0   | 0   | 0   |
|  | 6.10 No of registered sheep and goat (000)    | 70  | 180 | 2700 | 0   | 0   | 0   |
|  | 6.11 Monitoring of residues in livestock      | 100 | 100 | 100  | 100 | 100 | 100 |
|  | 6.12 Monitoring of water and Bivalve mollusks | 100 | 100 | 100  | 100 | 100 | 100 |

## v- Improvement of agricultural marketing

Table 9: Results and indicators

| No | Results                                    | Indicators   | Basic level | 2007 | 2008 | 2009 | 2010 | 2013 |
|----|--|--|-------------|------|------|------|------|------|
| 1  | <b>Improvement of trade infrastructure</b> | 1.1 Establishment of wholesale markets   | 4           | 3    | 1    | 1    | 1    | 1    |
|    |  | 1.2 Establishment of consolidation centers   | 3           | 2    | 3    | 4    | 2    | 2    |
|    |  | 1.3 Establishment of farmers markets   |             |      |      |      |      |      |
| 2  | <b>Increase farmers' negotiation power</b> | 2.1 Farmer associations organized  | 370         | 10   | 11   | 15   | 12   | 11   |
|    |  | 2.2 Loans or grants for post-harvest operations  | 7           | -    | -    | -    | -    | -    |
|    |  | 2.3 Informative leaflets   | 4           | 1    | 1    | 2    | 2    | 2    |
|    |  | 2.4 Marketing workshops  | 6           | 2    | 3    | 4    | 4    | 5    |
| 3  | Improve market monitoring and analysis     | 2.1 Setting up the Agency for Wholesale Markets (tentative, if based on arguments)       |             | 1    | -    | -    | -    | -    |
|    |  | 2.2 Sector of Marketing is established at the MoAFCP ( if it would be enough convincing) |             |      | x    |      |      |      |
|    |  | 2.3 Study regarding markets is completed   |             | x    |      |      |      |      |
|    |  | 2.4 System of monitoring indicators is established                                       |             |      | x    |      |      |      |
|    |  | 2.5 MoAFCP annual statistics Report is modified  |             | x    |      |      |      |      |

## CHAPTER 5: IMPLICATIONS FOR THE RESOURCES

### 5.1 Methods for strategy costing

As there are no clear elaborated methodologies for the sector strategy costing, defining the costs is the most complicated issue of the SSAF. This is so because we deal with a multidimensional plan, a long-term planning that involves much uncertainty, a strategy that includes a considerable number of sectors and sub-sectors, results, policies, and indicators. In the majority of cases, it is not possible to know the cost for each of the indicator's unit, for instance, to calculate how much money need to be spent to increase the fruits yield by one kg per one tree; or how much money is needed to repair a damn; often, these questions could be difficult to ask.

Because of these difficulties, to do the strategy costing we used an indirect way of calculations, instead of a direct one.

The indirect approach could be applied in three different ways:

- a. Based on the expectations of investments and costs
- b. Based on the expectations of investment elasticity for key indicators
- c. Based on the final levels (of year 2013), pre-defined for the main targets

The first approach is the simplest one but its main shortcoming is that it doesn't guarantee a link between the expenses or investment level and the predicted level for the indicators. Also, estimations for investment expectations are usually subjective and result of evaluations (mainly non-quantitative) of the growth rates, based on the quality of business climate, features and rates of change for both investment and production in the past, etc.

The second approach could be based on expectation (in %) of increase for levels of investment elasticity for indicators. For the SSAF case, such indicators could be yields for main products, and farm gate prices; because in the level of these indicators are reflected costs for unit of production, its quality, the competitiveness, market access, standards of applied technologies, income per capita, and, in some extent, the food safety.

The third approach would require the main targets level for the year 2013 to be defined. These levels are not predictions of where these indicators in 2013 will be, but predictions of where *we want* to be in 2013. Based on that, beginning from the end, the predictions for any indicator is done for each year of the strategy to continue with the the cost estimation. In this way, the problem is that the estimation exercise could result in unrealistic figures, impossible to support, because targeting does not consider the real opportunities for development generation of investments.

### 5.2 Three costing scenarios

Cost calculation for the SSAF is done based on the second method, that of investment elasticity for crops, fruit growing, livestock and agroindustry. Between growth rate and needs for investments for any of the four sectors, it is supposed that there are linear relationships. Based on this method, three individual cost scenarios and one pooled scenario are elaborated:

#### Passive scenario (PS)

This scenario presumes the lowest level of cost efficiency. In elasticity terms, for agriculture and livestock the elasticity of investments is 0.5%, for fruit growing it is 1%, and for agro-processing 2%.

The average elasticity, based on the volume occupied against gross agricultural product, agriculture, livestock, fruit growing, and agro-processing (respectively 36, 37 and 9, and 18%) is calculated to be 0.82%. So, for each 1% increase of investments, it is expected that production is increased with 0.82% or for each 1% of production increase it could be required that investments could be grown with about 1.23%.

Table 10: Cost for the first scenario

| Component                    | 2007        | 2008        | 2009        | 2010        | 2011-2013    |
|------------------------------|-------------|-------------|-------------|-------------|--------------|
| <b>Agriculture</b>           | 2           | 2           | 2           | 2           | 5            |
| <b>Livestock</b>             | 3           | 3           | 4           | 4           | 10           |
| <b>Fruit growing</b>         | 6           | 8           | 10          | 10          | 20           |
| <b>Agro-processing</b>       | 5           | 6           | 6           | 7           | 20           |
| <b>Total</b>                 | 3.27        | 3.62        | 4.17        | 4.35        | 10.9         |
| <b>% progressive</b>         | x           | 3.62        | 7.79        | 12.14       | 23.04        |
| <b>% investment increase</b> | x           | 4           | 10          | 15          | 28           |
| <b>Planned budget</b>        | <b>5516</b> | <b>5762</b> | <b>6314</b> | <b>7256</b> | <b>23826</b> |

Considering as a base-line the expenses plan plus investments for the year 2007 with 5516 million leke, the strategy budget according this scenario would be:

### Mean Scenario (MS)

This scenario presumes the lowest possible level of cost efficiency. In elasticity terms, for agricultural production it is 0.5%, for livestock production elasticity is 1%, for fruit growing it is 2% and for agro-processing 2.5%.

Table 11: Cost for the second scenario

| Component                    | 2007        | 2008        | 2009        | 2010        | 2011-2013    |
|------------------------------|-------------|-------------|-------------|-------------|--------------|
| <b>Agriculture</b>           | 2           | 2           | 2           | 2           | 5            |
| <b>Livestock</b>             | 3           | 3           | 4           | 4           | 10           |
| <b>Fruit growing</b>         | 6           | 8           | 10          | 10          | 20           |
| <b>Agro-processing</b>       | 5           | 6           | 6           | 7           | 20           |
| <b>Total</b>                 | 3.27        | 3.62        | 4.17        | 4.35        | 10.9         |
| <b>% progressive</b>         | x           | 3.62        | 7.79        | 12.14       | 23.04        |
| <b>% investment increase</b> | x           | 3           | 7           | 10          | 20           |
| <b>Planned budget</b>        | <b>5516</b> | <b>5686</b> | <b>6062</b> | <b>6688</b> | <b>21373</b> |

The average elasticity, based on the volume occupied against gross agricultural product, agriculture, livestock, fruit growing, and agro-processing (respectively 36, 37 and 9, and 18%) is calculated to be 1.18%. So, for each 1% of investment increase it is expected that production is increased with 1.18%, or for each 1% of production increase could be required that investments be grown with about 0.85%.

### Optimistic (or aggressive) scenario (OS)

This scenario presumes the highest possible level investment or cost efficiency. In elasticity terms, for the agricultural production 1%, for the livestock production investment elasticity is calculated 2%, for fruit growing production it is 3%, and for agro-processing 3%. The average elasticity, based on the volume occupied against gross agricultural product, agriculture, livestock, fruit growing, and agro-processing (respectively 36, 37 and 9, and 18%) is calculated to be 1.91%. So, for each 1% of investment increase it is expected that production is increased with 1.91%, or for each 1% of production increase could be required that investments be grown with about 0.52%.

Table 12: Cost for the third scenario

| Component             | 2007        | 2008        | 2009        | 2010        | 2011-2013    |
|-----------------------|-------------|-------------|-------------|-------------|--------------|
| Agriculture           | 2           | 2           | 2           | 2           | 5            |
| Livestock             | 3           | 3           | 4           | 4           | 10           |
| Fruit growing         | 6           | 8           | 10          | 10          | 20           |
| Agro-processing       | 5           | 6           | 6           | 7           | 20           |
| <b>Total</b>          | 3.27        | 3.62        | 4.17        | 4.35        | 10.9         |
| % progressive         | x           | 3.62        | 7.79        | 12.14       | 23.04        |
| % investment increase | x           | 2           | 4           | 6           | 12           |
| <b>Planned budget</b> | <b>5516</b> | <b>5620</b> | <b>5847</b> | <b>6217</b> | <b>19395</b> |

### 5.3 Integrating three scenarios, or Most Expected Scenario (MES)

The pessimistic scenario is evaluated to have the probability 30%; the normal scenario estimated with probability 50%, and the optimistic one with the probability 20%. These probabilities help us integrate the three individual scenarios in a forth one, that would be called Scenario with Rational Expectation (SRE), or Most Expected Scenario (MES) that combines the features of three individual scenarios.

Table 13: Cost for the "average" scenario

| Component             | 2007        | 2008        | 2009        | 2010        | 2011-2013    |
|-----------------------|-------------|-------------|-------------|-------------|--------------|
| Agriculture           | 2           | 2           | 2           | 2           | 5            |
| Livestock             | 3           | 3           | 4           | 4           | 10           |
| Fruit growing         | 6           | 8           | 10          | 10          | 20           |
| Agro-processing       | 5           | 6           | 6           | 7           | 20           |
| <b>Total</b>          | 3.27        | 3.62        | 4.17        | 4.35        | 10.9         |
| % progressive         | x           | 3.62        | 7.79        | 12.14       | 23.04        |
| % investment increase | x           | 3           | 7           | 11          | 21           |
| <b>Planned budget</b> | <b>5516</b> | <b>5695</b> | <b>6094</b> | <b>6758</b> | <b>21672</b> |

#### Notes:

- a- There was not any adjusting of specific weight of production components against the total in years. If done, as the fruit growing and agro-processing have a faster increase, there would be changes in the budget, but not so considerable.
- b- It is thought to have proportional dependence between expenses and production increase.
- c- If supposed to have other increase in % of different sectors, also the results will change.
- d- Results depend also from supposed elasticity

If we compare with the approved expenses ceilings, at least for the period 2008-2010 for the PBA, a considerable gap results between what is required to provide (according to this cost method), sufficient development rhythms and these ceilings. These are shown in the following table:

Table 14: Summary of the four scenarios

| Scenarios            | 2008 | 2009  | 2010  |
|----------------------|------|-------|-------|
| 1                    | 5762 | 6314  | 7256  |
| 2                    | 5686 | 6062  | 6688  |
| 3                    | 5620 | 5847  | 6217  |
| MES                  | 5695 | 6094  | 6758  |
| Ceilings of PBA      | 4958 | 4337  | 4747  |
| Differences from MES | -737 | -1757 | -2011 |

## 5.4 Critical issues related with costing

Regardless of calculations, achievement of the strategy targets in satisfying levels will depend on a number of critical issues. Among them, the following are mentioned:

- Identifying new development projects
- Progress with the SSA (in relation to IPA)
- Monitoring and evaluation (projects effectiveness)
- Ensuring participation in all the policy cycle
- Administrative restructuring and consolidation could be a critical issue, because quality of human resources and implementing structures will be crucial to achieve the policy objectives.

Identifying new projects is crucial because strategic cost gaps are considerable; in 2009 almost all actual projects come to an end. Otherwise, a larger public contribution is needed regarding the investments in agriculture, to ensure continuous and sustainable agricultural development.

Investments for technologies and more reliable information and better extension service will have to play a major role in the public investment structure for agriculture; on the other hand, it is not expected a quick activation of the private credit system in agriculture.

Mobilization of savings within the sector will have a special support and it is expected to improve the agriculture development financial burden. Rural Innovation Platforms (RIP) and partnerships, like Local Action Groups (LAG), are supposed to play a special role in this regard, too.

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## Annex 1: Tables

Table 15: Change in area planted (year 1992 100%)

| Area       | 1992  | 2000  | 2005  | 2006  |
|------------|-------|-------|-------|-------|
| Wheat      | 100.0 | 108.7 | 80.0  | 70.1  |
| Vegetables | 100.0 | 113.1 | 112.1 | 106.2 |
| Potato     | 100.0 | 126.7 | 112.2 | 105.6 |
| Foragges   | 100.0 | 103.1 | 119.4 | 121.9 |
| Fruit      | 100.0 | 140.8 | 181.0 | 198.2 |
| Olives     | 100.0 | 140.8 | 150.8 | 155.8 |
| Grape      | 100.0 | 74.5  | 107.2 | 111.7 |
| Cow milk   | 100.0 | 138.2 | 132.6 | 129.5 |
| Sheep milk | 100.0 | 117.5 | 106.5 | 115.7 |
| Goat milk  | 100.0 | 93.3  | 81.7  | 81.6  |
| Eggs       | 100.0 | 170.9 | 195.3 | 191.1 |

Table 16: Change in yields (year 1992 100%)

| Area       | 1992  | 2000  | 2005  | 2006  |
|------------|-------|-------|-------|-------|
| Wheat      | 100.0 | 125.0 | 129.5 | 122.5 |
| Vegetables | 100.0 | 98.7  | 109.9 | 116.1 |
| Potato     | 100.0 | 169.0 | 201.6 | 204.5 |
| Foragges   | 100.0 | 152.7 | 134.2 | 143.2 |
| Fruit      | 100.0 | 130.3 | 144.5 | 174.8 |
| Olives     | 100.0 | 127.6 | 98.9  | 128.7 |
| Grape      | 100.0 | 400.6 | 511.9 | 548.9 |
| Cow milk   | 100.0 | 116.7 | 138.1 | 147.5 |
| Sheep milk | 100.0 | 103.2 | 110.3 | 113.0 |
| Goat milk  | 100.0 | 103.0 | 109.0 | 116.5 |
| Eggs       | 100.0 | 115.0 | 135.4 | 136.3 |

**Table 17: The production value by sector (prices, year 2000)**

| Sector             | 2000   | 2001   | 2002   | 2003   | 2004   | 2005   | 2006 <sup>2</sup> |
|--------------------|--------|--------|--------|--------|--------|--------|-------------------|
| Agriculture        | 177704 | 180235 | 184353 | 189464 | 195861 | 198897 | 205622            |
| Agro processing    | 27834  | 29995  | 33913  | 37358  | 41549  | 43909  | 48 252            |
| Total              | 205538 | 210230 | 218266 | 226822 | 237410 | 242806 | 253874            |
| Agro industry in % | 13.5   | 14.3   | 15.5   | 16.5   | 17.5   | 18.1   | 19.0              |

Source: Statistical yearbook, MoAFCP 2005

**Table 18: Number of agro - processing enterprises and of employees in agro - processing sector**

|                              | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|------------------------------|------|------|------|------|------|------|------|
| <b>Number of enterprises</b> | 1844 | 1950 | 1972 | 1937 | 2021 | 2060 | 2053 |
| <b>Number of employees</b>   | 9076 | 8655 | 8783 | 9371 | 9933 | 9866 | 9995 |

Source: Statistical yearbook, MoAFCP 2005, 2006

**Table 19: Investment in agro-processing**

| Year | Investment for (Million Lek) |              | Total | Financial source  |                | (Million Leke) Own Investment |
|------|------------------------------|--------------|-------|-------------------|----------------|-------------------------------|
|      | Technology                   | Construction |       | Local Bank Credit | Foreign Credit |                               |
| 2001 | 772                          | 249          | 1021  | 29                | 20             | 972                           |
| 2002 | 443                          | 569          | 1012  | 102               | 8              | 902                           |
| 2003 | 1124                         | 968          | 2092  | 386               | 494            | 1212                          |
| 2004 | 1994                         | 691          | 2685  | 595               | 788            | 1302                          |
| 2005 | 1804                         | 1112         | 2916  | 1443              | 237            | 1236                          |
| 2006 | na                           | na           | 2045  | 314               | 0.44           | 1731                          |

Source: Statistical yearbook, MoAFCP 2005

**Table 20: Exports, by region and years, in millions lek**

| Area          | Exports |         |         | Increase 2006% against 2005 | Imports  |          |          | Increase 2006% against 2005 |
|---------------|---------|---------|---------|-----------------------------|----------|----------|----------|-----------------------------|
|               | 2004    | 2005    | 2006    |                             | 2004     | 2005     | 2006     |                             |
| Regional area | 1126188 | 1134306 | 1520157 | 134                         | 2244135  | 2170458  | 4134768  | 190.5                       |
| EU countries  | 3683850 | 3881265 | 4524309 | 116.6                       | 28739811 | 24491514 | 32109396 | 131.1                       |
| Other         | 338004  | 551409  | 1109829 | 201.3                       | 11919807 | 15783483 | 16945956 | 107.4                       |
| Total         | 5148042 | 5566980 | 7154295 | 128.5                       | 42903753 | 42445455 | 53190120 | 125.3                       |

Source: Statistical Yearbook, 2006, MAFCP

<sup>2</sup> Not final

Table 21: Growth of major agricultural components  
(in millions lek - constant 2000 year prices)

| Subsectors    | 2000    | 2004    | 2005    | 2006 <sup>3</sup> |
|---------------|---------|---------|---------|-------------------|
| Livestock     | 77,426  | 89,587  | 90,529  | 93664             |
| Arable crops  | 84,371  | 85,301  | 86,982  | 86992             |
| Fruit-culture | 15,916  | 20,973  | 21,386  | 24967             |
| Total         | 177,713 | 195,861 | 198,897 | 205622            |

Source: Statistical Yearbook, 2006, MAFCP

Table 22: Export in 2006 against 2005 (000 lek)

| Industry         | 2005    | 2006    | % of growth |
|------------------|---------|---------|-------------|
| Agro-industry    | 3435882 | 4689990 | 136.5       |
| Crops and fruits | 1945122 | 252396  | 13.0        |
| Livestock        | 185976  | 2211909 | 1189.4      |
| Total            | 5566980 | 7154295 | 128.5       |

Source: Directory of Production Policies, MAFCP

Table 23: Most exported products by product and year

| Products          | 2004  | 2005  | 2006   |
|-------------------|-------|-------|--------|
| Dry apple         | 14145 | 40221 | 145632 |
| Nuts              | 45756 | 47232 | 92988  |
| Dry fruits        | 30135 | 33456 | 47478  |
| Watermelon        | 1107  | 1599  | 32103  |
| White beans       | 4182  | 5904  | 11193  |
| Mushrooms         | 0     | 5166  | 14022  |
| Plant seedlings   | 246   | 1476  | 12792  |
| Pork              | 0     | 0     | 6150   |
| Dry figs          | 0     | 0     | 3075   |
| Canned vegetables | 123   | 1353  | 1476   |
| Frozen vegetables | 0     | 984   | 1353   |
| Live pigs         | 0     | 0     | 2214   |

Source: Statistical Yearbook, 2006, MAFCP

<sup>3</sup> Not final

Table 24: Investment through ongoing projects (million leks)

| Source of investment | 2000        | 2004        | 2005        | 2006        |
|----------------------|-------------|-------------|-------------|-------------|
| Foreign investment   | 3890        | 2290        | 1059        | 1203        |
| Local investment     | 758         | 652         | 506         | 816         |
| Local cost           | 356         | 404         | 529         | 247         |
| Value added tax      | 366         | 346         | 182         | 195         |
| <b>Total</b>         | <b>5370</b> | <b>3692</b> | <b>2276</b> | <b>2461</b> |

Source: Directory of Financial Planning, MAFC

Table 25: Private investment in agro-processing (mln lek)

| Activity                      | 2000         | 2004          | 2005          | 2006          |
|-------------------------------|--------------|---------------|---------------|---------------|
| Meat processing               | 120.7        | 92.4          | 425.6         | 170.3         |
| Milk and dairy                | 51.5         | 790           | 624.3         | 1194.8        |
| Flour making                  | 77.9         | 114.7         | 1124.5        | 79.6          |
| Bread and sweets              | 67.4         | 96.9          | 203.4         | 295.8         |
| Mineral water and soft drinks | 394.7        | 271           | 62.8          | 47            |
| Other                         | 141.1        | 932.7         | 475.9         | 258           |
| <b>Total</b>                  | <b>853.3</b> | <b>2297.7</b> | <b>2916.5</b> | <b>2045.5</b> |

Source: Statistical Yearbook, 2006, MAFCP

**Annex 2: Boxes**

Box1: SWOT analysis of agriculture sector

|  |  |
|--|--|
| <p><b>Strengths</b></p> <ul style="list-style-type: none"> <li>✓ A completely private sector</li> <li>✓ Good agro-climatic conditions</li> <li>✓ Good agricultural tradition</li> <li>✓ Relatively well-educated population</li> <li>✓ Significant financial resources used for agriculture</li> </ul>                       | <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>✓ Government Rural road program</li> <li>✓ Significant agriculture infrastructure investment</li> <li>✓ Unused agroprocessing potential</li> <li>✓ Partnerships</li> <li>✓ Market infrastructure development</li> <li>✓ Subsidy schemes for farmers</li> <li>✓ IPA support</li> </ul> |
| <p><b>Weaknesses</b></p> <ul style="list-style-type: none"> <li>✓ Small and fragmented farms</li> <li>✓ Big farm number and agricultural population</li> <li>✓ Young generation not enough passionate for agriculture</li> <li>✓ High product diversification on farm</li> <li>✓ Lack of direct financial support</li> </ul> | <p><b>Risks</b></p> <ul style="list-style-type: none"> <li>✓ Delay in land conflict resolution and compensation</li> <li>✓ Reduction of foreign projects for agriculture</li> <li>✓ Nonperforming in approximation-alienation of the <i>acquis communautaire</i></li> <li>✓ Weak institutions</li> </ul>   |