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COMMODITY DEVELOPMENT PLAN:

FRESH VEGETABLES

ALBANIA AGRICULTURAL COMPETITIVENESS (AAC)

NOVEMBER 2008

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COMMODITY DEVELOPMENT PLAN: FRESH VEGETABLES

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Cognizant Technical Officer	Kristaq Jorgji
Chief of Party	Juan M. Estrada-Valle
Program Manager	Ingrid Ardjosoediro

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ACRONYMS

AAC	Albanian Agricultural Competitiveness
ACIT	Albania Center for International Trade
AFADA	Albanian Fertilizer and Ag-Input Dealers Association
AUT	Agricultural University of Tirana
CDP	Commodity Development Plan
CEE	Central and Eastern European
GMP	Good Manufacturing Practices
HACCP	Hazard Analysis Critical Control Points
FTA	Free Trade Agreements
MoAFCP	Ministry of Agriculture, Food and Consumer Protection
MT	Metric Ton
RADS	Regional Agriculture Directorates
TTC	Technical Transfer Center

INTRODUCTION

The vegetable sub-sector was selected by the AAC project because it is one of the most important and productive parts of the Albanian agricultural sector, with good but not fully exploited domestic and export market growth opportunities. This is especially true for the cash crops of small farmers in many different regions of the country. These productions have an important level of production and the market is in most cases assured. However, during the political transition period, the vegetable sector faced various problems that considerably affected its progress. Currently, the data does indicate a growing trend in this sector. In 1990, the cultivated vegetable surface was about 27 000 ha (or about 5% of the arable land), out of which 1 100 ha were with greenhouses, and out of this surface about 200 ha were greenhouses of glass with central heating. During 1992-1993, the greenhouse surface was reduced to about 320 ha, and it increased to 512 ha in 2002 and some 683 ha in 2007.

The main vegetables cultivated in Albania are: tomatoes, cucumber, melon, pepper, eggplants, carrots, onion, garlic, spinach, and lettuce. While this report will discuss vegetables in general, we will mainly focus on tomatoes, peppers and cucumbers to delve into specifics. Tomatoes, cucumbers and peppers are three of Albania's economically most important crops.

Currently vegetables, potatoes and beans are cultivated in a surface of about 16% of the land in our country, ranked as the third group after the cereals and fodder. At the moment, the majority of vegetable supply comes from the Albanian production, (over 95%). The overall production of vegetables has been rapidly increased in comparison with year 1990. Tomato is the most economically important vegetable, cultivated over about 30 percent of the vegetable area. The second most important vegetable is pepper with about 15 percent of the area, and garlic, onion, and eggplant with about 5 percent each. As the most economically important crop, it is worth noting that the average yield of tomatoes is about 18.5 tonnes/ha in open field production, and about 80 tonnes/ha in greenhouses production. In the districts of Tirana, Kavaja, Lushnja and Fieri, the growing of tomatoes is a specialty, which has led to the development of appropriate infrastructure to maximize production. Consequently, yields and the areas devoted to production are bigger, and the profit margins are larger than in the remaining districts of the country.

OVERVIEW OF THE FRESH VEGETABLES SUBSECTOR

DEMAND AND SUPPLY

Before 1990, Albania had exported fresh vegetables. About 50,000 tonnes of vegetables produced mainly in greenhouses, were exported to the Northern and Eastern part of Europe, with a value of approximately US\$ 150 million. The main vegetable crops exported were tomatoes, 30,000 tonnes, pepper, 4,500 tonnes and cucumber, 3,500 tonnes. A relatively small proportion of vegetable production, about 3-5 percent, is exported today. The main vegetable crops imported are tomato, and cucumber, which are acquired at times when there is no local production, in the months of December to March.

TABLE 1: MONTHLY TRADE BALANCE FOR TOMATOES, CUCUMBERS AND (SWEET GREEN) PEPPERS - 2007 (IN MT)

	2004	2005	2006	2007
Fresh vegetables				
Total production	677.4	684.8	687.5	671.5
Open field	623.22	626.22	630.03	568
Heated greenhouse	1.98	2.58	4.47	5.25
Non-heated greenhouse	52.2	56	53	51
Imports	17.86	10.17	28.32	17.22
Exports	8.1	4.27	10.93	9.75
Total consumption	687.16	690.7	704.89	678.97
Processed Vegetables				
Domestic output	0.745	2.36	1.34	0.903
Imports	6.258	12.35	7.201	10.299
Exports	1.056	1.151	0.565	1.066
Total consumption	5.947	13.559	7.976	10.136

Total planting area: in **2007** - vegetable greenhouse area 663ha, **2006** - vegetable greenhouse area 675ha, **2005** - vegetable greenhouse area 650ha, 2004 - vegetable greenhouse area 640ha (includes all heating and un-heating areas)

Imports were negligible till the 90s, while after the political changes in the 90s, the vegetable imports increased considerably. In 1992, agricultural imports were US\$ 100 million, while in 1998 they rose to US\$ 400 million, and in 2007 they decrease on US\$ 12 million. Table 1 presents the production, trade and consumption data for fresh and processed vegetables in Albania over the period 2004-2007. Imports and exports seem to follow a somewhat cyclical pattern, but hover on average around 20,000 MT of imports and 10,000 MT of exports¹. There seems to be a slight upward trend in exported volumes. Table 2 presents the same data, but specifically for the three products the AAC project is initially targeting, tomatoes, cucumbers and peppers.

TABLE 2: MONTHLY TRADE BALANCE FOR TOMATOES, CUCUMBERS AND (SWEET GREEN) PEPPERS - 2007 (IN MT)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Tomatoes													
Import volume	555	1,076	1,684	1,782	137	81	16	137	300	228	29	9	6,033
Export volume	49			12	138	2	30	0		1	33	217	482
Trade balance	(506)	(1,076)	(1,684)	(1,771)	2	(79)	14	(137)	(300)	(227)	4	208	(5,551)
Import Price	149	150	145	144	85	69	55	69	107	96	78	73	102
Cucumber													
Import volume	159	133	206	7				11	46	5	4	164	735
Export volume				56	156	2	3	0			3		221
Trade balance	(159)	(133)	(206)	49	156	2	3	(11)	(46)	(5)	(1)	(164)	(514)
Import Price	181	174	145	97			25	60	74	70	96	161	108
Sweet Green Peppers													
Import volume	123	115	145	237	259	24	1	15	17	21	29	73	1,062
Export volume					3	19	45	14	30	4	3	0	117
Trade balance	(123)	(115)	(145)	(237)	(257)	(5)	44	(2)	13	(17)	(27)	(72)	(944)
Import Price	179	191	192	212	144	91	38	60	53	165	160	180	139

Source: Authors' estimates based on production data from the Ministry of Agriculture, Food and Consumer Protection; imports from ACIT data collected from the Direction of Customs.

¹ There is likely a lot of small-scale border trade that is not fully captured in official statistics, which may add up to significant volumes. However, no alternative data are available on this trade.

PRODUCTION

Global / General

China is the biggest single producer of tomatoes, followed by the USA, then Turkey. Production in the major producers (Top 10) is relatively stable. Italy had the highest growth in production (20%), followed by a number of countries with 14% growth.

Europe in General

Tomatoes are by far the largest category in the EU, accounting for 29% of total EU vegetable production in 2005. Italy is the largest tomato producer with 7.8 million tons (44% of EU production), followed by Spain (25%), Greece, Portugal and France. From 2002 to 2005, Italian tomato production increased by 20%. The largest greenhouse producing areas in Europe are Spain (113,667 acres), Italy (61,775 acres), France (23,475 acres) and Greece (9,390 acres).

Central East Europe (CEE)

Amongst the CEE region, Ukraine and Romania have the highest production in tomatoes. Both Poland and Belarus has increased their production rapidly from 2002 to 2005, while several other countries experienced dramatic declines over the same 4 year period (Hungary, Bulgaria). Over the last four years, vegetable production in open field and non-heated greenhouses has remained fairly stable. Production in heated greenhouses has increased 150% from a small base (from 2,000 MT in 2004 to 5,000 MT in 2007).

Albania

Vegetables production is mainly in the central and southern parts of the country. In addition to the open field production there is greenhouse production, important for early and late produce, in mainly tomatoes and cucumbers. However, industrial scale greenhouse production declined dramatically since the early 1990s, but this has been offset by improved yields and by construction of poly-tunnels.

TABLE 3: TOTAL PRODUCTION OF TOMATO, CUCUMBER, PEPPER IN ALBANIA, 2007

No.	Commodity	Production/T	Average Farm gate Price lek/kg	Average Wholesale Price lek/kg
1	Tomato	160,000	50	79.4
2	Cucumber	50,000	43	70
3	Pepper	45,000	47	71.7
4	Carrots	4,000	48	88
5	Cabbage	25,000	15	38
6	Eggplant	20,000	33	72.4

IMPORTS

Imports fluctuate cyclically. Currently they fluctuate around 9 MT on average. Being a large producer before 1990, Albania's vegetable imports used to be negligible. After the collapse of the state-operated vegetable industry, imports increased considerably initially but they went down over time from US\$400 million in 1998 to US\$ 12 million in 2007. These reduced imports relate mostly to tomato, cucumber and peppers imported from December to March when there is no (or very low) domestic production. Margins in the international trade in fresh fruit and vegetables are under pressure. Margins for European importers for instance are typically below 10%. In a vast and diverse sector such as fruit and vegetables, it is challenging to give an accurate picture of prices and margins throughout the chain. There are vast differences between the different categories such as temperate and exotic and between bulk and specialty products, and prices change by the hour. With highly self-sufficient crops, successful market entry for new comers depends on counter-seasonality or specially defined niches.

EXPORTS

EU fresh vegetable exports are mainly destined to other EU countries: this was the case for 91% of export value in 2005. As much as 99% remained in Europe. EU vegetable exports therefore have a strong regional character. Germany, accounting for 30% of export value, the UK (18%), France (10%) and the Netherlands (8%). The major destinations outside the EU were Switzerland (2%), Russia (2%), Norway (1%) and the USA (1%). In the case of intra-EU trade, statistical reporting is only compulsory for exporting and importing firms whose trade exceeds a certain annual value. Therefore, although figures for trade between the EU and the rest of the world are generally accurate, trade within the EU is generally underestimated. The volumes of re-exports and transit trade in fruit and vegetables have increased sharply over the years. Belgium and the Netherlands are important re-exporters. Germany and France are also increasing their share in re-export of fresh fruit and vegetables. For tomatoes, re-export and inter-trade account for > 90% of all tomato trade. For example: Holland and Spain supply the German market. Morocco and Spain supply France. Spain and Netherlands supply UK Spain supplies the Netherlands and the Netherlands re-exports to Europe and the US. The emphasis on carbon foot-printing and local food will only increase this trend. Fresh vegetables exports in Albania are flat around 1 MT per year. Before 1990, Albania exported 50,000 MT of fresh vegetables to the rest of Europe (up to 30,000 MT of tomatoes, 4,500 MT of peppers, and 3,500 MT of cucumbers per year). These were mainly vegetables produced in state-owned greenhouse operations and exploited Albania's agro-climatic advantages. With the collapse of the greenhouse industry in 1991, exports dropped dramatically with only 482 MT exported in 2007.

CONSUMPTION

In general the vegetable production is largely consumed in the same region: about 95 per cent of the European vegetable production is consumed within a distance of 500 till 1000 km from the production region. Tomatoes, cucumbers and sweet peppers have no different patterns. Therefore the largest exporting countries aren't mostly the largest producers. Per capita consumption levels in Albania are 200kg of fresh vegetables and 4kg of processed vegetables per capita, per year. Growth of vegetables expenditure at the consumer level follows the rapid growth of Albania's economy (5-6%/year in real terms). Food still represents 60% of all retail sales and total per capita food spending in Albania nearly doubled from US\$700 in 2004 to US\$1,200 in 2008 (Planet Retail).

TABLE 4: CONSUMPTION OF HORTICULTURE PRODUCTS IN WORLD (KG/PER-CAPITA)

Country/region	Vegetables	Potatoes	Legumes
World	114,1	32,6	6,2
Developed countries	112,7	74,1	2,9
Developing countries	114,5	21,3	7,1
Low-Income Countries	52,7	15,6	9,2
Low-Income Food Deficit Countries	121,7	21,5	6,5
North America	127,6	63,9	4,2
Central America	51,2	12,4	13,2
Africa South of Sahara	31,4	7,6	10,0
European Union (15)	120,0	75,9	3,3
Albania	172,3	30,7	5,3
Bosnia and Herzegovina	169,2	01,6	5,2
Greece	245,5	67,1	4,8
Italy	151,0	39,4	5,6
Macedonia	215,3	55,5	5,8
Serbia-Montenegro	116,0	52,2	8,2

Source: FAO Food Balance Sheet

PROCESSED VEGETABLES

Albanians strongly prefer fresh vegetables over processed ones. Nevertheless, data indicates that the domestic processing industry has been growing (at an estimated pace of 15% per year). Although domestic processors, with only one exception, use inefficient equipment and expensive packaging material, they still are price-competitive with imports in the domestic market due to the low labor costs and transportation advantage. Growth has therefore so far been mainly driven by import substitution, but further growth will have to come from increased exports. Currently only Sejega, the only fully certified vegetable processor using modern equipment, has been able to export. However, its initial success indicates that the export market offers growth opportunities for Albanian vegetable processors. Therefore, future growth will require meeting the requirements of these markets (in terms of variety, volumes, standards, etc.). The products coming out of this industry include pickled vegetables (e.g., cucumber, peppers) and some sauces (tomato). The products each firm makes are superficially similar, but are tailored to the markets they serve. Some of the products are uniquely Albanian, while others are of a design appealing to consumers in other European markets. In the domestic market, there is no brand loyalty for foreign products while consumers display some brand awareness for local products.

FRESH VEGETABLES VALUE CHAIN FUNCTIONS AND PARTICIPANTS

PRODUCTION

When the state-owned agriculture system collapsed in early 1991, many agricultural buildings and facilities including irrigation systems were abandoned or damaged, input availability fell dramatically, and the marketing and agro-processing systems virtually ceased operations. Land reform (1991-1998) left the country with round 460,000 family farms averaging 1.3 ha in size, often scattered in 4-6 plots. This plunged the country from a mechanized production system in a subsistence farming sector in which shared infrastructure such as irrigation or terracing was no longer maintained or effective. In the lowland areas, a limited number of farmers have started to enlarge their land area (to up to 5 ha) by buying from those who emigrated either abroad or to urban centers in Albania. Others, newly emerging entrepreneurs, have leased land in the lowlands (up to 25ha). The latter mostly relates to small plots which are located at a greater distance from the land owner's main farm operation.

In 2007, there were 260,000 farms producing vegetables (30,000 less than in 2005), of which 5,000 used greenhouse technology. These 260,000 farmers cultivated 28,000ha for vegetable production, of which 663ha under greenhouses. Land under vegetables has been decreasing recently (from 32,000 ha in 2005 to 28,000 ha in 2007), while yields went up from 19 MT/ha in 2000 to 23 MT/ha in 2007. Increased yields explain the strong growth of overall output over the long term, from 378,000 tons in 1990 to 671,500 tons in 2007. Investments in production technology are below optimal levels for maximum productivity and efficiency, but they are increasing. For example, in 2006-2007, over 200 ha of new greenhouses have been built, mostly using grower equity (or equity capital from processors) without the help of loans or subsidies. Greenhouse production has the dual benefits of high yields (e.g., tomato yields of 30-60kg/ha in open field, 60-100kg/ha in greenhouses) and extended season production (table 5).

TABLE 5 PRODUCTION SEASON

Vegetable	Technology	February	March	April	May	June
Tomatoes	Artificially-warmed greenhouses					
	Sun-warmed greenhouses					
	Open fields *					
Cucumber	Artificially warmed greenhouses					
	Sun-warmed greenhouses					
	Open Fields*					

Drip irrigation systems, mostly fed by boreholes, are wide-spread (80% in some areas). Only an estimated 30% of growers lease (some of their) land which indicates the limitations of the land market. The formation of associations has been difficult in a grower population where distrust is deeply rooted. Nevertheless, competitiveness in today's interconnected agri-businesses markets, requires economies of scale that are hampered if there is no business model that organizes farmers in larger entities. Farmers collaborating in larger groups will lead to lower input costs, scheduled harvesting (supply smoothing, contract farming), lower costs/easier access to business development services.

The farmers' main challenges in selling their product are: (1) the lack of good transportation logistics at the farmer level; (2) the lack of wholesale markets or collecting brokers who can take it to the wholesale markets; (3) having no market information (volumes, prices) or market supply arrangements in place; and, consequently. Consequently, farmers are in a price-taker position (low prices). We can distinguish three types of producers:

TYPE 1 – SMALL TRADITIONAL FARMERS (85%)

These are farmers operating on family farms of 0.9-1.2ha, who produce both for home consumption and for a market serviced only by private traders, agro-processors and input suppliers. These farms are mainly found in the lowland areas near Tirana and other urban markets and in the Korce valley in the mountainous south where farmers also enjoy good market access and better opportunities to trade with neighboring countries. Around two thirds of these farmers produce their own seedlings, while the others buy seedlings from small, specialized seedling producers. These farmers are very cost-sensitive and seek to minimize cash outlays for working capital and investment. They will buy sub-standard

TYPE2 – LARGE TRADITIONAL FARMERS (10%)

These are larger farmers (2-25ha) in the lowlands who are typically involved in the production of annual crops that provide good rates of return with relatively low levels of quasi-fixed investment (i.e., no greenhouse production), such as watermelon, cauliflower, carrot and potato. They hire labor and rent equipment. They get their seedlings mostly from one of Albania's three large seedling producers (Agroblend, Bruka, and newcomer Agrokoni).

TYPE3 – LARGE MODERN FARMERS (5% -5,000 FARMS WITH GREENHOUSES IN 2007)

These are larger farms that operate on owned land and invest in greenhouse technology. Both heated and unheated greenhouses are used, but mostly unheated ones. This is because heated greenhouse vegetable production is only profitable in Albania if the cost of gas for heating is subsidized by the GoA. These larger farmers typically overuse chemicals (and blend two of them) – unlike small ones who skimp on doses Small farmers sell either under contract or through spot market transaction via consolidators to processors who come and pick the produce from the farm. If under contract, processors may advance 15-20% of the contracted value to growers. Processors then sell directly or through distributors to the domestic retailers (depending on the size of processor and retailer).

CONSOLIDATORS – REGIONAL TRADERS

The current system consists of regional traders as well as small Albanian buyers who operate one or more trucks, buy directly from farmers with whom they regularly contract (verbally) for fresh vegetables, and truck the purchased vegetables to the Balkan export markets. This provides growers with some of the most reliable marketing arrangements. The traders either pick up the produce directly from the farm or they get it from collection centers (limited). Farmers and traders/wholesales alike would welcome the introduction of more vegetable collection centers. They may engage in grading and sorting and use cardboard packaging for transport. They typically only act as exporters when there are regional market price differences that make it profitable to export, at other times they are focusing on the domestic market. Exporters may be Albanian or regional.

Farmers have working capital constraints and expect from the consolidators that buy from them (such as Agrokoni) that they provide them with inputs (or at least give them some credit to buy them; e.g., sell seedlings on partial credit). If such embedded credit is not adhered to, supply is not assured. Defaults rates for the loans are low. There are also substantial risks associated with for example providing seedlings on partial credit from the input provider. If the farmers' harvests fail they will likely not repay the loans. Other models involve commercial banks or micro-lenders such as Opportunity Albania, with consolidators or (larger) retailers becoming guarantors for the loan, arrangements with high levels of bad debt.

PROCESSING

The processing industry is on a slow path to recovery after its collapse in 1990. Driven by new investment, around 40 formal vegetable processing firms emerged, most of which process both vegetables and fruits. These processing enterprises are spread throughout the country, but can mainly be found in the districts that have historic experience with vegetable processing and where raw materials are more abundantly available (e.g., Kavaje, Lushnje, Berat, Fier, Gramsh, Gjirokaster, Elbasan, Tirane, Durres). In addition, there is an informal home-based processing industry which represents 25% of the 8,000 MT output. These have no significant growth potential and are small hence we will leave them out of the analysis from here.

The (formal) processors buy nearly 90% of their raw material directly from Albanian farmers while most of the rest is bought from wholesale markets or imported. Imported volumes vary depending on local production. For example, if tomatoes are too expensive (i.e., above LEK10/kg) they will shift to imported tomato paste from China (or shut down the factory temporarily). Raw material reaches processors through two main models, equally important in terms of volume going through them (50/50). (Model 1) Processors contract with consolidators who in turn contract with small farmers to produce specific varieties such as small cucumbers or processing tomatoes (using verbal contracts)². Large farmers typically focus on higher value quality grades and varieties and are therefore not prevalent in this channel. The consolidators then collect and transport the produce from grower to plant. (Model 2) Farmers fill up a truck with regular variety produce (e.g., salad tomato varieties) and take it to the processor on an ad hoc basis, selling at a spot market price. Processors provide no embedded services (like input provision) to

² These are bushy lower cost tomatoes with high dry matter content. Yields of up to 100 MT/ha are possible, compared to 30-60 MT/ha in open field production of table tomatoes.

farmers, except that they provide some credit to contracted farmers via the consolidators (e.g., 20% of the procurement value).

The raw material volume that the formal processing industry is aiming for is around 13,000 MT, consisting of 10,000 MT of tomatoes (for paste, sauce), 2,000 MT of peppers (75% red peppers), and 750 MT of cucumbers. Cabbage and eggplant make up the remainder. Access to raw materials for export markets is a major constraint because it requires large minimum volumes of certain varieties of produce. This in turn requires convincing many smallholder farmers take on growing these specific varieties and adopting specific, intensive growing techniques. Raw materials are stored in bulk containers (pickled mostly, as cool storage is mostly absent) for processing and retail packaging throughout the rest of the year. Most products are packed by hand in glass jars and pasteurized in hot water, although there are also vacuum packed products and bulk products (e.g., 200kg containers), all of which are sold to retailers. Although management is generally entrepreneurial, the equipment used for canning vegetables is for the greater part outdated and inefficient, as the processors are primarily operating in former state-owned facilities (with one exception). The state of the equipment makes it virtually impossible for firms to meet the minimum requirements of Good Manufacturing Practices (GMP) and HACCP.

WHOLESALE

As with the rest of the vegetables value chain, the state-owned marketing system collapsed in 1990. Wholesale markets emerged later in Lushnjë, Vlora, Shkodra, Tirana, and Korça. Activities at these markets are quite seasonal. For example, 69% of the trade at the wholesale market in Lushnjë takes place between May to August, with very little produce being traded the winter months, except just prior to Christmas. There are some differences in seasonality between the various markets due to the specific climatic conditions of the region where they are located. Transactions are in cash, or in rare cases 10 days credit is provided to the buyer. Vegetables are moved in bags, or 20-25kg wooden boxes or plastic crates, whereas 5-10kg cardboard boxes are only used by the regional traders who sell in export markets. The wholesalers have one or more 7-10 MT trucks and are the main transporter of the produce throughout Albania. They have no direct relationship with the farmers because they indicate that farmers do not always grow the same crops or volumes and have no storage at the farm, which means they have to sell at the time of harvest to whomever they can.

RETAIL

Albania's food retail market is highly fragmented, with thousands of small independent mom-and-pop shops which are mainly supplied by hundreds of regionally operating wholesalers. Apart from these channels, open market sales of self-grown produce are also of great importance in Albania. It is at these greenmarkets that some degree of sorting of vegetables takes place. Supermarkets have emerged only very recently, with the first modern supermarket opening in 2005. However, growth is fast, mainly driven by two lead chains (Conad and Euromax) each of which currently represents 3-5% of grocery sales, and (combined) 1% or less of fresh vegetables sales³.

³ Conad Adriatico is an Italian chain, while Euromax was an Albanian chain that was bought by Serbian retailer Delta M Group in 2008.

EXPORT

Exporters are basically consolidators who export opportunistically (exploiting regional price differences in cases of market gluts), rather than in a systematic fashion (see regional traders above). For export to the EU, the level of competitiveness is far higher there. For example, a supermarket chain may set additional delivery requirements such as: (1) uniform weight and other product characteristics; (2) packaging (size, material, box model); (3) timing and volume of delivery (need for flexibility, supply windows); (4) passing new supplier tests (due diligence records, traceability, visit by retailer technologist); (5) Global Gap certification (be in the process in year 1, compliance from year 2); (6) adequate packing and cooling facilities for safe handling and keeping the produce at certain temperatures; (7) demonstrate goodwill, capacity and commitment.

INSTITUTIONAL, REGULATORY AND SUPPORTING ENVIRONMENT

THE KEY ELEMENTS AND ACTORS IN THE INSTITUTIONAL, REGULATORY AND SUPPORTING ENVIRONMENT ARE:

TRADE AGREEMENTS

Albania is in the process of signing several Free Trade Agreements with neighboring countries. Albania has completed the technical negotiations with all the countries, including Macedonia, Croatia, Bosnia-Herzegovina, Romania, Bulgaria, Serbia, and Montenegro. Two FTAs have already entered into force (Macedonia in July 2002, Croatia in June 2003). The GoA has gone into these agreements rather hastily and without a detailed understanding of how various sectors might be affected or what types of policies in agriculture could help Albanian farmers and consumers benefit most from the new agreements. Also trade agreements between for example Turkey and Serbia can influence Albania's position on the international scene.

EUROPEAN UNION REGULATORY FRAMEWORK

Albania's pre-accession negotiations with the EU are mainly focused on harmonizing Albania's legal and regulatory frameworks with that of the EU with respect to for example, quality, sanitary and phytosanitary standards and the related aspects of certification and enforcement.

EU Market Access Production Subsidies and Tariffs

Subsidies: The EU guarantees European producers a minimum price, subsidizes processors to tin tomatoes and make pastes and purees, and even subsidizes the export of these to developing countries. 20% of EU exports go to West Africa, where they account for 80% of regional demand. EU Commissioners annually provide \$300 million in subsidies of various sorts to growers of processing tomatoes

Tariffs and Duties: The EU applies two different MFN import policies for tomatoes: ad valorem tariffs and the entry price system. The ad valorem tariff is at a relatively low level and varies seasonally between 8.8% and 14.4 %. It is highest during the summer months to protect the season of greatest European production from imports. The entry price system is applied by the EU for many fruits and vegetables that are considered particularly sensitive, and effectively establishes minimum import prices. If the cif import price of a shipment is below the entry price, the entry price system provides the opportunity to gradually invoke specific tariffs, in addition to ad valorem tariffs. If the imported good comes in at an import price not more than 8% below the entry price, the additional tariff will equal the difference between import price and entry price. If the import price is more than 8% below the entry price, the full WTO-bound specific tariff, which is much higher than the ad valorem tariff, will be charged. This "eight percent rule" is a prohibitive import barrier for most imports below 92% of the entry price, because of the high level of

the maximum specific tariffs. More information on tariffs and import duties for exporters into the EU can be found at the EU Export Helpdesk for Developing Countries: <http://export-help.cec.eu.int>

MINISTRY OF AGRICULTURE, FOOD AND CONSUMER PROTECTION, REGIONAL AGRICULTURE DIRECTORATES (RADS)

The RADs' main role is to guide and support agriculture development in their respective administrative areas. The RADs have information and advisory centers and network and a staff of extension officers that work with the vegetable growers.

TECHNOLOGY TRANSFER CENTER (TTC)

The publicly funded TTC in Vlora district has a staff of 24 whose main objectives are technology transfer and the multiplication of grafted saplings, which they sell. They are constantly developing new varieties and are collaborating with the commercial nurseries operations. Agricultural University of Tirana (AUT). AUT is the major center of education of young specialists, as well as a key research center, for all fields related to vegetable production. AUT is also the National Reference Center for all functions covered by the Plant Protection Institute in Durres, which includes the diagnoses of pest and diseases.

FRESH VEGETABLES VALUE CHAIN

The following map depicts the value chain of the fresh vegetable sub-sector. In 2007, there were 260,000 farms producing vegetables (30,000 less than in 2005), of which 5,000 used greenhouse technology. These 260,000 farmers cultivated 28,000ha for vegetable production, of which 663ha under greenhouses. Land under vegetables has been decreasing recently (from 32,000ha in 2005 to 28,000ha in 2007), while yields went up from 19 MT/ha in 2000 to 23 MT/ha in 2007. Increased yields explain the strong growth of overall output over the long term, from 378,000 tons in 1990 to 671,500 tons in 2007. Investments in production technology are below optimal levels for maximum productivity and efficiency, but they are increasing. Greenhouse production has the dual benefits of high yields (e.g., tomato yields of 30-60kg/ha in open field, 60-100kg/ha in greenhouses) and extended season production. As the AAC team will only focus on the fresh market, the agro-processing channel has been left out of this map.

CHANNEL 1: TRADITIONAL TRADE CHANNEL

Farmers of all sizes sell their products to local traders/consolidators/distributors, where collectively the produce is transported to either the nearest wholesale market or retailers such as minimarkets (neighborhood shops) and open air green markets. Most of these farmers are operating family farms of 0.9-1.2ha, which produce both for home consumption and for a market serviced only by private traders, agro-processors and input suppliers. These farms are mainly found in the lowland areas near Tirana and other urban markets and in the Korce valley in the mountainous south where farmers also enjoy good market access and better opportunities to trade with neighboring countries. Local traders act as direct buyers at the farm or through collection centers or regional wholesale markets and this form of trading makes up a large portion of the product supply. Some small farmers sell directly to consumers mostly through roadside sales. In this channel the local traders act as price-setters and farmers are obliged to become price-takers. There are no packaging facilities, and very few pack-houses or cool storage facilities and no sorting/grading takes place at this level is nearly non-existent.

CHANNEL 2: WHOLESALE TRADE

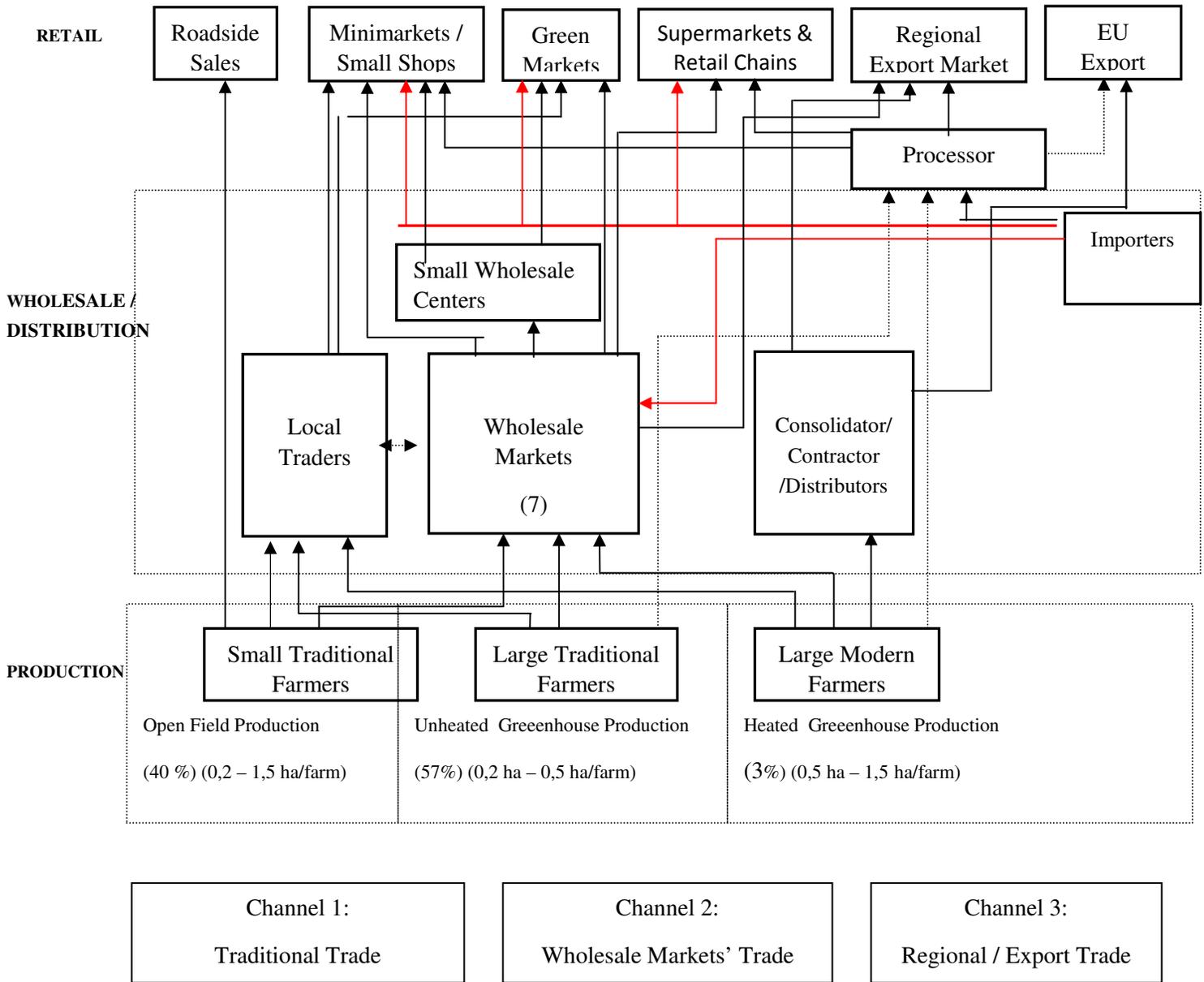
In this channel, product purchased by local traders goes to the nearest wholesale markets. In addition, farmers who own transportation vehicles send their product supply directly to the wholesale market bypassing the local traders. In many cases these types of farmers act as transporters for their neighbor's product and provide this service at a fee to cover fuel costs. Urban wholesale markets were non-existent before 1991 and have gradually emerged (A World Bank project established 5 wholesale markets starting in 2003). These wholesale markets serve mainly as spot markets where vendors rent a spot daily and shop around for the best possible price arrangement. There is no bulk delivery of product happening here and the wholesale markets do not act as traders but only as physical trade locations for farmers/traders who come with their vans or trucks. A limited capacity of storage space is available for rent and some of it with cold storage capacity.

CHANNEL 3: REGIONAL & EXPORT TRADE

A growing amount of product supply is going to exports in countries such as Kosova, Macedonia, Montenegro, Serbia, Croatia and Bosnia. In this channel local traders and wholesale markets (Channels 1 and 2) are replaced by regional traders/consolidators. They are Albanians from within the country, Albanians from the neighboring countries or regional traders from neighboring countries. One leading example here is Agrokonni, a consolidator who has invested in a modern seedling firm, manages a consolidation center and is moving into production. They source from large modern farmers, either directly or through regional wholesale markets and export the produce to neighboring countries at times of seasonal price differentials in the Balkan region. It is important to note that beyond these regional traders/consolidators there is usually another link with the wholesale or retail level at the country of destination. Import of vegetables is done by some of the distributors, hyper-supermarkets, and big consolidators operating in the main urban wholesale markets (mostly Tirana) and distribution is then similar as in the traditional channel.

The following map depicts the value chain of the fresh vegetable sub-sector. As the AAC team will only focus on the fresh market, the agro-processing channel has been left out of this map.

FIGURE 1: ALBANIAN FRESH VEGETABLE VALUE CHAIN MAP



DRIVING FORCES IN THE FRESH VEGETABLE SECTOR SECTOR

KEY DRIVERS AND BOTTLENECKS THAT AFFECT CHANGES IN THE SUB-SECTOR ARE:

- The potential of Greenhouse vegetable production is viewed as one of the most promising options for small growers with limited land. The typical 1000 square meter operation can provide cash flow to families over several months.
- The increasing demand in the domestic market for fresh vegetables due to the growing urban markets and purchasing power of the Albanians (partly because of high remittances).
- Increasing opportunities to export to the region: with the economic and politic stabilization of the regional Balkan countries markets and the stronger trade liberazation and free trade agreements efforts from all parties, demands stronger efforts from the Albanian producers to become competitive in this environment against cheaper products from Turkey or Macedonia.
- The rapid increase of hypermarkets and supermarkets in Albania. Since 2006, EuroMax opened the first hypermarket there has been a dramatic rise in the number of hypermarkets by EuroMax, Conad, and CasaItalia. These hypermarkets are major importer of fresh fruits and vegetables mainly from Italy, Greece and other EU countries, and demand their own food safety, packaging and production standards.

The main bottlenecks and weaknesses in the fresh fruits and vegetables value chain are:

- Use of lack of export market information (products & processes) and export networks (links, contacts) remain challenges.
- Limited collection at farm and wholesale level, lack of grading systems and modern packaging.
- Lack of regular domestic market information about prices, volumes and buyer networks.
- Lack of vertical coordination and efficiency in transportation and consolidation. The majority of product supplies flow inefficiently through a large number of small traders.
- Fragmented production (no economies of scale) – linked to land markets, lack of trust in groups, breakup of the agricultural cooperatives.
- Lack of commercially oriented farmers (subsistence farming mentality amongst the majority of growers).

- Lack of GAP, harvesting methods and post-harvest handling by growers (no pack-houses, cool storage) – public extension services has 1 extension officer per 4,000 farmers, lack of private sector BDS providers or embedded services and linked to this is the certification of farmers and processors (GLOBAL GAP, HACCP, etc.).
- Limited dissemination of technical advice on new production technologies to extend the season (varieties, greenhouses).
- Weak links between agricultural finance and credit institutions (lack of upgrading cash flow analysis; lack of tailored loan products, lack of awareness of grower needs/bank offers).
- Lack of well-functioning inputs supply markets (high costs).

VALUE CHAIN INTERVENTIONS

VISION FOR GROWTH AND OBJECTIVES

To increase a sustainable supply of fresh vegetables throughout the year of superior quality using high productivity technology methods, the AAC team focus its efforts in the strengthen of the value chain of the greenhouse fresh produce. The target will be primarily the domestic market during the seasons of high imports (for e.g. for fresh tomatoes during February, March and April). The objective is for the Albanian producer, wholesaler, and consolidator to become competitive in the domestic and regional Balkan markets. Greenhouse growers are at the beginning stages of forming to groups with the aim of consolidating their products. AAC will use this emerging trend to encourage other key value chain actors, nursery and input supply dealers, financial service providers, buyers to channel their services directly to these new groups.

1. Through the introduction of improved greenhouse technology extend the growing season in the autumn by up to 15 days.
2. Through the introduction of improved post harvest and storage techniques extend the Autumn/Winter season by 20 days.
3. Expand domestic and Balkan Regional market share by the availability of more products resulting from production and post production improvements.

STRATEGY

AAC's core growth strategy for the Albanian fresh vegetables industry is to increase early and late season greenhouse production and post harvest storage of tomatoes, cucumbers, and peppers,. This is designed to initially displace imports, but gradually also to increase export to regional Balkan markets, while opportunities in the more demanding EU market will be explored as well. The initial steps require a combination of new production technology that allow for capturing the shoulders of the markets, in particular improved availability and use of appropriate greenhouse technology, coupled with advanced post harvest and storage techniques. Growth can only be achieved if both quality and quantity goes up and (production and transaction) costs go down at each level of the value chain so as to exceed the competitive benchmarks set by imports during the off-season. Larger farmers and farmers groups, regional trader/consolidators, large input suppliers (e.g., for seedlings), distributing wholesalers and supermarket chains will be the key entry points.

ACTIVITIES

The main activities to achieve this strategy include:

- Assist with the production of high quality fresh produce by improving technology and organization of producers groups
- Improve business skill of the growers to achieve reliable, quality, and low-cost supplies
- Improve Horizontal and Vertical Collaboration in the Value Chain

- Facilitate Market Access and Market Share Growth (to assure a market driven approach)

ASSIST WITH THE PRODUCTION OF HIGH QUALITY FRESH PRODUCE BY IMPROVING TECHNOLOGY AND ORGANIZATION OF PRODUCERS GROUPS

The AAC team will:

Disseminate and distribute the results of the demonstration trials of the greenhouse technology. The AAC team staff will organize field days, production of leaflets etc. The AAC team will work closely with input suppliers (as the business service provider) for greenhouse technology to provide information to farmers. (Subsequently, increasing the demand for greenhouse supplies)

- Assist in developing greenhouse production in a cost-efficient manner: results from Year One showed that while yield is very important, cost reduction and quality are also important. Subsequently, AAC will introduce a number of cost saving and quality improving technologies in:
 - o Use of bumble bee for pollination to increase quality and weight;
 - o Double walled inflated plastic greenhouse technology for energy efficiency;
 - o Solar water heating system to extend the growing season,
 - o IPM to reduce the cost of agro chemicals
 - o Soil tests for fertigation efficiency
- Work with input suppliers of greenhouse technology for introduction to farmers in order to create a greater demand for greenhouse
- Organize workshops to stimulate technology adoption and GAP (improved seed, grafted seedlings, fertilization practices, irrigation, pest control; for tomatoes and peppers these costs make up 50-70% of the total production cost)
- Assist in improving the control on the quality of seeds/ saplings, inputs and crops. Improve Horizontal and Vertical Collaboration in the Value Chain by linking producers to buyers working closely with olive producer groups and oil millers

IMPROVE BUSINESS SKILL OF THE GROWERS TO ACHIEVE RELIABLE, QUALITY, AND LOW-COST SUPPLIES

Built upon the success of the greenhouse technology, and develop the appropriate business plans for adoption of lead large farmers.

- Assist producers group in the formation of grower group business models (associations, out grower schemes, etc.) to achieve economies of scale and reduce transaction costs
- Stimulate a shift from traditional, diversified subsistence farming to specialized, market-driven farming-as-a-business through financial literacy, business management skills training, and risk management tools

- Provide financial advice to become profitable by assisting in preparing profitability analysis and value analysis including: Introduce business and financial models such as: contracts, overdrafts, escrow account, letter of credit etc.
- Provide financial advice for credit lines available and help them process a credit line.
- Provide financial models to strengthen linkages between growers and processors

IMPROVE HORIZONTAL AND VERTICAL COLLABORATION IN THE VALUE CHAIN

It is important to improve the knowledge of targeted domestic and export market opportunities as this will shape the marketing strategy and development of Albania Olive Oil. The goal to increase the domestic market share has greater priority due its potential. Important in this effort is to facilitate linkages between processors/bottlers and domestic retailers and importers. As part to prepare the growers and olive oil processors to these higher standards for export, the AAC team will work with processors on product development and value-added branding.

The AAC team will:

- Assist with streamlining the supply chain, by evaluating the inefficiencies of management of collection centers close to the farms, pack houses, and cool storage facilities
- Assist in the development of farmer purchase groups to facilitate bulk buying directly from importer to have a higher quality assurance
- Conduct a study into the willingness to pay (demand) for improved grading, bulking, and packaging by consolidators, wholesalers, and retailers (in all target markets)
- Stimulate best harvesting practices (methods and equipment) and post-harvest handling (GMP, pack-sheds) through new BDS providers and/or embedded services.
- Organize workshops to assist producers groups with the use of contractual agreements with consolidator

FACILITATE MARKET ACCESS AND MARKET SHARE GROWTH (TO ASSURE A MARKET DRIVEN APPROACH)

All AAC activities will be demand driven. All products must be grown to meet present and potential buyer specifications, and both growers and buyers need assistance facilitating first rounds of negotiations to develop trust and strong market linkages over time. The recommendations which follow therefore begin with identifying buyers and understanding market demands, and then move backward to assisting consolidators and exporters to strengthen their business operations, and finally working with farmers to produce those products demanded by target markets.

- Building on previous work done by OTI, conduct a regional trade flow data analysis (volumes imported, prices by country of origin for Albania's key export windows), including the impact of duties and the delivery requirements of each market, to assess competitive position of Albania
- Provide training on how to identify target market opportunities

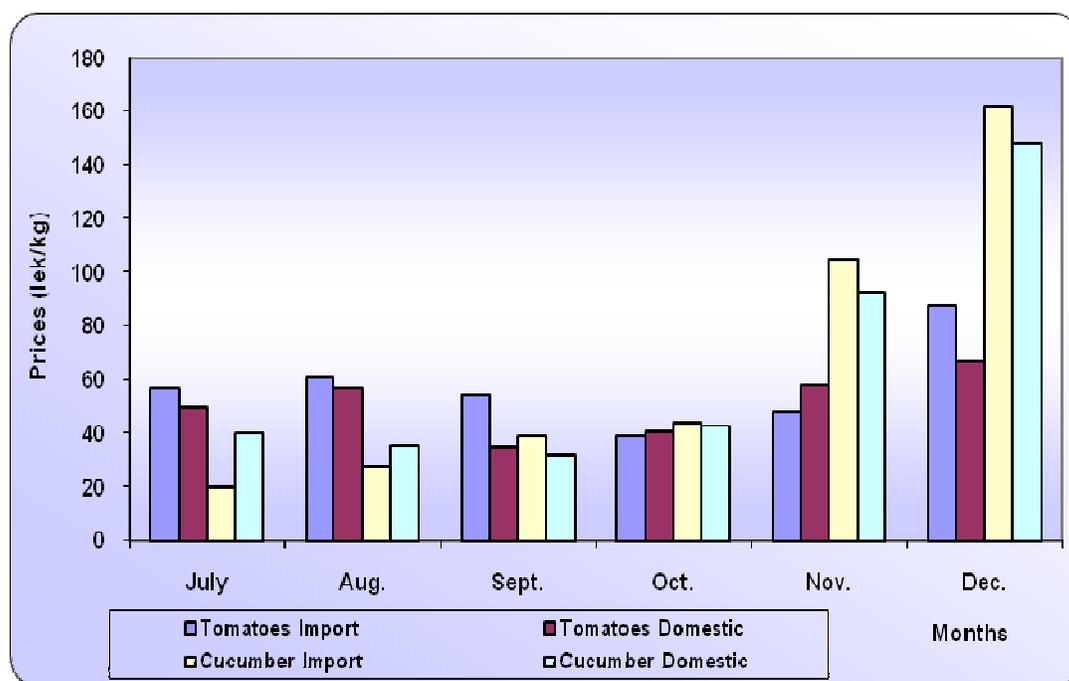
- Introduction of the marketing mix “4P’s “such as: product (good or service), price (value), place (distribution channels, location) and promotion (integrated marketing communications), market segmentation, target marketing and positioning.
- Provide specialized training for VC actors on the requirements for export markets; complete a study in market requirements of packaging materials for regional and EU shipments and disseminate information through the traders and consolidators to producers
- Raise awareness of different stakeholders for the export market requirements, business markets and buying behavior by taking them on visits to the markets (for both producers and consolidators).
- Increase access to and use of timely market information.
- Work with public and private sector market information providers to develop a sustainable MIS that will give access to farmers and trader’s access to timely, accurate and useful price and volume information (level playing field).

ANNEX A:

TABLE 6: FARMS WITH VEGETABLES IN THE DIFFERENT REGIONS IN ALBANIA

	REGION	Nr. of Farms with Vegetables 2005	Nr. of Farms with Vegetables 2006	Nr. of Farms with Vegetables 2007
1	Berat	19,479	19,372	17,227
2	Diber	27,377	24,552	22,386
3	Durres	28,929	31,517	26,974
4	Elbasan	30,085	24,470	26,337
5	Fier	37,512	30,786	31,411
6	Gjirokaster	9,977	8,357	6,360
7	Korce	18,505	21,540	17,257
8	Kukes	10,150	10,468	10,925
9	Lezhe	21,529	17,575	21,544
10	Shkoder	39,756	39,130	39,954
11	Tirane	29,144	28,642	25,851
12	Vlore	19,683	16,619	16,167
	Total	292,126	273,028	262,393

FIGURE 2: RETAIL DOMESTIC AND IMPORT PRICES FOR TOMATOES AND CUCUMBERS IN 2006



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AAC Staff and Key Informants

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