



AGRIBUSINESS SECTOR ASSESSMENT REVIEW

EPI Centar International

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Abbreviation

AgBiz	USAID Agribusiness support program
AGMIS	Agriculture Market Information System
B2B	Business to business
BEA	Business Environment Activity
BRC	British Retail Consortium
BSP	Business Service Providers
BW	Bottled Wine
CAP	Common Agricultural Policy
CMO	Common Market Organizations
DCA	Development Credit Authority
ELSA	Expedited Local Short Term Technical Activity
EU	European Union
EU CAP	European Union Common Agricultural Policy
FACE	Foundation Agro-Center for Education
FAO	Food and Agriculture Organization
FDI	Foreign Direct Investments
FFRM	Federation of Farmers of Republic of Macedonia
FV	Fresh Vegetables
FY	Fiscal Year
GAP	Good Agricultural Practice
GDP	Gross Domestic Product
GLOBALGAP	Global Partnership for Good Agricultural Practice
GoC	Government of Croatia
GoM	Government of Macedonia
HACCP	Hazard Analysis Critical Control Point
HR	Human Resources
IPA	Instrument for Pre-accession Assistance
IPARD	Instrument for Pre-accession Assistance for Rural Development
IPO	Initial Public Offering
ISO	International Standards Organization
LoP	Life of Project
M&E	Monitoring and Evaluation
MAASP	Macedonian Agricultural Advisory Support Programme
MAFWE	Ministry of Agriculture Forestry and Water Economy
MAP	Macedonian Association of Processors
MCP	Macedonian Competitiveness Project
MIS	Monitoring Information System
MLGA	Macedonian Local Governance Activity
NEA	National Extension Agency
PDO	Protected Designation of Origin

PGI	Protected Geographical Indication
PMP	Performance Monitoring Plan
PO	Producers' Organization
PREDA	Pelagonija Region Economic Development Agency
PV	Process vegetables
Q	Quarter
SME	Small and Medium Enterprises
SNV	The Netherlands Development Agency
SOW	Statement of Work
SSO	State Statistical Office
TG	Table Grapes
UK	United Kingdom
USA	United States of America
USAID	United States Agency for International Development
VC	Value Chain
VCC	Value Chain Coordinator
WGP	Wild Gathered Products

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1. Assessment Methodology

In order to assess the main challenges of the Macedonian agriculture sector, the EPI Center Team conducted a number of interviews (during the period 15.5.2009 – 16.6.2009) with key stakeholders within export-oriented agribusiness value chains such as the fresh produce, processed fruit and vegetables, apple, table grapes and wine production sub-sectors. These sub-sectors comprise over 80% of all Macedonian agricultural output, and over 41% of the country's agricultural exports in 2008, in EUR value.

In order to determine the importance of these identified keys sectors, as well as assess the structural issues of other areas within the primary production sector, interviews with key stakeholders from selected livestock sub-sectors (broiler and sheep production) were also conducted.

Regarding the assessment of the SMEs involved in Macedonian agriculture, the EPI Center Team has conducted an in-depth review of the state of SMEs involved with fresh produce exports, fruit and vegetable processors, and wine producers. Together, these types of companies contribute over 14% to the total export value of Macedonian exports. Therefore, a more detailed description of these particular SMEs has been provided when compared to the SMEs of other sub-sectors.

In addition to the AgBiz supported value chains, the Team carried out interviews in other agribusiness sub-sectors that were considered relevant to the overall agribusiness sector in Macedonia, such as: Broiler VC, Sheep Milk and Meat VC, Strawberry VC, Peach VC, and the Sour cherry VC. Given the timeline of this assignment, the Team selected specific VCs that might have other issues and relevance to the overall assessment. Accordingly, these selections were reviewed and approved by the USAID/Macedonia Mission.

In the pertinent "Issues" and "Recommendation" sections, the EPI Center Team has covered all of the important structural issues of the reviewed sub-sectors and SMEs, and has given suggestions for potential remedial actions.

Due to the fact that the FAO Assessment was not available at the time of this assessment, the EPI Center Team reviewed a number of other documents covering structural problems of the Macedonian agriculture, including sub-sector assessments and strategies for future development.

2. Business Environment

The business environment in Macedonia has significantly changed over the past few years. Taxes have been reduced, custom procedures have been improved, and many administrative procedures have been simplified.

As part of the EU accession process, Macedonia has gradually adapted its structural legislation in line with EU directives. Similarly, many structural laws have been modified in recent years, giving rise to new institutions needed to support these modified laws. In a relatively short period, the adaptation to EU regulations has produced several side effects related to: a) the enforcement of this legislation in the field; b) dissemination of information regarding the new legislation, and c) collisions with existing laws that operate in a similar sphere of interest.

This creates confusion and requires ad-hoc solutions by the GoM that does not contribute towards improvement of the business environment.

The process of implementing agriculture regulations and policies has made the agribusiness industry susceptible to external market influences. Considering that the majority of imported products on the domestic market are subsidized, it is more difficult for the domestic companies to compete. In addition, traditional agriculture practices, a lack of modern production equipment, a lack of standardization, inappropriate post-harvest treatment, an absence of a specific export market strategy, the loss of traditional Ex Yugoslavia markets, and small-sized companies make the future of this sector questionable.

According to the MAFWE Farm Registry, there are 80,000 households dealing with agriculture. As the average farms are small, production remains fragmented and oftentimes inconsistent, limiting their competitiveness and profitability. The potential downturn of the sector may negatively affect employment.

The GoM has recently adopted a Program for the Support of Agriculture (which significantly increases development funds such as subsidies and green measures for the next three years) . However, the program does not embrace a development orientation through its policies, due to its support of all agricultural holdings and sectors.

Due to the abovementioned factors, it can be expected that in the forthcoming period, the sector will continue shrinking. It is important to mention that at the moment, the domestic industry is not prepared to provide employment for small-sized farmers. Thus, it is important to develop measures that will make this process gradual.

3. Primary Production

The EPI Center Team has conducted an in-depth review of the state of fresh fruit and vegetable production, table grape, as well as the broiler and sheep livestock sub-sectors.

In the pertinent “Issues” and “Recommendation” sections, the EPI Center Team has strived to cover the most important structural issues, and give adequate suggestions for potential remedial actions by GoM, USAID, etc.

3.1. Background information

Agriculture is a traditional branch of the Macedonian economy, because of its favorable climatic conditions, rich natural resources, and established production experience.

Out of the total land area of Macedonia of 25,713 km², agricultural land in the Republic of Macedonia comprises around 50%, or 1.26 million hectares. Out of this, 560,000 hectares (44%) are cultivated and 704,000 hectares are considered pastures.

As a key sector of the Macedonian economy, agriculture production contributes around 10% to the national GDP (Y2006). If food-processing activities are also considered, the agribusiness participation in GDP is around 13% (Y2006). Additional importance can be seen from the fact that 44% of the total population lives in rural settings, and around 17% of the labor force is tied to agricultural production. The importance of agriculture in Macedonia can also be seen from the fact that 80,000 families are engaged in agricultural production.

More than 80% of the land belongs to private farms. In total, there are approximately 192,000 individual farms on roughly 320,000 hectares, with an average farm size of 2.5 hectares. 40% of farms are smaller than 2 hectares. Such small family-based farms, existing since the time of Former Yugoslavia, are the basis of Macedonian agriculture production. The farm size is even smaller (ranging from 0.2 – 1.0 hectares¹) in the vegetable sector.

Regarding the significance of the different agricultural sub-sectors, the contribution of the livestock sector and crop production to the Agricultural Gross Production is around 21% and 79%, respectively.

Table 1: Main Macedonian Crop Sub-sectors in ha

	2000	2005	2007
Cereals	221,226	203,158	157,332
Industrial Crops	60,863	54,227	43,107
Fruits (including grapes)	42,944	38,912	26,578
Vegetables (including potato)	55,451	46,992	22,051

Animal production is an important segment of Macedonian agriculture. Historically, livestock breeding has been carried out on private farms (with the exception of pigs and poultry) for a very long time. In the last ten years, livestock production has witnessed a downward trend, with livestock quantity decreasing. However, milk production has increased significantly since 2000.

Table 2: Animal Numbers (heads)

	2000	2005	2008
Cattle	264,986	248,185	253,473
Sheep	1,250,686	1,244,000	816,604

¹ According to the Agricultural Census 2007

Goats		62,190	133,017
Pigs	204,135	155,753	246,874
Poultry	3,713,369	2,617,012	2,226,055

Macedonia is a net importer of cereals, sugar, edible oil, milk, meat and tropical fruits, while a net exporter of fruits, vegetables, lamb meat, wine and tobacco. In Y2008, the agriculture and food industry accounted for €378 million, or 13.5% of total exports. As a net food importer, however, Macedonia has attained a negative agricultural trade balance of €84 million.

Table 3: Macedonian Agriculture Trade (2000-2008) in million Euros

	2000	2005	2008
Total Imports	2,272	2,601	4,835
Total Exports	1,435	1,644	2,808
Agricultural Imports	281	348	463
Agricultural Exports	221	279	378
Agricultural Trade Balance	-62	- 69.5	-84

For Macedonia, future membership in the EU can be seen as a window of opportunity for further growth of the agriculture/agribusiness sector, and the Macedonian higher-value food industry is posed to take advantage of this opportunity. Until that time, however, it is important to further strengthen the Macedonian value chains that have a competitive advantage on export markets.

State of Fruit Crop Production

During the last five years, there has been rapid development of the fresh produce sub-sectors. Average fruit production during the last couple of years (excluding grapes) has been around 118,000 tons, of which 60% is apple, 35% stone fruit, and 5% subtropical and soft fruits. Since 2000, fruit production has been decreasing due to a variety of factors, including the transformation of state owned “agrokombinats” in early 1990’s (which owned 50% of the total fruit orchards), a gradual loss of traditional Yugoslav markets, and a lack of Government strategy regarding this sub-sector. The leading fruit are apples with around 60% of the total area, followed by plums (18%), peaches (7%), pears (5%), apricots (3%), and sour cherries (4%). Most of the traditional fruit production is located in the central and southwestern parts of Macedonia. Soft fruit production, such as with strawberries, are a relatively recent development in Macedonia. Due to their high value and high demand on local markets, the EPI Center Team believes they may be a valuable alternative for smaller Macedonian farmers.

Table 4: Crop Area of Major Fruit Crops (2000-2007)²

	2000	2005	2007
Apples	7,379	7,200	4,012
Plums	3,206	2,610	2,013
Peaches	1,411	949	1,039
Apricots	597	345	184
Pears	1,071	830	358
Cherries	360	300	254
Sour Cherries	2,270	1,535	407

Regarding the markets for Macedonian fruits, 80% of the apple crop is exported. Other important export fruits are peaches and sour cherries.

Table5: Exports of Fruit Crops (2000-2008) in US\$

	2000	2005	2008
Apples	1,425,525	5,272,449	10,582,268
Plums	25,679	60,886	1,061,204
Peaches	254,969	491,830	2,476,461
Apricots	28,458	12,061	102,467
Pears	15,394	24,934	229,565
Sour Cherries & Cherries	11,020	232,777	755,272

State of Vegetable Production

Macedonia is a unique country where the land cultivated for vegetables makes up about 50,000 hectares (10% of the total arable land). Almost all of the vegetable production comes from individual farms (97% of volume from 102,000 farms), while the remainder is covered by company production (3% from 50 entities). From Y2000 onwards, vegetable production has been continuously increasing, with the leading fresh crops being peppers, tomatoes, melons, cabbage and cucumbers.³

The greenhouse cultivation of vegetables is considered a profitable activity. Tomato and cucumber are available for market/export by April each year. The general area of protected cultivation was 3,269 hectares (5.8%) in 1990, while only 2,206 hectares was protected in 2007.

The main regions of protected vegetable cultivation are situated in the South, South East and North

² The data are taken from official SSO publications on agricultural production 2000 – 2005 and the 2007 data are based on the National Agricultural Census 2007 and should be considered as most relevant. The variances in the figures can be credited both to trends in the living agricultural production (depending on the market) and to the lack of official agricultural census prior to 2007.

³ EPI Centar, Fresh vegetable research study

East portions of the country. They are mainly situated in the vicinity of major settlements, such as Gevgelija (South), the valleys of Strumica, Valandovo, and Bogdanci (South East), Kochani and Vinica (East), Ovche pole (North East) and the valleys of Skopje and Kumanovo (North). The tunnels have more or less the same distribution, and parts of them are used for the production of seedlings.

Table 6: Production Area of Major Vegetable Crops in ha (2000-2007)⁴

	2000	2005	2007
Tomatoes	6,784	5,769	1,977
Peppers	7,762	8,170	4,964
Cabbage	3,726	3,856	1,196
Onions	4,071	3,218	1,215
Melons	8,607	6,591	3,342

Table 7: Production of major vegetable crops 200-2007, in tones

	2000	2005	2007
Tomatoes	134,654	116,633	117,983
Peppers	116,597	127,472	140,658
Cabbage	70,378	66,499	67,172
Onions	36,336	38,465	n.a.
Melons	124,968	132,872	123,843

Export markets for Macedonian fresh vegetables are mainly located in the Former Yugoslavia markets (60%), followed by neighboring country markets (22%), the EU 25 (12%) and ex-Soviet Republics (5%). However, these exports face increasingly stiff competition from other competitors such as Turkey, Spain, Italy, Holland, etc.

Table 8: Exports of Selected Vegetable Crops (2000-2007) in EUR

	2000	2005	2007
Tomatoes	2,951,024	12,814,327	17,025,426
Peppers	2,992,911	4,875,949	4,600,573
Cabbage	1,044,122	2,511,134	4,788,907
Melons	1,787,602	2,589,611	3,024,517

Table Grape Production

The table grape sub-sector plays a very important role in the Macedonian agribusiness sector since it is extensively export-oriented.

The total area of vineyards in Macedonia was 17,160 hectares in Y2007. Of this, 1,446 hectares were used in the production of table grapes, accounting for around 25,000 tons. There are 3 main vineyard

⁴ The same applies for the fruits areas

production areas classified by the national academic experts, which include Povardarie (83% total production), Pelagonija-Polog (13%) and Pcinja-Osogovo (4%). The production of table grapes is largely located within companies owning parts of large ex-Kombinat plantations (54.4%), while the remaining 45.6% are being produced on family farms. Current table grape production is around 20,000 tons, (with white table grape varieties making up 62%).

The export of table grapes ranges between 12,000 – 13,000 tons. The top 10 table grape exporters control 55% of the export, while the remaining grapes are being exported by others (for a total of 74 companies). The major export markets are Former Yugoslavia (Serbia 62%, Croatia 8%) and the region (Albania).

Broiler Production

The poultry industry is focused mostly on egg production, and has steadily decreased in size over the last 20 years. In Y2007, poultry meat production was 11,000 tons (1,000 tons layers, 10,000 tons fresh broiler) of meat.

Specialized broiler production is a relatively new development, but is steadily increasing despite the large imports of frozen broiler meat. Broiler production is organized on big farms of the industrial type, and 30 smaller private farms organize broiler production based upon on a cooperative principle, which provides only 38% of the annual poultry meat demands in Macedonia.

Imports of poultry meat account for the largest share of total imports of agri-food products in Macedonia. In Y2008, 28,461 tons of poultry meat was imported, mainly from the USA (30%), Slovenia (18%) and China (14%). A small amount of exports are shipped to Kosovo as fresh poultry meat, while small quantities of processed meat from domestic poultry are exported to Albania, Bosnia, and Montenegro.

Table 9: Poultry Meat Trade (2000-2008) in US\$

	2000	2005	2008
Total Imports	16,278,586	25,676,521	42,670,092
Total Exports	111,403	126,658	72,444

Sheep Production

The sheep breeding sub-sector has a long tradition, which has been supported by favorable natural conditions (50% of the agricultural area consists of pastures). The number of sheep, since an official animal registry and tagging system does not exist, can only be approximated. This approximation stands at 1.28 million sheep (67% breeding ewes, 27% lambs and yearlings, 6% rams and sterile ewes).

Around 96% of milking ewes are held on private farms, with their number estimated at 2,964. The majority of farms keep less than 51 sheep, (41%) of farms have between 100-300 sheep, and around ten farms have more than 1,000 heads.

The average production of sheep milk in the last couple years has been about 70,000 liters, with an average yield of 57 liters per ewe. Most of the sheep milk is processed into white sheep cheese (feta type), with minimal quantities being exported.

The average production of lamb meat in the last couple of years has been about 6,500 tons, with signs of increasing growth.

Lamb meat exports represent the third Macedonian export article. Around 75% of the total lamb carcasses are exported (6,500 tons of lamb meat with the value of \$20.4 million in Y2008). The main export markets are Greece and Italy. Small exports of sheep milk and cheese are sent to Australia, with smaller quantities going to Serbia, Bulgaria, and Greece.

Table 10: Sheep Meat and Milk Production & Trade (2000-2008)

	2000	2005	2008
Total Sheep/Goat Meat Production (Ton)	4,919	6,857	6,495
Total Milk Production (000 lit)	40,156	48,700	69,852
Total Sheep Meat Imports (US\$)	0	0	0
Total Lamb Meat Exports (US\$)	7,190,710	15,872,462	20,423,349
Total Sheep Milk Imports (US\$)	0	0	0
Total Sheep Milk Exports (US\$)	0	0	80,216

3.2. Primary Production Issues

During the field trips and the meetings held with company and association representatives, the Team identified the following weaknesses across selected sectors:

- 1) National Agricultural and Rural Development Strategy Implementation
- 2) Sub-sector Strategy Development
- 3) Land Consolidation
- 4) Farm Productivity (Producers Education & Transfer of New Technologies)
- 5) Product Quality & Standardization
- 6) Subsidy Support Policy
- 7) Agriculture Legislation
- 8) Producer Organizations
- 9) Government Service Providers – Extension Service
- 10) Chain Partnerships & Networking
- 11) Irrigation
- 12) Access to Finance & IPARD

3.3. Primary Production Recommendations

Regarding the above-identified issues, the EPI Center Team would recommend the following:

1) National Agricultural and Rural Development Strategy Implementation

This guidance document was formulated in June 2007, with the goal to provide overall direction for the period 2007-2013. However, current achievements and changing economic conditions in Macedonia, as well as major changes in export markets, have imposed the need for re-examining certain elements of this Strategy (i.e. ranging the sub-sectors to be supported on the basis of the level of their competitive advantage, defining the developmental focus of the strategy, defining optimal regions for certain production, etc).

Another issue is the true level of implementation of the Strategy. A good example of its weak implementation is that the state of production for strategic sub-sectors, such as the wine & table grape sub-sector, has not been established yet (“National Vineyard Register” has not been established), although it is a basic condition for any future development planning. Having precise resource inventories of production, such as the National Vineyard Register, is a condition to be fulfilled for EU membership. Therefore, such areas should offer valuable opportunities for strengthening institutional ties & cooperation between all stakeholder groups within the Macedonian agriculture complex. In summary, an adequately developed National Strategy should be followed by all governmental institutions and donors active in the agriculture sector, particularly those covering different elements of the Strategy.

2) Sub-sector Strategy Development

For the export-oriented sub-sectors, such as table grapes and apples, there is currently a lack of defined development strategy documents. An in-depth, sub-sector analysis would enable the GoM to prioritize areas for support through policy measures.

While recognizing the negative trend of losing large parts of their traditional export markets, producers must urgently redefine their production and market-based approaches through a well-thought out sub-sector development strategy.

A final area of focus could be the creation of recognized fresh produce brands, and their market promotion on existing and new markets.

3) Land Consolidation

The size and fragmentation of private family farms presents a serious impediment for achieving price competitiveness. Therefore, the definition and implementation of a land consolidation strategy,

through the cooperation of farmers' representative and the Government of Macedonia, should be considered a major priority area.

4) Farm Productivity (Producers Education & Transfer of New Technologies)

There is currently a wide range of efficiency issues regarding production costs and yields of fresh produce. Many farmers do not closely track their costs of production. There is also an urgent need to ensure adequate education and training on new production technologies such as drip irrigation or good agricultural practices, such as soil testing, integrated crop protection, and energy saving methods, all of which will contribute to lowering production costs.

The *broiler sub-sector* is quite interesting in regards to this topic, because of its relatively new presence in the Macedonian agriculture complex. As a result, there is a strong need to provide education and technology transfer to farmers in this field. As in other sub-sectors, such support in providing education and technology transfer is lacking by the NEA.

Support for the establishment of demonstration model pilot plots may be an effective way to have a national-level impact regarding the adoption of new technologies by producers. It is crucial to have buyers/production companies involved in these efforts.

5) Product Quality & Standardization

Much of the current fresh produce does not meet the changing quality standards of traditional and newly targeted markets. Furthermore, the demand for some currently produced vegetable and fruit varieties do not follow consumer developments in regional and potential EU markets (apples, table grapes, and tomatoes are some examples). A specific example is the Macedonian table grape sub-sector, which has lost a great deal of its traditional markets (Croatia, Slovenia, and Bosnia & Herzegovina), and is about to lose the rest (Serbia). The apple producers, due to having old varieties of lower quality, are also losing the Former Yugoslavia markets and are not present in the EU market.

On-farm, post-harvest handling is also an issue with many farmers having poor knowledge of quality standards. Therefore,, otherwise excellent produce is being ruined by an inadequate, post-harvest handling process at the farm level.

Finally, within regional and EU markets, supermarkets have become the leading sales points for fresh produce. As a rule, supermarkets require consistent high quality, and in order to ensure this, they require quality certification (GLOBALGAP, Nature's Choice, etc.). Therefore it is important to supply it.

In order to achieve defined quality standards, Macedonian fresh produce sub-sectors should initiate the establishment of regionally-based produce brands in the future, based on unique characteristics (i.e. it would be useful to follow EU based rules for doing so from the start, such as PDO or PGI registration). However, this initiative may only come at the end of a prolonged period of distinct, established, and certified quality.

6) Subsidy Support Policy

Regarding the current subsidy policy of the Ministry of Agriculture, views have been expressed by farmers and SME buyers/processors that current subsidies are mostly a social support system, rather than a development tool geared towards creating conditions for achieving higher produce competitiveness. It must be stressed that the subsidy policy is one of the strongest means the GoM may have in order to stimulate the needed positive changes, such as the adoption of new varieties and technologies, implementation of “Good Agricultural Practices”, and the quality improvement of produce. Therefore, the already approved budget funds should be streamlined and redesigned for activities that directly support the increase of the competitiveness of specifically selected VCs. Also, it is important to keep in mind the future of Macedonian / EU membership, and to create conditions for gradual adjustment to the EU CAP-based subsidy regime. Therefore, the EPI Centar Team believes that the formulation of future subsidy policies that are more developmentally focused and utilize all synergies between the VCs could create the foundation for a competitive and regionally powerful agribusiness sector in Macedonia, while potentially saving essential funds. In realizing this initiative, strong cooperation between the GoM and representatives of the different sub-sectors will be necessary.

Therefore, a productive dialogue between representatives of the GoM, farmers, and SME buyers/exporters should be established in order to discuss how to adjust this essential support instrument in order to expand the production of export-oriented products.

7) Agriculture Legislation

As part of its accession preparations, Macedonia is currently adjusting and adopting a large number of Laws in order to meet the requirements of future EU membership. Indicative areas that will be covered in this process are farm & land registry, food safety, products registration (PDO&PGI), integrated crop production, environmental protection, and organic production, amongst others.

Current practices reveal that the GoM passes new laws with insufficient farmers’ representative consultation. The by-laws regulating their implementation may cause a much bigger problem, given the situation in the field. Therefore, a priority must be established in strengthening the farmers’ representative involvement, as well as educating and helping farmers regarding new law implementation.

8) Farmer Organizations

Currently, farmers are unorganized and deal with buyers individually through local village buy-off agents. The information they receive concerning recent developments at the policy level is very basic, and is mainly related to subsidy levels to be received or seasonal buy-off prices.

Where farmer associations exist, most of them are very weak. Given their nature as key entities in representing farmer’s interests in regard to the GOM and buyers, the implementation of education, and the adoption of new technologies, it is crucial to continue support in strengthening the organizational and management capacities of the existing farmer organizations, such as the “United Apple Producers Organizations, “VegaMak”, and others.

Informational and educational campaigns describing the value of associations and EU supported models (CMO Producer Organizations) should be carried out. Support for the establishment of new farmer organizations should also be provided, while being careful to identify and respond to only “bottom up” initiatives.

Regarding the establishment of cooperatives as farmer-controlled business entities, a negative connotation has historically been tied with such organizations. Therefore, in order to support coop development, the GoM should clearly create distinct business advantages for farmers to start organizing themselves into cooperatives. Besides cooperatives, development of all other alternative forms of farmer-controlled businesses, such as crafts and limited liability companies, could be supported.

9) Government Service Providers – Extension Service

Regarding the functioning of the State supported Agricultural Extension Service, the Team views it as crucial in educating and supporting Macedonian farmers in all the above outlined areas. However, from the interviews we have conducted, it seems that links with farmers are at best weak, and confined to providing various paperwork services for receiving subsidies/monetary support.

This situation seems to originate from the lack of a clearly defined role for the Extension Service by the GoM. Therefore, bringing changes to this Service is an area for farmer representatives and other agribusiness stakeholders to lobby with the GoM for necessary changes in the role and operations of the National Agriculture Extension Service (NEA).

10) Chain Partnerships & Networking

Currently, networking and lobbying for farmer interests with other agribusiness stakeholders is limited. There are some donor-supported organizations, such as the FFRM, whose value is recognized by the GoM.

Developing production plans, or some form of contract farming between production organizers/buyers and farmers, is also very rare. However, successful models of such cooperation should be presented and promoted, as a way of creating the needed change towards strong chain partnerships.

10) Irrigation

As an optimal water supply is a key component for competitive fruits & vegetable production (and given Macedonia’s prevailing climatic conditions), it is necessary to ensure rapid expansion of irrigation to these areas. The negative impacts from the lack of irrigation, for example, is evident by the 15% drop of production in table grapes in Y2008, compared with that of Y2007.

As part of new technology transfer, however, farmers should be educated and financially supported to promote water saving systems such as drip irrigation. The use of fert-irrigation is another method that is in line with increasing on-farm productivity.

12) Using EU Instrument for Pre-Accession Assistance - IPARD

The use of IPARD funds may be an option for some Macedonian farmers. However, it is not realistic to expect large numbers of small farmers to utilize IPARD. With excellent educational outreach and well-executed, preparatory support, some large farmers/companies may be able to utilize IPARD.

4. SME Sector

Fresh Produce Exporters

Currently, there are more than 100 fresh fruit and vegetable SMEs companies in Macedonia dealing with buyoff and exports of fresh fruits and vegetables. The top ten exporters account for 60% of these exports. Most of these SME companies are situated in the traditional production areas of central and southern Macedonia. One of the characteristics of the Macedonian fresh produce sector trade is that a large volume is bought by traders from neighboring countries through a system of direct cash payment to farmers. Such practices present a burden for Macedonian exporters operating within the legal framework.

Fruit and Vegetable Processors

Regarding fruit and vegetable processing, there are currently 55 companies in Macedonia. Even though most companies can process both fruits and vegetables, around 90% of the overall processing consists of vegetables. Regarding their size, most of the fruit and vegetable companies are classified as micro or small sized (around 91%). Only 1 company in 2007 had more than 100 employees. The majority of these companies are located in the Strumica, Gevgelija and Kavadarci regions.

The overall capacity for fruits and vegetables processing is around 175,000 tons of final output. The average utilization has risen from 27% in 2005, to approximately 32% in 2008. However, since 2000, the processing fruit and vegetable industry has steadily been increasing, with an output of 55700 tons (121% more than in 2004) in 2008.

Red pepper is the most important raw material within the vegetable processing industry, representing nearly 50% of the total raw material processed. Industrial “ajvar” and frozen peppers were the most important products (individually contributing 17% to overall production), followed by processed gherkins, roasted pepper, hot peppers, etc. Overall, pepper-based products dominate overall production.

The fruit and vegetable industry is very export oriented, exporting almost 80% of its total output. The main export markets are the EU and the neighboring country markets. Around 56% of exports went to the EU markets, the second most important market being Serbia. Overall exports of processed products in 2008 amounted to the value of €358 million, which represents an increase of over 27% compared with the previous year.

Table 11: Production and Exports of Processed Fruits & Vegetables

Year	Total Production (000 tons)	Export (000 tons)	Domestic Market (000)	Export Value (in Mil Euro)
2004	25.2	18.2	6.0	13.8
2005	28.8	21.0	6.8	17.8
2006	43.6	25.6	7.5	23.5
2007	45.1	30.3	7.9	28.1
2008	55.7	33.4	n.a.	35.8

Wine Production

The wine sub-sector represents a very important role for Macedonian agribusiness with 90 registered wineries, each with a wine production capacity of 10,000 – 55 million liters. A few wineries control the wine market in terms of capacity of production and exports. The largest winery (Tikves) alone accounts for 30% of the total wine production, and the first six firms together account for 80% of the total wine production. The wineries production capacity for red wines (60%) is larger than that of white wines (40%). An interesting development during the last couple of years is the appearance of small and medium sized wineries. These wineries tend to focus on the production of bottled and higher quality wines.

Regarding exports of Macedonian wine, most of the wine is exported bulk (85-90% volume). However, there has been a positive trend in exporting high quality bottled wine (36% of value in 2008). The main export markets for Macedonian wines are the Former Yugoslavia markets (Serbia 67%, Croatia 14% and Bosnia and Herzegovina 3% of the total volume). The major EU market for Macedonian wines is Germany (2.9% total volume).

Table 12: Exports of Macedonian Wine 2007-2008

Total Wine Exports		
	Quantity (liters)	Value (Euro)
Total Exports in 2008	70,223,403	39,398,009
Bottled Wine Total Exports	10,365,657	13,993,128
% of bottled wine in total exports	15%	36%
Bulk Wine Total Exports	59,591,223	25,178,975
% of Bulk Wine in Total exports	85%	64%
Total Exports in 2007	92,594,562	43,560,169
Bottled Wine Total Exports	9,545,145	12,232,610
% of bottled wine in total exports	10%	28%
Bulk Wine Total Exports	83,049,417	31,327,559
% of Bulk Wine in Total exports	90%	72%

4.1. SME Issues

During field trips and through meetings with company and association representatives, the EPI Centar Team has identified the following weaknesses in the SME fruit & vegetable processing sector:

- 1) National Industry Development Strategy
- 2) Sub-sector Strategy
- 3) SME Trade Organization Development/Strengthening
- 4) Post-harvest Storage & Packaging Facilities
- 5) Quantity & Quality of Raw Material
- 6) Education of Staff on Technology Issues
- 7) Partnership with Producers
- 8) Link to GOM
- 9) Branding & Quality Standards
- 10) Market Research & Promotion
- 11) Access to Finance

4.2. SME Recommendations

- 1) National Industry Development Strategy

During its field research and in meetings with representatives from the Ministry of Economy, the EPI Centar Team realized that the GoM had recently drafted its “National Industry Development Strategy”, which covers the future development and support measures for the fruit and vegetable processing industry. However, in later meetings with the Secretary of the “Macedonian Association of Processors (MAP)”, it became obvious that the Association was not aware of the formulation of such a document.

This illustrates the weak level and quality of interaction between the processing industry, represented through trade associations, and the GoM. At best, these contacts and actions are confined to “firefighting measures” related to seasonal problems, such as imports of raw material. Therefore, it is crucial to support the development of a stronger partnership and dialogue between “MAP” and the GoM.

- 2) Sub-sector Strategy

One of the areas that the EPI Center Team has identified as a critical weakness is the lack of sub-sector strategies developed by stakeholders themselves. Currently, most companies cooperate on an “ad hoc” basis when short-term issues are identified each year, and have been essentially successful in putting out such “fires”. However, the development of strategy documents (which would define common sub-sector goals in the mid and long-term) are currently missing. The upcoming IPARD

funds may be the first indicator that will reflect the negative consequences of such cooperation between VC stakeholders on complex issues. Also, as long as key Macedonian VCs have not formulated their own development strategies, efforts to get help from the GoM may only be a “guessing game”, which may or may not have the positive impact that is needed.

3) SME Trade Organization Development/Strengthening

Regarding the development of trade organizations, the fruit and vegetable processing industry association (MAP) is the best example. Based on the level of activities and achieved results for its members, MAP seems to be one of the best functioning associations in the Macedonian agribusiness sector. It has functioned for the last 4 years, and during this period has managed to lobby with the GoM on numerous issues. Fresh produce buyers/exporters have not founded an association as yet.

As indicated by the “MAP” professional Secretary, however, there is a strong need to further support the strengthening of this Association. Potential areas would be the formulation of the new “Association Strategy” for the period of the next couple of years. Other initiatives include the development of new income generating services to be provided to industry members. Strategic planning and market research of potential markets, with the support of USAID, may be such an opportunity to increase the quality of information dissemination to members.

4) Post-harvest storage & packaging facilities

One of the outstanding issues that the Team has come across (in our frequent contact with all SME companies involved in buyoff/export, as well as the fruits and vegetables processing companies) is the lack of modern post-harvest storage facilities and accompanying calibration and packaging lines in the case of fresh produce. The lack of such facilities and equipment seriously hinders the future development of both sub-sectors, causing fresh produce post-harvest losses to be high, and final packed products to rarely meet the quality and packaging standards of the EU market. Processors, due to their lack of long-term storage facilities for raw material, cannot spread out their processing operations through a longer period.

Therefore, the construction of modern post-harvest storage facilities and buying of appropriate packaging equipment remains a top priority for these sub-sectors.

Since AgBiz has been very active in this area, and has supported the establishment of successful pilot post-harvest models, it would be of great value to ensure their replication on a national level.

The use of IPARD funds to finance investments in the area of post-harvest management/storage may be an excellent opportunity for companies wishing to achieve this goal.

5) Quantity & Quality of Raw Material

Most SMEs involved in fruit and vegetable processing and fresh produce exports have indicated that they have big problems in securing the needed quality and quantities of purchased raw material. Such issues are tied with the use of old varieties, lack of modern technology, lack of established “Good

Agricultural Practices”, and other associated standards. Therefore, most SME’s expressed their interest in providing support to raw material suppliers/farmers in order to resolve such issues.

Regarding the establishment of quality standards in the fresh produce sector, exporting companies are aware that in order to export to EU buyers, they must introduce GLOBALGAP to their farmers. However, with the exception of a few companies, most of them are still exporting to markets that do not currently request GLOBALGAP. It is important to stress that “Good Agricultural Practices” should be implemented in such a way that the primary goal is to make local produce more competitive through lower production costs. (An example being the plant protection practices of Resen apple producers).

6) Education of SME staff

As many of the fruit and vegetable processing companies are relatively new and interested in developing new types of products, their managers seem eager to obtain support for the education of their technologists. Interest for further education/training through the AgBiz Program has also been expressed by post-harvest handling and wine production SME’s. However, it is recommended that a “Training Needs Assessment” with USAID project partners is carried out in order to best serve such needs.

The strengthening of links between research institutions and SME companies regarding the need to educate company staff also needs to be catalyzed.

7) Partnership with farmers/GoM

SME buyers and processors have indicated the need to strengthen their partnership with local farmers. Currently, fruits and vegetables are, with a few exceptions, bought using village based “agents” on an “ad hoc” basis. Most companies expressed views that the lack of organizational partners on the side of farmers is a serious constraint to their business development. This presents a serious constraint to those that are rapidly expanding into foreign markets, since they are not able to develop firm delivery plans for foreign buyers. In order to improve this situation, some companies are developing “contract farming” models, as well as providing assistance to farmers regarding new technology adoption.

Strengthening trust and cooperation between farmers and SME’s through such model contract farming may be the first step in creating a sense of unity and cooperation between the farmers themselves. Based on such ties, more sophisticated forms of organization (farmers organizations, coops, etc.), may develop.

It is especially encouraging that some companies seemed interested to cooperate with USAID in order to set up model pilot trials, educational sessions with their producers, as well as support replications of these trials to other farmers.

In summary, the level of discussion between representatives of SME’s and the GoM concerning issues and planning for the future seems to be quite weak. Given the relatively short time that the

Macedonian agribusiness sector has to prepare for future EU membership, it is crucial to strengthen such cooperation in the near term.

Almost all SME representatives stressed the need to redefine the role of GoM agricultural subsidies in order to strengthen their impact on developing competitive production rather than being a social policy measure. Cooperation on such complex issues between SME's and GoM is crucial.

8) Branding & Food Safety Standards

SME companies have expressed great interest in developing regionally-based product brands (ajvar or fruit brands). However, they are fully aware that in order to do so, it is necessary to develop high quality, standardized raw materials, as well as processing standards. Such future initiatives should be in line with the existing EU rules for registering such products (PDO or PGI).

Regarding the food safety of final processed products, and given their safe exports to the EU and overseas markets, exporting companies are aware of the need to implement various food safety standards. As a result, 65% of fruit and vegetable processors are implementing HACCP, 33% have been HACCP certified, and some have additional certifications of ISO 22000, BRC, etc. When supporting SME's to adopt any chosen food safety standard, it is important to help them understand and implement the required measures in a way that will, whilst ensuring food safety, help streamline their operations and lower production costs.

Regarding food safety standards at the poultry and sheep slaughterhouses, the GoM is currently adjusting Macedonian legislation with pertinent EU Regulations. These companies may in the future need educational support in implementing practices related to meeting the "Hygiene Package" requirements.

8) Market research & promotion

Given the interest of Macedonian food exporters to develop their export to EU and other new markets outside the existing regional and Former Yugoslavia markets, it is important to support the establishment of sustainable models of replicating USAID sponsored activities, such as study tours and fair attendance. Industry associations may be crucial in achieving this goal.

Regarding access to new markets, support for SME trade organizations ("MAP", etc.) needs to be provided while they initiate efforts to conduct strategic planning for their export promotion. Selection of products to be promoted should be prioritized using criteria developed by SME members. Based on this, in-depth market research on selected EU countries can be used as initial association strengthening exercises.

Strengthening the partnership with the GoM units that can provide financial and other types of support (Embassy Economic Departments) can be another area worth considering.

9) IPARD

At the meeting in the “Paying Agency”, it was announced that Macedonian SME companies from the agribusiness sector will be able to apply for the use of IPARD funds in late 2009 or early 2010.

In order to achieve a high use of IPARD funds, potential users should be properly informed about the conditions for their use in a timely fashion. Moreover, the provision of qualified consultancy support throughout the preparatory period is crucial. Training of Macedonian consultants and Association leadership as IPARD trainers may be an efficient way of providing such support.

Operational networking and planning between key stakeholders of this process, such as company/associations representatives and banking sector representatives, is a precondition for successful implementation of IPARD.

5. Human Resources Development and Business Support Providers

Farmers’ Organizations

There are currently over 200 farmers’ associations registered in Macedonia. However, only about 50% are operational to some degree. Most of the associations are based on a certain type of production. The functioning of most associations is weak, due to a lack of membership commitment, and a lack of managerial skills needed to develop income-generating services needed to ensure organizational sustainability. Given all the challenges Macedonian producers are faced with, associations have a crucial role in overcoming them. Farmers’ organizations should become the transfer mechanism for rapid dissemination of knowledge among their members, as well as partners towards other key stakeholders in each “Value Chain”. The formulation of members’ interests and participation in GoM policy formulation also needs to be strengthened. Farmers’ organizations may also be important national-level partners/mechanisms regarding the implementation of planned and controlled replications of pilot models established by the AgBiz program.

In 2002, the FFRM was established with donor support as a union of farmers associations with 5 offices, covering the entire territory of Macedonia (90 member associations). Since then, FFRM has been very active in lobbying for farmers’ interests. However, the donor support will end in 2010, and the “Federation” needs to find ways to ensure its sustainability. It seems that the GoM, even though engaged in a dialog with the “Federation”, is not fully aware of the potential this organization can have towards creating a vibrant Macedonian agricultural sector.

Cooperatives/Farmer controlled companies

In their interviews, SME representatives repeatedly indicated the need to have producers organized in some form of organizations, which can then become their partners. Otherwise, costs associated with the current practice of dealing with a very fragmented and unreliable raw material supply network seriously hinders their efforts to expand production and exports.

The existence of a very few cooperatives was given as a negative past experience. Even as the GoM currently supports cooperative development by co-financing their establishment, office, and managerial costs, this may only be a small step in the needed direction. Basically, it seems that there is no tax or other monetary incentive for farmers, as entrepreneurs, to form cooperatives instead of forming limited liability or other type of businesses. Therefore, introducing needed changes in order to foster cooperative establishment and development may be a wide area for the existing cooperatives and farmer associations to act with USAID support.

However, due to the extremely fragmented nature of the Macedonian farm production, some kind of business consolidation needs to take place. Such a process needs to be planned and supported, since a “free fall” decrease of a number of small and medium-sized farmers may occur, resulting in the production decreases from a very large number of farmers. Therefore, it is necessary to support the organizing efforts of producers in some form (not necessarily cooperatives). Organizing Macedonian farmers through Producer Organizations based on EU support and experiences may be one of the needed alternative organizational forms.

Agricultural Education

Regarding secondary vocational training, Macedonia has twenty agriculture-related high schools located throughout the country. Similarly, four higher education institutions are also located in distant parts of the country, offering formal agricultural education programs.

However, besides the “Foundation Agro-Center for Education (FACE)” which is the only organization providing non-formal adult farmer educational outreach, none of the above mentioned 20 educational institutions provide similar non-formal farmer education services. Given the need to educate farmers on new production practices and technologies in a relatively short time frame, the provision of such services to farmers should be initiated. Therefore, catalyzing efforts to get more service providers involved in the non-formal education of farmers is crucial and can be facilitated by AgBiz staff.

Agricultural Research

Currently, Macedonia has 6 research institutions involved with agriculture. However, the EPI Center Team has discovered a serious disconnect between the GoM funded research society, and potential users of such services among farmers.

It seems that private farmers, in general, are not the main focus of these institutions, and therefore they do not benefit from their research findings. Some involvement between research institution staff exists with larger SME’s, but it is questionable whether such results are demonstrated and replicated among farmers.

Therefore, strengthening the cooperation between research institutions and farmers and smaller SME’s, as a way to provide the needed educational outreach, should be supported.

Business Support Providers

Business Support Providers to Macedonian farmers and SME's in the food and wine industries can be divided into those of the GoM, and those of the private sectors.

The "Agricultural Extension Service" is one of the main GoM business support providers. It was established in 1998, and consists of 6 regional offices with 130 employees. However, in all the interviews conducted, it was stressed that the NEA does not function in regard to providing educational outreach to farmers. Currently, it seems the NEA is overwhelmed in dealing with subsidy and rural development program paperwork. This is indicative of the lack of a clearly define role for this service by the GoM.

The EPI Centar Team sees this service as crucial to the future development of the Macedonian agriculture sector. Therefore, lobbying for the redefinition of its role by farmer representatives/associations is a priority area.

As for the private sector, it is limited to a number of individual advisors and consulting firms active mainly in the major agricultural areas. Given the experiences of countries in the region in regard to IPARD funds, strengthening this segment of business service providers is crucial to receiving better results regarding utilization levels.

6. Market Linkages

One of the characteristics of trade globalization is that competition has largely shifted from individual company level towards "chain competition". Therefore, the strengthening of market links between all key stakeholders of Macedonian sub-sectors/Value Chains is a must.

Producers and producer groups must be proactive in getting engaged in their markets. They need to know what their markets want and when they want it. They must be able to produce for the market and they must be flexible enough to adjust to changing markets. Macedonian producers, in general, lack these skills.

In the many meetings taking place during this assessment, the EPI Centar Team realized that forging stronger links between producers and fresh produce exporters is critical to decrease production costs, achieve and preserve high produce quality, and to meet the changing requirements of Macedonian export markets. No longer is it enough to assume that "traditional Macedonian quality" is recognized and sought after by new generations of consumers in the region and EU.

Moreover, access for producers and exporters to electronic databases of trade information, an integrated system for tracking and analysis of trends in agricultural markets (AGMIS), does not exist. Since the GoM is obliged to establish such a system as part of its EU preparatory work, this could be an opportunity for producer and export representatives to participate in the design of the future Macedonian Agricultural Market Information System.

Macedonian exporters are faced with the challenge of introducing new quality and packaging standards, if they are to expand exports to the EU 25. A recent development is the rise of EU and domestic supermarket chains in the region (Croatia, Serbia, and Slovenia), imposing strict quality standards.

Some Macedonian companies are already linked to buyers in the EU, USA or Australia. Further promotion of Macedonian wine and processed food products at specialized trade fairs should be considered, in order to catalyze the establishment of the required market links. However, in order to expand into such new markets, these SME's are faced with challenges such as creating higher value products (bottled wine, niche processed products), meeting food safety standards, and being able to supply larger volumes (Russian market).

Association activities, such as strategic planning for new market expansion, could support the shift from current trends of individual company trading towards more sophisticated joint marketing efforts. Follow-up activities regarding USAID sponsored fair attendances could also be focused in such a way. Close cooperation with GoM (Embassy Economic Services) may be an option for collecting needed trade data and product promotion in the future.

7. Access to Finance and Investments

Historically, the access to low-cost financial resources for the agricultural sector has been one of the most important issues. The conservative banking system in the country has rarely recognized agriculture as a potential area for investment. At the same time, a) the small-sized companies, b) traditional mindset, c) family owned businesses and d) limited ability for providing adequate financial guarantees, do not contribute towards the development of financial mechanisms that could support the growth of agriculture.

The “cash economy”, which is particularly significant in this sector, is increasing the need for short-term financial resources. Considering the global economic recession and the effect of the crisis on the domestic economy, the problems related to financial resources multiply.

IPARD funds, the GoM funds for the support of rural development, and the current initiative for providing low-cost loans from the Macedonian Bank for Development, are all activities that the government has initiated to ease this problem. These initiatives, however, are not expected to solve the problem in the long run.

According to the latest information regarding the current status of the USAID's DCA, none of the AgBiz Program partners have used this opportunity to obtain loans with lower collateral requirements. The larger traditional banks seem “satisfied” with their set of large agribusiness clients, and do not seem to be keen on entering in these types of agreements with USAID. Despite the current difficulties, DCA may still be a valuable tool for improvement of access to finance for smaller SMEs or farmers. One possibility to achieve this is through the development of a “joint project”, involving the SME buyers/processors interested in supporting production expansion of their selected farmers/suppliers that currently have difficulties in meeting the banks' collateral requirements. If

these SMEs are interested in signing long-term buy-off contracts, such documents may not only have a positive impact on the collateral requirements, but may also bring around the lowering of interest rates for such borrowers. Developments of this type present a tri-partite partnership between the banks, the processor SMEs, and the farmers, and due to the sophistication of the agreement, the AgBiz staff could play a crucial role in catalyzing these types of developments. An encouraging fact is the successful usage of USAID DCA was already achieved in the Balkan region.

8. Donor Assistance

Because of its relevance for the Macedonian economy, agriculture is one of the sectors that has received significant support from different donor organizations in the past. These programs were with limited duration and limited resources, uncoordinated, and not based on developed strategy or vision for the Macedonian agriculture sector. As a result, there were only sporadic effects from this donor related project implementation, occasionally having systematic impact. Very few of these programs have practical continuation today. With the development of the Macedonian economy, the value of such programs and the need for coordination is also increasing.

The current EU accession process requires significant assistance for successful implementation of the developed policies and regulations. While there are developed mechanisms aimed at supporting institutional development and legal transition, there are limited resources available for the support of the real sector. Only few donors have directly supported the Macedonian agribusiness or small farmers during this transitional period.

The majority of past bilateral programs that were designed to indirectly support the agriculture sector, due to the envisioned EU structural assistance, have since closed or are in some closing phase. Unfortunately, mainly due to the characteristics of the Macedonian agriculture institutional capacity, it is difficult to expect that in the near future the EU structural funds will be able to support the needs of the private farmers and agribusiness industry.

9. Recommendations

USAID has been active in Macedonia for over 15 years, and the value of its support is widely acknowledged by all key stakeholders from the Macedonian agribusiness sector. Considering the successful experience with the implementation of the AgBiz Project and the good initial results, EPI Centar believes that USAID should consider basing its future support on continuing the support of the same VCs, with the exception of wild gather products VC. Based on its rich operational experience and the fact that it has excellent connections with all key agribusiness stakeholders, we believe that USAID Macedonia can provide valuable assistance through its Programs in the following areas:

a) Policy

In order to effectively transform the Macedonian agriculture sector, much needs to be completed in the agricultural policy area. Such work is deemed especially important, given Macedonia's aspiration

for EU membership is a strategically important priority for the country. Formulating and implementing newly adopted legislation in areas such as food safety, environmental protection, and veterinary measures/animal welfare will be a huge challenge in meeting EU regulations. Given its past track record as a key donor organization working in the field with farmers and SME's, USAID is perfectly poised to provide the needed support in these areas. Considering that the EU will provide assistance to the government in the process of adopting new legislation, the EPI Centar Team believes that USAID could provide valuable contributions by addressing the needs of the SME sector. At the same time, *law enforcement and strengthening the capacities of the institutions responsible for their implementation* will be the biggest challenge in this process. Working in conjunction with trade associations, potentially established within each VC, will provide long-term solutions for these issues.

b) Networking and organizational strengthening

Currently, weak vertical and horizontal partnerships, as well as relevant trade farmer organizations, continue to be a significant weakness of the Macedonian agribusiness sector. In order to improve the competitiveness of different Macedonian "Value Chains", it is of utmost importance to support the *strengthening of partnerships between GoM and the agribusiness SMEs and farmers*.

Another area where USAID can provide key support is the *development of efficient SME trade and farmers' organizations* that will help their members solve common problems, as well as advance initiatives such as developing joint brands, market promotion, and strategic planning of sub-sector development. Without such integrative initiatives established, it is questionable whether the current model of agricultural production and processing in Macedonia, with its highly fragmented state, will be able to compete in the EU market in the future.

On the other hand, much of the strength of the US agriculture and food industry lies in the functioning of their trade and business organizations. Therefore, USAID is in the position to provide crucial support to Macedonian farmers and SME businessmen in their efforts to become stronger through self-organizing. In supporting the *establishment of trade association in all supported VCs*, using the experience of MAP should be considered. This process will not happening over night, but if successful, will provide the foundations for long-term development of the VCs.

c) SMEs & Farmers Competitiveness

Regarding the competitiveness of the Macedonian agricultural production and food industry, much needs to be done. Primary production is highly fragmented and lacking modern technology. Food and wine SME's also have mature equipment, which inhibits their ability to produce and export higher, value products. As a result, most Macedonian products are mainly exported to the less demanding Former Yugoslavia markets. Even within these traditional markets, Macedonian agriculture has seen a decline in their share of the market.

Regarding new members and the preparations for the EU accession, past EU support has mostly been tied to "institutional strengthening" rather than providing direct assistance for farmers and SME's to improve their production. Therefore, USAID could have a key role in complementing their efforts in regard to helping Macedonian farmers and *SME's improve their production by adopting new technologies in processing, as well as in primary production*.

d) Access to finance

When it comes to financing, Macedonian SMEs and farmers are faced with difficulties in obtaining financing for their business expansion, since the banking sector is very conservative in providing financial assistance to them.

In order to improve access to finance and transform the current approach of the Macedonian banking sector, one of the possibilities for future action is *establishing a DCA mechanism* by USAID that would enable a breakthrough in solving this issue.

It is important to plan alternative financial mechanisms that will be suitable for this sector, such as: a) the development of a system of financial guarantees that will reduce the bank interest rates, b) the establishment of a functional Credit Bureau that will be recognized by all as a tool for reducing the requested bank guarantees, c) the development of capital investment mechanisms for attracting investments, d) factoring, e) specific insurance products.

10. APPENDIX

1. Statistical Data – Export Import
2. Interviewee List
3. Reference List

1. Export Import data

	IMPORT 2005			IMPORT 2006			IMPORT 2007			IMPORT 2008			IMPORT 2009 Q 1		
	quantity kg	US\$	EUR	quantity kg	US\$	EUR									
FRESH VEGETABLE	4.599.809	2.176.960	1.696.653	4.480.204	2.183.153	1.779.467	5.696.694	3.276.881	2.442.097	8.666.649	4.782.598	3.297.548	4.661.176	2.615.061	2.014.993
PROCESSEED VEGETABLE	10.232.843	12.860.050	10.336.956	11.995.353	14.837.701	11.849.484	14.936.351	19.665.395	14.324.779	16.445.717	24.404.858	16.554.396	2.084.137	3.776.077	2.869.609
TABLE GRAPES	29.672	13.541	11.053	35.024	15.522	12.331	52.933	42.053	29.313	17.619	19.426	13.100	0	0	0
BOTTLED WINE	164.532	275.928	222.475	167.067	449.277	354.610	297.180	434.491	313.547	131.753	535.871	368.771	22.012	51.256	39.230
BULK WINE	20.535	11.512	9.558	25.423	19.134	14.972	0	0	0	1.355.161	657.576	468.137	0	0	0
WILD GATHERED PRODUCTS	0	0	0	0	0	0	429.251	596.743	435.305	300.467	308.253	211.236	77.765	50.915	39.894
FRESH FRUITS	38.261.389	17.172.580	13.748.785	31.784.695	14.937.188	11.939.123	1.588.986	834.637	610.474	37.217.127	26.098.756	18.042.821	13.518.858	9.033.476	6.901.161
PROCESSEED FRUITS	6.647.165	7.385.838	5.953.030	5.823.139	7.661.505	6.073.203	50.406.770	43.783.684	31.843.122	8.137.443	13.802.593	9.354.808	1.270.650	2.061.557	1.587.393
TOTAL AGRIBUSINESS IMPORT	561.974.674	415.552.519	334.636.896	485.807.721	436.455.479	347.136.872	698.575.751	638.164.730	463.798.170	645.089.219	749.351.693	510.978.126	166.976.418	146.381.589	112.391.420

	EXPORT 2005			EXPORT 2006			EXPORT 2007			EXPORT 2008			EXPORT 2009 Q1		
	quantity kg	US\$	EUR	quantity kg	US\$	EUR									
FRESH VEGETABLE	113.907.939	31.768.045	25.634.784	122.819.305	35.132.577	27.829.167	100.549.323	68.166.446	49.649.793	162.273.072	72.935.849	48.451.293	13.295.332	2.456.017	1.883.450
PROCESSEED VEGETABLE	16.165.990	21.919.959	17.857.762	20.475.991	30.166.487	23.840.337	23.523.625	37.203.270	26.777.339	25.008.468	41.312.452	29.142.828	6.214.816	8.417.212	6.469.188
TABLE GRAPES	31.296.690	20.753.038	19.846.389	28.196.623	20.470.261	19.437.061	46.250.422	15.370.414	11.079.035	29.119.671	23.451.320	21.200.815	16.200.246	15.863.431	15.813.775
BOTTLED WINE	5.577.989	8.683.488	7.047.181	8.109.927	12.213.787	9.679.420	9.541.049	16.975.780	12.239.969	10.537.672	20.340.786	13.991.455	467.906	603.832	462.447
BULK WINE	61.390.043	27.705.262	22.101.958	74.966.042	32.785.984	26.134.918	83.418.138	43.078.670	31.675.189	59.914.587	37.098.871	25.340.060	20.084.804	10.354.071	7.955.492
WILD GATHERED PRODUCTS	2.174.410	7.847.634	6.478.196	2.391.689	8.272.471	6.552.351	1.979.560	6.348.108	4.635.699	1.059.486	6.262.169	4.388.574	330.082	933.860	723.703
FRESH FRUITS	103.871.011	15.541.735	12.597.022	141.445.213	23.984.987	19.180.244	147.619.112	27.210.347	19.740.218	143.979.912	29.137.487	19.768.480	24.808.508	4.744.464	3.648.018
PROCESSEED FRUITS	5.166.628	3.867.787	3.127.601	6.631.426	7.158.105	5.647.722	4.723.496	5.315.303	3.885.644	8.403.644	9.792.923	6.675.672	1.730.439	1.985.131	1.521.666
TOTAL AGRICULTURE EXPORT	465.795.325	344.229.411	280.463.928	553.701.729	401.977.110	322.888.694	749.377.388	552.562.244	402.679.518	590.796.088	550.840.482	379.511.840	109.358.715	85.020.227	68.967.866

2. *Interviewee List*

Ref.	Name and Surname	Name of the entity	Value Chain	Type of organization
1	Meri Cuculoska	USAID	All	Donor
2	Ivica Vasev	USAID	All	Donor
3	James Maxwell	AgBiz	All	Staff
4	Jeton Starova	AgBiz	All	Staff
5	Lovre Risteski	AgBiz	Table Grapes	Staff
	Lovre Risteski	AgBiz	Access to Finance	Staff
6	Goran Damovski	AgBiz	Wine	Staff
	Goran Damovski	AgBiz	Marketing	Staff
7	Zlatko Edelinski	AgBiz	Processed Vegetables	Staff
8	Natasha Stankovic	AgBiz	Monitoring and Evaluation	Staff
	Natasha Stankovic	AgBiz	Training and Outreach	Staff
9	Agron Halimi	AgBiz	Monitoring and Evaluation	Staff
	Agron Halimi	AgBiz	Environmental Compliance Specialist	Staff
10	Goran Angelovski	AgBiz	Wild Gathered Products	Staff
11	Viktor Petkov	VIPRO	Processed Vegetables	Company
12	Desanka Kichukova	HINA	Processed Vegetables	Company
13	Dragan Kostadinov	VIVI PROM	Fresh Vegetables	Company
14	Toshe Kostadinov	INTERMAK	Wild Gathered Products	Company
	Toshe Kostadinov	Sumski Plod	Wild Gathered Products	Association
15	Niko Tashkov	DOMATTI	Processed Vegetables	Company
16	Sasho Antovski	EKSTRA FUNGI	Wild Gathered Products	Company
17	Trajce Karadakoski	MABI Trade	Processed Vegetables	Company
18	Vane Georgiev	SONCE	Fresh Vegetables	Company
	Vane Georgiev	VEGA MAK	Fresh Vegetables	Association
19	Mirche Panov	Agrohemija	Fresh Vegetables	Company
20	Delco Baltovski	Agrohemija	Fresh Vegetables	Company
	Delco Baltovski	Agrolozar	Table Grapes	Company
21	Zoran Peev	Dalvina	Wine	Company
22	Risto Zimbakov	Dalvina	Wine	Company
23	Toni Dimovski	AFSARD	All	Government
24	Aleksanar Shahov	BEA	All	Donor
25	Dimar Dimitrovski	BEA	All	Donor
26	Nimish Jhaveri	MCA	All	Donor
27	Dejan Janevski	MCA	All	Donor
28	Kiro Spandzhov	Ministry of Economy	All	Government
29	Ljupco Drenkovski	PILKO	Broilers	Company
	Ljupco Drenkovski	Meat and Milk Znak za kvalitet	Meat and Milk	Association
	Ljupco Drenkovski	MEDIUM EXPORT	Fresh Vegetables	Company
30	Aleksandar Nikolovski	FAGRIKOM	All	Company
31	Asbjcun Johan Garnes	Norgeswel	Potatoe	Donor

32	Marga Deleva	Ministry of Agriculture	All	Government
33	David Goode	MLGA	All	Donor
34	Rozalija Vasilevska	MLGA	All	Donor
35	Han	SNV	All	Donor
36	Divna Koceva	SNV	All	Donor
37	Slobodan Bandzo	Institute of Agriculture	Fresh Vegetables	Expert
	Slobodan Bandzo	Institute of Agriculture	Processed Vegetables	Government
38	Ljupco Toshev	FACE	All	Company
39	Krum Boshkov	Faculty of Agriculture	Table Grapes	Expert
40	Goran Milanov	Institute of Wine	Wine	Expert
41	Marija Miteva	SKOVIN	Wine	Company
42	Sasho Risteski	MAP	Processed Vegetables	Association
43	Zoran Tasev	AgriLend	Fresh Vegetables	Company
44	Gjoko Danailov	VITIN	Table Grapes	Association
45	Gordana Pop Simonova	Institute of Agriculture	Fresh Vegetables	Expert
46	Blazo Temov	PECA-Komerc	Table Grapes	Company
	Blazo Temov	PECA-Komerc	Fresh Vegetables	Company
47	Boris Georgiev	Agrotikvesh	Table Grapes	Company
48	Ilija Stankov	Agrotikvesh	Fresh Vegetables	Company
49	Igor Deloski	Popova Kula	Wine	Company
50	Jani Bogeovski	Bovin	Wine	Company
51	Naume Toskoski	Obedineti jabolko proizvoditeli	Table Grapes	Association
52	Blagoja Sekulovski	BAGA Food	Processed Vegetables	Company
53	Vlado Kokarev	AgBiz	Fresh Vegetables	Staff
54	Dragoslav Kocevski	Faculty of Agriculture	Broilers	Expert
55	Vladimir Dzabirski	Faculty of Agriculture	Meat and Milk	Expert

3. Reference List

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