SERBIA CONTINGENCY PLANNING AND ECONOMIC SECURITY PROGRAM

FOOD PROCESSING IN KRALJEVO INDUSTRY SUB-SECTOR REPORT

DATE: December 2007

This report was produced for review by the United States Agency for International Development. It was prepared by Development Alternatives, Inc.

MAIN REPORT

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for

SERBIA CONTINGENCY PLANNING AND ECONOMIC SECURITY PROGRAM

September 2007

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Executive Summary

The food processing firms of Kraljevo both closely resemble and are subject to the same trends and pressures as those in the rest of Serbia. They are roughly in the same position as many others, further ahead than those in South and much of Eastern Serbia, and slightly further behind those based in Belgrade and Vojvodina. Though not plagued by the management and isolation problems affecting firms further South, Kraljevo is still far from major markets, both on the supply and output sides. As with firms in other disadvantaged parts of the country, those in Kraljevo have the advantage of being able to learn from the successes of those in other regions.

Readers should refer to the individual sub-sector value chain analyses conducted by the DAI/Booz Allen Serbia Agribusiness Project for lessons relevant to the country as a whole. The analysis here focuses on the particular issues relevant to the firms in the Kraljevo region. The purpose of the current study was not to repeat that body of work, but to address issues particular to Kraljevo. As will become evident in this report, the recommendations are not radically different from those made for firms in other part of the country. The actors change, and with that the effective points of entry and local capabilities, but the themes do not.

This study covers the issues at the level of broad trends. The reasons for this are twofold. The first is that the report is limited in scope and budget and must cover a range of different sub-industries. The second and perhaps more important reason relates to the rapidly changing environment at the level of details. The specifics of costs, capabilities, markets, and supply chains are in constant flux. However, they are in flux within the context of broader trends. It is more important to understand and be able to respond to those broader trends than to get involved in minute details on costs and linkages at a single point in time. Having a clear understanding of the trends allows program responses to be accurate in concept, and flexible in implementation. Similarly, the kinds of quantitative data needed for a comprehensive analysis are not available in a timely enough manner to ensure that the analysis would even be relevant at its completion.

At the same time that the study focuses on broad trends, there are few enough major actors in the region, that the activities recommended can be much more specific. Recommendations often cover specific firms or groups of firms that SCOPES believes can help achieve program goals.

The main recommendations put forth in this study have to do with helping firms in Kraljevo respond to globalization and the changes being seen in markets from the international to the local. There is a decreasing distinction between the demands of local and international markets when it comes to quality and cost considerations. Improvements in trade regimes and transportation means that scale is increasingly important, even in niche markets and these expand spatially. Though much of the discussion revolves around the production firms, the main concerns relate to the primary producers that supply these firms. Currently, a multitude of small farms and individuals rely on these firms' ability to adapt in order to maintain their livelihoods.

It should be kept in mind that the DAI/Booz Allen Serbia Agribusiness Project is active in these sub-sectors and in the Kraljevo area. The project has considerably greater resources than SCOPES to carry out activities. However, it is not directly concerned with refuges/IDPs. SCOPES management should be seeking ways to utilize the Agribusiness Project resources, partially by bringing the vulnerable populations into their programs and providing additional technical and financial support.

I. Introduction

SCOPES is a multi-year project tasked with improving economic security in Southern Serbia. The Project is funded by the United States Agency for International Development (USAID). The objective of this sub-sector study is to determine a menu of specific actions that the SCOPES project can undertake to improve economic security in the Kraljevo area. The study then offers recommendations and some specifics related to implementation.

Project management and the USAID Mission have identified agricultural processing as a sub-sector for SCOPES to target in the municipality of Kraljevo. The area around Kraljevo is largely rural and agricultural, though manufacturing of non-agricultural products is also important. Wholesale trade also accounts for a major part of local income. The combination of a significant agricultural economy, experience in manufacturing, and decent trade linkages make Kraljevo a reasonable candidate as a base for strong agricultural processing industries. There are already a number of companies which are competitive with some of the best in Serbia.

With a 97 percent Serb majority, this homogenous municipality is not subject to significant ethnic tension. However, as noted in the initial SCOPES assessment:

> "Kraljevo, with a population of 121,000 and located in South Central Serbia, is one of the larger municipalities in Serbia, and is categorized as a "devastated municipality" by the Republic Government."

The main factor leading to Kraljevo's current standing is the large numbers of Serbian refugees which have fled Kosovo in the past eight years. Directly North of Kosovo on a main transportation route to Central Serbia, many refugees either pass through or stay in Kraljevo. Kraljevo officially has 20,000 IDPs and Refugees and unofficially 35,000. Unemployment is unknown, but estimated to be very high, especially among youth.

Agriculture, both primary and processing, is one of the most important sectors in Serbia in general, making up around 14 percent of GDP. Some 44 percent of the population live in rural areas. Though value-added has lagged many other industries, a significant part of the population still relies either directly or indirectly on agricultural production. Agriculture in Serbia is diversified, with a number of different though often overlapping value chains. Production is also highly varied in terms of value added, and ranges from primary production to more sophisticated processed goods. The area around Kraljevo has a mix of both. Firms service both local markets, and some highly demanding international ones.

With the exception of the north of Serbia where many large field crops are grown, the pattern of production is fairly similar around the country. Farms are small, usually family owned, often diversified, and produce either for local markets or sell to traders who move their output on for production or to larger markets. Producers range from small regional manufacturers, to large firms with a global reach. Most firms in the Kraljevo area are of the former type and lag some of the more sophisticated Serbian firms in terms of size, reach, and value added. However, there are also some firms that are able to export directly into demanding markets, lending strong examples to others. Agriculture is slightly more important in Kraljevo than in other parts of Serbia (20 percent of GDP), making progress there all the more important.

Given the diversity of agricultural production in Kraljevo, this report focused on several different sub-sectors. While the treatment was not as detailed as would have been the case if focused on a single sub-sector, it was felt that it was important to cover a wider range of possible program activities. Much of the analysis is focused on how to bring the firms in the Kraljevo area more closely into the markets by giving them the skills that the most successful firms in Serbia have been already able to obtain. Unfortunately, the more detailed data available for Kraljevo was too out-of-date to be of use in an analysis whose purpose was to inform current program choices. As such, this analysis relied largely on interviews with firms and with officials and others knowledgeable about the region. It is expected that the specialists working on SCOPES will continue to update this information and add new firms to the list of those assisted throughout the term of the program.

II. End Markets and Consumer Demand

The impact of globalization means that distinctions between different markets are not as strong as they previously were. Prior to the period of sanctions in the 1990s, with some exceptions local processors mainly produced for local markets. When sanctions were lifted and Serbia began reintegrating into global markets, firms found that the situation had drastically changed. Those able to compete internationally found new markets. Those that were not, found their previously secure markets under attack as imports entered and as the demands of the domestic market started becoming as stringent as those of international markets. At the same time, consolidation, scale and higher efficiency among wholesalers and distributors means a trend toward fewer and larger winners.

It may no longer be assumed that the local market will go to local producers. They must adapt to global conditions, or will be driven from business. Being on main transportation routes and not distinct from the rest of Serbia, Kraljevo processors are facing the full brunt of this reality. These trends are expected to continue, and even accelerate. Many firms are also taking advantages of opportunities by export outside of the region and country. Broadly speaking, the main markets for producers and their characteristics are as follows:

1. **Local Markets** consist mainly of a few remaining small, independent grocery stores and the green markets where many Serbs still shop for their staples.

   A number of the smaller processors, and some of the larger ones, have traditionally relied on these markets, especially under sanctions when they were more protected. Whether these markets will continue to be viable sole outlets depends on the type and level of value added of the processor. Basic baked goods will likely continue to be local. For fairly low level processors, such as basic cheese manufacturers, these markets are likely to remain significant, but still slowly declining and likely low profit. For manufacturers of preserved and packaged foods, over time these markets will be entered by larger, more efficient producers and consolidation is expected to occur. For meats, the reality will likely be somewhere in between. Threats can come from either larger Serbian firms, or imports. Small producers which do not meet the quality, attractiveness, and/or price points of imports into the region will struggle to survive. Due to the nature of the green markets, some cottage level production will always be a feature. This level of scale is not examined in this analysis.

2. **Regional Markets**

Larger local and closer regional markets took in much of the production of the larger firms, especially during sanctions when access to other markets and imports were restricted. This includes both regional markets within Serbia, and areas close to the borders in Kosovo and Albania, such as Kraljevo. The actual outlets include larger green markets, regional market chains, and some local branches of larger chains. Given the scale required and the increased standards even in many of these markets, smaller firms will have trouble unless they offer a very unique and targeted product. In these markets the effects of globalization are being strongly felt. Even smaller distributors and outlets may require HACCP and/or ISO certifications and may have good access to the products of larger, certified firms and imports. Many firms in Kraljevo are currently holding their own and expanding in these markets.

3. **International Markets**

International markets are increasingly important for all processors, yielding both opportunities and threats. On the one hand, Serbian firms have access to markets that they were previously shut out of. Though this does represent a good opportunity for the best firms, many Serbian firms are not well positioned to succeed in terms of quality, volumes, pricing and certifications. For the larger and some of the more specialty producers, many Serbian firms have made good progress recently in competing profitably in these markets, including some of the top firms in Kraljevo. Several export successfully and profitably. On the other hand, and more importantly perhaps for many of the firms in Kraljevo, is the competition that comes from the newly opened markets. Even isolated local markets are not completely safe from competition from imported goods, and most of Kraljevo cannot be considered isolated. Though many more isolated markets were slow to open up, there are few firms left that do not feel the effects of globalization. Finally, the standards of global markets are reaching local markets, forcing investment in quality and certifications to survive.

As can be surmised from the above, the market environment is quite different from that which firms knew under sanctions and during the early years of opening up. The trouble that many firms in Kraljevo are feeling is probably going to increase as markets open further. Some firms have and will be able to respond and expand. However, there is expected to be some consolidation and job loss in smaller firms that are not able to respond and adjust. The extent to which firms will be affected depends on a number of factors including the specific sector they are in. Market access issues will be discussed for each sub-sector below. A primary goal of the economic security component of SCOPES in Kraljevo should be to improve the ability of local firms to respond to market signals and adapt to take advantage of opportunities and minimize threats.

III. Supply Channels

Supply channels and conditions vary among the sub-sectors examined. Broad themes will be discussed here. As needed, anomalies and specifics will be identified and discussed in the following section. In the type of processing undertaken by firms in Kraljevo, the supply relationships are fairly basic, involving raw products, intermediate inputs, and packaging. Overall, supply channels are quite good, much better so than in lesser developed parts of the country. Relations between suppliers and processers seem to be cooperative and professional for the most part, as opposed to the more negative and even hostile relationships seen elsewhere. Horizontal relations between firms also exist, with several active and functioning associations.

For example, in the dairy industry there are cases where supply is through long-term contracting where the dairy owner provided assistance and inputs, in exchange for milk. There do not appear to be issues with the farmers selling at slightly higher prices when it is advantageous to do so. This contradicts the highly mercenary and decentralized supply networks found in other parts of Serbia. For the dairy visited, management tried to ensure that farmers had a minimum of 25 cows, considered the threshold for professional dairy farming and what is needed to sustain a farm family through dairy alone. Milk quality issues are much easier to control for when these types of relationships exist. In some regions, the nearly toxic relations between suppliers and processors keep information from flowing from the market to the primary producer. In the Kraljevo region, there is overall a much tighter and more productive relationship. Though not perfect and still likely to be superseded in the longer term by large scale dairy farms, milk can be delivered more on-time, and in the qualities and quantities anticipated.

The meat and dairy farmers also maintain active associations that provide them with information, support and consolidated supply. Some dairy farmers currently save around five percent from supply consolidation when purchasing feed concentrate. The associations also help manage the downstream sales relationships, which are much more productive than in some other regions. In the meat industry, where relationships are vertical and commercial, there are also some good examples of cooperation in supply. One slaughterhouse in order to obtain the meat it needs, provides farmers in the region with a full package including the animals and feed. The farmers raise the animals for the slaughterhouse on a contractual basis. The processed meats are then sold through a network of their own butcher shops.

The bakers have an association to which substantially all of the bakers belong. Though a cohesive association, its potential is probably underutilized. Currently, all bakeries handle their supply individually with large processors mainly outside of the region. Consolidation could help keep costs down. However, overcapacity in the region may cause tensions that keep cooperation from reaching its potential. Forest fruits suppliers are also organized, and export their production directly overseas, though currently through traders.

Though not all farmers are likely supplying the needed products in reliable quantities and qualities, and at a fair price, examples do seem to abound in this region. Such relations and willingness to work together bode well for moves in to more specialized varieties, fresh markets, and organics where coordination up and down the supply chain is more critical.

Raw food products are mainly purchased locally, though certain additives and ingredients may come from outside the region. Exceptions are in flour and animal feed concentrate outside of the basic fodder, both of which normally comes from the Vojvodina region. The non-primary material supply tends to be from larger firms that provide commodity products of consistent quality. For example, packaging including glass containers, additives such as sugar and emulsifiers, and fillings all tend to be adequate for the current levels of production. For more innovative products immediate suppliers may not be adequate, but alternatives are available further away. Most packaging including PET, paper, metal and glass are available. With a technical school nearby, many of the basic laboratory and testing capabilities are available. Package design services, though not notable in Kraljevo, are available in Belgrade.

There are some basic structural issues (i.e. small farm size and overcapacity in certain production areas) that may keep smaller Kraljevo firms from being competitive over the longer term in larger and in particular international markets. Consolidation will likely occur in any case. However, though certainly not perfect, firms have shown themselves to be able to coordinate reasonably effectively both horizontally and vertically in order to solve basic supply problems. Building on this foundation, more can be done with the support of the SCOPES team. Overall, the economic environment from a managerial and organizational perspective appears better than many areas. Kraljevo is south of an area known for its business savvy.

IV. Structure of the Sub-Sectors

The assessment of the Kraljevo food processing situation was based on considerable on-the-ground work. Though some quantitative data was available, most of it was not sufficiently up to date for an analysis that would be informing real-time activity planning. Nearly all of the sub-sector structure information and analysis is based on interviews at firms, involving intensive questioning of managers about the different components of the value chain. Most of what they said had to be taken at face value, as there was little opportunity to follow-up with other elements of the value chain. A number of managers were confused by the questions, and/or did not know how value in their product was built up. In some sub-sectors, there were few companies to interview, making the sample size small. Nevertheless, despite these constraints, a consistent and logical picture emerged that is consistent with observations and should inform good program decision making.

Each sub-sector has its own structure and set of issues. Covered here are dairy, meat processing, pastries, and forest fruits. That said, there were also some common themes running through the sectors that were related to management:

1. The quality of management varied considerable in Kraljevo, but there were some excellent examples of very strong and forward thinking management. Kraljevo is just South of a region in Serbia known for its entrepreneurs and free market savvy. It is believed that *with* the right capacity building, managerial capability will not be a major barrier to growth.

2. A surprising number of managers did not have a good sense of the financial position of their firms or what production costs were. A lack of rigorous financial management has its own set of problems, but also precludes obtaining financing at a time when the banking sector is fairly well prepared to provide it to good candidates.

3. Lack of mature marketing capabilities allowing firms to diversify markets, lower risks and feedback market knowledge into product design.

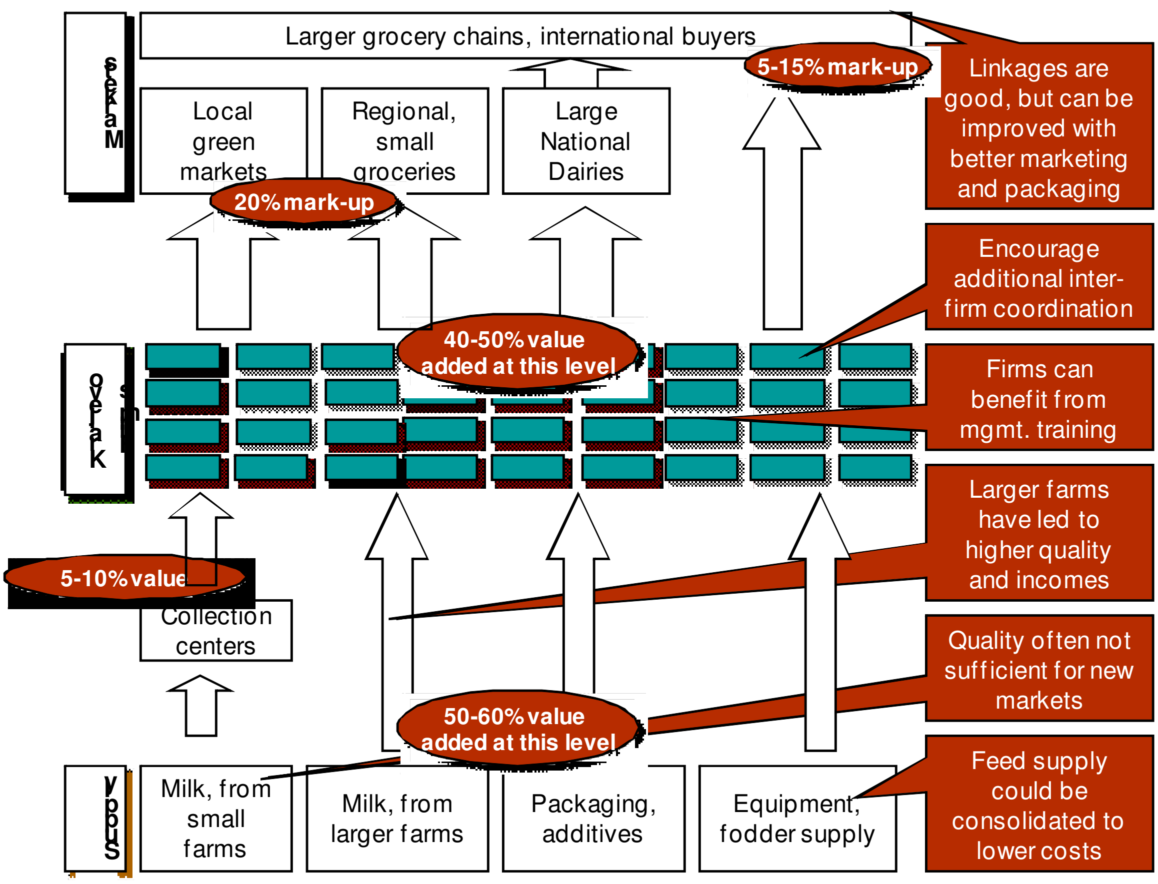
Dairy

The dairy sector in Kraljevo stands between the highly decentralized cottage industry of the South, and the more industrial and efficient operations of the North. Though there is still considerable milk production at a very small level on individual farms with only a few cows, consolidation is taking place. That this is happening in conjunction with processors is a positive sign. The larger farms are also conducive to rising above the subsistence income levels that plague small production elsewhere in the country. These trends should be encouraged, with support going to the larger farmers and farmer-producers networks, rather than to the very small producers. There also appear to be good points of entry for new producers into these supply networks, with the processor often willing to provide animals, expertise and feed in exchange for supply.

The diagram on the next page depicts the value chain for the larger scale processors. The mapping reveals some characteristics in the operations of the sub-sector, as well as some areas that may be improved:

1. There is a concerted effort to increase both quantity and quality. As such, feed is very important. Currently, much of the basic fodder is produced in the region, but with considerable amounts and the concentrate coming from Vojvodina. Several producers are trying to minimize the amount that is brought in from outside in order to cut costs. There are inherent limits given that the basic grains needed are grown more efficiently in Vojvodina, but it is thought that some improvements can be made.

2. Related to the above, since many farms are still small with low buying power, farmers likely pay more for feed, equipment and some services than they otherwise would if the orders and contracts were larger. Overall, both vertical and horizontal linkages between producers in the region appear to be strong enough to overcome these issues and become more efficient.



3. The areas around Kraljevo appears to have the potential to be a major milk producing region. The trends are positive. Whether they will be able to successfully move up to higher value production or not is more in question. It is also a question of whether they should. It is currently the raw milk price and scarcity that is driving output prices and there is no shortage of underused dairy capacity in Serbia. While it may be tempting to move into more finished

products, doing so will not lead automatically to greater profits and is not without costs and risks.

4. There was considerable discussion and optimism around obtaining certification of geographic origin for the local Kajmak, or heavy cream. This is a fairly common theme heard around Serbia, e.g. that considerable additional rents could be obtained if only the name of their famous product could be protected. This is highly unlikely. It is not recommended that funding be used for these sorts of schemes, unless a moral boost is the goal of the activity.

5. Much of the raw material that goes to the processors is from the region. Any efforts to improve the sub-sector will effectively target the population around Kraljevo. Most participants in the industry are not young. The impact on youth employment is not expected to be great, except perhaps in some of the larger processors.

Meat Processing

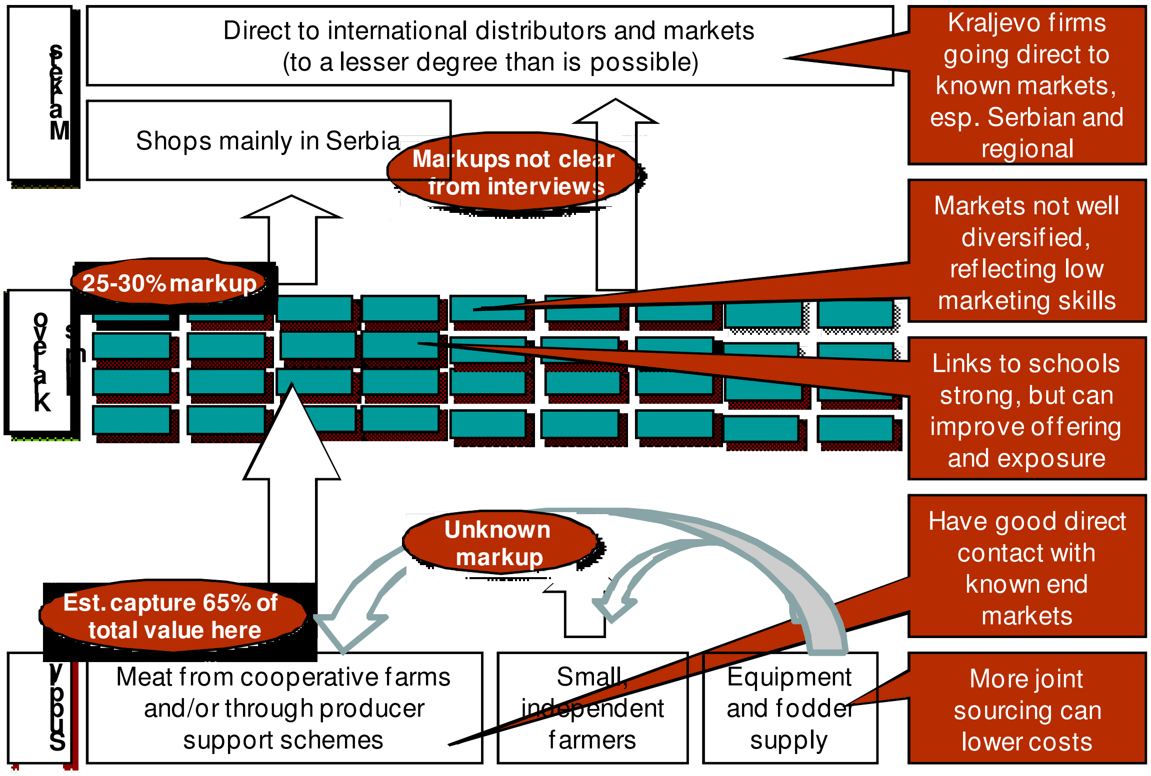
Meat processing is following the same paths toward larger consumption and consolidation as the dairy industry. Given that there is not a perishable product like milk that needs to be delivered on a daily basis, though farm size may increase, production can still stay fairly decentralized. This bodes well for new entry by refugees who may not settle in villages that are centrally located. The area around Kraljevo has a long tradition in raising and slaughtering cattle. Market linkages could be better, but are not starting from nothing.

As with the dairy industry, the basic trends toward larger, more professionally run farms should be encouraged. Well meaning donor efforts should not support sub-standard, cottage level operations that will eventually disappear. The diagram below depicts the value chain for the larger scale processors. The mapping reveals some characteristics in the operations of the sub-sector, as well as some areas that may be improved:

1. The positive commercial relationships between the farmers, associations, and the producers should be used to the extent possible as a channel to deliver additional services. Though such relations are not necessary for success in the sector, in the absence of strong alternate channels of technical capacity delivery, they can be very advantageous. Technical assistance delivered to a cooperative or firm, can then be disseminated to all of the participating farmers.

2. Kraljevo firms seem to have a reasonable understanding of where their markets are, and unlike in the bakery industry there appears to be sufficient demand for the end products. Improvements can be made, however. Producers need a better understanding of pricing and demands both in larger markets in Serbia and in the region. The reasons are two-fold. First, as production expands and in order to stimulate expansion in production, producers need the market contacts and specifications to sell. Focusing on the same markets will not drive expansion. Second, though processors are not yet able to sell into many markets due to certification problems, those same standards are coming to Serbia. Taking an aggressive stance now, will help the firms both to grow and to preserve market share in the future. Some product is already exported, but through traders as the direct market contacts are lacking.

3. Some lower costs have been obtained by the joint purchase of feed. This model should be looked at carefully to see how it may be expanded into purchase of animals, sperm, and veterinary services.



4. Overall, business skills were assessed as strong. However, there are many new management techniques and technologies that will help these firms grow and manage their supply chains with a minimum of disruption. Additional training, initially at the firm and association level, then developing the curriculum at the trade school will help in this area. Topics include supply chain management, customer resource management, inventory control. Software packages should also be introduced.

5. The presence of and strong management of the agricultural high school ensures adequate capabilities in many technical and scientific areas (i.e. artificial insemination, basic veterinary practice, testing, etc.).

6. As in the dairy industry, considerable effluent is produced from the farms and producers. Though much of this is recycled into fertilizer, some assessment can be made as to whether it is going to the most efficient use.

Freezing and Drying Industries

The main products that constitute the output from these industries are frozen and dried berries and frozen and dried mushrooms. Most of these products are destined ultimately for broader regional or international markets. Current market trends are positive. For berry fruits, the discovery of antioxidant properties has made them very popular across a wide range of products from juices to cereals and snack foods. As incomes rise and consumers seek a wider range of luxury products, frozen and dried mushrooms increasingly work their way into restaurant and home recipes. The porcini, black trumpet and chanterelles found in South Western Serbia are in great demand.

Insufficient data points were found to map out a reliably accurate value chain for this sub-sector. However, on the basis of the interviews conducted, some points can be made in relation to the value chain, and activities which SCOPES could carry out.

1. There appears to be adequate raspberry processing and marketing capacity in the region, but a lack of local raw material supply. The main processor, Sicoberry, is exporting all production to France, but must source much of their raw material from outside the region. There are areas around Kraljavo that are suitable for raspberry growing.

   Production of raspberries for frozen markets can be viable. However, pricing in frozen markets is being squeezed on one side by low cost production in the region and in China, and on the other by more mechanized and efficient production in the US and Chile. The main means of escape from this trap is to produce for fresh markets. A detailed discussion on doing so is beyond the scope of this report, but more information can be found at: http://www.sedparchive.com/food.html. It is critical that farmers who want to produce for fresh markets be well informed at the outset *before* they choose their varieties.

2. Considerable mushroom production and primary processing occurs in the region. Currently all sales are through traders. It may be feasible to sell directly to end markets. Doing so and serving the markets well takes considerable volume and diversity of supply, so this must be assessed first. In any case, different options for going more directly to market can be explored. Currently, there is demand for any quantity of mushrooms that can be gathered, providing they are one of the desired varieties.

Both of these activities, and any others in this area, should to the extent possible be carried out in conjunction with the Serbia Agribusiness Activity.

Bakeries

Bakeries were included in the report, largely because they make up a large percentage of the overall firms classified as food processing. Unlike the other sub-sectors, with some notable exceptions to be discussed, the bakery industry is largely local and probably will stay that way for the most part. Within the core product group, fresh bakery products, there is little opportunity for exporting the products even outside a small radius. Likewise there is little threat from producers outside the region. The industry is highly competitive, as seen by the large number of bakeries and the low capacity utilization. Given that expansion will not likely happen in light of relatively stagnant local demand, improvements are if anything likely to lead to increased productivity and job loss. Given the excess capacities, consolidation and job loss are also likely to occur without project support. Since most inputs come from outside the region, the industry likewise does not have significant local employment effects down the supply chain.

This section then focuses on the handful of producers whose products can be sold outside the region, as well as the potential for additional producers to do so. Since these vary, no common value chain mapping is possible. However, some common lessons do apply in terms of program design. Primarily, the move from making bakery products for the local market, to be sold fresh, toward making longer shelf life products for outside markets may seem obvious, but it is not. Once the move is made to a longer shelf life product in a distant market, many new factors come into place and to a large extent a whole new industry emerges. Some of the main factors are listed below, along with program activities that may be undertaken should this area be determined to be a priority.

1. Market knowledge. Bakeries that produce for and know local markets can change their product mix quickly depending on demand. Producing for distant markets requires making assessments of the demand in advance. This can be very difficult for small regional producers who are by definition isolated from other markets. While expansion can be slow, often the equipment needed requires that scales be reached quickly in order to be profitable. The SCOPES project can help the firms to make marketing trips, introducing them to possible buys, and informing them of standards and requirements of supermarkets. Trips to the relevant fairs, domestic and international for those which are ready, can also be arranged.

2. Longer shelf life products require more stringent health and safety standards that help retard the growth of pathogens over time. Firms must be prepared to meet these standards. SCOPES can help in informing firms of these, as well as either assisting in financing them or directing firms toward other sources of financing.

3. The logistics of getting to distant markets, especially with frozen products is more difficult. This extends to the retail environment as well. One Kraljevo producer of frozen bakery goods supplies freezers to retailers. Firms must be ready and able to accommodate these added expenses.

4. Whereas fresh bakery products do not require elaborate presentation, any packaged product requires labeling and packaging, both to be attractive and to comply with regulations. It should not be assumed that the same products as are being produced now can be sold in packaged form. This gets back to market knowledge as critical for success. Kraljevo firm Verox sells their products in 300 health food shops around Serbia.

5. The Bakery Union primarily supports regional production, but can be used as a partner for training activities of all kinds and for market familiarization trips.

V. Environment

The main regulatory trends effecting Serbian firms as a whole impact those in Kraljevo. Across all of the areas discussed in this report, more stringent safety and quality standards will be implemented at the retail level regardless of producers' intention to implement. Those that do not will be shut out of major markets. This is already the case for most international and regional markets, but is becoming more relevant at the local level as well, as consumers and regulators demand the same standards. Many of these rules will be largely determined by existing EU rules, regardless of accession prospects. Local firms will have little say in their adoption or implementation.

A significant advantage that the Kraljevo region may have over others is the presence of a well run technical school focusing on agriculture and processing. The school is closely integrated into the community, with management insisting that students obtain practical knowledge and put it into practice through internships while still in school. For the project, this school is also an excellent point of access to firms and to improving technical skills in all areas related to agriculture.

Some firms complained of unfair competition from the informal economy. Some of this may be homegrown, and some of it may be coming from further South in the Novi Pazar area. In any case, as tax enforcement increases, there will be less opportunity in the informal economy. The Novi Pazar area may be an exception to this. Resident there have effectively kept tax enforcement officials at bay, largely by playing the ethnicity card. It is unknown how this will change or not into the future. Eventually, firms in the informal economy will fall behind due to problems in complying with VAT and a difficulty in securing bank financing.

Some additional regulatory changes will allow firms to take advantage of many of the industry trends alluded to above and which will be discussed in more detail in the next section. To move more into fresh markets and to improve processing, Serbia needs access to more cutting edge plant varieties. Most farmers are still growing varieties that are decades old at best. Besides information, there are two additional elements to a solution. First is access. Serbia is not yet a signatory to the UPOV convention on the protection of plant varieties. As such, the owners of protected varieties will not allow them to be imported into Serbia. The second is process. The Ministry of Agriculture must approve all new varieties for sale in Serbia. This process has gone much more quickly in recent years and Serbian farmers have access to many more options than before.

Another major regulatory area is in organic certification. Thanks to concerted efforts by the Ministry of Agriculture and donors over the past few years, Serbia now has the capacity to analyze and certify land for organic production. This is expected to be a significant way that Serbian farmers, including those in Kraljevo, can add value to production. One firm interviewed is already selling organic quinces at a premium.

Finance for firms in Kraljevo is not a greater or lesser a problem than in other parts of Serbia. The higher cost of financing can continue to put the firms at a disadvantage relative to their competitors in other markets. It should be recognized that this higher cost is partially driven by the fact that most firms do not have the accounting systems in place to make banks comfortable lending to them. Education on the needs of the formal financial sector can help improve firms preparation and acceptance rates. Kraljevo is not centrally located, but also does not seem to have major problems with logistics. This was not an area consistently identified by the interviewed firms.

A final point on the environment has to do with the overall positive level of cooperation and coordination between firms, vertically and horizontally. Though not necessary for success, in the absence of strong outside technical assistance or extension programs, such contact does facilitate inter-firm learning. The relatively high level of trust also allows contracting to be done without relying on a slow and often unresponsive court system.

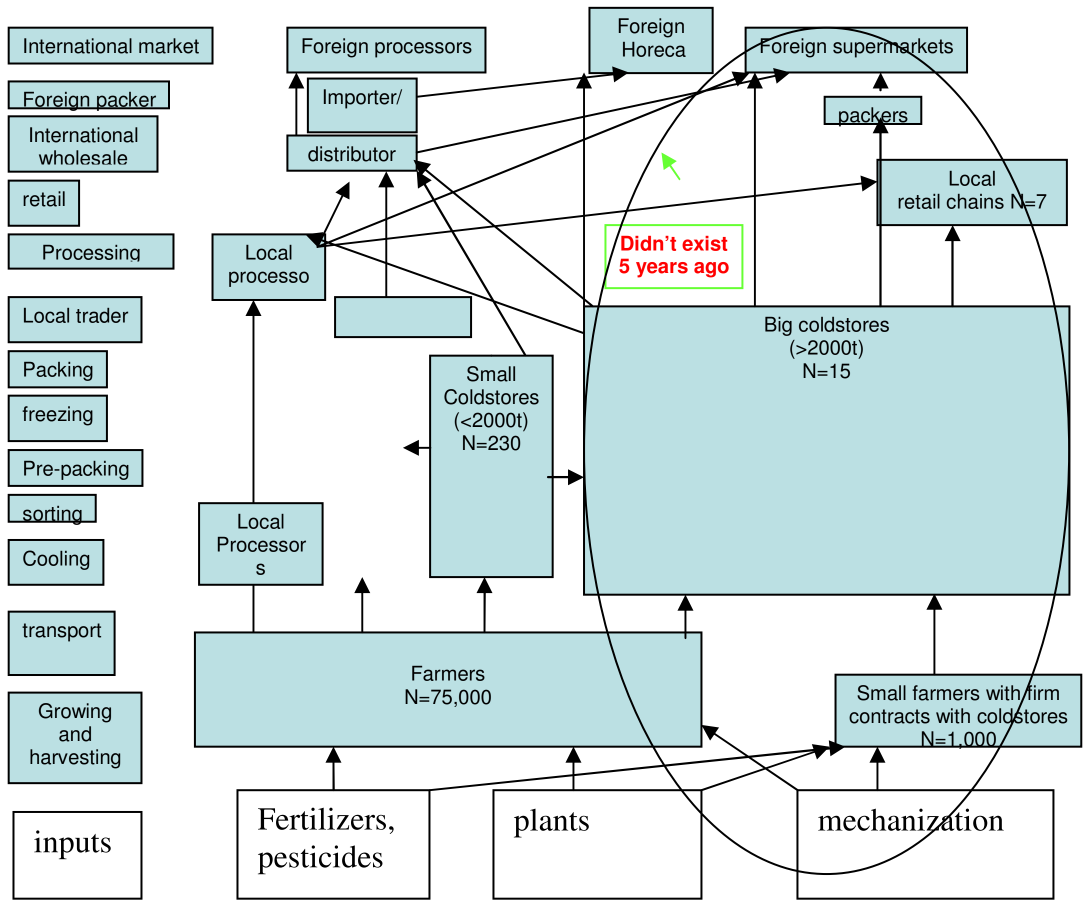
VI. Sub-Sector Trends and Dynamics

As noted previously herein, the main trends in the food processing sector are related to the globalization of markets. More specifically, they are: homogenization of aesthetic, hygienic and quality standards across global markets; a move from small to larger volume retailers, driving the same among producers and suppliers, and; price equalization across markets. Local markets are no longer separate from regional or even global markets. Firms that produce what are essentially commodity products cannot escape from these forces, regardless of whether they are meats, cheeses, frozen fruits, or jams.

Some sub-trends also are impacting the sector that can give innovative firms a way out of the trend toward low cost, high volume production. Consumer desire for differentiation, both locally and internationally, means that there is still room for niche products and brands. Products must be adequately differentiated to command the price premiums needed to produce them at a lower volume. It should also be taken into account that with globalization, even niche markets can reach high volumes and be subject to price pressures.

A trend toward organics means that with some minimal investments, farmers that qualify can gain a 20 to 30 percent average price premium on their output. This is a trend that is likely to continue. Kraljevo does appear to have some land that is suitable for organic certification. Also, a trend toward consumption of fresh fruits and vegetables, rather than processed, is coupled with a willingness to pay a premium to do so. Producers and distributors that can tap into fresh markets can realize gains that are much higher than that usually obtained in processed markets. Even in Serbia, farm gate prices for fresh raspberries are between 50 to 300 hundred percent greater than for processed, depending on the season. Demand for the same is up 30 percent from 2006 and expected to continue to increase as incomes rise. Season extension and production for fresh markets requires new varieties as noted above.

Firms in Kraljevo have begun to take advantage of the positive trends and act defensively against the negative ones. The value chain mapping below was created for Serbia as a whole by a USAID Agro-business project. The large circle indicates where firms in Serbia have moved over the past several years, toward greater consolidation and better linkages to large retailer and foreign markets. Overall, Kraljevo firms appear to be doing as well, or badly, as other firms across Serbia.



Pre-cooled berries
Raspberries - 12%
Blackberries – 43%
Strawberries – 87%

Frozen berries in bulk
Raspberries-74%
Blackberries- 50%
Strawberries- 3%

Frozen berries in retail pack
Raspberries – 11%
Blackberries – 3,5%
Strawberries – 0,3%

VI. Strategic Analysis

Strengths	**Weaknesses**
• Well developed livestock production for meat/dairy industry, with high level of capability • Well developed fruit and vegetable production • Union of bakery producers is a progressive organization dedicated to helping members • Significant existing production capacities • Existing meat processing capacities have started to obtain HACCP • Technical school offers a strong program in both theory and practice • Good environment of vertical and horizontal cooperation between firms	• Poor finances and conditions for obtaining bank credits • Insufficient marketing/ PR activities in the companies • Not enough awareness about standards, certifications, or quality/hygiene control • Small-scaled farms, not economically viable enough to retain youth in rural areas • Not sufficient information or knowledge about governmental support and subsidies
Opportunities	**Threats**
• Good education possibilities in high schools for skilled workers • Strong technical school can be used to bring in new ideas/technologies • Trainings and seminars of not skilled workers, and curriculum development • Establishment of branch associations and cooperatives (prunes and apples) to service the Russian Market • Implementation of HACCP to enter new markets • Organic certifications to obtain premium pricing	• Unstable prices of raw materials • market surpluses and heavy competition • No consumer protection on the national level • Production growth on global level- price competition with global players

VIII. Proposed Recommended Activities for SCOPES

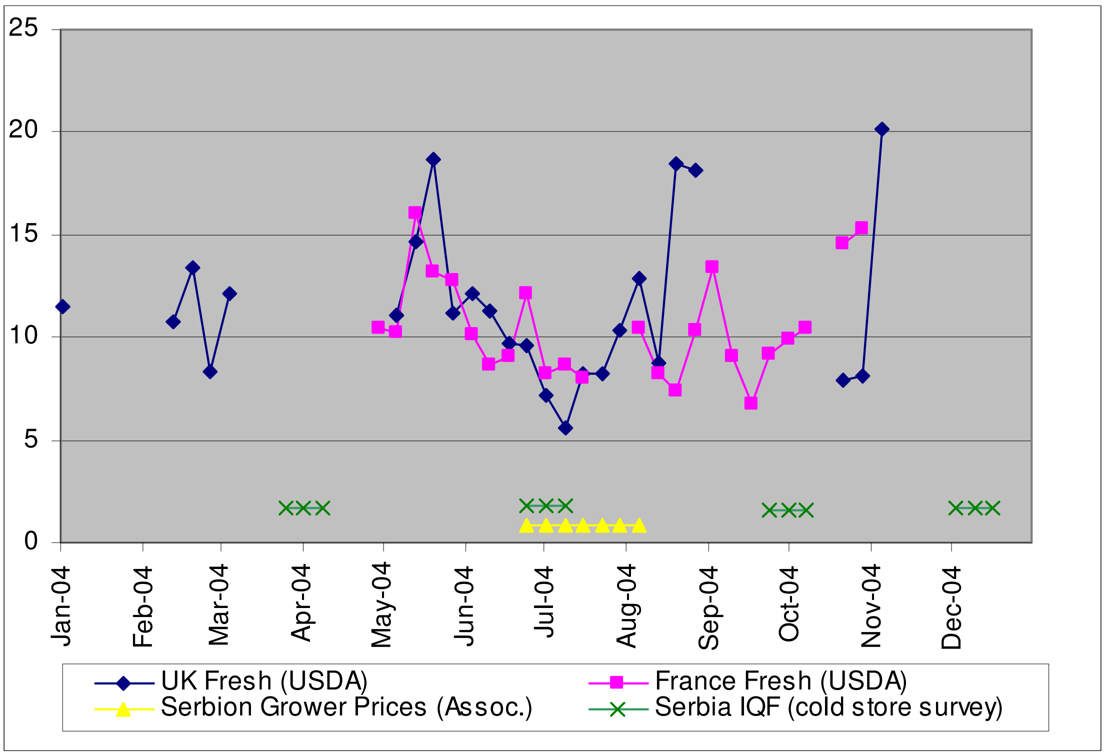
Activity	Reason for Activity	Sub-Activities	Participants	Impact
Provide consultancy for new dairy product development	Larger milk producers can move more into production of value added products, especially for immediate region	1. Recommend best products for regional consumption, where scale is not critical 2. Assist in production planning and equipment procurement	Firms and SCOPES IC	Some additional value may be retained in region, while possibly developing platform to service regional markets
Assist in technical and market oriented curriculum development at the agricultural technical school, especially introducing range of new business skills courses (marketing, finance, use of technology, strategy, etc.)	School is an excellent point from which to educate farmers and producers on new techniques and ideas	1. Assess technical and business needs 2. Develop curriculum around those needs 3. Carry out a series of seminars in the community to introduce the new curriculum and concepts 4. Include school in all TA activities	Schools, SCOPES team and IC	Increase skills needed to defend current and enter new markets effectively
Work through bakery union to deliver series of activities on development of frozen and packaged goods	Bakeries operating at below capacity, some may be able to diversify and others to expand existing packaged goods	1. Assess possible areas that existing bakeries could enter into 2. Conduct seminar on new market needs (packaging, health, logistics, etc.) 3. As demanded, design programs on specific areas	Firms and SCOPES team and IC	Inform bakeries of costs and benefits of new markets, and assist those that decide to proceed
Packaging and labeling workshop	Firms that want to expand into other markets can understand expectations of product appeal	1. Assess most likely markets for different producers 2. Conduct practical seminar on packaging 3. Develop and distribute guidelines for packaging and working with designers	Firms and SCOPES team and IC	Help make Kraljevo products more competitive in new markets
Provide training and support on certifications	Firms will be better prepared for new	1. Assess certification needs of likely markets (Serbian, HACCP, EurepGAP)	Firms and SCOPES	Ensure that Kralejvo firms are prepared to enter new

and standards	markets, and the future in their own markets.	2. Developing awareness programs and direct interested firms to resources 3. Provide materials to the school along with places to update information	team and IC	markets and abide by likely future standards in their own.
Seminars on financing, both form private entities (banks, funds) and from public sources	Firms can obtain new capital for expansion and funds to finance certifications	1. Develop training seminar on sources of funds and how to prepare for them 2. Conduct a series of one on one consultations for firms seeking bank or fund capital	Firms and SCOPES team and IC	Help firms expand, increasing employment and value added in the region
Connect those firms that are ready to market access parts of the Serbia Agribusiness activity	SCOPES has limited funding for complex international market access activities	1. Meet with Serbia Agribusiness staff to determine joint activities 2. Help co-fund as needed	SCOPES management and team, Serbia Ag team	Help firms access more advanced resources to move into new markets, increasing employment
Conduct organic training seminars, and carry out pilot projects	Kraljevo firms may be able to fairly easily capture additional value from organic production	1. Arrange seminars in conjunction with associations and organic certification bodies. 2. Develop market plan for pilot project, i.e. quince production at Tavnik	Firms, SCOPES team, associations, certifiers	Firms may be able to obtain good returns on organic certification
Assess viability of milk power production from dairies	Milk powder is mainly imported at this time and Kraljevo could become a domestic center of production	1. Develop business plan for milk power production and assess viability of project 2. If viable, with local partner, take to private equity funds for assessment	Firms, SCOPES team, IDA	May obtain good profits while substituting for imports
Market contact development activity	Many firms are ready to expand, but lack the contacts they need in target markets. Note: can be carried out in conjunction with several above activities	1. Assess most likely markets for Kraljevo firms 2. Develop short seminar on entering new markets with referral to more materials 3. Create a market penetration pilot project, granting travel funds to firms and helping develop market strategies	SCOPES management and team, Serbia Ag team	Pre-requisite for any expansion activity outside Kraljevo, firms cannot consider it without this step
With Serbia Agribusiness activity,	Growing the right varieties for fresh markets	1. Develop list of famer and preferably cooperatives	SCOPES management	Considerable additional value added and higher

promote fresh production of raspberries	can help supply local processors while obtaining premium prices for fresh	2. Work with the Serbia Agribusiness activity to ensure that Kraljevo firms participate	and team, Serbia Ag team	farm incomes
Assess direct to market opportunities for mushroom growers	Collection firms currently selling to traders can gain additional income by selling direct to market	1. Using resources of Serbia Agribusiness activity, assess options to capture value now going to traders. 2. Make introductions	SCOPES management and team, Serbia Ag team	Higher margins and more value left in Kraljevo
Program for optimal use of animal waste products	As farms consolidate and expand, animal waste can both pollute the environment and be a valuable source of fertilizer and fuel, depending on how it is used	1. Assess animal waste usage in the Krajevo area, especially in large farms 2. Develop recommendations for optimal usage, taking carbon trading and other modern innovations into account 3. This should be done also in conjunction with the Serbia Agribusiness Activity	SCOPES management and team, Serbia Ag team	More effective use of animal waste, higher incomes, less pollution

Annexes

The chart and notes below look at raspberries as a single product where Serbia may benefit from moving from frozen to fresh. Though the specific data is from 2004, the same patterns currently prevail.



- Prices for fresh are higher even during the peak harvest season (end-June to July). Serbian farmers and wholesalers are unable to obtain these prices as most of the crop grown in Serbia is not suitable for fresh market sales. The Willamette Raspberry does not have the shelf life to make it to Western European markets, and logistics and pricing information are poor.

- Fresh raspberries are only available in enough volume from May to November for a firm market price to be established. They can still be sold outside of those times. Much of these raspberries come from Poland and Russian. These counties have a climatic disadvantage over Serbia, but partially compensate with irrigation and protective tunnels and greenhouses. With the same technology, Serbia could extend this fresh season.

- Freight to Paris in a climate controlled container is approximately .30 to .60 euro/kilo, and takes 1 to 2 days. The cost per kilogram varies quite a bit depending on the packaging and volume to weight ratios.

- Even with increased investment, packing and harvesting costs, there is considerable room for an increase in average farm-gate prices, which are currently less than .5 euro/kilo. Serbian farmers face even more difficult conditions in frozen markets in the future.

List of Firms and Organizations Visited

1. FARMA D
2. AGRICULTURE AND CHEMISTRY HIGH SCHOOL
3. BAKERY UNION
4. VRBA PEK
5. BAKERY MLADI RADNIK
6. BAKERY GAVRILOVIC
7. IG-LU
8. ASSOCIATION OF BEEF CATTLE PRODUCERS- WEST MORAVA
9. ASSOCIATION RUDNO HOSTS
10. COOPERATIVE RUDNO 07
11. COOPERATIVE POGLEDA- GODACICE
12. ASSOCIATION AGRO-CLUSTER KRALJEVO
13. IDA- IBAR DEVELOPMENT ASSOCIATION
14. KOTLENIK PROMET LADJEVCI
15. NIDMLIN TAVNIK
16. SICOBERRY
17. VEROX doo
18. COOPERATIVE KOLORA
19. SAN d.o.o