



FINAL REPORT

Expanding Economic Opportunities II (EEO II)
Action for Sustainable Agro Industry in Lebanon
(ASAIL) project
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List of Acronyms

ASAIL	Action for Sustainable Agro-Industry in Lebanon
AREC	Agricultural Research and Educational Center
AUB	American University of Beirut
BDS	Business Development Services
CCIA	Chambers of Commerce, Industry, and Agriculture
COP	Chief of Party
CHF	Community Habitat Finance
DCOP	Deputy Chief of Party
GMP	Good Management Practices
FAO	Food and Agriculture Organization
FOD	Field Operations Director
GDP	Gross Domestic Product
HORECA	Annual Hospitality and Food Event organized in Lebanon
HACCP	Hazard Analysis and Critical Control Point
ISO	International Standard Operations
IFC	International Finance Corporation
IRI	Industrial Research Institute
LARI	Lebanese Agricultural Research Institute
LL	Lebanese Pounds (1 US\$ = 1,530)
M & E	Monitoring & Evaluation
MOA	Ministry of Agriculture
NLP	Niche Lebanese Products
SME	Small and Medium Enterprises
PPM	Pilot Plant Manager
SR	Small Ruminants
TOT	Training of Trainers
USAID	United States Agency for International Development

EXECUTIVE SUMMARY

The Action for Sustainable Agro-Industry in Lebanon (ASAIL) program expanded economic opportunities for SMEs, cooperatives and producers along the small ruminant dairy and niche Lebanese products value chains. Implemented from November 20, 2005 to February 28, 2008 by ACDI/VOCA, in coordination with local sub grantee Vitech Consulting s.a.l., this 28.5 month, \$6.9 million project was funded by the United States Agency for International Development (USAID). ASAIL provided extensive technical assistance, marketing, business development and access to finance facilitation. In spite of many challenges during the course of the project, including political instability, war, civil strife, and major socio-economic changes in the industry and agricultural sector at large, ASAIL was committed to progress and worked closely with enterprising producers, processors, and other stakeholders to create a positive impact in the lives of the beneficiaries and in the sectors.

In all, ASAIL provided technical assistance, training and market linkages for 82 processors (32 dairy and 50 NLP) resulting in direct sales of more than \$270,000 in Lebanese local markets, and more than \$2.2 million in exports to Europe, the Middle East, and Africa. Three pilot product development plants were established, with a focus on honey/distillates (Tripoli), baked goods/sweets (Saida) and fruit and vegetable products (Zahle). The plants will continue beyond the project under the management of the Chambers of Commerce, Industry, and Agriculture for use by small and medium-sized agrofood businesses throughout Lebanon. Beneficiaries participated in 7 domestic and international trade shows and a variety of advertising tools (websites, brochures, logos, labels) were developed for 32 processors. Through a partnership with a large Lebanese bank, ASAIL facilitated access to \$1.9 million in loans for producers and SMEs through a partnership with a large Lebanese bank. Vaccination campaigns to small ruminant producers benefited 7,590 family members spread out across more than 40 villages in 6 cazas owning over 312,000 small ruminant animals, and producers were trained in improved milking, breeding, and animal health practices.

Over the course of ASAIL, Lebanon's agroindustrial sector grew, especially in export markets - in the food and beverages sector, exports increased from \$1,282 million in 2006 to \$1,744 million in 2007. ASAIL worked with Lebanese SMEs and cooperatives to capitalize on this growth by facilitating export linkages, promoting quality control, improving forward and backward linkages within each subsector, and improving demand-driven product and packaging development.

The following report highlights achievements over the entire length of the project, with emphasis on the short-term and long-term impact in small ruminant dairy and the NLP sector (fruit and vegetable, traditional sweets, distillates and essential oil). **Accomplishments and achievements** have been divided into six sections and **can be summarized as follows** using beneficiaries as a point of focus:

I. Small Ruminants

◆ **Producers:** Over the last two years, ACDI/VOCA worked on facilitating technical assistance, training and services to small ruminant producers in northeast and southeast Beqaa. This was part of ASAIL's strategy for targeting beneficiaries at the lower end of the value chain and moving progressively along the chain to include all stakeholders concerned. Specifically:

- ACDI/VOCA activities resulted in an increased income of more than \$10.3 million dollars for producers as a result of lowered operational costs (feed and veterinary services), improved nutritional diet (culling), milk pricing through production differentiation, more efficient inter-sector and inter-regional linkages and cost-efficient practices on breeding, health and milk handling.
- ACDI/VOCA activities maintained over 7,900 jobs belonging to more than 1,265 producer households. These households worked in small ruminants across more than 45 villages in North-East and South-West Beqaa. This estimate includes all jobs occupied by main producers and their family members, including brothers, sisters, mothers and others working to manage the family livestock.
- ACDI/VOCA strengthened linkages between 15 producer cluster groups in Beqa'a and 32 dairy processing SMEs and cooperatives.
- ◆ **Processors:** ASAIL provided technical assistance, training and marketing services to dairy processors in Beqa'a. The following increase in the production levels of particular type of cheeses, improvement in the overall quality of cheese produced and additional investment in infrastructure development and expansion, all resulted in increased sales returns of particular type of cheeses. Specifically:
 - An increase in the production levels of milk by more than 30 tons for 32 SMEs from 2006 to 2007, resulting in an increase in income by \$100,000. This is attributed to increased production levels of milk, from 90 tons to 120 tons per year, calculated using an average cost of 500 LL per kg.
 - The project maintained the jobs of 127 permanent employees working in 32 SMEs and cooperatives and over 380 other seasonal jobs. On average, each SME employs around 16 employees. Providing technical assistance and support to SMEs helped them find ways to expand their market, and consequently, their production levels, which impacted employment.

II. Niche Lebanese Products

- ◆ **Producers:** ACDI/VOCA facilitated technical assistance, training and services to fruit and vegetable producers in Akkar, North Lebanon and Beqaa. Results included:
 - An increase in production capacity of producers by 25% to 50%, and a decrease in overhead costs by at least 35%. These changes in capacity and cost are a result of ASAIL training on cultural practices including irrigation, pesticide control, harvesting, etc.
 - The preservation of 3300 producers' jobs, representing more than 500 producer households.
 - An increase in producers' income by approximately 25%, from a baseline average of \$6,000 per year to \$7,500 per year, due to a decrease in production costs.
- ◆ **Processors:** ASAIL provided technical assistance, training and services to SMEs and cooperatives. This directly impacted production quantities and product quality, and indirectly impacted income and return on equity. Direct and indirect results included:

- An increase in local sales by more than \$240,000 for 26 SMEs and 15 cooperatives. Assistance was given in terms of marketing information, branding, labeling, participation in local trade shows and food festivals and linkages between suppliers, buyers and others.
- An increase in export sales by more than \$2.2 million for 9 SMEs and 7 cooperatives. Assistance was given in terms of marketing information, branding, labeling, trade show participation and access to regional and international markets.
- ASAIL maintained the jobs of 1,072 employees working for 50 SMEs and cooperatives across Lebanon.

III. Pilot Plants

In the summer of 2007, ACDI/VOCA established three product development, improvement and testing centers in Lebanon, located at the Chambers of Commerce, Industry, and Agriculture in Zahle, Saida, and Tripoli. These centers provided research and improvements to existing products and helped to develop new products among fruit and vegetable value added products, desserts and sweets value added products and distillates and oil value added products. Overall there were 179 services provided to over 40 SMEs and cooperatives, and 23 new products developed as well as 15 existing products improved. Originally employed by the project as food scientists, following the end of ASAIL each Chamber has directly employed the plant manager to oversee operations and technical quality control, demonstrating a commitment by the CCIAs to the plant and the invaluable service it provides to the surrounding community of agribusiness SMEs.

◆ **Pilot Plant Zahle:** The Zahle plant specializes in fruit and vegetable value added products. Since opened, it has provided over 119 services for over 30 SMEs and cooperatives. Services include shelf-life improvement, oxidization control, color improvement, hygiene control and packaging improvement, acidity testing, quality assurance, sensory evaluation and production training. PPM services resulted in the development of 17 new products with improved taste, variety, quality, product manufacturing, machinery efficiency and productivity, by 10% to 15% from increased machinery use.

◆ **Pilot Plant Saida:** The Saida plant specializes in desserts and sweets value added products. Since opened, it provided over 60 services for 10 SMEs and cooperatives, resulting in the development of 6 new products and the improvement of 15 existing sweet products.

◆ **Pilot Plant Tripoli:** The Tripoli plant specializes in distillates products and essential oil. Since opened, there have been improvements on a wide range of product lines including pomegranate concentrate, sauce, essential oil production and honey production. The majority of work has focused on research and the production of new product lines and experimental verification for a wide range of products to be marketed by CCIAs in the near future.

IV. Business Development Services

The project facilitated technical assistance, training and follow-up services for 16 clients (4 SMEs and 12 cooperatives).

- ◆ ASAIL developed, in coordination with the client, 7 feasibility studies, 11 business plans, 11 product costing, 8 seasonal product analysis, 9 profitability analysis, 8 product and forecasting analysis and 6 consulting recommendations.

- ◆ Additionally, each pilot plant received feasibility studies, business plans, profitability analysis and product. The plans were adapted to the needs of the group, the interest of the CCIAs, as well as the future goals and aspirations of the respective regions.

V. Marketing

During the project, a significant investment by the program was directed towards improving the marketing potential of SMEs and cooperatives working in the agro-food industry in Lebanon. The project facilitated technical assistance, training and follow-up services for 82 processors (32 dairy and 50 NLP) resulting in direct sales of more than \$270,000 in Lebanese local markets, and more than \$2.2 million internationally. Nutritional fact panels in compliance with export market regulations were developed for 17 processors and 32 processors received new and/or improved improvement labels and brand designs. Fourteen websites were also developed and are listed in Annex 6.

Over the life of the project, ASAIL brought beneficiaries from both subsectors to 3 local trade shows and 4 international trade shows. In total, 97 beneficiaries attended those shows (counting multiple attendance as many attended more than one). Assistance was given in terms of marketing information and demand trends in the Gulf, U.S., and Europe, training on export requirements, training towards certification for internationally recognized quality seals, branding, labeling, website development, and linkages with exporters and buyers.

VI. Access to Finance

ACDI/VOCA succeeded in promoting access to finance as a tool for advancing and sustaining agro-food SMEs. Due to the program's efforts to facilitate lending procedures through existing MFIs and banks within the country, ACDI/VOCA facilitated the disbursement of 29 loans for 29 borrowers, for a total value of \$1.9 million.

PROJECT SUMMARY

Existing sector dynamics leave substantial untapped potential for the increased competitiveness of Lebanon's agro-food sector. Although the industry is driven by entrepreneurialism, a range of constraints has kept key enterprises and SMEs in particular, from pursuing innovation. ACDI/VOCA, in partnership with its subcontractor Vitech Consulting s.a.l, successfully implemented the Action for Sustainable Agro-Industry in Lebanon (ASAIL) project to increase the income and profitability of SMEs within selected value chains of the Lebanese agro-food sector, targeting USAID Strategic Objective (SO1) "expanded economic opportunities."

ASAIL increased the efficiency of input, production, processing and marketing businesses, and strengthened linkages between each in three targeted "growth poles" of the country: the Beqa'a Valley, North Lebanon and South Lebanon. ASAIL focuses on two main sub-sectors:

- ◆ *Niche Lebanese Food Products (NLP)*: including jams, pickles, distillates, honey, baked goods and ready-to-eat fruits and vegetables based meals
- ◆ *Small Ruminants (SR)*: goat and sheep dairy products

ASAIL's approach to building the competitiveness of SMEs was demand-driven, participatory and systematic, and focused on strengthening value chains through horizontal, vertical and clustered linkages. It focused on developing mutually beneficial relationships between firms, and promoting more efficient business practices that lead to higher profits for targeted industries. In order to maximize the competitiveness of these two-sub sectors, ASAIL organized and strengthened producer groups, improved productivity through extension, establishing producer-processor linkages, facilitated the upgrading of processing facilities, strengthened private sector delivery of business services, assisted with the development of new products and markets and facilitated linkages to financial services. Specifically ASAIL is:

- ◆ Strengthened the capability of agricultural producers to manage their farm businesses by responding to market demands for increased quality and quantity of primary products, enabling them to consistently supply agro-food businesses while increasing their profits.
- ◆ Upgraded the technical and management capacity of small and medium agro-food businesses, in addition to helping them establish appropriate links to suppliers of fresh raw material.
- ◆ Reinforced the linkages in the agro-food supply chain to addresses policy constraints, develop joint marketing strategies and foster collaboration to increase competitiveness;
- ◆ Facilitated the integration of service providers into the targeted value chains, including input suppliers, technical assistance providers and financial institutions.

Through this integrated sub-sector approach, ASAIL combined value chain approaches in marketing, business development services and access to finance activities to increase the competitiveness of Lebanese agro-food products. This led to sustained incomes and employment for stakeholders in these two important sub-sectors of Lebanon's growing economy.

SMALL RUMINANT DAIRY

Between 2005 and 2007, the small ruminant sector in Lebanon underwent major changes due to international increases in feed prices. This led to changes in terms of milk prices, meat prices and consequently, producer and processor ability to compete within the sector. As a result of ASAIL activities producers' incomes have increased, processor production practices and production levels have improved, new products have been introduced and new markets identified.

PRODUCERS & KEY PRODUCERS

ASAIL facilitated technical assistance, training and services to small ruminant producers in



northeast and southeast Beqaa. This was part of the strategy for targeting beneficiaries at the lower end of the value chain and moving progressively along the chain to include all stakeholders. Training and technical assistance for this target group falls under operational activities such as cluster formation and meat production, health and nutrition training, campaigns and technical assistance and last access to finance. This includes the following:

- **Cluster Formation:** ACDI/VOCA facilitated the formation of more than 15 producer clusters in Beqaa. Each cluster consists of 3 to 50 producer households, owning more than 312,000 SR animals in both northeast and southwest Beqaa. The clusters include producers from 40 towns and villages across Beqaa including Qaa, Baalback, Hermel, Britel, Deir Al Ahmar, Sawiri, Lucy, Majdal Anjar, Hich Ammique, Deir Tahnich, Al Rfid, Khirbet Rouha, Mhaydthe, Ain Arab, Ayta Al Fukhar, Bakha, Yanta, and Halwa.
- **Producer Cooperatives:** ACDI/VOCA facilitated the establishment of 3 SR producer cooperatives in 5 producer clusters across Beqaa. The producer cooperatives consist of 130 producers, and include Rafid and Qab Elias cooperative in West Beqaa, Qa'a cooperative in Baalback-Hermel.
- **Training:** ASAIL carried out 4 trainings for 131 producer households. Training topics included milk handling, flock management, health and nutrition, cooperative management. ASAIL educated small ruminant producers to realize the importance of vaccination and feed campaigns and its direct impact on their household income. This came hand in hand in the rise of feed prices and consequently the need for reducing overhead as well as ensuring long term survival of the herd and consequently preserving the producers' livelihood.
- **Vaccination Campaign:** ACDI/VOCA facilitated more than 75 days of vaccination on enterotoxaemia, brucella, endo-parasite and sheep pox for more than 1,265 main producers households. This benefited



Vaccinating livestock in the Beqa'a

7,590 family members spread out across more than 40 villages in 6 cazas owning over 312,000 small ruminant animals. This directly impacted the health of the animals, reducing animal losses and ensuring continuity in the business.

- **Access to finance:** ACDI/VOCA facilitated 25 access to finance workshops in villages and towns, leading to 170 SR loan requests and 29 loans approved.

The activities above resulted in changes and improvements for **SR producers** in terms of the following:

Indicators

- ASAIL health and nutrition training, as well as vaccination campaigns, resulted in an increase in producers' income by \$10.3 million. This was primarily due to reduced mortality and morbidity rates for 312,000 animals that belonged to 1,265 producer households. The average mortality rate for animals decreased by 25% to 100%, depending on the type of vaccination.
- ASAIL cluster formation activities included training on group formation, service delivery, cooperative development, price bidding and other follow-up activities that resulted in reduced service costs for producers by \$55,000 in terms of feed prices, vaccination prices and milk prices. All of which directly impacted producer household savings. Each family had an increase in spending power by \$43 value per household per season (6 months) and an overall asset savings of \$6,956.
- ASAIL activities maintained the jobs of 1,265 main producers and their families by enabling producers to maintain their livelihoods as small ruminant producers. This included family members including, brothers, cousins and their extended families, up to 7,900 men and women.
- ASAIL activities resulted in strengthened linkages between SMEs and producers by improving milk handling and delivery from the producer to the SME. This was carried out through training on milk handling, nutrition, feed improvement and vaccination campaigns. ASAIL also worked with middlemen through the provision of the Ph Meter, to be used in milk testing at the field level. This provision ensures improved milk quality at the first level of the value chain.
- ASAIL activities resulted in a decrease in the cost of services due to negotiated prices for vaccinations and feed, as well as increases in the price of milk due to negotiated prices with processors and the improved quality of processed milk.



DAIRY PROCESSORS/ SME & COOPERATIVES

Over the last 28 months, ACDI/VOCA provided technical services and training in quality control, BDS, marketing, product development and improvement to 32 processors (SMEs and cooperatives). See Annex 1 for a list of SR dairy SMEs and cooperatives.

- **Quality Control**

General Manufacturing Practice (GMP) for Dairies: ACIDI/VOCA organized 2 training workshops attended by 32 SMEs and Cooperatives from across Lebanon, with about 80% coming from Beqaa.

International Standards & Operations (ISO) 22000: ACIDI/VOCA organized 4 training workshops attended by 16 SMEs and Cooperatives in the dairy sector from across Lebanon. After training is completed, the SMEs and cooperatives have the potential to receive an ISO certification.



An ASAIL-assisted cheesemaker at his processing facility

- **Product Development & Improvement:** ACIDI/VOCA organized 8 cheese training workshops for 16 dairy processors on 5 types of cheese (kashkaval, feta, capricious, boracho, doe eyes, brie, mozzarella, ice cream and karisha). Each training workshop included 3 to 6 SMEs and Cooperatives. Processors attended 1 to 3 workshops, each focusing on different types of cheeses and carried out over different seasons.

Spotlight on Dairy Processors:

After training from ASAIL on capricious and Akaoui, Jaber and Jaber Sons doubled their production in one year (2006 to 2007). Likewise, Dairy Khoury saw a steady increase in their feta production, which also doubled between 2005 to 2007. Several processors – including Zahi Akl from Akl Dairy – expanded their product lines to include Kashkaval after ASAIL trainings. Mr. Akl began production of kashkaval in 2007.

- **Business Development:** ACIDI/VOCA conducted feasibility studies for 2 SMEs (Dahrouj & Organica), business planning for 1 SME (Organica), product costing, profitability analysis, production and forecasting analysis for 1 cooperative (Ain Arish).

- **Marketing**

Logos, Brochures and Nutritional Facts: ACIDI/VOCA provided technical assistance to improve labels for 4 SMEs, developed and printed brochures for 3 SMEs, business cards for 2 SMEs, and live websites for 5 SMEs.

Publications: ACIDI/VOCA developed a dairy publication that includes the names and addresses of dairy processors in Lebanon including names, addresses, contact numbers, products and production capacity

Web-sites: ACIDI/VOCA developed and uploaded websites for 5 SMEs and cooperatives.

Trade Show Participation: ACIDI/VOCA facilitated the participation of 14 SR SMEs and cooperatives in 3 national food shows and 3 international trade shows and fairs (Gulf Food Show in UAE, Fancy Food Show in USA and Anuga in Germany). This provided the participants with the opportunity to promote their products, establish key contacts and benefit from the presence of other exhibitors and ideas. Additional details under “Marketing.”

All of the above activities resulted in changes and improvements for **SR dairy processors** in a variety of forms and structures, as well as direct impact on the following indicators.

Indicators

- Seven processing plants made improvements in infrastructure and general manufacturing practices. This required a total investment from processors of \$850,000, including roof tile improvement, paint improvement, refrigerating building, equipment procurement, door replacements, curtains, electric cutters, balance and other.
- 127 permanent jobs were maintained, as well as over 380 seasonal jobs and additional jobs for 50 fulltime operational workers within the dairy sector. This had direct impact on the workers, their households, family members, and others that benefited from employment income. The impact can be calculated in terms of increased household incomes for 50 workers by a minimum salary \$300 per household, amounting to a total amount of \$15,000 per month. This is calculated using the minimum wage for workers and number of workers hired, and their corresponding households who otherwise would be jobless.
- Market positioning improved for 4 products: goat labneh (vacuum & oil), kishik (powder & oil), vine leaves and grape molasses. Manufacturing costs were reduced by 15- 25%.
- ASAIL helped SR producers access \$1.9 million in previously unavailable finance
- Sales for dairy SMEs by approximately \$66,000 dollars within Lebanese local markets, as a result of national trade shows and \$15,000 as a result of international trade shows.
- Milk processing increased by 61 tons, and cheese production sales by approximately 10 to 12 tons. Cheese production included various cheeses like feta, kashkaval, brie and mozzarella, for a total value of approximately \$50,000.



An employee at a dairy processing company rolls cheese in herbs and readys them in glass jars, where olive oil will later be added before the final product is sealed and placed on the shelf for sale.

NICHE LEBANESE PRODUCTS

Over the last two years, ACDI/VOCA worked to improve the value chain for different niche Lebanese products including traditional desserts and sweets, distillates and essential oil and fruit and vegetable products in three growth poles. ACDI/VOCA provided training and technical assistance to producers on cultural practice, cooperative formation, linkages to cooperatives and SMEs on management, improving productivity, enhancing product packaging and labeling, product quality and taste.

PRODUCERS

During the project, ACDI/VOCA provided producers with a number of services deemed necessary. Originally, the project focused on linking producers to processing plants, and processing plants to markets, within the NLP sector. After a market study and value chain analysis based on primary data collected from producers and processors, it was clear that working with producers on this part of the value chain was impossible due to limited use of fresh products within the processing sector. About 90% of the SMEs use synthetic products or imported products as raw material in order to reduce production costs, increase production capacity and therefore be able to compete within local markets. Consequently, this component of the project was reassessed and re-adjusted to better match capacities and opportunities within the project. What was discovered through ASAIL was the importance of fresh fruit production, and therefore improvement of cultural practices on quality and price of fruits and vegetables. Among the major services provided to producers were the following:

- **Cluster & Coop Formation:**

ACDI/VOCA provided cooperative training delivered through a national cooperative expert, Ziad Moussa, and ACDI/VOCA international expert, Steve McCarthy. The customized trainings targeted 1 honey production cooperative, 2 vegetable cooperatives in the North and 1 cooperative in Beqaa.

- **Training:**

ACDI/VOCA organized 6 training workshops on cultural practices, targeting over 520 producer households and benefiting more than 1,500 producers in North Lebanon and Beqaa. The training focused on empowering farmers through provision techniques based on improved practices in plowing, fertilization, water treatment and pest control using tree injections. Upon adoption of the recommendations given in the training sessions, farmers can achieve better crop yields in quantity and quality, and consequently better incomes.



A cooperative development training for the women of the Mishmish Cooperative in the North

All of the above activities resulted in changes and improvements for **NLP producers** in a variety of forms and structures.

Indicators

- Program activities resulted in projected increases in producers' income by 25 to 50%, based on an increase in yield of 25-100%, because of a 25-50% decrease in production costs. For example, a producer producing 3 tons of egg plant at a value of 3 million Lebanese pounds, will witness an improvement in his yield between 750 kg to 3 tons, costing between 2.25 million to 1.5 million Lebanese pounds for the specified tonnage.
- Program activities maintained the jobs of 520 main producers and their families by enabling them to continue to practice and maintain their livelihoods as fruit and vegetable producers. Since the project's inception, agricultural production within the country declined by 30% due to the war, political instability and weather changes. Unemployment within the agricultural sector increased to 21%, and therefore the number of people who have lost their livelihoods has also changed.
- Cooperative training resulted in the improving the services offered by coops with a clear distinction between benefits rendered to members and non members, and expansion of services offered by the cooperative for enhanced member value. These included facilitating feed purchasing at lower price, provision of veterinary services, access to markets, negotiating milk prices and provision of technical assistance and training.



Technical assistance to NLP producers



SMEs & COOPERATIVES

ASAIL provided a number of technical services and training in quality control, BDS, marketing, product development, and product improvement to cooperatives and SMEs working in food manufacturing. More specifically, assistance was offered to niche Lebanese products such as desserts & sweets, sauces, dips, distillates and essential oil, fruits & vegetables. See Annex 2 for an illustrative list of SMEs and cooperatives in NLP.

• Quality Control

General Manufacturing Practice (GMP): ACDI/VOCA organized 2 training workshops, completed by 50 SMEs and Cooperatives

International Standards & Operations (ISO) 22000: ACDI/VOCA conducted 4 training workshops for 10 SMEs and Cooperatives in the NLP sector across Lebanon. SMEs and Cooperatives now have the ability to proceed with ISO certification.

- **Business Development:**

ToT Training: ACDI/VOCA organized 3 TOT trainings for CCIAAs in Zahle, Tripoli and Saida, targeting 8 staff members. The training focused on providing staff members with the tools and skills necessary to provide BDS services to their clients. This was followed up by a refresher course aimed at strengthening BDS delivery within the chambers.

Technical Services: ACDI/VOCA carried out feasibility studies for 1 SME and 2 Cooperatives, business planning for 1 SME, and product costing for 10 cooperatives, profitability analysis for 9 SMEs, production and forecasting analysis for 1 SME and 7 cooperatives.

- **Marketing**

Logos, Brochures and Nutritional Facts: ACDI/VOCA assisted 3 SMEs and 8 cooperatives across Lebanon by providing technical assistance to improve logos, business cards, print material, price lists and other.

Publications: ASAIL developed 3 publications that include the names and addresses of cooperatives and SMEs.

Web-sites: ASAIL developed and uploaded websites for 9 SMEs (6 in South, 1 in North and 1 in Beqaa). Websites were developed for additional cooperatives although they declined to renew their hosting membership in Year 2.

National Trade Show: ASAIL facilitated the participation of 15 NLP SMEs and cooperatives in 3 national food shows: HORECA-Cheese festival, the Garden Show and the National Food Show.

International Trade Show: ACDI/VOCA facilitated the participation 16 NLP SMEs and cooperatives in 4 international trade shows and fairs: Gulf Food Show in UAE, SIAL in France, Fancy Food Show in USA and Anuga in Germany. This provided the participants with the opportunity to promote their products, establish key contacts and benefit from the presence of other exhibitors and ideas.



A cooperative member highlights her product at the Fancy Food Show in NYC

All of the above activities resulted in changes and improvements for **NLP SMEs and cooperatives** in a variety of forms and structures.

Indicators

- ASAIL resulted in improved product positioning, pricing and costing resulting in reduced manufacturing cost by 15% to 35% and therefore increased product return and consequently income for 50 cooperative and SMEs.

- ASAIL resulted in maintaining the jobs of more than 1700 full time men and women workers. This includes direct impact on the workers, their households, family members, and other benefiting from income gained from their jobs.



An ASAIL beneficiary at his pastry shop in Sadia in southern Lebanon.

- ASAIL resulted in direct increase in sales of approximately \$270,000 within Lebanese local markets as a result of national trade shows and \$2.2 million as a result of international trade shows. Increase in export sales compared to national sales is due to the higher price and demand for Lebanese products as well as increased exposure and opportunity for international markets. SMEs and cooperatives sold a variety of products such as pickles, jams, syrups, pomegranate malassas, baklava, maamoul, makdous, mousaka, apple vinegar, rose and orange blossom waters. Clients included Lebanese buyers, as well as buyers in the UK, France, Germany, Denmark, Egypt, Kuwait, Oman, Jordan, Yemen, and Nigeria.

- ASAIL resulted in direct increase in production and consequently sales of more than 290 tons of products for a total value of approximately \$2.5 million.

PILOT PLANTS



Outside the Zahle pilot plant in Beqa'a, Lebanon

ACDI/VOCA coordinated with the CCIAs in Zahle, Saida and Tripoli to establish product testing, development and improvement for different niche Lebanese products. Products included traditional desserts and sweets (Saida), distillates and essential oils (Tripoli) and fruit and vegetable (Zahle) products in the three different growth poles. ASAIL provided procurement assistance, feasibility and pricing analysis, service promotion, training on ISO, and product development expertise for improving pomegranate sauce, sauces and dips, sun dried tomatoes and bakeries and desserts.

Overall there were 179 services provided to over 40 SMEs and cooperatives, and 23 new products developed as well as 15 existing products improved. Each center is autonomous and has the capacity to cater to 2 clients per week and carry over 20 tests per month. Return on investment for the chambers, if capitalized upon, is expected to have on an average of 7%. Originally employed by the project as food scientists, following the end of ASAIL each Chamber has directly employed the plant manager to oversee operations and technical quality control, demonstrating a commitment by the CCIA's to the plant and the invaluable service it provides to the surrounding community of agribusiness SMEs.

Common Activities

- **Pilot Plant Services:** ACIDI/VOCA promoted the pilot plant services in the three growth poles using a standard pricing scheme for services provided. Pricing is determined by competitive market pricing, taking into consideration affordability of SMEs as well as break even analysis and profit margin projections. The pricing schemes were designed competitively against other testing services offered by AUB AREC, LARI and IRI. Overall there were 179 services provided to over 40 SMEs and cooperatives, and 23 new products developed as well as 15 existing products improved.
- **Pilot Plant training:** ACIDI/VOCA facilitated training for 3 pilot plant managers in areas related to quality control, sensory evaluation, business development, product development, etc. During the course of the project, pilot plant managers for each of the growth poles have attended training workshops on sensory evaluation, product testing, product development, GMP, ISO, HACCP and other technical training courses aimed at strengthening the capacity of pilot plants to be more competitive.
- **Star Products: Research and Standards:** ASAIL identified and researched 24 products under 4 lines, including barbeque sauces, syrups, pomegranate, jams, dried fruits & vegetables, biscuit fillings, bagels, fruit cake and other dessert products.
- **International Volunteers:** Four international volunteer experts from the United States worked with each plant on a wide range of products including essential oils, fruit and vegetable, desserts and sweets, sauces, sun dried tomatoes, and pomegranate concentrate.
- **Pilot Plant Tours:** There were 3 tour visits attended by 45 participants representing 40 SMEs and cooperatives. The guided tours provided the opportunity for the plants to market their services to area agro-industrial clients and projects.



Conducting lab analysis at the Tripoli Pilot Plant

Pilot Plant Zahle

- **Product Testing:** 119 services were performed, including water testing (acidity, hardness, conductivity, microbiology tests), equipment reading, product trials and cheese packaging and sealing improvements for 30 SMEs and Cooperatives.
- **Product Improvement:** Product improvement assistance was provided for 12 clients for dried figs, grapes, tomatoes, and stuffed grapes.
- **New Product Development:** 7 new products were developed, including dried apple and trail mix. All have been tested and are ready for adoption and launching by private companies under a common brand name, existing or new.
- **Sample Release:** Sample products were passed to 3 interested buyers. Includes: grape molasses paste in cookies, dried apple chips, dried Zucchini, pomegranate vinaigrette, melon jam, apple molasses, hot dip, fruit paste units, apple molasses, tomato jam, dried apple chips, dried figs *and* dried grapes.



Drying apples at the Zahle pilot plant

Pilot Plant Saida

- **Product Testing:** 60 testing and product development and improvement services were provided for more than 10 SMEs and cooperatives including vegan kishk, maakroun with dibs, etc. The testing includes water testing (acidity, hardness, conductivity, microbiology tests), equipment reading and product trials.



The Saida plant manager shows off the mixing unit

- **Product Development:** 9 new products were developed: maamoul with Karmeddine, macron with molasses, Hispanic Indian baklava, brown meghli, maamoul bars in different shapes and sizes, ginger biscuits, orange biscuits, chocolate halawa and date maamoul.
- **Product Improvement:** 4 products were improved, including: mamoul, basbouse, kamereddine and cookies. This included the product content, recipe, mix, size, package, etc. (Al Baba Zaki Packaging, Packing for Mounir Bsat Halkoun for the Gulf (40 kg) Afran Loubnan New Product development, Al Nabil New Products development).

Pilot Plant Tripoli

- **Product Testing & Documentation:** Trial testing conducted for 100 samples of pomegranate, and the plant developed more testing specifications to be carried out over the

next year before the samples release. The PPM for Tripoli also worked on the production and testing of safflower oil and grape seed oil. This process is being documented for further elaboration in the coming months. The oil waste is being considered for animal forage production.

- *New Product Development:* 5 new products were developed, including salad dressing made from pomegranate sauce and thyme essential oil, lavender essential oil, honey by products, and sage essential oil.
- *Product Profile Development:* Product files were developed for lavender and rosemary oils.

BUSINESS DEVELOPMENT SERVICES

ASAIL improved the business practices of 16 clients (4 SMEs and 12 cooperatives) working in the agro-food industry in Lebanon through direct business interventions and services, divided into three major categories:

Pilot Plant Break-Even Analysis & Business Planning: ASAIL developed a feasibility study and break even analysis for each of the three pilot plants (Zahle, Saida and Tripoli). This included service costing and pricing sheets to be used by each PPM in their work.

SME/Cooperatives Feasibility Studies & Cost Analysis: 16 clients (11 cooperatives, 2 SMEs in NLP and 2 SMEs and 1 cooperative in SR dairy) received services to develop their businesses, including: 7 feasibility studies, 11 business plans, 11 product costing, 8 seasonal product analysis, 9 profitability analysis, 8 product and forecasting analysis and 6 consulting recommendations resulting in potential net increases.

Curriculum Development: two ACDI/VOCA curriculums were adapted for the Lebanese context, translated into Arabic, and distributed to CCIAs for training. These were “Business Development for Agro-Business SMEs” and “Farming as a Business & Dairy Farming”.

Training for PPM & CCIAs Staff Member: 8 representatives from the CCIAs (including the pilot plant managers) attended 2 training workshops on cost analysis and definition, managerial training, financial and service projection planning, implementation of goals and objectives, marketing of plant services, bundled services, and accounting controls.

Indicators

Activities performed under this component contributed to the following achievements:

- ACDI/VOCA activities for this component resulted in the improvement of production efficiency within each of the pilot plants. It also provided a road map for the plants to follow in order to achieve break-even over the next 3 years to help management understand the balance of services required to optimize on the existing equipment and utilize its full capacity.
- ASAIL resulted in the improvement of services for the various SMEs and cooperatives concerned. The impact of these services can be assessed in terms of decreases in

production costs by 15-25%, decreases in waste by 25%, increases in sales by 15- 45%, increases in efficiency by 15- 30%,

- ACDI/VOCA activities resulted in the transfer of knowledge from project staff and consultants to project partners, particularly in terms of training on business development service provision. The impact of these services can be assessed in terms of technical capacity-building of CCIA to service an increased number of beneficiaries, as well as increased income provision within the chambers as a result of the services provided.

MARKETING

ACDI/VOCA organized a series of activities that included facilitating research and information dissemination to SMEs and cooperatives, provision and facilitation of technical assistance and export marketing services, product positioning, production improvement, branding, labeling, packaging, national and international food show exhibition and participation, as well as facilitated linkages to export markets. ACDI/VOCA activities under ASAIL resulted in the direct increase in sales for SMEs and Cooperatives in the NLP sector for approximately \$270,000 as a result of national trade shows, and \$2.2 million as a result of international trade shows. The higher increases in export sales compared to national sales is due to the higher price and demand for Lebanese products as well as increased exposure and opportunity for international markets.

Among ACDI/VOCA major marketing activities are the following:

Research & Information Dissemination

- **Lebanese Market Research:** ACDI/VOCA carried out market research consumer taste preference, sensory evaluation, consumer basket and other research activities for a wide variety of products for both sub sectors including dairy products, fruits and jams, and distillates.
- **International Market Research:** ACDI/VOCA carried out market research on European, Gulf, and U.S. market opportunities, market positioning, barriers and alternative strategies, and market demand and supply trends. The reports produced from the Gulf and U.S. market analysis assignments – along with buyer contacts, product pictures from overseas shelves, and recommendations for Lebanese SMEs – were available to beneficiaries. Each analysis was followed up with a capstone workshop in Beirut (see below).
- **National Workshops:** ACDI/VOCA organized 2 marketing workshops on US and Gulf markets access and linkages, attended by over 154 SMEs and cooperatives (120 in NLP; 34 in SR dairy).
- **TV & Print Coverage:** ACDI/VOCA facilitated 6 TV campaigns on numerous stations including LBC, Future TV, Lebanese TV and New TV. These campaigns explained various project initiatives, including a feature on small ruminant and cheese Production, small ruminant vaccination campaigns, HORECA Cheese Festival, Anuga Food Show, National Food Show, Pilot Plants and manufacturing practices. ACDI/VOCA also facilitated the coverage of 25 newspapers and interviews in Safir, Nahar, Hayat, Al Balad, Al Mustaqbal and Al Liwa. ACDI/VOCA assisted with a billboard campaign for pilot plants across Lebanon, the campaign promoted the CCIAs and pilot plant services and activities.

Technical Assistance in Marketing Materials

- **Labeling and Branding:** Creation of new and improvement of existing labels and brand designs/logos was provided for 32 clients (26 from NLP and 6 from SR dairy; a total of 21 SMEs, 11 cooperatives).
- **Nutritional Facts:** Nutritional fact panels in compliance with export market regulations were developed for 17 clients (11 from NLP and 6 from SR; a total of 10 SMEs and 7 coops).
- **Website Development:** ACDI/VOCA developed and uploaded 14 websites (9 NLP, 5 SR)
- **Resource Guide:** ASAIL developed a “market access” publication, distributed to beneficiaries, which provided detailed information on labeling and packaging to be used within the context of their work locally, regionally and internationally.

Marketing & Sales Linkages of Products

- **National Food Show Participation:** SMEs and cooperatives in both NLP and SR sectors participated in 3 national food shows and festivals, attended by a total of 60 beneficiary



Handing out cheese samples at Horeca in Beirut, Lebanon

businesses (counting multiple attendance as some attended multiple shows). Festivals included the HORECA Cheese festival in March 2007, the Garden Show in May 2007 and the National food Festival in Biel in December 2007.

1. HORECA: 29 beneficiary businesses participated in the show, targeted to the hospitality industry, including 17 dairy processors and 12 NLPs (7 SMEs, 5 cooperatives).
 2. National Food Festival: The first ever National Food Festival in Lebanon was organized by ACDI/VOCA. 21 beneficiary businesses participated (13 SMEs; 8 cooperatives) as well as 8 NGOS. The festival aimed to celebrate Lebanese heritage. The festival included the broader participation of more than 100 SMEs, cooperatives, NGOs, and general consumers. It also included Souk Al Tayeb, playspace for children, singers, actors and famous Lebanese chef demonstrations.
 3. Garden Show: 10 beneficiary businesses participated (8 cooperatives and 2 SMEs, from both sectors) at the second annual Garden Show between May 15th and 22nd in Beirut.
- **International Food Show Participation:** SMEs and cooperatives from both sectors attended four international food trade shows as part of their involvement with the ASAIL project. A total of 37 beneficiary businesses attended (counting multiple attendance as some attended multiple shows).

Shows included: Dubai Trade Food Show in 2006, the Fancy Foods Show in New York City in 2007, the SIAL Food Show in Paris in 2007 and the Anuga Food Show in Germany in 2007. All beneficiaries received marketing and business development assistance in terms of packaging, branding, labeling, logistics, and post-show follow up. Shows were followed by trips to local stores and meetings with buyers. Beneficiary businesses cost-shared in travel and lodging costs. Details on each show are below:

1. Dubai Trade Show: 11 beneficiary businesses (3 cooperatives and 8 SMEs; 5 from SR dairy and 6 from NLP) participated in the Dubai food trade show in February of 2006, ASAIL's first show.
2. Fancy Foods Show: 9 beneficiary businesses (2 cooperatives and 7 SMEs; all NLP) attended the Fancy Foods Show in New York City.
3. SIAL: 11 beneficiary businesses (3 cooperatives and 8 SMEs; 5 from SR dairy and 6 from NLP) participated in the internationally recognized SIAL Trade Show in Paris.
4. Anuga: 6 beneficiary businesses (all SMEs; 2 from SR and 4 from NLP) participated in Anuga as part of a larger Lebanese delegation to Germany consisting 25 Lebanese processors/manufacturers. The exhibition included 6500 participants from 95 countries exhibiting food and drink products to 160,000 visitors.



Speaking with buyers in Dubai



A business owner shows off her product at SIAL



Ms. Hiam Gharib from at Fancy Food Show in New York City



A business owner markets his product at Anuga

ACCESS TO FINANCE

There are a number of obstacles that limited rural SMEs access to finance in Lebanon, including rules and regulations, registration, limited loan products, and lack of understanding at banks to the agricultural markets and seasonability of cash inflow. Unlike large firms, SMEs face more obstacles in the form of excessive bank paperwork, limited long-term loan opportunities, limited access to larger loan sizes, lack of collateral and limited access to foreign banks, non-bank equity, and export finance. Many Lebanese micro- and small enterprises are not formally registered, further limiting their options in accessing finance. The majority of SMEs are restricted to a limited range of loan products available from local microfinance institutions (MFIs), which tend to be more expensive, when compared to other sources of credit, and fail to cater to the specific needs of clients. SMEs working in the agricultural and agribusiness sector face stronger restrictions when it comes to lending options due to the higher risk level associated with the sector. Throughout the Middle East, there is also a growing demand for different types of loans products including those compliant with Islamic Sharia, as well as loan products targeting specific type of agricultural crop production

Responding to Challenges & Obstacles in Access to Finance Sector in Lebanon

ACDI/VOCA through its access to finance strategy, addressed some of the main issues that hinder lending and that has to do mainly with risk. This included linking SMEs to a private banks, conducting feasibility studies, and making use of the loan guarantees facilitated by Kafalat. This has helped in four ways;

- a. Making use of the central bank's Risk Center through Byblos Bank and therefore strengthening creditor rights and credit information sharing, providing ASAIL with information about client credibility, improving the Banks risk assessment and client selection;
- b. Providing loan guarantees and what comes with it in terms of interest rates subsidies, therefore increasing loan accessibility and affordability by farmers;
- c. Developing special credit facilities for small ruminant animal producers that encouraged many to enroll in the economic life of the country after years of marginalization;
- d. Encouraging banks to cater to the needs of small producers and processors in the food industry.

Indicators

The major achievements in the Access to Finance component can be summarized as follows:

- **Outreach & Education/ Increasing Demand for ATF Services:** ASAIL, in collaboration with Byblos Bank, provided awareness on financial services to more than 450 farmers and SMEs working in SR and fruit and vegetable production. This resulted in a total number of 87 loan applications for agricultural projects in either sub-sector.
- **Loan Processing Workshops:** ASAIL organized 11 loan processing workshops for a total number of 284 SR farmers and 141 NLP farmers in Beqaa and Akkar. The average size of the loan requested was approximately \$45,000.
- **Feasibility Study Templates:** ASAIL worked with Byblos Bank on the development of 3 feasibility templates to be used by Bank loan officers to facilitate the disbursement of agricultural loans to products for SR producers, honey producers and fruit tree production.

- **Post-War Loan Workshops:** ASAIL organized a workshop for loan managers within MFIs and Banks on post-war impact on loan processing in Lebanon. Special emphasis was on shared experience in dealing with post-war impact on producers and rescheduling processes.
- **Loan Portfolio:** ASAIL, in collaboration with Byblos Bank, facilitated the total disbursement of 29 loans for a total value of \$1.9 million dollars. Producers were able to purchase thousands of sheep and goats to meet the high demand for SR products with the local market including, start new SR farms as well as expand existing farm capacities. .

STAFF DEVELOPMENT

Over the course of the project ACDI/VOCA invested a great deal in its staff and team members. Through in-house and out sourced training initiatives, ACDI/VOCA built the capacities of staff members through professional training and certification process that would equip every single staff members to utilize this knowledge to better serve ACDI/VOCA beneficiaries, as well as work jointly on other ACDI/VOCA development projects in Lebanon. Among the major achievements at this level is building the sustainable capacities of the pilot plant managers and their laboratory and pilot plant system through an ISO and HACCP certification process to better serve the CCIA and their long-term vision for carrying their product development centers forward.

Training included sensory evaluation, cooperative development, post harvest storage, food safety, microfinance in times of crisis, business planning and feasibility studies, shelf life, and training in product development and plant equipment for each pilot plant manager. In addition, in January 2007, each plant manager attended and passed an Advanced Food Safety (ServSafe) course, accredited by the International HACCP ALLIANCE, ANSI (American National Standard Institute) and the Conference for Food Protection (CFP). The training was delivered by GWR Lebanon, the single representative in Lebanon of the National Restaurant Association in USA; the 21 hours of training were certified by the U.S.'s National Restaurant Association Education Foundation (NRAEF). The training included 15 participants from different food services.

ACDI/VOCA VOLUNTEERS & CONSULTANTS



Volunteer Ginger Olsen gets her hands dirty as she demonstrates proper milking procedures to a producer

International and regional volunteers were considered one of the most important tools in the development of ASAIL's strategy for local capacity building, cooperative empowerment and tapping into international market expertise. Overall, ACDI/VOCA fielded eight volunteer assignments and seven consultant assignments during the ASAIL project. Several additional volunteer assignments unfortunately had to be cancelled due to the security situation at the time. American expertise was brought to a local level, working

with local partners to improve the sector value chains.

International consultants included:

Producer Group and Cooperative Development and Management: Mr. Steve McCarthy
Lebanese Products vis-a-vis Global Export Market Trends: Mr. Douglas Anderson, MBA
Gulf Market Analysis for Lebanese Products and Buyer Meetings: Ms. Nancy Walsh
US Market Analysis for Lebanese Products: Mr. Derryck Cox
International Trade Show Market Advising: Mr. Derryck Cox and Mr. Dale Rachmeler
Essential Oils: Mr. Dale Rachmeler

International volunteer consultants included:

Goat and Sheep Cheese Processing: Ms. Ginger Olsen
Essential Oils Product Development: Ms. Louise Strange
Small Ruminant Milk Handling and Dairy Processing: Mr. Justin Smith
AREC (AUB) Management Analysis: Dr. Steve Murray Ph.D
Trade Show Marketing: Ms. Maria Paz Gonzalez
Shelf Life and Packaging: Ms. Maria Paz Gonzalez
Post-Harvest and Drying of Sun-Dried Tomatoes: Mr. Edward J. Valentine
Small Ruminant Breeding, Nutrition, and Milking: Mr. Justin Smith

MANAGEMENT

ACDI/VOCA management in Lebanon was challenged to create a positive and sustainable impact in the Lebanese agro-food sector, facilitating quantitative impact that would demonstrate the capacities of the agro-food sector, as well as demonstrate the ability of USAID to positively and correctly invest in the agro-food industry. Unlike previous projects, the project was a multi-faceted project targeting two major sectors and at least 6 to 7 sub-sectors. During the course of the project, the management team wove a value chain and private-sector oriented approach into every activity and work plan. By mobilizing ACIDI/VOCA's resource base of experts in value chain analysis, coop development and formation, marketing, branding, packaging, trade flows and other sub-sector specialists, ASAIL introduced a market driven approach to the sector not emphasized before and achieved success, hand in hand with its beneficiaries.

Chief of Party Ms. Noubia Gribi attended all required USAID meetings throughout the program and coordinated closely with the mission to ensure objectives were reached and security was maintained. Throughout ASAIL's implementation, management dedicated time to establishing linkages with other stakeholders working in the agro-food industry, in order to expand the market for ASAIL beneficiaries, maximize on USAID's investment in the agro-industry sector in Lebanon and most importantly, ensure sustainability for ASAIL beneficiaries. ACIDI/VOCA built bridges and created synergies with local and international NGOs, national syndicates, associations and other USAID projects working in agricultural and business development, including SRI, the Syndicate of Lebanese Industries, the Safaadi Foundation, UNDP, Mercy Corps, and CRS. Management also focused on building partnerships and work agreements with CCIAs in each of the growth poles, AUB-AREC creamery and others, finalizing procurement regulations and managing staff and partner relations.

Unlike most others, ACIDI/VOCA continued to operate in Lebanon during the July-August 2006 war between Israel and Hezbollah, which caused extensive damage to the economy and to the operations of many of ASAIL's beneficiaries. The Chief of Party remained in-country

throughout the war, re-locating from Beirut to Bartroun along with the DCOP, where a temporary office was established until the Beirut and Zahle offices provided a secure environment for staff. Field staff stayed in close contact with ASAIL's beneficiaries, their communities and project partners. The Beirut and Zahle offices were officially re-opened on August 21, 2006.

In November and December 2006, ACDI/VOCA secured two new programs designed to provide relief supplies to the most conflict-affected small ruminant herders in the Beqaa - the vast majority of which were existing ASAIL clients for whom severe loss has been turned into opportunity. The USAID/OFDA-funded Rapid Animal Feed Assistance (RAAFA) program was launched on November 20, 2006 and continued through March 2007, providing animal feed rations, hygiene kits, blankets, and shelter assistance to 503 herders' households in East and West Beqaa. The Hermel Relief program, implemented in North-East Beqaa through a partnership with Mercy Corps' DFID-funded relief program, began in December and continued through the end of January 2007. The program benefited a total of 536 remote herder households in Hermel with feed rations and critical animal vaccinations

On March 23, 2007 USAID Mission Director Mr. Raouf Youssef and ASAIL CTO Mr. Ghassan Jamous met with SME representatives within the SR and NLP sector. The meeting provided an opportunity for SMEs and cooperatives to present successes, challenges and constraints faced in their work and in the sector at large.

In April 2007, ASAIL officially opened the pilot plants in Zahle and Saida in the presence of USAID Mission Director Mr. Raouf Youssef, ASAIL CTO Mr. Ghassan Jamous, President of the Chambers, ACDI/VOCA's Chief Operating Officer Mr. Bill Polidoro and representatives from the Syndicate of Food Industries and from within the agro-food sector. In August 2007, the Tripoli plant also opened with participation from USAID, the CCIAT, and the surrounding business community. ASAIL was also pleased to welcome U.S. Ambassador to Lebanon, Mr. Jeffery Feltman, who toured the Zahle pilot plant on September 19, 2007.

USAID Mission Director Mr. Raouf Youssef and ASAIL CTO Mr. Ghassan Jamous, as well as many other dignitaries and representatives from the diplomatic and NGO sector, attended each of the national festivals attended by SMEs and cooperatives: HORECA (March 2007), the Garden Show (May 2007), and the National Food Festival (December 2007).

To raise awareness of the SMEs and cooperatives working in SR dairy and NLP in Lebanon, promote upcoming marketing events, and raise consumer pride in buying local through story pieces on beneficiaries, management participated in multiple media events on TV and print (listed in more detail in Annex 7). This included a live 15 minute interview on the popular prime time Alam Al Sabah program on Future TV, as well as an interview on Naharkoun Said on LBC, where a short documentary on ASAIL's work and beneficiaries was aired.



“Thank you, ASAIL”.

A unique gift (made from lebneh balls rolled in herbs) from an ASAIL-assisted cheese processor following his successful participation at a local trade show.

ANNEXES

ANNEX 1

List of ASAI Beneficiary Dairy SMEs and Cooperatives

1. Laiterie Jarjoura Eid & Fils
2. Jaber Jaber Sons
3. Centre Tannoury
4. Alban wa Ajban Al Manara
5. Al Baraka for Alban and Ajban
6. Mourtada
7. Rawabi Taanayel
8. C.Tannoury & Baalbaki
9. Alban wa Ajban Akl
10. Saghbin Coop
11. Al Lakis Farms
12. Kanj
13. Ain Al Arayesh Coop
14. Dairy Khoury
15. Tilal Taanayel
16. Taanayel Fresh Milk
17. Centre Taanayel
18. Wadi Taanayel
19. Rayess Food
20. AREC
21. Arsal Coop
22. Centre Fourzol
23. Mazarih Khadraa (Mazloun)
24. Al Faris
25. Al Akhdar
26. Fattoria Del Sole
27. Alban Wa Ajban Baroud Brothers
28. Chal Coop
29. Laklouk Dairy
30. Jade Est.
31. Mediterranean Organica
32. Abdel Aziz Ajaj

ANNEX 2

List of ASAI Beneficiary NLP SMEs and Cooperatives

1. Women Rural Coop
2. Souhoulna Coop
3. Ain Al Louz Coop
4. Wadi Tayem
5. Nejmat Al Soubeh
6. Aiha Coop
7. Crafts Coop in Kherbet Kanafar
8. Agricultural Production Produce Coop- Wadi Arayesh
9. Women Coop for Rural Production- Ferzol
10. Dirani
11. Jabal Loubnan
12. Hatem Group
13. AL Nabil
14. GARDENIA
15. Conserva Chtours
16. Made in Lebanon
17. Al Khomoud Lebanese Ltd
18. Wada
19. Coop Organization for Agricultural Product Manufacturing
20. Saydet Ain Yacoub for Agriculture
21. Takreit agricultural production Coop
22. Bee Keepers Coop-Beit Faks- Rural Development
23. Industrial Coop for Women in Zgharta
24. Chal
25. Women Bee Keepers Coop- Beit Faks
26. Alfa Interfood
27. Al Awafi
28. Amin Shoubtini
29. Sustainable Organic Lebanese Agriculture Company (SOLACO)
30. Saloum Brothers
31. Mineim Institute
32. ZahL Al Akhdar
33. Kobyster Brothers Ltd
34. Al Istikama
35. Jawharat Libnan
36. Center Helwayat Al Sultan Al Fakhera
37. Al Gandoline
38. Al Baba Al Shahira
39. Grampti and Kablawi
40. Bouche
41. Al Balad Al Fakhera
42. Al Remlawi
43. Al Kassir Sweets
44. Helwaya Al Bohsali
45. Kato Al Nabil
46. Afran Lebanon
47. Sultan Sweet
48. Gourmet
49. Hallousieh Coop
50. Ghrawi

ANNEX 3

Promotional Materials Developed for SMEs and Cooperatives

	Logo	Business Cards	Folder	Inserts	Website	Price list
Afran Loubnan	✓	✓	✓	✓	✓	✓
Wadi Taym Coop	✓	✓	✓	✓	✓	✓
Jarjoura		✓	✓	✓	✓	✓
Al-Manara Dairy		✓	✓	✓	✓	✓
Al-Nabil Cateau	✓	✓	✓	✓	✓	✓
Green Valley	✓	✓	✓	✓	✓	✓
WADA Coop	✓	✓	✓	✓	✓	✓
Aiha Coop	✓	✓	✓	✓		✓
Tekrit Coop	✓	✓	✓	✓	✓	✓
Ain Yacoub Coop	✓	✓	✓	✓	✓	✓
Hallousiyye Coop	✓	✓	✓	✓	✓	✓
Al-Braka Dairy	✓	✓	✓	✓	✓	✓
Kherbet Kanafar Coop	✓	✓	✓	✓	✓	✓
Beit el Faks Honey Coop	✓	✓	✓	✓	✓	✓
Ossayma Ghrawi	✓	✓	✓	✓	✓	✓
Jaber& Jaber		✓	✓	✓	✓	✓

ANNEX 4

Illustrative List of Services Performed at Pilot Plant Zahle (non- exhaustive)

Beneficiary	Date	Technical Services
Wadi El Taim COOP	Jun-06	Calibration of PH meter
	Jun-07	Manual testing for defected jars
Wadi El Arayesh COOP	Mar-07	Usage of PH Meter& Salt
		Documentary Formulation
Kheytrat El Sahel COOP	Oct 2006 & 2007	Brix Reading
		Linkage to hand held Refractometer supplier
Nejmet El Sobeh COOP	May-07	Moisture on frikeh seeds
	Jun-07	
Wada COOP	Oct-07	Trials on dried figs& grapes + issuing cost
	Nov-07	linkage with other NGO's (Dr Batoul Yahfoufi & Agripol)
		Linkage with FC RAMY on caper flower
Jean Safi	Aug-07	Color of Garlic Peeling
		On site visit to improve line off garlic & baby carrots peeling
		Water testing: hardness, PH,etc..
Gardenia	Jul-07	Better garlic powder packaging to avoid cluster formation
	Sep-07	Demonstration on garlic peeling& issuing its cost
		2 Flow Charts advices for distillates & vegetables
		Basic lab design for the new site
	Oct-07	Linkage with Mr. Hayek: For air filtration instillation of pilot plant
	Linkage for frozen eggplants from the North& tests needed	
An Nabil	Oct-07	Working on linkage for Date Jam with Hallousieh,Ain wardi & Jrad
Conserve Taanayel	Jun-07	Linkage for frozen eggplant in the North (joint efforts with FC Chantal)
Machaalany	Jun-07	Testing Vinegar acidity
	Oct-06	Interpretation of aluminum traces in pickles for Canada market
Alfa Interfood	Jun-07	Shelf life determination of canned foods & incubation system
Khoder el Mayda	May-06	On site training on GMP related to personnel & plastic packaging boxes
Earth&Co	Nov-07	Microbial tests on Vegan Keshek (11 samples)
Mich Mich COOP	Oct-07	Delivering package of test for jams& pickles+issuing price list within a draft of contract
Fneidi' COOP	2006-oct 2007	Successful linkage with MADA project for added value package of fruit sheet paste (sold to Goodies)
Jrad	Jun-07	Delivering recepy for whole apricot in syrup (trials didn't succeed)
Joseph Maalouf(sounia' fi Loubnan)	Dec-06	Introducing him to several beneficiaries & trying to built several linkages (with Jrad,Ain Wardi COOP & Kadamani)
Haloussieh COOP	Dec-06	Working on apple jam for gift basket for Byblos Bank
		Linkage with Mectat for sun drier installation

		working on linkage with AN Nabil on Date Jam
Dr Ali Ezzedine/ZAMBIA via PPS	Nov-07	Design of tomato paste line in sachet, linkage with main suppliers of packaging materials& packaging machines(#3)&testing tomato paste sample
Universities (ESIAM USJ)	Nov-07	3 training session of 9 hours for students on drying process,jams,vegetables in brine; hot fill,pasteurization,sterilization beside quality testing.
UL university	sept-oct 2007	Recruitment of 2 volunteers working on drying production
Italian COOP	Jun-07	Visit in PPZ lab &plant. Getting information on main instruments and suppliers
Agripole	Jun-07	Guide tour at PPZ,sending price list of fees, and preparing for a meeting with CCIAZ under an MOU
Wadih Takla UK	May-06	Several tests at ERI on different selected products
Dr Antoine Khoury / via CCIAZ	Sep-07	Several tests at ERI on different selected products
Rayess Food	Jul-07	Several tests at ERI on different selected products
Maurice Machaalany	Jul-07&Der07	Specifications on Garlic peeler,internal disc dimantion &linkage with Armobel
Akhtamar COOP	Dec-07	15 product testing,mainly Brix and pH
Miscellaneous	May 2007 and on going	Pre-selection of Star products (32 product within 5 categories of jam including minimum 125 tests) through a training subject
		Testing of 16 items
		2 sensory evaluation sessions on bitter orange peel and date jam (6 product each time)
		linking CCIAZ to Pesticides Lab to test grapes for export
		cheese training for 4 beneficiaries with SR team

ANNEX 5

Results From Business Development Services Provided by ASAIL

Name	Type	Region	Feasibility study	Business planning	Product costing	Production analysis-Seasonal	Profitability analysis	Production & forecasting analysis	Consulting & advising
Made in Lebanon	SME	Bekaa			Increase in sales. Reduced production cost by 25%			Increase efficiency Improve production management	
Mahmoud Dahrouj-Taanail fresh milk	SME	Bekaa	Obtained loan. Expanded production capacities and product range						
Wadi al araish	Coop	Bekaa			Increase in sales Reduced production cost by 15%	Verify production trend Increase profitability per product.			
Organica	SME	North	Applied for a loan that will increase their sales and production by having a store in Beirut that sells their products and other coop products. Projected increase in sale 35%						
Ramlawi sweets	SME	South	Expanded production and sales by 25 - 35 % monthly						
Dair Al Ahmar	Coop	Bekaa			increase in sales @ profitability price and minimize production cost by 25%				advised on sale opportunity that generated 15% profit
Ain Yakoub	Coop	North	Obtained a loan for production of a wide range of products in demand, sales and profit @35%		increase in sales @ profitability price and minimize production cost by 25% to 35%	managed to verify production trend and increase profitability per product.		advised on sale opportunity that generated 25% profit	
Tekrit Coop	Coop	North			increase in sales @ profitability price and minimize production cost by 25%	managed to change production trend and increase profitability per product.		advised on sale opportunity that generated 25% profit	

Assia Coop	Coop	North	Feasibility study enable them to figure our mistakes in costs and manage an increase in estimated profit by 20%.					realized changes in costing and pricing as a result of business advices
Wadi Al Taim	Coop	Bekaa			costing enabled them to increase sales by 45% and minimize cost and waist by 25%	produced more products at lower cost and projected more production demand by 35%	realized increase in profit by 35%	advised on sale opportunity that generated 35% profit. Saved on profitability lost opportunity by offering sales advices while transaction is being made.
Ain Al Arish	Coop	Bekaa			costing enabled them to increase sales by 25% and minimize cost and waist by 15%	produced more products at lower cost and projected more production demand by 25%	realized increase in profit by 25%	
Women rural cooperative-Zgarta	Coop	North			costing enabled them to realize sales opportunities by 25% and minimize cost and waist by 15%	enabled them to produced more products at lower cost and projected more production demand by 25%	can realized increase in profit by 25%	
Kherbet Anafar	Coop	Bekaa			costing enabled them to realize sales opportunities by 25% and minimize cost and waist by 15%	enabled them to produced more products at lower cost and projected more production demand by 25%	can realized increase in profit by 25%	realized changes in costing and pricing as a result of business advices and negotiated better deal
Nejmet al Soboh	Coop	Bekaa			costing enabled them to realize sales opportunities by 25% and minimize cost and waist by 15%	enabled them to produced more products at lower cost and projected more production demand by 25%	realized increase in profit by 25%	

Aiha Coop	Coop	Bekaa			costing enabled them to realize sales opportunities by 25% and minimize cost and waist by 15%		projected next production season increase by supplying 25% more production capacity		
Bait al faks	Coop	North							projected increase in production and sales by 255 if applying recommended approach
Pilot Plant Tripoli	SME	North			enabled them to verify the excate approximate cost of their service and reduce waist in time and effort by 30%. Facilitated business and sales projection for the short and long run		realized in forecast their profit opportunity if they adapted proposed plan generated for each plant	Plan and forecast their operation in order to maximize efficiency while managing the processes	learned the proper ways of service costing and creating packages that will increase their sales opportunities by 20%
Pilot Plant Saida	SME	South							
Pilot Plant Zahle	SME	Bekaa							

ANNEX 6

Websites Developed for SMEs & Cooperatives through ASAIL

Websites Completed and Live		
Establishment	Domain	Region
Jarjoura	www.societe-jarjoura-aid-et-fils.com	Beqa'a
Conserves Taanayel	www.conservestaanayel.com	Beqa'a
Afran Loubnan	www.afranloubnan.com	South
Taanayel Fresh Milk	www.dahroujdairy.com	Beqa'a
JADE	www.jadeestablishment.com	North
Al Istikama	www.al-istikma.com	North
Al Kassir	www.al-kassir.com	South
Groumais	www.groumaispatisserie.com	South
Laklouk Dairy	www.lakloukdairy.com	North
Nabil Gateau	www.alnabilgateau.com	South
Rayess & Rayess	www.rayessandrayess.com	Beqa'a
Al Baraka Dairy	www.albarakadairy.com	Beqa'a
Baba El Shahira	http://www.patbaba.com.lb/	South
Bouchee	www.bouchee-patisserie.com	South

ANNEX 7

Newspaper Coverage

Newspaper	Subject	Quantity of Insertion
Assafir	Horeca Schedule	1
Assafir	Horeca	2
Al Balad	Horeca	2
Assafir	Article with Mr. Hamzeh	2
Assafir	Pilot Plant Opening Zahle	1
The Daily Star (First Page)	Pilot Plant Opening Saida	1
Al Balad	Contract Signing with CCIAS	2
Assafir	Pilot Plant Opening Saida	2
Al Balad	Pilot Plant Check Up	3
Al Balad	Pilot Plant Opening Zahle	2
Annahar	Pilot Plant Opening Saida	2
Al Mustaqbal	Pilot Plant Opening Saida	2
Al Balad	Report on Sustainable Actions	3
Assafir	Agriculture Problems bekaa	3
Assafir	Helping Agriculture	1
Annahar	Agriculture Problems in Hermel	1
Annahar	Agriculture Problems Bekaa	1
Assafir	Agriculture Help Demands	4
Assafir	Agriculture Lost	6
Annahar	Pilot Plant Opening Tripoli	2
Al Balad	Pilot Plant Opening Tripoli	1
Al Hayat	Pilot Plant Opening Tripoli	1
Al Bayrak	Pilot Plant Opening Tripoli	3
Alliwaa	Pilot Plant Opening Tripoli	2
Al Nahar		2

ANNEX 8

Loans Disbursed to ASAIL Beneficiares through Byblos Bank

	NLP/SR	Region	Amount (LBP Mios)	Amount (USD)
1	SR Producer	Beqaa	100 .ل.ل	\$66,667
2	SR Producer	Beqaa	40 .ل.ل	\$26,667
3	SR Producer	Beqaa	55 .ل.ل	\$36,667
4	SR Producer	Beqaa	100 .ل.ل	\$66,667
5	SR Producer	Beqaa	100 .ل.ل	\$66,667
6	Vet Doctor	Beqaa	174 .ل.ل	\$116,000
7	SR Producer	Beqaa	25 .ل.ل	\$16,667
8	SR Producer	Beqaa	185 .ل.ل	\$123,333
9	SR Producer	Beqaa	35 .ل.ل	\$23,333
10	SR Producer	Beqaa	15 .ل.ل	\$10,000
11	SR Producer	Beqaa	67 .ل.ل	\$44,667
12	SR Producer	Beqaa	25 .ل.ل	\$16,667
13	NLP Producer	Beqaa	270 .ل.ل	\$180,000
14	SR Producer	Beqaa	47 .ل.ل	\$31,333
15	SR Producer	Beqaa	30 .ل.ل	\$20,000
16	SR Producer	Beqaa	60 .ل.ل	\$40,000
17	SR Producer	Beqaa	73 .ل.ل	\$48,667
18	SR Producer	Beqaa	24 .ل.ل	\$16,000
19	SR Producer	Beqaa	60 .ل.ل	\$40,000
20	SR Producer	Beqaa	30 .ل.ل	\$20,000
21	SR Producer	Beqaa	21 .ل.ل	\$14,000
22	SME	Beqaa	412 .ل.ل	\$274,667
23	SR Producer	Beqaa	102 .ل.ل	\$68,000
24	SR Producer	Beqaa	172 .ل.ل	\$114,667
25	SR Producer	Beqaa	31 .ل.ل	\$20,667
26	SR Producer	Beqaa	20 .ل.ل	\$13,333
27	Coop	Beqaa	75 .ل.ل	\$50,000
28	Honey Producer	Beqaa	300 .ل.ل	\$200,000
29	Honey Producer	Beqaa	293 .ل.ل	\$195,333
Total Amount Disbursed				\$1,960,667
Av. Size of Loan				\$67,609

ANNEX 8
Success Stories

BORN TO SUCCEED

"The Wadi El Taym women's co-op was born to succeed," Mrs. Lina Bahmad of the the Wadi El Taym women's cooperative tells visitors to her business. She adds, "Where there is a will there is always a way."

The Wadi El Taym women's specialty food cooperative was founded in 2004 by a group of women in a beautiful rural area of Lebanon called Rachaya El Wadi. Before forming the cooperative, the women were selling homemade products or specialty food items individually, and their profits were limited by the high cost of raw materials, inefficiency in production, poor packaging, short shelf life, and lack of technical know-how and financial facilities. These enterprising women soon recognized the need for organization to achieve economies of scale, and professional assistance to survive and grow. They got the assistance they needed from ACDI/VOCA's USAID-funded project Action for Sustainable Agro-Industry in Lebanon (ASAIL) and other international organizations.

ACDI/VOCA began working with Wadi El Taym in early 2006, offering a multitude of services ranging from technical, packaging, marketing and improving access to finance. ACDI/VOCA helped Wadi El Taym recognize the need for product differentiation and innovative presentation to give its members an edge over other producers in the market.

The cooperative wisely introduced three ready-to-eat gourmet items: moussaka, green beans in olive oil, and maktous in glass jars. ASAIL has enabled Wadi El Taym to market these products for broader export and attract more interest from buyers by improving knowledge about packaging, shelf life, labels, color, taste and product differentiation. Under the label "Campagnia" the cooperative was able to get a foothold in the high-end niche Lebanese products and begin selling at Souk El Tayeb, a weekly farmers market in the heart of Beirut.



Considered one of the purest and least polluted areas in the region, Rachaya el Wadi is a tourist destination and known for its organic agriculture, particularly figs, grapes, olives, cherries and grains. Wadi El Taym capitalized on this advantage and obtained organic certification. With support from ACDI/VOCA, the cooperative developed three new organic items, which were exported to the U.K. However, problems in formulation, packaging and shelf life caused sales to begin to plummet. Product samples were scientifically analyzed at the Zahle pilot-product development plant that ACDI/VOCA helped launch, and recommendations were made to solve problems related to leaking, formulation, shelf life, taste, texture, color, smell and visual appeal.

Wadi El Taym has also benefited from ACDI/VOCA's training and guidance on ISO 22000 certification, costing, pricing, cooperative work, labeling, P.O.S. materials, online marketing, and participation in domestic and international food shows. Wadi El Taym participated in trade and food exhibitions including SIAL in Paris, HORECA & Garden Show in Beirut, and the Fancy Food Show in NYC. Sales have risen from a modest \$7,000 in 2005 to \$17,000 in 2006, and an expected \$29,000 in 2007. The enterprising women of the Wadi El Taym cooperative, paired with ACDI/VOCA's assistance, have created a model success story for small business cooperatives in rural Lebanon.

PROFILES FROM THE DAIRY SECTOR

Mr Abdallah Khoury owns Dairy Khoury, which has a daily production of 30 tons of fresh milk. Through ASAIL's cheese training on the feta cheese, Mr. Khoury started producing the feta and selling it to market retailers, mainly Charcutier Aoun. In addition, to comply with the GMP and ISO requirements, he made many improvements inside his plant and employed one personnel to follow up on the GMP and ISO implementation. The improvements include:

- Repaired the ceiling in the cheese making area to solve a condensation problem.
- Upgraded the aeration system in the cheese making area.
- Covered overhead lights in cheese making area; put up UV lamps for flies.
- Repaired rusty refrigerator handle and other parts.
- Removed rusty balance from the production area and replace it by a new stainless steel digital balance.
- Changed a rusty door in the cheese making area.
- Removed dishwashing and laundry room to outside the plant in a separated well equipped room. They bought a washing machine with a big capacity for washing employees uniforms, towels etc.
- New equipment bought: pasteurizer, homogenizer, separator, feta line.
- Hired 23 new employees: 15 production workers, 7 accounting and management and 1 quality controller to follow up with ISO 22000 requirements.

This represents an investment of \$700,000 and Mr. Khoury expects to increase his production capacity as a result by 30-35 %. Mr. Khoury's income also increased, and he is making use of contacts made in the GCC through a tour organized by ASAIL in early 2007.

Mr. Mahmoud Jaber owns Jaber & Jaber Sons and received training on feta and capricious cheese at the AUB/AREC farm by ACIDI/VOCA's experts and volunteers. Once the trainings ended, he started his trials: he produced around 1100 kg of feta cheese and 250 kg of capricious (from goat milk), which he sold quickly at his retail shop in the Beqa'a. Capricious, which tastes similar to parmesan, was particularly successful at the National Food Show. His sales had increased by more than 60% in 2007, and he is expecting to have a higher increase in 2008. He is very enthusiastic, not surprisingly! Mr. Jaber has been contacted by one of the most prestigious gourmet shop in Dubai for a very large order of several cheeses. This contact has been made during the visit that ASAIL organized in Dubai in February 2007, where several SMEs, and Coop met buyers and traders at the one-on one meeting at the Dubai Chamber of Commerce.

Mr. Said Abou Ghneim owns Manara Dairy and attended ASAIL's training sessions on GMP and ISO 22000, as well as several cheese trainings at the AUB/AREC farm. He made improvements inside his plant to comply with the GMP & ISO and added new machines worth \$175,000. The improvements include:

- Organized the flow of material and operations in the plant and separated packaging room from production area.
- Purchased equipment: 2 yoghurt production machines, chiller for received milk.
- Fiberglass coating for 2 refrigerators: walls and ceiling.
- Antibacterial painting of the walls and ceiling.
- Electrical installation coated to permit adequate cleaning.
- Epoxy coating in packaging, production area and storage room
- Overhead lights in production area covered.

EMPOWERING RURAL WOMEN

Ain Arish women processing coop was established in 2003 comprising 11 women in aita El Fekhar, with funding from USAID. The contribution was in the form of basic processing equipments, technical assistance and marketing.

Aita Fekhar is located in West Beqa'a at 1250m above sea level and recognized by its cool summer, beautiful landscape. This high altitude and numerous hills makes this region the perfect place for raising and grazing sheep and goats which has a direct and positive bearing on the quantity of milk deemed as premium.

Initially the product range of Ain Arish coop comprised labneh from goat milk packed in vacuum sleeves, and an assortment of labneh balls preserved in olive oil and spiced with various herbs such as sumac, oregano, menthe and chilies. In addition to these dairy specialties which are succulent and pleasing to the taste, the coop processes direct goat yoghurt an ingredient used in the preparation of a traditional yet popular dish "Kishk".



ACDIVOCA through ASAIL project outreached the cooperative and provided her with its diverse services. Many technical assistance and trainings were provided to the cooperative namely; quality ISO22000, cooperative bylaws and costing, and cooperative principles. As for the marketing services Ain Arish benefited from several services such as website, label, POS material, and participated in several local and national food shows and study tour such as Dubai study tour, National Fancy Food Show in New York, and Horeca in Lebanon which helped the cooperative to be well known, understand better the market and increase the sales, from \$10,000 in 2005 to \$ 20,000 in 2007.



Hiam el Gharib age 52, and pictured left, married to Mr. Andraous Eid from Aita El Fekhar, has 7 children, acquired only elementary education, aspires to penetrate the western markets not only the Arabian Gulf, Paris and New York, but European markets. For Hiam, when empowering rural women to adhere to their land in order to earn decent living national boundaries should not be an impediment and she capitalizes on ASAIL to reach that goal. Mrs. El Gharib was recognized and awarded the title of "Woman of Courage" at the National Level by the US Embassy in late 2007.

Mr. Mahmoud Kasem El Mahmoud is from the village of Qab Elias in Beqa'a. He is 40 years old, married and has three children. He works in the trade of fresh milk. He purchases the milk from cows' farms in Beqa'a and sells it to Taanayel Farms for dairy processing. His second business is lamb fattening, dairy sheep growing and livestock cows. He took a LBP 100 million loan through the ASAIL project for the purpose of purchasing 30 cows and 300 sheep to add to his farm of 3 cows and 100 sheep. His economic situation improved very fast and he was able to purchase a pickup and to ameliorate his life as a result of his increased income.

Before the 2006 war in Lebanon, Mr. Mahmoud was fattening a limited number of lambs, but when war erupted, many dairy processing plants were hit and feed prices went high that forced him to stop that business. Upon the intervention of ASAIL, Mr. Mahmoud fattened 1000 lambs and was able to sell them all for a good profit during the last Adha Feast season, thanks to the loan.

When first visited by ASAIL team in August 2006, Mr. Mahmoud expressed great interest in the Kafalat loan. His first impression was that such loans are only propaganda and that only well connected people can access them and that he will be very astonished if he can access them. He was also skeptical about the reality of subsidized interest and that the 0% interest is a myth. He was convinced otherwise! On December 1 2006, Mr. Mahmoud received his loan of LBP 100 million (\$66,666.67) from Byblos Bank. After receiving his loan at the end of year 2006, Mr. Mahmoud was able to:

- i) upgrade his business of transporting milk from farms to the dairy processing plants,
- ii) Purchase a second refrigerated pick up,
- iii) enhance his lamb fattening business by fattening more lambs per season.
- iv) employ two more drivers in order to work on the shifts of milk transportation.

Before the loan, he was able to transport 2 tons of milk per day; now he is transporting 8 tons daily. This has increased his income four times.

The story of Mr. Mahmoud is a great success as he is one of those that were greatly affected by war, his business collapsed and he lost all hope of a bright future. With the access to finance, he revitalized his business, employed 2 additional full time workers, and a couple of part timers.

Mr. Tony Semaan is from the marginalized village of Khirbet Kanafar at the Eastern Beqa'a borders with Syria. Mr. Semaan was plowing his orchard fields when the ASAIL team first met him while on their way to the municipality building for the access to finance awareness workshop for agricultural producers and processors in the village. After speaking with a bank representative, he took a LBP 300 million loan to plant 1500 peach root stocks.

Mr. Semaan owns several pieces of land in the village that allows him to use it as collateral for kafalat loans when needed. He left his field and joined us at the municipality where at the end of the workshop, he filled the preliminary loan application. Byblos Bank checked the name of Mr. Semaan at the Risk Center (Credit Bureau) of the Central Bank and gave its go ahead for the file completion. Mr. Semaan, and upon the referral of ASAIL, contacted a private feasibility studies and agricultural engineer specialist who helped him in preparing the feasibility study and the other financial forecasts required by the bank for a fruit tress project

on one of his lands in Surda Village in Marjoun Caza. This 500,000 square meters land in Surda was rented to him by a church for \$70/1000 meters/year and for duration of 25 years.

Mr. Semaan got his \$200,000 loan in July 2007 and for duration of 7 years (first year as a grace period). He employed 7 full time workers for the project and several part timers. Besides the Peach trees, he also used the money to plant seasonal crops such as green beans, melons, wheat and so forth. Such seasonal crops will allow him to pay for the first year of installments until his fruit trees start fruiting in 2009.

Mr. Semaan also purchased all what he needed from tools such as hoses, drip irrigation pipes, and iron wires for fencing his orchards. He is self sustainable and doesn't need to rent any tools any more. Mr. Semaan with the help of his community church and the ASAIL project was able to use his skills, employ some Lebanese and make use of the land and the natural resources in the Beqa'a. The wheat that he is producing already doubled in price and he started reaping the benefits of the loan he got by selling vegetables and fruits to the market.