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**Agriculture-Led
Export
Businesses
(ALEB) Project**

**FINAL PROSPECTS
-Center of
Excellence**

Year 1, Period 2

Submitted

September 9, 1999

Prepared for

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AGRICULTURE-LED EXPORT BUSINESSES (ALEB) Project

Final Prospects - Center of Excellence-Egypt

Preliminary Report

Report for Year 1, Period 2

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EGYPTIAN CENTER OF EXCELLENCE

A Program of the Agriculture Led Export Businesses Project

Developed by

Agriculture Led Export Businesses (ALEB)

&

Center for Advanced Food Technology (CAFT)



Prospectus

Finalized August 1999



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EGYPTIAN CENTER OF EXCELLENCE

1 EXECUTIVE SUMMARY

One of the initial missions of the Agriculture Led Export Businesses (ALEB) project was to establish what was defined in the proposal as a Center of Excellence (Center). Ideally, this Center would provide the private sector Egyptian food processing industry with a technical assistance to expand their export food businesses. Areas of support will include but need not be limited to education and training in a wide range of areas, and product and process development. The Center would also serve as a technical resource to the industry. The program is being developed with the assistance of the Center for Advanced Food Technology (CAFT), one of the ALEB partners.

2. INTRODUCTION AND BACKGROUND

2.1 ALEB MISSION

The mission of the Agriculture Led Export Businesses (ALEB) is to increase exports of processed foods by private sector processed food companies by \$10,000,000 through the three year life of the project. By providing technical assistance in marketing and business and in food processing techniques, the belief is that the industry will experience significant growth during the life of the project and continue long thereafter.

This will be accomplished through a two-pronged approach,

- 1 The use of multiple tools and activities to provide support to processors interested in enhancing or initiating an export business
- 2 Providing industry level support to a cross-section of fruit and vegetable firms and processors

Partners in the project include the Allied Corporation in Cairo, Egypt, The Center for Advanced Food Technology (CAFT) from Rutgers University of New Brunswick, New Jersey, The Mitchell Group of Washington, DC, SRD Research of Salt Lake City, Utah, the Department of Nutrition and Food Technology at Alexandria University and the Sparks Companies, Inc of Memphis, Tennessee. There are many other firms and consultants who have tentatively agreed to participate in the program.

Within the project, there are five distinct but interconnected tasks. The Chief-of-Party for ALEB is Mr. Dennis Buda. Mr. Buda has been working on the project for over a year, well before Abt Associates was granted the contract from USAID. The five tasks within the program and the task leaders are,

- ◆ Task 1 Expanding and Making More Widely Available Targeted Export Marketing Product Information (Dr. David Dyer)
- ◆ Task 2 Increased Access To and Expansion of Processing Technologies and Product Improvement Services (Mr. Richard Stier)

- ◆ Task 3 Strengthen and Expand International Marketing, Management & Technical Skills (Mr Douglas Anderson)
- ◆ Task 4 Enhance Association and Private Export Service (Dr Thomas Herlehy)
- ◆ Task 5 Expand and Enhance Private Sector Strategic Alliances Supporting Services (Mr Dennis Buda and Mr Douglas Anderson)

2 2 TASK 2 MISSION

The Task 2, "Increased Access To and Expansion of Processing Technologies and Product Improvement Services", has several basic components. These include the development of an Egyptian Center of Excellence and the provision of technical support to private sector food processors. Support will be in the areas of food safety, sanitation, quality systems and other disciplines identified in the Industry Rapid Assessment. This will encompass training and education, work with industry segments and associations through Task 4 and with individual food processors.

2 3 THE CENTER OF EXCELLENCE, THE PLAN

The original vision was that the Center of Excellence would be a facility that could offer the Egyptian food processing industry what amounted to broad resources, that is, the facility would have pilot and processing capabilities for in-house training, demonstrations and development, training facilities, laboratory support systems and a cadre of experts who could provide technical, laboratory, and field support. The project would work to enhance existing facilities and bring in outside experts for training and/or demonstrations as required. The Center of Excellence, also referred to as the ALEB Technical Center, would work hand-in-hand with the CAFT (Center for Advanced Food Technology) Center at Rutgers University. CAFT is a partner in the project (Appendix I).

The goals and means to reach this vision are defined in Appendix 1, but after examining existing facilities here in Egypt, it was determined that an intermediate solution was needed.

The proposed plan for the Center of Excellence will encompass the following,

- An industry advisory board consisting of nine (9) members. Representatives would be drawn from the private sector and should include extensive representation from the business and trade associations. The Task 2 Leader would serve as a non-voting member of the advisory board and act as Secretary.
- A reference library based in the ALEB offices (ARAC).
- A working arrangement with Alexandria University, the Food Technology Research Institute (FTRI) and other operations aimed at upgrading and expanding pilot processing facilities for use by the industry.
- List of contract facilities where analyses and/or projects may be conducted.

- Working agreements with trade associations and academic organizations to utilize their expertise in developing projects and/or providing technical assistance on projects
- Management of the organization would be evolutionary in keeping with the Center's development

The Center of Excellence will be coordinated through the Task 2 leader and be located in the ALEB offices. At this time, there are no immediate plans to establish a formal Center of Excellence facility. The ultimate goal of the project would be to move all resources into a facility that can provide most or all of the services envisioned in the original Center.

3 PROSPECTUS FOR THE CENTER OF EXCELLENCE

3.1 MISSION

The Center of Excellence shall provide private sector food processors with technical support aimed at upgrading existing operations to enhance export capabilities. Support will be in the areas of product and process development, food safety using the HACCP (Hazard Analysis and Critical Control Point) system as a guide, sanitation and GMP (Good Manufacturing Practice compliance), quality systems and any other programs that are identified as necessary to enhance the market position internationally. Technical assistance will consist of education and training in targeted areas, support to targeted industries such as the freezing and dehydration industries and direct support to individual companies. This support will be provided by ALEB staff, short-term experts identified by the project and in-country experts.

3.2 THE STAKEHOLDERS

The stakeholders in this organization shall be private sector Egyptian food processors who are exporting or are considering entering the export market.

3.3 CONTRACTUAL RELATIONSHIPS

The Center will maintain a listing of contract facilities where industry can go to get work done. These same facilities may also be utilized in ALEB funded projects. Examples of such organizations are the Central Laboratory for Food and Feed (CLFF), Laboratory of Residues Analysis of Pesticides and Heavy Metals in Foods (The Center) and the University of Alexandria (Department of Nutrition and Food Technology). The University of Alexandria has pilot facilities for retort processing of low-acid and acidified canned foods. Like the FTRI, resources could be used to upgrade these facilities. Price lists for analyses, such as microbiology, pesticides, heavy metals, nutritional profiles, mycotoxins and other quality parameters will be on file in the library.

As an example, The Food Technology Research Institute in Cairo can supply many of the needs envisioned in the original plan. The FTRI has functional pilot facilities for

dehydration, oil processing, soybean processing and baking. They would be provided with a monthly fee (to be negotiated) that will be used to upgrade pilot facilities to meet those expected by EU and North American buyers. Upgrades will focus on adherence to established Good Manufacturing Practices as defined in the United States Code of Federal Regulations, Title 21 Part 110. ALEB envisions the FTRI as being the principle contractor for process related work where they have the existing pilot facilities. New equipment acquisitions may also be placed in this facility.

ALEB will establish working agreements with other universities (Alexandria, Ain Shams and Zagazig, for example), private sector companies, trade associations and overseas consultants when needed to utilize their expertise on research projects or for training classes. An effort to establish set guidelines for use of time, facilities and consultants will be made to simplify the budgeting process for projects. Agreements can be made with new organizations at any time, allowing ALEB to continually expand their scope of activities and bring increased benefits to the private sector. ALEB will work with these organizations to establish contracts that define their role and their relationship with the Center. Contracts will address issues such as pricing, confidentiality and consulting fees.

3.4 ORGANIZATION AND KEY OPERATING ELEMENTS

3.4.1 Executive Team – The Task 2 leader will serve as advisor to the Center of Excellence. In his absence, this role will be filled by the Task 2 counterpart. In this role, the Task 2 leader will serve as a non-voting member of the advisory committee and as a liaison to all technical sub-committees.

The long term goal would be to place management of the organization in the hands of a management professional. Our experience in Egypt indicates that the great majority of the business and professional associations are managed by members of the organization. A professional association manager does not have to be involved with the industry he is serving, but does need to understand the goals of the organization and the needs for the future.

3.4.2 Industry Advisory Board – Board members will be elected based on a commitment to improving the processed food export market. Ideally, there should be representation from business associations and industries from different cities. Board membership should assure a cross representation of products/processes. The first board will be elected for varying terms to allow for a staggered turnover. Board members will be asked to spearhead the development of product/process subcommittees. Subcommittees may include suppliers, members of academia and private sector consultants. These subcommittees will be charged with soliciting industry members and determining the needs of the industry.

The Board will be responsible for charting the direction of the Center of Excellence and creating its operating procedures.

3 4 3 Project Management - Projects for funding by the ALEB project will be submitted to the Industry Advisory Board. They will review the proposals, evaluate their potential value to the industry and submit it for bids at the appropriate facilities.

Projects can also come from the outside. If a private laboratory, university professor or other individual comes forward with a proposal that would benefit the industry, the project could be funded by the through the Center of Excellence. The mechanism to do this needs to be established. As an example, ALEB staff have already been approached by two individuals with ideas that could benefit the export industry long-term. One addressed the issue of shipping damage, which we have learned in the Industry Rapid Analysis (IRA) is a problem, and the second, the introduction of a new processing technologies into Egypt.

3 4 4 Evaluator – The progress of the Center of Excellence shall be subject to review by the United States Agency for International Development.

3 5 MEMBERSHIP

Private sector processors wishing to become members of the Center of Excellence will need to submit an "Application for Technical Assistance" to become clients of the ALEB project. Client members will be eligible to become members of the Center of Excellence. Processor members would be assessed a fee for membership. Various levels of membership could be established. This would be a first step towards developing a sustainable operation. Creation of a self-supporting mechanism would be a long-term goal. The dues structure is something that will need to be determined. We intend to draw heavily on materials gathered by Dr. Thomas Herlehy (Task 4 Leader) to determine how to properly develop this program. Dr. Herlehy's work will provide us insights into what are realistic payments for Egypt. Dues establishment and collection is a long range program. ALEB does not intend to implement any kind of dues structure until we have fully assessed needs and willingness of the industry to support such a program. As this is a USAID funded project, it will also be imperative to determine how this can be properly done within the organization. The ultimate goal for the Center of Excellence will be to create a self-sufficient and self-financed organization.

Dues structures that are commonly used in the United States include the following,

- A Flat Rate – All members, regardless of size, are charged a flat rate for membership. This is a structure employed by the developing Egyptian Dairy Industries Association.
- B Staggered Rate Structure – Members are assessed a dues fee based on production volumes. In the case of the Center of Excellence, the staggered fee structure would probably have to be based on export volumes. Members would be assessed an increasing rate up to a maximum export volume. At that point, a ceiling would be reached. There are inherent disadvantages in this system, as large contributors tend to demand greater services. We would also have to rely on Members to accurately portray their export business.

- C Dues for Services – Another possible dues structure would establish dues for services. This would establish a rate schedule that provided members with different services for different fees. For example, a processor who simply wanted to have receive the monthly newsletters and access to the basic website would be charged one fee, whereas, a processor who wanted the complete package would be assessed a higher fee. To encourage membership a program that would offer members discounts on all training programs might be established.

3.6 TECHNICAL ASSISTANCE

The Center of Excellence will strive to provide technical assistance to Egyptian private sector food processors in all areas that will enhance the products and reputation of the industry. These areas will include but need not be limited to food processing, food safety, food quality, sanitation and GMP compliance, product and process development, introduction of new processes and products, packaging, distribution systems and education for all levels of plant and management staff.

3.6.1 Targeted Products/Processes – The products and processes that will be targeted by the Center of Excellence will be evolutionary. Those with first priority are ones that have determined through the Industry Rapid Analysis conducted by ALEB's Task 1 and Task 3 to have great potential for export success. These include frozen fruits and vegetables, dried fruits and vegetables, juices and juice concentrates, pickled and preserved foods and preserves. Other products and products lines will be addressed as opportunities are created or analysis indicates that an export market exists. Long term, the Center will be available to serve all product lines and processes.

3.6.2 Education & Training – Working with the Task 2 leader, the Center of Excellence will conduct educational and training programs targeted at upgrading the processing operations and products of the Egyptian private sector. Programs will focus on food safety, sanitation, quality systems and processes (freezing, drying, glass packaging, low acid canned foods, juices and concentrates and pickled products).

As the Center evolves, the training programs currently being conducted through Tasks 1 and 3 (marketing and business development) will be absorbed into The Center of Excellence. This will help to assure long term stability of the organization as one that can offer its members a complete service package.

3.6.3 Product/Process Development – Programs will also be offered in principles and the process of product and process development. These programs will be general (covering all product lines) and more specific (addressing specific product lines). Using outside facilities, "hands-on" programs may be conducted whereby participants will have the opportunity to work on their own projects and go beyond theory to practice.

As the Center of Excellence evolves, the "Virtual Center" may become a true bricks and mortar facility. If this comes to pass, in-house facilities for education and product/process development may be available.

3 7 DELIVERABLES AND PERFORMANCE EVALUATION

The Center of Excellence will strive to initiate programs to benefit private sector food processors. The success of these ventures will be judged by the industry, as demonstrated by their willingness to participate in the project and their use of what any studies generate, and the United States Agency for International Development.

3 8 BUDGET AND FUNDING RESOURCES

The Center of Excellence activities will be funded through the ALEB project. As noted earlier, the ultimate goal will be to create a well-managed industry-funded center managed by a professional manager. This manager and the Center will exist to serve the industry in general, and not represent any one segment or group. Long-term, the Center will be a self-sufficient and self-funded organization.

TIMELINES FOR ESTABLISHING THE CENTER OF EXCELLENCE

Announcement of Center Plan – May 13-18, 1999 at the Launches

Phase I Planning

- ◆ Development of Prospectus - Creation of Center of Excellence Mission Statement & Guidelines including role of the Board & industry membership (August 1999)
- ◆ Identify start-up or core industrial participants (August 1999)
- ◆ Industry Planning Meeting - Selection of Board Members (September 1999)
- ◆ Development contractual arrangements with partners (Alexandria, FTRI, private & public sector laboratories and service organizations (September – October 1999)
- ◆ Preliminary proposed projects from Industry Rapid Analysis and other USAID programs (September – October 1999)

Phase II – Startup

- ◆ First Board Meeting/Selection of Officers (October 1999)
- ◆ Define goals for members
- ◆ Evaluate and redo selection process for projects
- ◆ Call for proposals
- ◆ Evaluate and select first research work

Phase III – Ongoing Operations

- ◆ Performance review
- ◆ Members recruitment
- ◆ SWOT analysis on organization (Board & ALEB staff)

Phase IV – Self-Sufficiency

- ◆ Appointment of full-time manager with experience managing an association
- ◆ Dues collection and ongoing programs

APPENDIX I

Strategic Plan for the Establishment of a "Center of Excellence" in Egypt to Support the USAID Agriculture-Led Export Business Program (ALEB) Both During the Contract and as a Surviving Resource to the Egyptian Food Processing Industry

Slide 1

Technical Mission of ALEB

In co-operation with an Egyptian Technical Center and U S resources (e g, CAFI/Rutgers) ALEB will provide technical assistance to Egyptian food processors in order to expand or initiate processed foods exports. Technical assistance will include cooperative definition of specific ingredient suitability good manufacturing practice, and required processing for targeted export products. Where appropriate the ALEB technical team will also provide expert recommendations regarding equipment selection, test and monitoring methods, packaging, analysis and labeling. Working with other ALEB Teams, the Technical Team will seek to facilitate strategic alliances and services

Within the overall USAID/Egypt Agriculture-Led Export Business (ALEB) Program, exists a Technical Thrust consisting of a direct technical mission and an objective of establishing a lasting Center of Excellence referred to as the ALEB Technical Center

Regarding the Technical Mission within ALEB

In co-operation with an Egyptian ALEB Technical Center and U S resources (e g The Center for Advanced Food Technology Rutgers The State University of New Jersey), ALEB will provide technical assistance to Egyptian food processors in order to expand or initiate processed foods exports. Technical assistance will include cooperative definition of specific ingredient suitability good manufacturing practice and required processing for targeted export products. Where appropriate the ALEB technical team will also provide expert recommendations regarding equipment selection test and monitoring methods packaging analysis and labeling. Working with other ALEB teams the technical team will seek to facilitate strategic alliances and services

Slide 2

Center Mission

- Attract Industry Participation to the ALEB Program
- Train in Application of Required Technical Methods and Procedures
- Provide Equipment Demonstration Site
- Directly Assist in Product Development /Process Definition (incl Contract Services)

In defining the Mission specifically of the ALEB Technical Center four objectives were established 1) Attract industry participation to the ALEB Program 2) Training in application of required technical methods and procedures 3) Equipment demonstration site and 4) Assistance in Product development/Process definition The ATC may be called upon to provide contract services to industrial food producers

Slide 3

Attract Industry to ALEB

- Definition
 - Identify private sector food processors and solicit participation in ALEB Provide ongoing source to encourage continued participation
- Resources Required
 - Industry contacts (Egypt wide)
 - Strong reputation within industry

The ATC should be able to assist in identifying private sector food processors and soliciting participation in ALEB

Following start-up, the Center would provide an ongoing source to encourage continued participation

In order to accomplish this objective the Center needs Industry contacts (Egypt-wide) and a strong reputation within the food processor industry

Slide 4

Training

- Definition
 - Center/in-plant training for critical methods including HACCP ingredient qualification quality assurance good manufacturing practices, standards and certification.
- Resources Required
 - Access to qualified personnel
 - Industry acceptance
 - Access to hands-on facilities and equipment

The second objective for the ATC is to provide Center/in-plant training for critical methods including HACCP ingredient qualification quality assurance, good manufacturing practices standards and certification

Accomplishing such training will require access to qualified personnel Industry acceptance of the ATC role and access to hand-on facilities and equipment

Slide 5

Equipment Demonstration

- **Definition**
 - Demonstration site for advanced equipment to provide opportunity for producers to test equipment prior to purchase decision
- **Resources Required**
 - Suitable space for food processing
 - Utilities (electric steam air vacuum waste)
 - Engineering personnel

CAFT/Rutgers experience is that a demonstration site for advanced process and packaging equipment to provide opportunity for producers to test equipment prior to a purchase decision is a valuable objective for the ATC

It may be possible to provide this capability without major capital equipment purchases if short-term demonstrations can be negotiated with equipment suppliers seeking sales to Egyptian producers

In order to accomplish such a demonstration, the University would require suitable space for food processing utilities (electric, steam, air vacuum waste) and Engineering personnel with an interest and qualification to assume an intermediary role between the equipment manufacturers and the food processors

Slide 6

Product/Process Assists

- **Definition**
 - Provide assistance to industry group and individual (incl. contract services) for product formulation and process definition
- **Resources Required**
 - Access to qualified personnel
 - Relevant processing equipment
 - Product testing including sensory tests
 - Institution ability to accept industry contracts

The final objective of the ATC is to provide assistance to industry groups and individual companies (including contracted services) for product formulation and process definition (including packaging)

Once ALEB target product sectors are identified, joint research & development may be required to quickly enter the export market. Resources required at the ATC would include access to qualified personnel and to the relevant equipment (both analytical and processing)

Depending on the capabilities of industry product development laboratories a potential area of assistance may be sensory testing of product candidates

In order to provide assistance of the nature described above the ATC must be able to enter into industry contracts. The purpose of such contracts would include protecting any sensitive information regarding company products, raw materials and processes

Slide 7

Center Evaluation Strength/Weakness				
Rating Scale: 0 to 10 as capability meets all industry needs	Present Strength 6 10	Present Weakness 0 5	Future-3yr Strength 6 10	Future-3yr Weakness 0 5
Attract Industry to ALEB				
Equipment Demo Site				
Training				
Product/Process Assist				

In evaluating the ALEB Technical Center consideration is given to both the current status and that which could be achieved in the future (three-years) with respect to personnel and facility resources

The obligation of the Center for Advanced Food Technology Rutgers University to assist in establishing the Egyptian "Center of Excellence" is extensive and CAFT has pledged to do its best to accomplish the objectives

The ALEB Technical Center objectives may require the "Team" to work with a broader group of faculty and pursue facilities not immediately available