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A RAPID APPRAISAL
OF THE
TUNISIAN AGRIBUSINESS SECTOR

PREPARED BY

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PREFACE

A study entitled A RAPID APPRAISAL OF THE TUNISIAN AGRIBUSINESS SECTOR for the Government of Tunisia was commissioned by an agreement between U.S. Agency for International Development (USAID) and the American Society of Agricultural Consultants International (ASACI) in late September 1989. It was to be a first step in the design process for the Agribusiness Promotion Grant which has the purpose of expanding private sector investment and returns in high value commercial agriculture and livestock production, processing and marketing in support of the second phase of the Agricultural Structural Adjustment Program.

Work was started immediately with briefings of the team leader by USAID and by other U. S. government, international and private agencies in Washington, D.C. The team arrived in Tunis October 17th, and spent from then until November 7th interviewing individuals in the public and private sectors and preparing a rough draft report.

The team consisted of a team leader and three other members, all ASAC members and private sector consultants from the U.S., and one Tunisian team member provided by USAID in Tunisia. Following are the members of the team:

John D. Baker, President
J.T. International Inc.
John D. Baker & Associates
Bethesda, Maryland

Robert J. Vilece, President
International Trade and
Development Corporation
Weston, Connecticut

Hans-R. Michel, President
Huber Farm Management Inc.
Memphis, Tennessee

Abdallah Omezzine, Ph.D.
Maitre de Conference,
Agro-Economic
Ecole Superieure
d'Horticulture
Sousse, Tunisia

Scott D. Morse, President
Morse Merchant Agribusiness
San Francisco, California

Christopher Alden Mock joined us for the last few days of our study and was very helpful in giving perspective to various aspects of the study.

Thanks is due many people who arranged interviews, provided information and helped in other ways, but special mention should be made of a few. We want to thank Shirley Pryor for her efforts to keep in order a group of very independent people, Sheila Larbi for the background research she did prior to our arrival, Jim Lowenthal, Paul Novick, Bob Armstrong and Gary Vaughan for their help in prestudy briefing. Michael Hurley for the revisions he did to make the study more concise and readable and finally to Lib Frazier and Gail Zacharias for patient, meticulous and extended effort in the preparation of the final report.

The American members of the team are especially indebted to Abdallah Omezzine for his guidance and the perspective he gave about Tunisia. Without his help and patience we would not have been able to come close to accomplishing as much as we did. He gave perspective and understanding to much of what we saw and heard. His translation was an important part of the work.

Scott Morse gave special help to the team's effort by arranging for private information sources and locating important contacts in the private sector by visiting a trade show in Germany prior to our arrival in Tunis. Of course, there would have been no such study if Frank Frazier had not conceived the program and pushed for the grants that made it possible and if Michael Hurley had not prepared the proposal for the contract.

Finally, I am personally indebted to the U.S. team members for their initiative, professionalism and hard work which went far beyond the specifications and normal effort required for such a project.

John Baker
Chief of Party

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I. SUMMARY AND CONCLUSIONS

Tunisia has many positive factors for developing agribusiness, such as its climate, market location, existing infrastructure, political stability and willingness to privatize.

A. THROUGH PRIVATE SECTOR AGRIBUSINESS INVESTMENT AND DEVELOPMENT OF PRODUCTION FOR THE EXPORT AND DOMESTIC MARKETS WITH THE COOPERATION OF THE TUNISIAN GOVERNMENT, TUNISIA HAS GOOD POTENTIAL AND OPPORTUNITY TO

1. eliminate its trade deficit and create a positive trade balance,
2. create many new jobs and reduce unemployment,
3. generate a better and more abundant food supply for its people--especially a diet higher in protein content.

B. THE POTENTIAL AND OPPORTUNITY OF TUNISIA ARE IN

1. the production of crops for the food processing industry, and of high value specialty crops for fresh exports to window markets in Europe, such as
 - a. high quality vegetables such as asparagus and baby corn,
 - b. cut flowers and ornamental plants, and
 - c. seafoods such as shrimp, sea bass, cephalopods.

The results would be increased volume and efficiency for the food processing sector, immediate increase in export sales, job creation, and technology transfer to other farm production sectors;

2. the food processing industry for export, by improving and expanding the variety and quality of such food products as tomato paste and juice, harissa, fruit pulp, concentrated grape juice, stuffed olives, almond-stuffed dates, etc.;
3. the agribusiness support environment, to improve human capability development and to attract domestic and foreign investment, by
 - a. training managers in motivated worker management systems,
 - b. on the job training of skilled food processing personnel, and of capable Tunisian farmers, farm labor, technicians and managers,
 - c. training and employing Tunisian marketing specialists, and
 - d. attracting and exploiting domestic and foreign capital resources to provide economic growth.

The results would be sustained and enhanced employment

opportunity for Tunisians in the managerial, marketing and financial sectors; private sector capital taking pressures off demands on public revenues; better managed, financed and cost effective food production systems.

C. RECOMMENDATIONS TO OVERCOME CONSTRAINTS TO SUCCESSFUL AGRIBUSINESS INVESTMENT AND DEVELOPMENT FOLLOW.

1. In the agricultural production sector,

a. The constraints are available arable land, partially neglected soil resources, low general productivity level due to lack of proper irrigation systems and facility to install them, lack of modern production techniques, government intervention, low level of labor training, motivation, quality consciousness and management techniques, and others.

b. Proposed recommendations to the government are as follows.

(1) Simplify access to public information at government level. Initiate a policy of "openness" and "positive service attitude" for all government agencies.

(2) Facilitate imports for agricultural input items and privatize the marketing of agricultural imports.

(3) Remove completely any tariff (or so named administration fees) on input items needed for export production.

(4) Consider changes in the inheritance law which would prohibit the splitting of farmland size below an economically viable level.

(5) Consider implementation of local programs to encourage exchange of small land parcels on a lease basis to increase field size.

(6) Expedite privatizing of the government parastatal organizations operating in the agricultural sector, including government-owned farms.

c. General recommendations are the following.

(1) Promote increased production of high quality, high value crops to supply demand for the processing industry and European fresh markets.

(2) Define, plan and start actual implementation of at least one vertically integrated project, such as tomato paste production, within 12 months.

(3) Expand said project[s] within the next 24 months through contract production supported by research and field tests of new varieties and production techniques.

(4) Offer private sector training and continued technical,

economical and managerial consulting services to contract producers and later to the general public.

- (5) Fund the following studies: (1) feasibility study of tomato paste production and (2) brochure "Tunisian Agriculture."

2. In the food processing sector,

a. Constraints include lack of appropriate technology, short supply of needed raw materials, government intervention, little market intelligence, labor and management problems, excessive time and cost to import food processing equipment, and others.

b. Recommendations for improvement are as follows.

- (1) Encourage private sector to make market studies in products in which they are interested by making information easily available to them about organizations which can help, information from past studies, and funds if needed.

- (2) Encourage feasibility studies by experienced industry people in the area of respective speciality, including

- raw materials, location of source, yield, costs, transportation to plant, seasonal timing, and multi-production facility possibilities,
- production technology, and
- preparation of a business plan which integrates production and production costs, raw material costs, marketing and finance.

- (3) Market the business opportunities to Tunisian and U.S. prospective agribusiness project partners.

- (4) Encourage technical and management improvement by encouraging private enterprises to obtain and use experienced management in the product speciality until local management is thoroughly trained and experienced.

- (5) Provide foreign investors one location where foreign investors can get all available investment information.

3. In the agribusiness support environment,

a. Constraints include parastatal enterprises, government control on prices, labor policy, high import protections, lack of available financing, and others.

b. Recommendations for MANAGEMENT/LABOR and MARKETING are as follows.

- (1) Make it clear new business can make labor choices, can hire and fire.

- (2) Encourage management training - principally in management labor relations so all individuals are motivated by the way they they are treated, by recognition and by monetary incentive for superior individual or team contributions.
- (3) Encourage the development of marketing expertise first by joint venture and then by private industry marketing consultants.

c. Recommendations for FINANCE AND INTERNATIONAL TRADE are as follows.

- (1) Commit highest level to no devaluation for 24 months.
- (2) Support development in BNA to larger cash flow credit to farms and business including small business.
- (3) Continue support of privatization of the transportation sector.
- (4) Be more aggressive in lowering rate of protection from 45 percent to 25 percent in the interest of more quickly establishing competitiveness.
- (5) Request the U.S. Government to fund an equity facility for American joint ventures with Tunisia.
- (6) Refrain from any buffer stock scheme, national or international, instead have a market driven system forcing growers to produce for a market and not a control price.
- (7) Actively market to potential investors readily available, updated and practice orientated information on agribusiness opportunity.
- (8) Prepare and market to potential investors summary of data related to production factors and economic performance of sector.
- (9) Facilitate understanding of organizational structure and responsibilities of food and agriculture sectors in Tunisia, and prepare a guide "Who's Who in Tunisian Agriculture/Agribusiness?."
- (10) Prepare a guide "How to do business in Tunisia."

D. RECOMMENDATIONS FOR APPROPRIATE INTERVENTIONS OF THE USAID/TUNISIAN AGRIBUSINESS PROMOTION GRANT ARE PRESENTED IN PRIORITY ORDER BELOW.

1. To actively encourage and accelerate actual agribusiness project investments, fund and implement an integrated program of private sector agribusiness promotion.
2. To provide financing for agribusiness projects, assist and encourage the establishment of financial institutions that would supply needed debt and equity capital.

3. Work with the Government of Tunisia to create a freer market environment in which agribusiness can grow, with a program focused on recommended policy changes.

II. INTRODUCTION

A. PROGRAM CONTEXT OF THE RAPID APPRAISAL

The undertaking of the current Rapid Appraisal of the Agribusiness Sector in Tunisia is the first step in the design process of a USAID/Tunisia Agribusiness Promotion Grant.

The purpose of the proposed Agribusiness Promotion Grant (APG) will be to expand private sector investment and returns in high value commercial agriculture and livestock production, processing and marketing.

The Agribusiness Promotion Grant will support the second phase of the Tunisian Government's Agricultural Structural Adjustment Program. This Program will tackle the remaining challenges of continued agricultural market and price liberalization, parastatal privatization and reform, and private investment promotion in commercial high value agriculture and agro-industry.

B. OBJECTIVES OF THE RAPID APPRAISAL

The principal objective of the rapid appraisal report is to identify the opportunities and constraints to the development of agribusiness in Tunisia.

Specifically, the Rapid Appraisal is to describe the status of the agribusiness sector, define the potential and prospects for private sector development over the next five years (including potential privatization of parastatal organizations), identify the major constraints, identify areas where more detailed studies/analysis are needed, and identify appropriate interventions of the Agribusiness Promotion Grant.

C. STRUCTURE AND SCOPE OF THE RAPID APPRAISAL REPORT

The report tells a story. A review of the investment climate and agribusiness sector in Tunisia reveals good opportunity for private sector agribusiness development. But the review also identifies significant constraints to the development of agribusiness potential. To overcome these constraints, recommendations of specific corrective measures are made for the public and private sectors of Tunisia. Appropriate activities to support and promote Tunisian agribusiness development are recommended to USAID/Tunisia.

Judgments about the importance of the various opportunities and constraints were based on the team members' professional assessment of data obtained from interviews in the private and public sectors, a review of literature provided by USAID/Tunisia and gathered from government or private commercial sources, and from observations on farms and plant locations in Tunisia.

The team did not attempt to gather and use cost and market data to indicate levels of profitability for specific agribusiness project opportunities, with the exception of one project, tomato paste, which was prepared to serve as a prototype of specific project potential in

Tunisia. Feasibility studies would be necessary if specific new or expanded investment opportunities were to be pursued.

Many useful background documents, particularly Agricultural Policy Implementation Project studies, were provided by USAID/Tunisia for review by the agribusiness team. Clearly much needed work has been done in the policy and strategy areas.

Hopefully this current study will encourage the action programs needed to make necessary policy, control and regulatory changes, and encourage private sector agribusiness investment and development in Tunisia.

D. TUNISIA TODAY

Though petroleum products and other mineral resources are limited, Tunisia has resource strengths and certain advantages. Upper level management is educated and well trained. Fine educational and research institutions have been established and people not yet trained will, with education and training, become a valuable resource for the future. Land is spread over differing climatic zones with varying amounts of rainfall and water for irrigation. The dryer areas over the decades and the centuries have provided olives and dates, with recent major increase in the latter. The area with more water has been developed but offers many additional opportunities as this report will indicate. The country offers great stretches of Mediterranean seacoast, which has fostered a profitable tourist trade and fishing enterprises and, more recently, aquaculture development.

Its location places it close to the heart of the Middle East markets and close to European markets, in a good position for the development of exports.

For a time the economy had help from the export of petroleum products. Now the reserves are about exhausted; within two or three years Tunisia will be a net importer. The system of controlled prices, set processing margins, parastatal enterprises and other governmental interventions have caused over capacity in some areas and lack of adequate investment in others. These and other factors have caused inefficiencies and lack of plant and equipment renewals. Whatever the dominant reason, Tunisia finds itself with several major problems. These are:

- an adverse balance of trade
- high unemployment and underemployment
- concern over basic food supply for the growing population.

As this report points out, the Tunisian government and private sector can successfully address these problems through continued and expanded free market measures to promote private sector agribusiness investment and development of production for the export and domestic markets.

III. BRIEF INVESTMENT CLIMATE STATEMENT

The agribusiness team survey of the Tunisian investment climate shows a country poised for expansion through privatization. A close examination revealed some attractive investment considerations: financial stability, low cost labor, currency stability and convertibility for investors, an international private banking and financial center, and an absence of bad debt.

All these sectors combine to make Tunisia's world creditworthiness rank 39th according to "Institutional Investor," and thus, the second best country risk in Africa. Worldwide, Tunisia's credit rating is ahead of countries with substantially more investment such as Chile and Morocco. Consequently, even though there are some substantial constraints, certain carefully selected investment opportunities in agribusiness are estimated to be profitable and competitive.

From an international economic perspective, Tunisia is gaining the confidence of substantial private Arab individuals, Arab corporate interests, and development banks. They keep impressive sums of money in the banks of Tunis which can be used to lend to credit-worthy investment projects. In the words of the successful and progressive president of BEST (Beit Ettamwil Saudi Tounsi) Bank, "The problem is not money; there is plenty of money in Tunis." Investors can easily hold foreign exchange accounts and convertible Tunisian dinar accounts without concern for convertibility.

As an example of confidence in the investment situation, Citicorp has opened a branch office in Tunis. While a Stock Exchange has been operating in Tunisia since 1969, it has only recently, under the Structural Adjustment program, been a focus of GOT efforts to improve its organization, to increase the number of companies listed and in general to become a useful source of equity financing for Tunisian companies. Development grants and loans are available from over a dozen reliable sources, including Arab petroleum rich companies, much of which has gone into the tourism investments in Tunisia.

Preferential access privileges are accorded to Tunisian exports in some sixteen polities. Thus, Tunisia benefits from the U. S. Generalized System of Preferences, the EC's Lome Convention and the preferences allowed the Maghreb nations, in addition to special bilateral agreements for duty free access with Turkey, and Saudi Arabia and other Arab nations.

The agricultural investment code includes many "state-of-the-art" provisions, which demonstrates a competitive investment opportunity as compared with other developing nations. Significant provisions include guaranteed repatriation of capital investment and dividends in hard currency; Tunisian dinars (TD) 5,000 for pre-feasibility studies; preferential credit rates; 5 percent subsidy of the cost of the equipment, if located in a disadvantaged area; 10 percent subsidy of the cost of agricultural equipment; training costs for personnel, if technology is advanced; grants up to TD50,000 endowment for management participation in ownership; tax holiday for ten years; exemption from local tax on locally purchased inputs; and others.

For a full presentation of the investment climate including an economic assessment, financial assessment, treatment of foreign capital, Tunisian monetary system, sources of capital, and trade finance, consult Appendix A of this report.

While the government is highly interested and very receptive to investment proposals, there are serious reservations that need to be addressed fully prior to the placement of capital. These constraints are presented in Section VI of this report, together with recommendations to eliminate or reduce their effect.

IV. AGRIBUSINESS SECTOR SURVEY

A. THE ROLE OF AGRICULTURE AND AGRIBUSINESS IN TUNISIA

With limited petroleum and other natural mineral resources, Tunisia must turn more and more to its agricultural and agribusiness sectors. The only other alternative currently available would be to become a trader in and processor of imported commodities or materials for manufacturing and trade on world markets. This will happen to a certain extent, but the current opportunities are in the agricultural products of Tunisia.

Of the working population, 35 percent are engaged in agriculture but agriculture represents only 11 percent of GNP. The population living in rural areas is 47 percent of the total. Both the need and the potential for growth in this area is very large.

In 1988, gross imports exceeded exports by 50 percent. This excess had been averaging 63 percent in the 1981-86 period. During 1981-86 the deficit in the agricultural trade balance was 35 percent of the total deficit. In 1987 and 1988 the percentages were 42 and 47 percent respectively because of drought.

Increasing productivity in cereal and dairy, the largest agricultural import items, would reduce imports. However, this assumes there is not a higher value use for the land, such as for forage or high value crops for export. On the export side there would seem to be great opportunity to increase agricultural export of dates, fresh fruits and vegetables as well as processed foods. Additional details summarizing Tunisian agriculture and trade are given in Appendix C, from data compiled and published by the Agricultural Trade Office of the U.S. Embassy.

B. STRUCTURAL ADJUSTMENT OF THE AGRICULTURAL SECTOR

The Government of Tunisia has undertaken a significant structural adjustment in the agricultural sector. For the next fiscal year, 1990-1991, the program as currently drafted will work to further develop privatization, diminish the constraints to production, and attempt to further transform and commercialize agricultural production, especially high value added products. This will be the fifth year of the agricultural structural adjustment. Key objectives include the following items:

- * Restructuring or privatizing the major parastatals,
- * Organizing a system for the basic commodities that have been under state control,
- * Reorientation of investment to high value products,
- * Diminishing the remaining subsidy payments for new producers, and
- * Liberalizing the registration procedures for investment proposals.

The USAID/Tunisia Agricultural Policy Implementation Project (APIP) supports the Tunisian agricultural structural adjustment program through joint policy analysis and recommendations.

C. STATUS OF AGRIBUSINESS

1. STRUCTURE OF AGRIBUSINESS FIRMS

There are some 3500 agribusiness firms in Tunisia of which some 1500 are in olive oil processing, over 1500 are bakeries and the balance, some 500 are in a wide variety of different subsectors. Among this latter group are the subsectors with which the team doing this study worked.

It should be noted that these figures do not include a large number of very small firms that illegally collect and deliver 80 percent of the fresh milk in the country. Not all sources agree on the number of firms in certain subsectors. This is probably because of many firms becoming inoperative from overcapacity.

A review of the statistics and interviews indicate some serious problems in the overall structure in several subsectors. The following list the major ones with discussion of examples.

Olive oil extraction is a large and important part of the Tunisian agricultural scene. Capacity utilization runs between 55 and 65 percent and 62 percent of it has higher than necessary costs due to obsolete equipment and other inefficiencies. Many are not well located. The press system used is outmoded and there have been no market-based incentives for modernization.

Several subsectors have had overexpansion due to the stimulation of government incentive programs during the past 10 years. Examples of this are:

	Number of firms	Percent capacity used
Animal feed	100	25
Cheese	10	25-30

In the case of cheese, this may also be because of a consumption disincentive with the imposed 43.66 percent production tax.

This situation of low capacity use can only be corrected by concentrating production in a smaller number of economically scaled, more efficient plants. With the changes in margin since 1986, the number of operating plants in animal feed have been reduced from the 190 in the 1982-85 period to the current 100. This restructure must occur if there is to be efficient processing and would occur naturally in a free market system. The Government may wish to have a program to retrain displaced managers and key technicians who already have proven ability so they can move into other fields.

Some sectors are under utilized due to raw material supply problems. Examples of this are the 40 to 45 fruit and vegetable processing firms which are working at some 50 percent of capacity, due to lack of extended harvest fruit or vegetable varieties, or multiproduct plants which could operate on raw materials coming in at different seasons. Also, the lack of contractual arrangement between processors and farmers contributes to the lack of supplies for processing.

The 30 seafood processing plants are operating at about 25 percent of capacity due to the limited availability of seafood and the lack of technology to increase the catch. Further discussion of this is found in the food processing part of the report.

Many of the other subsectors, though appearing to be somewhat below an ideal percent capacity operation, function reasonably well.

2. AGRIBUSINESS MANAGEMENT AND MARKETING

The agribusiness managers which the team met were intelligent, well educated, and seemed to have a good grasp of the current technology level within their business. They had as much feel for domestic consumer needs and desires as could be expected when one considers that the fixed official margins under which they operate do not require them to be responsive to the consumer. They are anxious to expand the development of their businesses.

There are, however, two serious impediments to good management in addition to the lack of technology which will be mentioned many times elsewhere in this report: these are in the areas of management/labor relations and marketing.

3. MANAGEMENT/LABOR RELATIONS

Management/labor relationships were observed by all team members visiting operating plants or interviewing plant managers. Representatives from the confectionery, cookie and biscuit sector from private industry cited it as one of the most frustrating problems management has to face. Team members observed a confrontational relationship between management and labor, except in some businesses operated by foreign or non-traditional Tunisian managers.

Tunisian managers blame government labor laws and regulation for not being able to manage their work force. Because of current laws and regulations, it seems that management has not developed any expertise in an employee motivated management situation. They are undoubtedly not aware of the potential benefit of effective ways of communicating with workers, team work systems, worker quality control roles, worker consumer product and customer service roles, as well as non pay and pay incentives.

To correct the above, two things must happen. First, labor laws and regulations must be changed enough that employers can indeed have some control over the motivation of their work force.

Secondly, there must be management training in the field of management/worker relationships.

The importance of this can be illustrated by the experience in the United States during the last ten years, when a major change in business management began to occur, first in the automotive and electronic industries and later in the consumer food processing companies, like Hunt Wesson Foods and General Mills. Commonly quoted savings figures are 25 percent of total costs for manufacturing industries and 40 percent for service industry when there is a complete switch from traditional management to what is frequently called "Total Quality Management" or "participatory, team work management." These savings figures are given by Phillip Crosby, President and founder of the Crosby Quality College, who for the past ten years has been training business management. In the world market of the future, Tunisia will have to compete with countries in which this kind of increased efficiency and effectiveness is occurring.

4. MARKETING

Many managers interviewed had a good sensitivity to the importance of the customer and consumer. All those that wanted to sell in the foreign market, however, expressed their need for a joint venture partner with marketing expertise to supply much needed experience and operating knowhow.

In a competitive international market, response to consumers needs and desires with carefully designed products is essential. Other important marketing components are customer service, packaging, pricing, and understanding and meeting competition. The typical way most businessmen learn the importance of this area is through experience. However, learning from good joint venture partners, business short courses, seminars and university courses, if well taught by people with experience, are all very helpful and are recommended.

5. AGRICULTURAL PRODUCTION CREDIT

At the end of June, a new agricultural bank was formed out of a combination of the Banque Nationale de Tunisie and the Banque Nationale de Developement Agricole. In the new bank, Banque Nationale Agricole (BNA), agricultural production loans are available at some 2 percent under the prime market rate.

6. AGRIBUSINESS ASSOCIATIONS

Representing the various production sectors are professional associations called "groupements interprofessionnels." The associations perform such commodity-wide tasks as collecting statistics, advising on research and "Cooperative Extension-like" services, assisting on phytosanitary efforts for greater foreign acceptance, searching for new markets, and advising of sales enhancement techniques.

D. PRODUCTION AGRICULTURE

The following information is intended to give a brief overview of the agricultural production factors in Tunisia. It is prepared primarily for the reader not familiar with Tunisian agriculture and contains information believed to be relevant to understanding the basics of the agricultural sector and the recommendations made later in this report.

1. FARM POPULATION, LABOR AND EDUCATION

The Tunisian population is 7.8 million with a labor force of 2.1 million. Approximately 735,000 people, or 35% of the labor force, are engaged in agriculture. Some 47% of the population live in rural areas.

The number of farm operators in Tunisia is estimated to be 376,000, of which 57% or 214,320 name agriculture as their principal activity. The farm labor force is provided primarily by family members and temporary employees. Only 47,800 employees are hired on a full time basis.

According to a recent survey by the Ministry of Agriculture, 75% of the farm operators are illiterate, 20% have a primary and only 5% a secondary or superior education. Of the farm operators, only 2,200 or 0.6% are reported to have an agricultural education.

2. AGRICULTURAL PRODUCTION FACTORS

A complete survey of the agricultural production factors of natural resources, crop and animal production and yields, farm organization and management, and the financial situation of the farm sector, is presented in Appendix B of this report.

E. FOOD PROCESSING

1. VEGETABLES AND FRUITS POTENTIALLY AVAILABLE FOR PROCESSING

Of the very large number of vegetables grown in Tunisia, few are processed and only a very small portion of those processed are exported. Some of those which were observed on a quick visit through the market were the following:

artichokes	corn	peppers
beans - various	garlic	potatoes
beets	greens - various	radishes
cabbage	lettuce	squash
carrots	onions	tomatoes
cauliflower	peas - green	turnips

Fruits grown in Tunisia include the following:

apples	grapefruit	peaches
apricots	grapes	pears
capers	lemons	pomegranate
dates	melons	quince
figs	oranges	

2. STATUS OF THE FOOD PROCESSING INDUSTRY

There are many food processing factories in Tunisia considering the relatively small size of the country. These factories almost never operate at full capacity mainly due to the lack of sufficient raw material, as explained earlier under agribusiness structure.

Of the 116 factories listed by the Groupement des Industries de Conserve Alimentaire, 45 of them process fruits and vegetables, 20 are processing foods which require fermentation at some point in their procedure, such as table olives, 23 process fish by canning, 25 process fish by freezing and 3 process meats and prepared foods. Those products which are fermented before they are processed in Tunisia are referred to as "Semi-Conserve de produit vegetaux". They are located in 11 gouvernorats or administrative regions throughout the country but most are found in the north central and northeast regions and along the central to north portions of the east coast.

Table 1 shows the production of principal processed foods in Tunisia from 1985 through 1989. Of special note is the large variability in the production of many categories from year to year. The lack of contractual arrangement between the processors and farmers is one evident cause of the fluctuations. However, a more complete analysis needs to be done to identify the causes and to specify economically viable measures to reduce the variations.

Table 1: Production of Processed Foods in Tunisia
Expressed in Metric Tons for Years 1985-1989

Product	1985	1986	1987	1988	1989
Harissa	10,184	5,580	5,754	8,655	9,000
Tomato Paste	53,044	48,071	66,000	46,000	60,000
Other Veg.	2,988	1	1,200	3	4,150
Fruit	2,334	3,198	5,334	8,391	7,800
Table Olives	2,590	2,296	1,789	3,000	5,000
Capers	257	110	150	156	250
Specials	737	750	1,000	1,500	1,000
Canned Fish	7,653	2,841	2,533	4,091	8,100
Frozen Fish	9,890	9,975	10,416	14,995	17,000

SOURCE: Statistics received directly from the files of Groupement des Industries de Conserve Alimentaire.

By far the largest production is of tomato paste. Its growth and profit potentials are such that increased attention must be given to this product to assure its market, and increase it if possible. Frozen fish, canned fish and harissa (a hot sauce) are the next most important products. They also deserve special attention to assure their markets and increase them if possible.

Table 2 shows the exports of processed food products from Tunisia for the years 1985 through 1989. In general, much more processed food is consumed domestically than is exported, with the notable exception of frozen fish. Though preliminary review and study suggest the probable causes listed below, the reason for the low export quantity of the majority of these products must be determined by means of a thorough analysis of the subsector. If it is because not enough raw material is available, a plan must be developed to make it available. If it is because a market is not available, then a market must be developed. If it is because prices are too high, then costs must be reduced by improving yields, better efficiency and other measures.

Table 2: Export of Processed Food Products from Tunisia
Expressed in Metric Tons for Years 1985-1989

Product	1985	1986	1987	1988	1989
Harissa	1,482	1,570	1,578	1,672	2,000
Tomato Paste	1,105	3,199	12,004	12,877	7,000
Other Veg.	75	36	362	150	50
Fruit	645	519	989	460	700
Table Olives	252	390	328	282	500
Capers	41	58	111	98	150
Specials	26	37	39	17	50
Canned Fish	26	18	520	346	800
Frozen Fish	7,914	7,996	10,413	14,911	15,500

SOURCE: Statistics received directly from the files of Groupement des Industries de Conserve Alimentaire.

3. FOOD PROCESSING AND THE CAN MANUFACTURING INDUSTRY

Since many food products are processed and canned in Tunisia, the ASACI team completed a preliminary assessment of the industry and discovered that modern food processing methods are employed by the industry leaders. However across the entire industry there is much room for improvement in canning manufacture, food product safety, and food quality standards and consistency.

This preliminary evaluation is meant to indicate directions and measures for the Tunisian canning industry to become more efficient and cost competitive in the international market. One effective measure would be through joint ventures with U.S. food processing companies and experts to improve and expand the Tunisian canning industry as it exists today.

There are two can manufacturers in Tunisia, one in Tunis, which is the largest, and one in Sousse. These plants have the capacity to produce all the cans needed in Tunisia but have little extra capacity above that.

Factory inspections revealed some modern, rapid and automatic food processing lines, but also potential problems from lead contamination. Oxidation of the seams of cans was observed from market visits.

Furthermore, a wide range of quality variability of processed foods was discovered by random sampling. An observation at government testing laboratories pointed to the need for a review and updating of standards and equipment.

A complete survey and evaluation of the can manufacturing industry including the current level of technology, quality considerations and government analysis and testing laboratories are presented in Appendix D of this report.

V. AGRIBUSINESS DEVELOPMENT OPPORTUNITIES

A. AGRICULTURAL PRODUCTION

The agriculture resources and conditions in Tunisia support the potential for some excellent investment opportunities in production agriculture targeted for the EC export market. Projects involving high value crops such as fresh vegetables, cut flowers and aquaculture products would yield high returns on investment, but would require further industry analysis to determine their feasibility.

In this section the ASACI team describes Tunisia's favorable agribusiness conditions, specific requirements in Tunisia for successful project implementation, and potentially profitable project/product opportunities.

Significant production and export potential was identified by the agribusiness team in the food processing and fresh produce sectors. However, any food processing investment relies on a secure supply of quality raw products. Production increases in all crops for processing are a prerequisite for the success of an expansion in the processing and export sector.

The Tunisian agriculture sector provides the following distinct advantages to a foreign investor:

- Excellent location as regards climate and access to all major European markets
- Sufficient soil and water resources for substantial initial projects, necessitating only moderate investments in soil or irrigation improvements
- Government policies to facilitate foreign investment, with advantages on the import duty and income tax level and in offering attractive long term leases of government owned farmland for up to 40 years
- Low labor cost
- Reasonably well developed infrastructure
- Well educated upper management in the public and private sector

Local farmers and investors have already been identified who are willing and eager to collaborate with private sector foreign business partners.

Focus in a first agribusiness investment phase should be primarily in the vegetable and other specialty crop sectors. It is here that return on investment is generally high and pay back periods are short. Such projects would have an immediate positive impact on the country's trade balance. Furthermore, investments on the production end are relatively small.

Important to know, also, is that at least in the first years of expansion in this sector, land need would be comparably small.

A project will only succeed if a market exists and a quality product is supplied in sufficient quantities. It is therefore highly recommended that projects be either vertically integrated or contracted so they can be supervised by specialized, trained management. Projects must be professionally planned and executed.

Projects, as proposed, should be prime examples to help improve Tunisian agriculture by opening new markets, increasing technology transfer and enhancing quality consciousness.

Opportunities identified are as follows.

1. VEGETABLE PRODUCTION

Growing tomatoes for the production of tomato paste is recommended. Such a project has been found to have very good potential. As an indicator of specific agribusiness project potential in Tunisia, tomato production and processing has been analyzed in a detailed manner in Appendix E.

A review of this data would indicate that production of tomatoes for processing should be profitable in Tunisia and that it could be a viable investment if integrated with proper processing and marketing.

Fresh vegetables for window markets in Europe mainly for the winter season are a good possibility. As one example, peppers and tomatoes are presently grown in Tunisia and exported to Sweden. The variety and volumes of fresh vegetables exported to window markets in Europe could be greatly expanded.

As stated, sufficient soil and water resources exist for substantial initial projects in vegetable production with moderate investments in irrigation and soil improvements. Markets must be identified and confirmed, and the scale, timing and variety selection of vegetable crops and crop production integrated into project design and execution.

However, for production opportunities for vegetables and other crops to prosper, a series of constraints must be overcome, an issue fully presented later in this report, under Section VI.

2. OTHER SPECIALTY CROPS SUCH AS FLOWERS OR ORNAMENTALS

There exist lucrative European markets especially during the winter months for cut flowers. One producer northwest of Tunis caters exclusively to the Swiss market, obviously with great success. Even small countries like Switzerland can offer excellent market opportunities in this area. The Swiss, for example, import roses valued at over 60 million sFr annually.

Tunisia, with its geographic advantages, growing conditions and resources is well positioned to capture some share of these

markets. What is needed is a reliable supply of high quality product.

3. AQUACULTURE

Production of loup, dorade and shrimp, primarily for European markets, can be recommended. Choice of species is crucial; they must be adapted to local conditions, grow fast and be reasonable in cost.

B. FOOD PROCESSING

A rapid examination of the food processing industry in Tunisia reveals a sector which can grow rapidly and profitably by improving the quality and efficiency of existing operations.

Improving food processing and packaging methods for certain high priority products for export marketing are recommended as excellent investment opportunities. These vegetable, fruit and seafood products are aseptically packaged tomato paste, harissa packed in small bags-in-boxes, aseptically packed fruit pulps, concentrated grape juice, and canned and frozen fish.

This section presents a preliminary description of these food processing opportunities and lays the groundwork for further analysis of their viability and profit potential.

1. VEGETABLES

- a. Tomato Products. Of 116 food processing plants reported in Tunisia, 40 process tomato paste. These plants range in size from a theoretical processing capacity of about 40 metric tons of fresh tomatoes per day to about 1000 metric tons per day. Twenty two of these plants, or 55%, have the capacity to process less than 300 tons per 24 hour day. Nine, or 22.5%, can process between 300 and 600 tons per day and nine can process between 600 and 1000 per day. To make use of the factory and its equipment outside of the tomato season, many of these plants produce other products such as harissa, green peas and jams.

Tomato paste is a large volume item with world-wide market. It is presently produced in Tunisia and some is exported. Table 3 shows the production of fresh tomatoes and tomato paste in Tunisia since 1985, and the amount exported each year. This product has good potential for an expanded export market, especially using aseptic processing which utilizes bags instead of cans. This system has the advantage of more convenient containers which weigh less. The lower weight reduces shipping costs. The process itself also gives a higher quality end product.

Table 3: Fresh Tomato and Tomato Paste Production and Export
Expressed in Metric Tons - Tunisia, 1980-1989

Year	Fresh Tom. Tot. Prod.	Fr. Tom. in Paste	Tot. Paste Produced	Paste Exports
1980	300,000	161,830	28,898	0
1981	380,000	223,163	39,851	0
1982	252,272	113,948	20,348	0
1983	380,000	219,089	39,123	0
1984	410,000	313,166	55,923	5,383
1985	420,000	300,351	53,634	1,104
1986	420,000	286,606	51,180	3,199
1987	510,000	367,124	65,558	12,190
1988	420,000	265,659	47,439	12,991
1989(e)	495,000	336,000	60,000	2,528

(e) = estimated

SOURCE: Statistics received directly from the files of Groupement des Industries de Conserve Alimentaire.

The bags are usually 55 or 300 gallons in size. The 55 gallon bags require a drum to hold them. The 300 gallon bags require a wooden bin. Both can be sold after arrival at their final destination, which, consequently, reduces the net cost of the product.

Initial costs of aseptic packing lines are relatively high. Therefore it is recommended that the minimum size of a plant of this size should be 10 metric tons of fresh tomatoes per hour. In this way, a larger number of units is produced and this reduces the overhead burden per unit to a more reasonable amount.

The world-wide market for tomato paste is exceedingly large and the price is greatly influenced by the supply. Recently there has been a short supply in the world and producers have been able to take advantage of this situation financially. The current price is about \$.55 per pound FOB factory. It is expected to go down to about \$.45 sometime within the next year or two but this is only a prediction. Any unfavorable conditions in any sizeable growing area will keep the price high.

As mentioned above, detailed preliminary analysis of tomato paste project is presented in Appendix E. The analysis comprises costs of tomato paste production in Tunisia, an enterprise budget, and cost efficiencies gained by increased product volumes.

In addition to tomato paste, everything possible should be done to increase the volume of production of canned whole peeled

tomatoes since this serves two purposes. First, it gives a value-added product for which there is a good market and, second, it creates jobs because it is labor intensive. Local labor is inexpensive so costs remain reasonable for the final product.

A final tomato product which has good potential for the tourist business and possibly for other markets is the canned tomato juice business.

- b. Harissa. Harissa, a hot sauce, is an excellent local product that can be exploited more fully in two fashions. First, it can be packed aseptically in small bags-in-boxes for sale to the restaurant, hotel and institutional trade. These containers have the advantage that they are more convenient than cans or glass containers and the boxes are equipped with a spout at the bottom which permits removing portions quickly, as is necessary in the above-mentioned businesses.

Secondly, harissa can be packed in attractive jars as a typical local product for sale to tourists. In this way it can also be sold in specialty markets in Arab countries and where Arab populations exist in foreign countries.

2. FRUIT

- a. Dates. Fresh dates of the variety Deglet-Ennour are the predominant factor in date production and export in Tunisia. In the future, increased Tunisian production expected by 1992 plus rising competition from other countries will require the development of new products to continue to sell the entire production at a profit. Most promising new products will be chocolate and candy coated dates, date "newtons," date syrup and drinks and date specialty products, such as dried dates combined with dried milk or other dried products. Date milk shakes are very popular in sections of California and could increase date sales in many areas of the world. They could be called "Tunisian Date Shakes" to get the combination image for marketing the product.
- b. Apricots. Canned Tunisian apricots make a beautiful and delicious pack. This product should be packed in glass jars and sold as a specialty pack. An attractive jar and label will greatly enhance the sale of this product.
- c. Fruit Purees and Pulps. In 1980 a little over 4000 metric tons of fruit pulps were exported. Since that time the quantity has decreased considerably. Table 1 above shows the low level of exports of these products in recent years. This is a potentially large export market. In the light of newer technologies of sterilizing, packaging and freezing, this business should be subject to a feasibility study. The possibility of using the aseptic packaging techniques and the importance of quality improvement using high temperature-short time pasteurization should be main considerations in this study.

- d. Grape Products. The main product manufactured from grapes in Tunisia is wine. Both red and white wine are produced, but the red has the better reputation for quality. For some export markets, the wines can be concentrated and sold to be blended in other countries to make fortified wines with a higher alcohol content or for other purposes. Since concentration separates a large portion of the water, packaging and transportation costs are greatly reduced.

Concentrated grape juice is another product which should be considered for production since it is used in some countries to mix with other fruit juices. A concentrated juice has a greatly reduced water content, which indicates, as with wine, that packaging and transportation costs are reduced.

Another product made from grapes that is of interest, because of its widespread popularity, is grape jelly. If packaged attractively in jars, it can be sold to tourists and, if portion-packed in small plastic containers, it can be sold to restaurants, hotels, airlines and other institutions.

3. OLIVE OIL

Olive oil is handled here as a separate commodity because of its special characteristics and large volume. To get a better return for olive oil a high quality product must be produced and/or selected. With high quality, an attractive package, developing an image for a respected brand and direct sales in retail packages will give increased margins.

4. SEAFOOD: SARDINES, TUNA, FROZEN FISH

Sardines are mostly packed in cans but some are frozen and sold in the frozen state. Tuna is also packed in cans and, although it is very expensive, there is no problem in selling the entire pack. Occasionally tuna is even purchased frozen to be packed in cans. These are good products for the domestic market with little hope of expansion due to a scarcity of the raw material. One of the constraints in the growth of this industry is the difficulty the small fishing vessels have in locating the schools of fish. A fast boat, a helicopter or the use of a satellite system may be answers to this problem. An economic study is recommended to see if any of these is a practical solution.

VI. RECOMMENDATIONS TO OVERCOME CONSTRAINTS TO SUCCESSFUL AGRIBUSINESS DEVELOPMENT

A. PRODUCTION AGRICULTURE

1. CONSTRAINTS

To improve the potential for agricultural production in Tunisia, the following constraints must be addressed.

a. Limited Resources of Irrigable Land

Limited rainfall and periodically dry years such as the drought situation during 1987 and 1988 are highly restricting factors for Tunisian agricultural production. However the country's irrigation potential is not utilized to its capacity, as indicated by several past and recent studies and personal observations during the field trips in the region north of Tunis and the Sousse/Sfax area.

A Ministry of Agriculture (MOA) report states that of the water available for irrigation purposes, only 1.994 million acre feet, or 64%, are presently utilized. This report does not specify the reasons for this situation.

An unpublished study by the University of Tunis lists the lack of proper crop rotation, restrictive lending policies and the farmers difficulties with adapting irrigation techniques or not using irrigation at all as the main reasons. The study furthermore confirms the field observation that water losses are too high. Unlevel fields under Flood irrigation and lack of proper irrigation techniques are the main reasons. Average annual water application amounts to 0.65 - 1.23 acre feet per acre while the study concludes that average requirement is in the range of 1.97 - 2.30 acre feet per acre.

Significant areas of cropland have not been farmed properly or have lain idle over the past years. This situation results in quality decline through salinity buildup, soil erosion and weed infestation.

b. Low Productivity Level

Crop yields and livestock growth performance are generally low if compared to production cost. The resulting low productivity of the farm sector is one of the main reasons for the insufficient supply to the food industry and to the domestic and export markets. Fertilizer and chemical costs appear to be high despite partially subsidized input prices.

Small field sizes in many areas are inhibiting economical production.

c. Inadequate Labor Situation

Farm labor is readily available at comparably very low cost.

However, lack of proper education and quality consciousness are significant limiting factors. The impression was gained that motivation is generally low. A foreign investor now managing his project in Tunisia personally replied: "People here are just not used to being treated fairly and respectfully by their employers; they don't trust you."

He stated that his experience showed that proper personnel management techniques and training have resulted in a productive, motivated and reliable work force.

d. Government Intervention

The Government of Tunisia is attempting to reduce its regulations and controls of the farm sector. However, problems still exist in many areas such as with farm equipment imports for domestic producers.

Government intervention generally inhibits private sector innovation and flexibility. For example, the availability of high quality, high yielding seed and planting materials is highly restricted. It is understood that many of these restrictions have been removed exclusively for foreign investors producing for foreign markets.

It is our opinion, however, that these restrictions are generally inhibiting Tunisia's evolutionary process to a private market system. A free market, private enterprise economy is of utmost importance to any investor assessing his mid- and long-term risks, as well as the potential to expand.

e. Inadequate Information Service for Foreign Investors

Some branches of the public and parastatal sector are not yet motivated nor prepared to provide the interested potential investor with needed information and support. "Red tape" is still widespread and has unquestionably a discouraging effect. One can certainly not understand why, for example, a letter of recommendation is needed in order to obtain such basic information as a soils map or information on water resources and irrigation systems as was the experience of this agribusiness team.

Policies are changing rapidly and obviously in a positive direction. However, the foreign investor does not have available to him an updated overview of current policies relevant to his potential activities.

No domestic private sector farm management or consulting service is available.

2. RECOMMENDATIONS

a. Proposed government policy changes follow.

(1) Simplify access to public information at government level.

Initiate a policy of "openness" and "positive service attitude" for all government agencies.

- (2) Facilitate imports for agricultural input items and privatize the marketing of agricultural imports.
- (3) Remove completely any tariff (or so named administration fees) on input items needed for export production.
- (4) Consider changes in the inheritance law which would prohibit the splitting of farmland size below an economically viable level.
- (5) Consider implementation of local programs to encourage exchange of small land parcels on a lease basis to increase field size.
- (6) Expedite privatizing of the government parastatal organizations operating in the agricultural sector, including government owned farms.

b. General Recommendations are as follows.

- (1) Promote increased production of high quality, high value crops to supply demand for the processing industry and European fresh markets.
- (2) Define, plan and start actual implementation of at least one vertically integrated project, such as tomato paste production, within 12 months. Expand said project[s] within the next 24 months through contract production supported by research and field tests of new varieties and production techniques.
- (3) Transfer modern irrigation technology and its appropriate application and management through joint ventures.
- (4) Offer private sector training and continued technical, economical and managerial consulting services to contract producers and later to the general public.
- (5) Fund the following studies: (1) feasibility study of tomato paste production; (2) brochure "Tunisian Agriculture;" (3) documentation "How to do Business in Tunisia."

B. FOOD PROCESSING SECTOR

1. CONSTRAINTS

Constraints are the following:

- a. Lack of appropriate technology and equipment,
- b. Short supply of needed raw materials,
- c. Government intervention,
- d. Personnel improperly trained and managed,
- e. Inadequate market intelligence,

- f. Excessive cost and time necessary to import food processing equipment.

2. RECOMMENDATIONS

Recommendations are as follows.

- a. Reduce the taxes and paperwork for importing food machinery, as well as materials and imports for the processing industry.
- b. Conduct appropriate market studies for the processed food products recommended above and make reliable market contacts using information available from known sources.
- c. Have pre-feasibility studies made by experienced industry professionals to present to potential investors.
- d. Market the business opportunities selected with professional help.
- e. Carry out thorough on-the-job training in the factories by practical, experienced managers in choice of equipment, supervision, production planning and operation, efficiency, yield improvement, quality control, by-product utilization, new product development, etc.
- f. Produce farm products specifically for factories that are going to export.
- g. Produce processed products specifically for the export market.
- h. Undertake a thorough review and update of the "Norms and Standards" of the Tunisian food industry.
- i. Evaluate and update the sampling plans, equipment and procedures used by food analysis and testing labs.

C. AGRIBUSINESS SUPPORT ENVIRONMENT

1. GOVERNMENT POLICY

a. Constraints

Though much progress has been made, Government intervention has been and still is a major deterrent to sound economic progress. Some of its most serious manifestations are

- (1) Parastatal organization, price and margins control, all of which prevent the development of an efficient, flexible market driven economy.
- (2) Excessive import duties preventing competitive production cost structures.
- (3) Excessive regulations and "red tape" delay, which prevent the entry of many businesses.

- (4) Labor and tax laws and regulations which prevent the development of sound and cost saving management-labor relations.

b. Recommendations

- (1) Change from a policy of government supported food self-sufficiency and import substitution to a policy of encouraging competition and privatization.
- (2) Clarify the hire and fire provisions of the employment policy so that employers can make management decisions on labor based upon business worthiness instead of government regulations.
- (3) Encourage management, marketing and technical development and training in Tunisia by being sure the private sector has the opportunity to acquire needed training through joint ventures. Special incentive might be needed in retraining of management and skilled workers in sectors with very heavy overcapacity.
- (4) Provide a well-prepared list of trade barriers in foreign nations to exports of Tunisian products.
- (5) Implement the Harmonized System of categorization of import and export statistics and regulations, preferably as close to the Common Customs Tariff of the European Community, the major export market.
- (6) Develop a mechanism to appraise and market the parastatal enterprises.
- (7) Have Tunisia assemble better its most marketable aspects and sell them, perhaps through a special country section of The Economist, or a similar publication.
- (8) Negotiate tariffs in Uruguay Round, to offset negative effects on subsidized imports from countries that export to Tunisia.
- (9) Assemble an inventory of the nontariff measures encountered by Tunisian exports both current and potential together with an assessment of their impact. Once those factors are determined, a prioritization of the items necessary for the negotiators in the Uruguay Round of multilateral trade negotiations underway in Geneva can be made. It is suggested that this list be made right away.
- (10) Focus on shifting resources toward the tradeable goods sector, particularly to non-traditional exports, through promotion of private sector initiatives.

- (11) To modernize the olive oil industry and make it more cost efficient, effect policy changes that will allow free market forces to work to improve capacity utilization and replace obsolete equipment.

2. CAPITAL MARKETS

a. Constraints

- (1) Competition for investment funds. Tunisia must compete with some 70 other developing countries for investment from developed nations. Many of the competitors have formidable investment promotion campaigns.
- (2) The banking sector is considered to be conservative, asset-based lenders. This prevents local partners from developing their required 50 percent equity participation. This could prevent an investment which is close to funding from going forward.
- (3) Constraints peculiar to U.S. investors include special equity placement facilities set in place for Tunisia by both Japan and the European Community (EC). In the case of the latter, 20 percent equity is available to Tunisian companies. For the former, various levels of equity are available to Japanese companies in Tunisia that anticipate exporting to Japan. This is especially competitive in the fish sector, one of the most promising in Tunisian agribusiness.

b. Recommendations

- (1) Encourage and approve establishment of a commission-earning investment brokerage service similar to the service provided for marrying investors in the U.S., called "investment banking," or "merchant banking," in Europe.
- (2) Request of the U.S. Government an equity placement program to promote and place agribusiness investment opportunities with U.S. investors, with an entity such as OPIC that is competitive with those of the European Community, France, and Japan.
- (3) In order to assist in investment development, USAID might consider funding private placement memorandums by qualified, commissioned, agribusiness investment bankers which would address the precise needs of an investment proposition for the Tunisian partner, the foreign investor, the Tunisian government, and the bankers involved.

D. PRIVATIZATION POTENTIAL OF GOVERNMENT OWNED ENTERPRISES

1. CONSTRAINTS

From observations made connected with this study and from a review of Agricultural Policy Implementation Project (APIP) studies, the

Agribusiness Team concludes that the need for divestiture of parastatal organizations in Tunisia is very great if there is to be an efficient and productive economy. Parastatal here refers to enterprises or organizations operated by the government which could be privatized.

However, to be successful, divestiture into the private sector requires eliminating government controls over margins and prices, removing subsidies, and changing certain laws, regulations, and procedures that restrict privatization.

APIP studies indicate that some of the government operated enterprises lack fundamental accounting procedures needed to determine many of the elementary questions about their operation, their costs and fair market value. In many cases, funds and benefits were given to public organizations which were not available to private companies.

2. RECOMMENDATIONS

Continue structural adjustment of the agricultural/agribusiness sector, but at an accelerated pace.

Free Tunisian markets from price and margin controls, remove subsidies, and change regulations which hinder privatization. Allow and promote an allocation of resources to the areas of the economy in which Tunisia can produce competitively for domestic consumption and for foreign markets.

Have private firms do further study to develop suggestions and alternatives for the divestiture of specific parastatals, including those that follow.

Privatization is needed in the sectors that follow.

a. Cereals Sector

- International purchase of cereals directly by the private sector. Operators would then become skilled in price anticipation and risk control for their businesses, thus reducing cost into plants.
- Storage and bulk transport. These are very inadequate at port and at plants. The current moves to privatization in transport should extend to the cereal sector if this has not already happened. At most, the Office of Cereals should be concerned only with stocks for food security.
- Local domestic purchase, assembly and storage. It is estimated that 10 to 40 percent of all cereals are handled illegally in a parallel market because the government system is not operating adequately. If market forces are allowed to operate, all regulation and monitoring would not be needed except for a subsidy on the price of bread over a

few years time transition. This should be administered at the simplest single point, which is probably on miller sales to bakeries.

b. Dairy Sector

Privatization is needed in fresh milk collection and distribution.

The four public systems collect and distribute only about 30 percent of the fresh milk. The balance is currently handled illegally -- inflexible transportation allowances stand in the way of rationalization. Market forces would quickly determine transportation costs, margins and fresh manufactured products.

Free market forces would be allowed to operate by removing all the special incentives and benefits provided to the two parastatal dairy processing firms and not provided to the thirty-two other private sector dairy processing firms.

With privatization, a viable local industry might manufacture sour cream products because of the very small dairy herds and their scattered nature.

Any proposed plastic granules supply system to aid the transition of the dairy industry to more appropriate packaging must be placed in the private sector, preferably with two or more suppliers, to be sure there is no monopoly. Temporary subsidies might be used to get the operations started.

c. Olive Oil Sector

Privatization is needed to divest ONH (Office controlling the Olive Oil Sector) into private sector agents for sales, pest and disease control programs, and producer input supplies.

In addition, part or all of import restriction and duties should be removed on tins and cans so cans can be obtained at competitive world market prices. There are also opportunities for branding, beginning first with the tourist trade. But, quality must be good and packaging attractive.

d. Wine Sector

Divest public sector wine producers, or at the very least eliminate the practice of using tax revenues from domestic sales to cover losses of public sector wines producers.

VII. APPROPRIATE INTERVENTIONS OF THE AGRIBUSINESS PROMOTION GRANT

Based on its findings as expressed earlier in this Rapid Agribusiness Appraisal Report, the ASACJ team places in priority order the following three basic recommendations to USAID/Tunisia for appropriate interventions of the agribusiness promotion grant: (1) to fund and implement an integrated program of agribusiness investment promotion, (2) to provide needed financial assistance and tools to fund private agribusiness projects, and (3) to work with the Government of Tunisia to continue to effect free market policy changes.

A. AGRIBUSINESS INVESTMENT PROMOTION

To encourage and accelerate actual agribusiness project investment, it is recommended that USAID/Tunisia fund and implement an integrated program of private sector agribusiness promotion.

To have the desired positive impact on Tunisian policy, economy and jobs, the progressive steps of agribusiness investment promotion should be executed in a sequential and integrated fashion.

To allow time for real agribusiness development and for positive results to be produced, a program of three to five years duration is necessary.

Real economic performance standards/goals should be established to measure the progress of an integrated agribusiness investment program. These economic standards should include results measured (1) by the increase of Tunisian food and agriculture exports, (2) the number of Tunisian jobs created by new or expanded agribusinesses and the amount of employment income generated, (3) by the amount of U.S. exports of goods and services required for implementation of U.S./Tunisian joint venture agribusinesses.

The promotion of Tunisian/U.S. joint ventures is an effective tool to bring the resources of U.S. capital, technology, management and market to the goal of rapid agribusiness development and employment generation in Tunisia.

Based on these parameters, an integrated approach to private sector agribusiness development is recommended as an important component of the agribusiness promotion grant, and would comprise the activities that follow.

1. Provide prospective U.S. investors with needed country background and agribusiness investment information--to prepare, package and market useful data on the agribusiness investment climate and potential in Tunisia.
2. From the preliminary list of agribusiness project opportunities in the Rapid Appraisal Report, prepare project investment profiles (pre-feasibility level documents) for each project recommended, particularly the integrated production/processing/marketing projects. The profiles would include essential information on targeted markets, technical feasibility, financial/profit projections, and the names and information on Tunisian

entrepreneurs pre-qualified as good prospective joint venture partners.

3. Promote and market the Tunisian project investment opportunities to the U.S. private sector--food, agriculture and venture capital companies--through proven and effective marketing channels. To screen the wheat from the chaff in agribusiness opportunity marketing to prospective investors, it is important that the reports be sold at a cost to the U.S. companies or individuals.
4. Facilitate the negotiation of joint venture discussion, an investors only conference of prospective U.S./Tunisian partners should be organized around the project investment profiles and the interest demonstrated by the potential partners. The individual agribusiness consultants who prepared the profiles, contacted and prequalified the prospective Tunisian/U.S. partners should participate to facilitate the "one on one" discussions.
5. Provide mechanisms to deliver needed technical and financial assistance to U.S./Tunisian project developers who have or are ready to invest their own time and money in surveying the project opportunity. One mechanism would be to provide technical assistance to the U.S. investor ready to commit time and money to travel to Tunisia to survey the project (e.g. consulting assistance of up to a week). Another would be to cost share the initial costs of a full feasibility study on a reimbursable loan basis with prospective investors.

B. ASSISTANCE TO THE PRIVATE AGRIBUSINESS SECTOR

It is recommended that USAID/Tunisia provide financial assistance and tools to fund private agribusiness projects, as follows.

1. Establish an agribusiness venture capital fund, including an equity placement program to compete with the existing joint venture equity funds now administered by the European Community, France and Japan.
2. Encourage and approve the establishment of a commissionable investment brokerage service similar to the service provided for marrying investors in the U.S. called investment banking, or merchant banking as it is called in Europe.
3. Consider funding private placement memorandums by qualified, commissioned agribusiness investment bankers which would address the precise needs of an investment proposition for the Tunisian partner, the foreign investor, the Tunisian Government, and the bankers involved.
4. Utilize PL 480, Title I, Section 108 proceeds from U.S. agricultural commodity sales to lend currency to a financial intermediary in Tunisia which would give preference to the financing of agribusiness projects, particularly those involving U.S.-Tunisian joint ventures.

5. Encourage the establishment of a small investment facilitator office specializing in agriculture and agribusiness. The person or persons involved would be knowledgeable and keep up to date in the following areas.
 - (a) Potential profitable projects in Tunisia and reliable Tunisian partners.
 - (b) Sources of joint venture partners and consultants who would have needed marketing, technical and investment know-how in the United States.
 - (c) Sources of venture, development and commercial capital.
 - (d) The ability to cut through government and credit procedures to get projects launched.
 - (e) Sources of help for feasibility studies especially in marketing.

After getting started it would probably be possible to fund by some kind of finders fee or the equivalent of one or two percent on large projects and more on smaller ones. It would not be meant to take the place of the investment banker type of operation.

C. FREE MARKET CHANGES IN GOVERNMENT POLICY

The basic recommendation is for USAID/Tunisian to continue its work with the Government of Tunisia to create a private enterprise, free market environment in which agribusiness can grow, with particular focus on the following specific policy recommendations.

1. Remove GOT regulations and controls on prices, fixed margins, and other stipulations restricting private enterprise growth.
2. Privatize agribusiness sector parastatals including farms--to eliminate a major drain on state revenues, and to allow private enterprise and free competition to establish cost efficient agribusinesses.
3. Promote a change from a policy of import substitution to one of allocation of resources to their best economic uses as dictated by foreign and domestic free market forces.
4. Substantially reduce or eliminate tariffs and red tape on imports of agricultural inputs and machinery.
5. Improve labor/management relations by encouraging management freedom to make employment decisions based on productivity, along with management responsibility and acumen in instituting incentive compensation programs for employees.
6. Develop and integrate effective measures that respond to the other government policy recommendations made in this rapid appraisal report into the agribusiness promotion grant.

D. AREAS WHERE ADDITIONAL STUDIES ARE RECOMMENDED

In addition the ASACI team recommends that USAID/Tunisia undertake studies (1) to prepare specific suggestions and alternatives for each parastatal divestiture, prioritized on the basis of beneficial effects to the economy, for marketing as investment opportunities to U.S. companies, and (2) to further study as needed to support and/or structure into practical project form the recommendations of appropriate interventions of the Agribusiness Promotion Grant.

A P P E N D I C E S

APPENDIX A: FULL INVESTMENT CLIMATE SURVEY

The study shows a country poised for expansion through privatization. A close examination reveals some attractive investment considerations: financial stability, low cost labor, currency stability and convertibility for investors, an international private banking and financial center, and an absence of bad debt. They all combine to make Tunisia's world creditworthiness rank 39th in the Institutional Investor, and thus the second best country risk in Africa. Tunisia's world-wide credit rating is ahead of countries with substantially more investment such as Israel, Chile, and Morocco. Consequently, even though there are some substantial constraints, certain carefully selected investment opportunities in agribusiness are hereby estimated to be competitive and profitable.

From an international economic perspective, Tunisia is gaining the confidence of substantial private Arab individuals, Arab corporate interests, and development banks. Impressive sums of money are kept in the banks of Tunis which can be used to lend to credit-worthy investment projects. In the words of the successful and progressive president of Beit Ettamwil Saudi Sounsi (BEST) Bank, "The problem is not money; there is plenty of money in Tunis." Investors can easily hold foreign exchange accounts and convertible Tunisian dinar accounts without concern for convertibility.

As an example of confidence in the investment situation, Citicorp has opened a branch office in Tunis. A stock exchange is being established in order to facilitate equity investment in new companies and capital raising in existing companies. The development grants and loans now available from over a dozen reliable sources, including Arab petroleum-rich investors, have substantially increased the level of tourism investments in Tunisia.

Preferential access privileges are accorded to Tunisian exports in some sixteen polities. Thus, Tunisia benefits from the U. S. Generalized System of Preferences, the EC's Lome Convention and the preferences allowed the Maghreb nations, in addition to special bilateral agreements for duty free access with Turkey, and Saudi Arabia and other Arab nations.

While most governments of the world will encourage investment in one form or another, Tunisia has officially changed positions from one of being interested in foreign investment to one of needing foreign investment in order to survive as an economic entity. That is, foreign investment is necessary for economic and even political survival. Tunisian leaders recognize that the next national plan, a five year plan beginning in 1992, must provide for a substantial increase in the rate of growth because of the potential unrest and other pressure from the unemployed. Should the unemployed side with dissident factions, the opposition could pose a substantial political threat to the stability of the nation, its international political and economic reputation, and the national well-being. With the weakness in the savings rate, and the relatively high level of debt, over \$5 billion, the increase in the rate of growth is largely dependent upon investment, more precisely foreign investment. Thus,

the Tunisian government must set a course of selling Tunisia to the outside world that knows little of this small North African nation, a former French colony.

In a time when competition for what is perceived as high risk investment is very creative and aggressive, Tunisia's small size is part of its advertising problem. Full convertibility of the dinar is yet another problem. The sooner full convertibility is accomplished, the more attractive Tunisia will be to foreign investors as a sustainable economy in a world of troubled developing economies. Even though investors have convertibility privileges, without full convertibility, those privileges could be removed at any time.

Thus, while the government is highly interested and very receptive to investment proposals, there are serious reservations that need to be addressed fully prior to the placement of capital.

1. Economic Assessment

Tunisia has endured a history of three decades of state intervention including: state price determination at all levels, state determined interest rates and import quotas. At present, the Government participates in over 500 public and parastatal companies, representing some 24 percent of GDP. The Government of Tunisia is committed to privatizing many of them. By 1985, a persistent deficit in current account of the balance of payments had increased to 11 percent. The situation was a result of a progressive decline in net hydrocarbon exports. Oil production since 1984 has decreased at an annual rate of 3.4 percent for Tunisia which will become a net importer by 1992, without new oil sources. The government is considering permission for prospecting for companies that take all the risk of dry wells. A high and growing unemployment and underemployment rate together with the danger of an even worse trend demonstrate the need for rapid development of other sources of income or export revenues to maintain the economy.

The drought is in its third year and reminds Tunisians of their vulnerability due to weather uncertainties. Preliminary predictions on results of the drought in 1989 for cereals show a total harvest of 500,000 MT as compared with 300,000 MT for 1988, a disastrous harvest that was less than one-third of normal, which is approximately 1,200,000 MT. The shortfall has brought about the need for food imports for the year which are 40 percent above the goal set by the government for the first five months of 1989. The gravity of the matter has all investors concerned about the viability of the Tunisian agricultural economy. However, there is a history of resilience in Tunisia together with the capital inflows both from tourists and from the private and corporate banking services performed in Tunis.

Tourism is thus a very important revenue source that helps support the hard currency ability of Tunisia in matters of balancing trade and payments. It is worthy of note that European tourists numbered 1.7 million, with 479,000 from France, 474,000 from West Germany, and 226,000 from the UK. Travel from the UK is expected

to be down in 1989 due to restrictive UK government measures. Most tourism expenditures are on low-cost, blue collar single and family vacations. Where Tunisia has the climate to support upscale tourism, it may be worthwhile to give serious consideration to supporting the luxury vacation services which at the present is inadequate. Along this line the Tunis International Bank has assisted in development of a new luxury hotel in Tunis.

a. Tunisia's Plan of Action

Thus, in the current national economic plan, the Seventh Plan (1987-1991), the government leaders plan to return to an export driven growth strategy by improving efficiency of resource use and allocation; and by a reorientation of economic development toward much more labor intensive technologies. This is to be done by giving incentives to small to medium sized enterprises in the following areas: electrical and mechanical industries, and especially agriculture through stimulation of import substitution. However, the stimulation is only part of the formula for development needed to generate export-worthy products. There is also the need for competition, which poses a problem for import substitution hard-liners.

The government plans to cut spending significantly and reduce tax incentives for exports in order to make fiscal preparations for more drought in the event it continues for a third season. A second goal is elimination of the budget deficit by 1991; although a practical assessment of the situation would indicate that it is impossible. Progressive liberalization of the economy and general introduction of more competition, domestic as well as foreign, are part of the plan. Thus, a concern here is whether the government has planned carefully enough to make measured progress on its predicament. All too often governments, must make pronouncements that please some faction of the economy. Often these pronouncements are conflicting in nature. For example, supporting import substitution and liberalizing the economy can both be done in isolated sectors. However, both can not be done for the whole agribusiness sector simultaneously. And thus the balancing of these policies is a delicate and a critical aspect of national planning.

The Seventh Plan also calls for shift of private ownership in agriculture from a ratio of 31 percent to 50 percent. This recognizes that past sectoral and macroeconomic organization policies were inadequate. Policies such as overvalued exchange rates, subsidized food costs, low prices paid for domestically produced food, and restrictions on imports of agricultural inputs had all hindered progress within the agricultural sector.

In the mid-1980's the International Bank for Reconstruction and Development, the World Bank, undertook a first Agricultural Sector Adjustment Loan Program (ASAL I), which sought to improve the price and incentive framework, thus reorienting public investment and expenditure, strengthening basic services

in support of farmers, building up sector performance, monitoring and policy analysis of the Ministry of Agriculture, as well as improving productivity of land use and management of the nation's forest and fisheries. A second loan is due for implementation in December, 1989.

In the 1988 version of the Central Bank annual report, Mr. Khelil reported that economic performance has been disappointing. For 1988, he reports that GDP increased by only 1.6 percent, despite the robust income from tourism and an upward trend in the manufacturing sector. The problem was that the agriculture and fish gross domestic product (GDP) was down 24 percent due to drought and restrictions on fishing certain species while they replenish.

b. Trade Assessment

The present situation shows the current account deficit widening in 1989. Merchandise export growth is failing to keep pace with the demand for imports even though there are substantial import duties. For the first half of 1989, the trade deficit rose 25 percent, but imports were up 35 percent due to imported grains and other shortages together with equipment for new productive capacity. The nation's productive capacity is squeezed by a lack of exports together with the need for technical and agricultural sustenance imports while maintaining only a 60 day foreign exchange reserve. Thus, the Tunisian economic and therefore political situation is fragile. Policy makers must undertake to find quickly exportable products and produce them for next season. This should be an absolute national priority.

COMPARISON OF MERCHANDISE TRADE, 1988-1989
FIRST QUARTER ANALYSIS
millions of Tunisian dinars

	<u>1989</u>	<u>1988</u>	<u>% CHANGE</u>
IMPORTS	1,000.4	702.9	42.3
-non energy part	916.3	658.6	39.1
EXPORTS	628.2	470.1	33.7
-non energy part	489.7	397.7	23.1
TRADE DEFICIT	372.2	232.8	59.9
-non energy part	426.6	260.9	63.5
Exp as % of Imp	62.8	66.9	--

Supra, Business Int'l, June, 1989, pp. 26; see also Institut National de Statistique.

COMPARISON OF MERCHANDISE TRADE, 1988-1989
FIRST HALF ANALYSIS
millions of Tunisian dinars

	<u>1989</u>	<u>1988</u>	<u>% CHANGE</u>
IMPORTS	2,028.2	1,502.6	35.0
-including:			
--food	228.0	166.6	36.9
--equipment	58.0	49.0	18.4
--consumer goods	518.3	402.7	28.7
EXPORTS	1,375.4	980.7	40.2
-including:			
--food	116.3	120.5	(3.5)
--equipment	58.0	49.0	18.4
--consumer goods	492.0	351.9	39.8
TRADE DEFICIT	652.8	521.9	25.1
Exp as % of Imp	67.8	65.3	--

Supra, Business Int'l, Sept., 1989, pp. 35; see also Institut National de Statistique.

BASIC FACTS ON TUNISIA/USA TRADE

Population	7.8 million
Language:	Arabic, but French for business
Currency:	Tunisian Dinar (TD) - \$1.1
Weights/Measures:	Metric system
G.D.P:	7.8 billion
Major products:	Petroleum, textiles, phosphates tourism, food processing, olive oil, electrical components, auto parts
Manufacturing sector:	Contribution to G.D.P. 1988 is 16.7% Growth rate of sector 1988 is 5.9%
Total land area:	16.4 million hectares
Total arable land:	9.7 million hectares
Ag contribution to GNP:	17% contribution
Foreign trade 1987:	
Exports:	Goods: \$2,125 million Services: \$1,171 million Total: \$3,296 million
Imports:	Goods, CIF: \$3,011 million Services: \$678 million Total: \$3,689 million
Exports by destination:	France: \$465 million W. Germany: \$418 million Italy: \$357 million U.S.A: \$38 million
Imports from:	U.S.A. \$179 million

Tunisian products exported to the U.S.A. include:

Scientific equipment, safety glasses, iron and steel, piping and tubes, mechanical equipment, electrical equipment, transmitters, paper making materials, used clothing-rags, clothing, blouses, shirts. T-shirts, continuous synthetic textiles, cotton materials.

API Agence de Promotion de l'Industrie, Tunisia, A Gateway to New Markets on Europe's Door Step, Tunis, [1989], [pp. last].

c. Financial Assessment

Rising interest rates on foreign debt and the increase in the value of the U.S. dollar have increased the debt service obligation for Tunisia. Currently, the Tunisian sovereign debt is TD5.4 billion (Tunisian dinars TD1 = \$0.93) or \$5.8 billion. Some 60 percent of the debt is in U.S. dollars. The total debt service bill for a year is expected to be TD1.2 billion, which is TD100 million more than last year. The Central Bank reports the proportion of debt service to total foreign exchange needs is 30 percent. While the ratio is high for the economy as a whole, it is not comparatively high for developing countries.

Inflation is increasing in 1989 as compared with 1988. The current estimate is 8.5 percent which is 1.3 percent more than last year's 7.2 percent. But the economy demonstrates a resilience. This was aided last year by the free transit of Libyans who purchased subsidized goods in Libya then brought them to Tunisia for sale.

2. ENCOURAGEMENT OF FOREIGNERS

There is little discrimination against foreign investors because they are the needed source of capital, management, technology, and access to foreign markets. The investment code is comparatively liberal. And, where the investor requests an exception to the code, there is the chance the request will be granted, provided it does not provide too great a sacrifice to the national well-being.

3. FOREIGN EXCHANGE CONSIDERATIONS

The spot market is restricted for Tunisian citizens. However, foreign nationals who invest in Tunisia can exchange their money at will. Hard-currency, Tunisian-Dinar forwards are quoted by Citibank, which now has a branch in Tunisia, as far as six months into the future.

There is a flexible exchange rate policy with the objective of maintaining a competitive rate as compared with the main export competitors. The government conducts a managed float that is set in terms of a trade-weighted basket of foreign hard currencies.

Convertibility of Tunisian dinars to hard currencies has been aided by the recent moves to liberalize financial transactions. Amnesty has been declared on undeclared hard-currency holdings so that residents can hold convertible dinar and hard-currency accounts. For exporters, the process is not so immediate but it is in progress, that is a gradual relaxing of controls on exporter's hard currency holdings.

Country Creditworthiness Ratings

Rank			Credit Rating
9/89	3/89		
most creditworthy nations			
1	1	Japan	94.9
2	2	Switzerland	94.2
3	3	West Germany	93.6
4	4	United States	90.3
5	5	Netherlands	87.6
selected pertinent nations			
21	21	South Korea	7.6
26	26	Saudi Arabia	61.2
28	29	Kuwait	60.2
30	31	U.A.E.	58.8
32	32	Malaysia	57.4
33	35	Qatar	55.9
34	33	Bahrain	55.7
37	37	Oman	53.2
42	43	Indonesia	45.3
45	45	Algeria	39.5
49	48	Tunisia	36.7
50	51	Israel	35.0
51	58	Chile	33.6
52	53	Romania	32.5
53	55	South Africa	32.2
54	50	Venezuela	32.1
55	52	Jordan	31.4

Source: Institutional Investor, New York, September 23, 1989, pp.21.

In the future, the Central Bank plans to give banks the freedom to make transfers by instituting a system of general transfer authorization instead of the current bureaucratic individual request system. The export companies are intended to have a foreign exchange market in Tunisia for their foreign currencies and a competitive real value for sale of the foreign exchange as compared with current rates for purchase of the dinar. This may mean that the Central Bank intends to provide an opportunity for exporters to have a more favorable rate for dinars than other foreign exchange users. A presumption would be that the exporter market rate would be something between: 1) being more advantageous than the tourist rate and the regular business rate and 2) the regular business rate; but presumably less advantageous than the interbank rate.

In the interest of making Tunis the international financial center of the Maghreb, the Central Bank is working to make the financial market of Tunis available to international capital flows. This will prepare the dinar for full convertibility which should pave the way for banks and investment institutions to establish offices in Tunis. Citicorp has already opened a branch in Tunis and the Arab Banking Corporation is in progress of gaining approval to do the same. Full convertibility of the dinar is planned as a primary goal of the Eighth Plan, which will begin in 1992.

The Central Bank is reluctant to let the dinar float freely as it is expected to depreciate the value of the dinar. Reserves, which are scarce, would be needed to buttress international payments. Thus, while convertibility is coming, it may well not come until 1992 at the earliest.

However, as the Central Bank indicated in October, the dinar is easily converted to hard currencies for investors, taking at most 48 hours, without minimum or maximum amount restrictions. However, actual experience within the recent past reveals some more difficult situations. While the government is changing convertibility policy, it is not a smooth transition. A distribution company indicated that restrictions on dividends are consistently restricted, even though it has agreed to limit repatriation to an agreed percentage. In addition, a construction company indicated that it has waited for approvals for conversion for six months on \$1 million. As reserves improve near the end of each year, due to tourism foreign exchange receipts, the wait to convert dinars appears to be shortened.

One objective of the Arab Maghreb Union (AMU), formed in February among Tunisia and four neighboring countries, is currency convertibility at least among the Maghreb members. It would be a step forward for inter-Maghreb trade. However, for members such as Algeria that have an overvalued currency, trade flows could occur to the detriment of the Algerian well-being. All AMU members need to gain control of their currency values and their balance of payments so that they could withstand value differentials for businesses and consumers before the AMU can become a market of significance among its members.

The right of repatriation for foreign investors is provided for in the law. This includes assets, dividends, profits, principal, interest, royalties, fees, monies from hold accounts and others. The Government of Tunisia realizes it must provide an accessible environment for foreign investors.

.. TUNISIAN MONETARY SYSTEM

a. National Monetary Institutions

The Central Bank of Tunisia indicates it has used its second International Monetary Fund (IMF) facility. The resultant macroeconomic adjustment provided the policy basis for an IMF Stand-By Program and the first Agricultural Sector Adjustment Loan Program, provided by the World Bank, both done in 1986.

The Central Bank prides itself on its success in building up foreign reserves, 60 days in July as indicated earlier. As the end of the calendar year approaches, there is an accumulation period due to tourism and some off-season agricultural exports. Still, 60-100 days reserve makes for a fragile investment environment.

b. Monetary Policy

The Central Bank seeks to limit growth in money in circulation to not more than the rate of growth in the GDP or less. Ismail Khelil, Governor of the Central Bank of Tunisia, made an address in June that outlined the nation's financial liberalization strategy. Growth of credit and monetary targets will be governed by the market and the ability of financial organizations to perform services competitively. Prior authorization procedures for granting credit will not be used. Interest rates charged by financial organizations will be partially deregulated.

Reform is in order for the refinancing of debt. Interest rates are to be set by financial institutions based on their ability to borrow and lend from each other rather than government-set rates. This new capital market mechanism is being used to provide savers with various choices for savings, from high risk to low risk choices. The higher risk choices will be for investment facilities. That is to say, Tunisia, somewhat ahead of its Maghreb neighbors and several other Arab nations, is developing a capital market.

5. SOURCES OF CAPITAL

Tunisia is blessed with sources of foreign capital from governments and a substantial amount of private Arab Gulf capital.

a. International Political Organizations

Due to its relatively positive financial position in terms of other developing countries, Tunisia has a wealth of donor assistance. The United National Development Program, UNDP, will provide \$900,000 to strengthen administration and management of the public sector at the discretion of the Prime Minister. Other development assistance is presented below and under the subtitle "Development Banks."

b. Foreign Government Banks

The European Community (EC) has committed itself to a loan to Tunisia of ECU15 million for a project to produce dates and to a lesser extent a variety of vegetables, in the vicinity of Rejim Maatoug, in the southwest part of the country. In addition, ECU7 million will come from Italy. At home, the government of Tunisia is putting up ECU10 million. The project consists of 1,152 hectares of production in an otherwise unused area. It is estimated to produce an additional 8,000 MT, 4,500MT of which, approximately ECU15 million, will be

exported. The project is expected to provide 5,000 full-time jobs.

France has increased its financial support by offering a loan at 1.5 percent interest for \$155 million worth of French francs in support of Tunisian-French joint ventures and other things. The repayment is fully due in 33 years with a 10 year grace period. Under this loan, France will provide:

- Some Ffr350 million program aid, to finance the import of consumer goods--described as balance of payments support;
- Some Ffr460 million, to be made available to public-sector companies, in the first instance for supply contracts. Funds from this envelope may also be allocated for projects however, including an unidentified water scheme, discussed during Mr. Beregovoy's visit;
- Some Ffr100 million to support French investment through joint ventures. Italy has agreed to similar funds, but France has responded with this first line. It is expected that most investors will be small- and medium-sized companies working in productive sectors;
- Some Ffr150 million is provided in grant form for the purchase of equipment necessary for the broadcasting of Antenne 2 in Tunisia. Some of the funds will also support French investment in local television. Here again, Italy is the main competition, with RAI Uno well-established and doing much to spread the use of Italian;
- Some Ffr60 million "accompagnement," previously agreed as part of the settlement of the long-standing issue of property left by departing French "colons" in the Bizerte area; and
- Some 50,000 tons of cereals will be provided to support the economy during a period of drought. This is more than twice the usual amount.

c. Domestic Commercial Banks

While current financial institutions, mostly banks, are relatively stable, they are too segmented in their services. Each financial organization is being required to have three sections: a commercial section, an offshore section, and a development section. The stock market is intended to be the center for mobilizing savings and investment.

Supporting policy requires that:

- * Positive real interest rates will be maintained provided they do not discourage savings and investment;
- * The fiscal system for different forms of financial and banking investment [are to be] integrated; and

- * Higher interest rates offered on long-term [rather] than on short term savings.

The Tunisian local bank asset position continues to improve. In 1988 four banks showed good profits: Beit Ettamwil Saoudi Tounsi (BEST Bank), Tunis International Bank (TIB), Tunis Arab African Bank (TAAB), and ALUBAF International Bank.

d. Foreign Commercial Banks

On trading company and banking institutions, Planning and Finance Minister Mohamed Ghannouchi told an international business forum in June that:

"Legislation is, we understand, in hand to extend to financial institutions the offshore status afforded to commercial enterprises last summer. Law 88-10 of August, 1988, has been highly successful in attracting trading companies to Tunisia. Over 90 companies have been established under it, some being affiliates of international trading groups."

e. Investment Banks

As an example, one investment bank is in the process of setting up facilities in Tunis, the Qatar's Ahli Bank with private Qatari investors. While there are several investment banks in Tunis representing for example investors from Saudi Arabia, Kuwait, U.A.E. and others, there is a lack of "investment banks" in the U.S. sense of the term. Otherwise said, Tunisia lacks a cadre of investment bankers or "investment brokers" who are commissioned on the successful funding of investments.

f. Venture Capital Scarcity

With the conservative nature of bankers, who are asset based lenders, together with the development organizations being the main sources of debt capital, there are insufficient facilities or institutions for the entrepreneur that is without unencumbered land or precious metal, etc.

There needs to be a way that an individual, a Tunisian entrepreneur with a good idea, can go to a source of capital and either borrow it or obtain it under an arrangement where if success befalls the original individual, then both are rewarded for risk at rates higher than the current market rate for interest, which is known as equity capital, or stock. Equity can be raised in any of several ways. One common method is by using venture capital. In essence, the entrepreneur who has prepared a business plan needs to be able to go to a venture capital firm which then undertakes to raise the capital for a commission, generally around six percent of the amount of money raised. This is done by having the venture capital firm accept the idea as worthy of its effort and then putting the idea into a marketable package. The money may be raised in Tunisia and it may be raised in a foreign market.

There are mutual funds in New York, London, and Tokyo that invest in developing country equities. The venture capital firm might have a block of funds for use upon permission of the various mutual funds or it may have money available from individual investors. In addition, with the abundance of junk bonds and leveraged buy out debt on the U.S. market, investors such as pension funds and insurance companies are looking for new, more diversified places to put their money. It is safe to assume that little equity placement from these kinds of organizations has been done in Tunisia. Many of these firms are unaware of Tunisia.

g. Development Banks

The second agricultural sector adjustment loan of \$84 million to Tunisia by the World Bank is scheduled for implementation in December of 1989. The pending loan is intended for private sector initiatives in agriculture, specifically production, and to assist pricing and marketing mechanisms. Reform goals include cereal collection which will allow farmers to ship direct to mills thereby enabling them to negotiate prices directly rather than to state authorities as it is now. In part, the loan will finance purchase of animal feeds, farm machinery and other farm inputs. The loan will be implemented in two parts. First, \$42 million will be loaned upon signing the loan agreement, and the balance after a review of progress. The loan has a 17 year repayment provision with five years of grace at the current variable interest rate of 7.65 percent. As mentioned earlier, the first World Bank loan was \$150 million in September 1986.

A \$12 million loan was made to Tunisia by the Rome-based International Fund for Agricultural Development (IFAD) to cover a share of the work on the \$55 MM Mellegue integrated rural development project, signed February 8, 1989. The 1987 agreement on export of 46,000 MT of olive oil with EC was extended to June 30, 1990, with indication by EC officials that exports could remain at that level after that date. However, the EC did not meet Tunisia's requests for reduction of import protection on textiles.

Recent investment history shows that Tunisians have utilized Japan's Overseas Economic Cooperation Fund (OECF) which provides soft loan credit assistance.

France and Tunisia have proposed a new type of investment relationship based on investment relations and partnership. France has been the traditional leader in foreign small and medium sized investment in Tunisia. However, due to alternative opportunities, interest has been less than impressive, and in fact has decreased, since 1985.

One major player in development investment is the Saudi Societe Tuniso-Saoudienne d'Investissement et de Developpement (STUSID), which will hold 40 percent of the equity position.

The African Development Bank has agreed to loan \$75 million for structural adjustment in Tunisia, some of which may be destined for the agricultural sector. Moreover, the African Development Bank is loaning \$42 million for redevelopment of the Compagnie des Phosphates de Gafsa. It is also providing a loan for some \$40 million to finance electrification of several rural areas.

h. Investment Insurance

Tunisia is expected to benefit from a new trade insurance program to back investment projects, and purchases of Japanese goods and services offered by the Ministry of International Trade and Industry (MITI).

6. SHORT TERM FINANCING TECHNIQUES

Short-term loans with market rate interest charges are available throughout the country. Other short-term services are also available such as: discounting of trade bills, commercial paper, bankers acceptances which are used for import collections, factoring and inter-company borrowing.

7. MEDIUM AND LONG TERM FINANCING TECHNIQUES

a. Medium and Long Term Loans

Medium and long term credits are available to the food processing industry only if the borrower has asset-based collateral, such as land or precious metals, in general. While there may be exceptions due to long-term relationship or a substantial cosigner, still the bank policies are very conservative. They are sending the signal that the economy is still too fragile to take risks such as "cash flow lending," or lending against a company's ability to generate operating profits.

b. Bond Issues

A new bond law which defines the nature of bonds, the organizations that can use bonds, issuing procedures, and reimbursement methods, has recently been enacted. Four types of bonds are provided for in the new regulations: convertible, participating, investment and hard-currency bonds. Demand for such financial instruments is evidenced by a recent government collection of a \$90,000 equivalent, which is twice the size of the initial call, from one offering.

c. Swap Financing

Debt for equity swap arrangements are the exception if they exist at all. There may be blocked funds or other discounted assets that may fit into some investment plan but in general, Tunisia does not offer the debt-for-equity opportunities such as Chile and some other bad debt-laden nations. In one sense, this is a good sign because it means that Tunisia has paid its bills.

8. EQUITY FINANCING

a. Trading Procedures

Legislation regarding the Tunisian stock exchange has been modernized to enable the stock exchange to be a major device for encouraging savings and providing for equity investment finance. This is intended to support the national reorganization of assets in favor of privatization. The new laws protect savings invested in equities and enhance the quality and timeliness of equity price information. It embraces foreign investment in the stock market.

However, interviews with private sector individuals wishing not to be identified brought forth a formidable constraint to development of a liquid equity trading situation. Evidently, general business ledgers are reviewed in order to approve the purchase or sale of stock. In that many businesses do not want to be reviewed, they set up limited partnerships for direct transfer of stock rather than selling on an exchange. If there is any validity to this finding, then the disclosure procedure should be discontinued in the interest of encouraging an active equity market.

b. Mergers and Acquisitions

There needs to be a mechanism developed that will enable a market to form for the pricing and sales possibilities resulting from parastatal divestiture. Currently, the support services that assemble mergers, acquisitions, and leveraged buy-outs are not prevalent in Tunisia. These services need to be developed commensurate with the government's offering of State-owned businesses for sale.

c. Private Equity Placement

A major constraint noted by European Community sources is the absence of a "juridical infrastructure," not only in Tunisia but throughout the Maghreb. Local partners lack management capability. Venture capital or knowledge of its management is inadequate in the AMU. A suggested solution was the BCNET or Business Cooperation Network which has worked in the EC.

d. Government Equity Assistance

Japan has made \$68.5 million available to support export of goods such as fish by Japanese companies. If Tunisian Japanese companies take advantage of this 25 year loan with five years grace at 2.9 percent interest, it could substantially increase trade with Japan.

The European Community via its development bank authorities is positioned to place 20 percent as equity in an investment up to a maximum of 350,000 ECUs. It is one of the provisions of the so called "facilit Cheysson."

9. CAPITAL INCENTIVES

The Seventh Plan calls for 22 percent of investments to go into sector expenditure on increased efficiency in the use of resources by maximizing returns on past investments; promotion of cereals, meat, milk, fish and forestry products for export and import substitution; greater labor intensity in expenditures - i.e. through a more appropriate policy of minimum wages, interest rates, and other investment incentive; and, privatization of commercially viable sector support activities.

10. TRADE FINANCE AND INSURANCE

a. Import Credit

Use of the Italian export credit facility SACE is comparatively low in Tunisia, especially considering the export sales opportunities and the proximity and influence of Italy upon Tunisia. At the end of March, medium and long-term exposure was L383.6 billion, approximately \$276 million, which is not even 10 percent of the SACE credit in Algeria. One of the problems is that SACE considers Tunisia in its Category 2, thus a higher risk than may be necessary. Thus, Tunisia would do its investment objectives well by negotiating with the international political and economic risk assessment authorities to demonstrate that it is stable and has made definite governmental policy changes to maintain its business and privatization goals.

The United States in 1989 provided \$35 million worth of food, \$4.5 million for scholarships to U.S. universities, and \$6.9 million for other project assistance.

b. Countertrade

Some discount dinars may be available from old "colons" accounts, that is, blocked funds of former French landowners. This would be the only Tunisian opportunity that would be similar to the debt/equity swaps.

c. Forfaiting

Forfaiting is available for use due to the good credit rating for Tunisia. An estimated minimum amount to be collected at a later date without recourse is \$1 million.

11. TUNISIAN GOVERNMENT ATTITUDE TOWARD PRIVATE ENTERPRISE

a. Government Attitude Toward Foreign Investment

The Tunisian government attitude is very welcoming and favoring to the foreign investor. However, there are problems in obtaining investment information. All too often the ASACI Team was asked for a letter of introduction from a Tunisian government official before being allowed to see documents that are in the public domain.

b. Official Sources of Business Information

A "one-stop-shop" or as the Tunisians call it, "guichet unique" was introduced September 1, to form one administrative center where investors could coordinate their approval process and information acquisition more easily.

Tunisia needs to assemble better its most marketable aspects and sell them. One suggestion would be to sponsor a special country section in The Economist with ads from all the new banks eg. Citibank, and articles about the potential, funded by USAID and making use of world-renown writers.

However, it can be easily said by many researchers that information about simple matters can be hopelessly unavailable.

For example, it took the ASACI Team two weeks to obtain a copy of the import tariff schedule. When it finally was made available with the assistance of the Prime Minister's office, it was unbound and needed to be returned the next business day. Indeed it is out of print until the next version is published, but the inconvenience seemed inappropriate for a country that needs to be encouraging foreign investment in the interest of its own economic well-being. It must be added that once the appropriate high-level customs officials were identified and called they were highly cooperative. However, the lack of responsiveness on the part of average government service people was less than impressive in almost every bureaucracy.

Again, the team's repeated efforts to obtain a soils map of Tunisia were to no avail - a discouraging first step for a prospective investor in Tunisian agribusiness.

12. TUNISIAN GOVERNMENT ATTITUDE TOWARD LABOR

President Ben Ali made several changes clear in labor policy, changes that investors need to hear, in his Republic Day speech, July 25. While the speech finally gave a signal of changes necessary as a result of economic stress derived from the drought, some excerpts follow on the resultant labor situation:

"During this period of high unemployment...work is regarded as a privilege and the worker should make every effort to remain worthy of his employment.

"The most efficient solution to this thorny issue goes beyond any temporary measures...It is necessary to compensate for the limitations of the domestic market by conquering external markets...and by attracting foreign capital.

"The government will open a debate on the causes of poor productivity--on the ways to link the wage system with workers' productive effort, and to find out how compatible the labor regulations are with the requirements of a developed economy."

Following this plan, the Government of Tunisia must maintain

cautious wage and salary policies in order to achieve a long-term sustainable balance of payments equilibrium and employment creation. Thus, the policy is to restrict wage and salary policies started in 1983 and limit the rate of growth of total wages to that of GDP in 1988-1991. Only the minimum wage is to be raised.

The World Bank is assisting the labor problem by providing financing for severance pay, retraining workers and redeployment of those who lose jobs in the national restructuring.

13. ROLE OF GOVERNMENT IN AGRIBUSINESS

a. State-Owned Industry

As mentioned earlier in this report, the Government of Tunisia participates in over 500 public and parastatal companies. However, the process of privatization of these companies has begun.

After 26 years of state monopoly, the government is effectively diminishing its role in transportation. As of April, 1989, ten private companies have received tentative authorization to begin freight transportation services. Five of the leading ten firms approved include: Wassing Tunisie, Sinbad Trans-World, Societe de Transport de Marchandise pour le Maghreb, Transfrigo Sarl, Societe de Transport International et National (STIN) and Comptoirs Sfaxiens.

b. Import Substitution Policy

The import substitution policy as it is designed consists of progressive liberalization of prices, investments, and imports. However, it still maintains an effective rate of protection that inadvertently sanctions inefficiency.

14. ORGANIZATION

a. The Agricultural Investment Code

The agricultural investment code includes many "state-of-the-art" provisions, which demonstrates a competitive investment opportunity as compared with other developing nations.

Significant provisions include guaranteed repatriation of capital investment and dividends in hard currency; Tunisian dinars (TD) 5,000 for pre-feasibility studies; preferential credit rates; 5 percent subsidy of the cost of the equipment, if located in a disadvantaged area; 10 percent subsidy of the cost of agricultural equipment; training costs for personnel, if technology is advanced; grants up to TD50,000 endowment for management participation in ownership; tax holiday for ten years; exemption from local tax on locally purchased inputs; and others.

The agricultural investment code is only for agricultural production investments. The Industrial Promotion Agency (API) would be in charge of an investment involving agricultural product processing. While many of the incentives are the same, key differences exist in the cost of capital, and tax exemptions on income earned in Tunisia.

b. Activities Not Open To Foreign Capital

Few if any agribusiness activities are not open to foreign capital.

c. Limitations on Foreign Equity

The Tunisian partner must own 50 percent of the equity of a joint venture investment.

d. Acquisition of Real Estate

Land may not be purchased by foreigners. The Government has forty year leases.

15. RULES OF COMPETITION

UTICA, an industrial trade association, has received a proposal for establishing an institute for the development of exporting companies. The proposed institute would address the problem of changing an economy from one of import substitution, which has deteriorated into inefficient development mercantilism, over to an economy based on competition for the local and export market.

On the latter point, Tunisia indeed can use a great deal of educational assistance. The country needs a new class of entrepreneurs who can make profits from the comparative advantages of economies of scale.

Since the import substitution policies led to the current 5,000 small to medium sized enterprises, the removal of such policies provides an economic environment within which the current enterprises are ill equipped to exist. Consolidations will be necessary.

The Tunisian business enterprise of the future will need to be competitive in the local market and if the product is exportable, in the foreign market as well. As such, UTICA has realized some of the key constraints are as follows:

- * An absence of well trained business managers and laborers together with the absence of training programs for individuals who want to learn to become more employable.
- * The conservative policies of banks that do not lend to individuals without assets.
- * The long delays encountered in order to start a project once a complete business plan has been submitted.

- * The lack of technical ability in selecting the proper equipment for the given conditions of a particular investment.
- * The dependence of Tunisian businesses upon foreign intermediaries such as olive oil processors and merchants in Italy and date merchants in Southern France.

UTICA has thus received a proposal to address these problems with the proposed institute. If funded by a development organization, the new institute would do the following:

- * Train managers and laborers in methods that would enhance productivity.
- * Provide consulting services for businesses that need intermittent assistance in the areas of: legal, fiscal, management, choice of equipment, production processes, and others.
- * Provide short term rental of office space, business equipment, production and storage space, as well as services such as accounting, secretarial, data processing, maintenance, and others.
- * In order for the program to work, similar businesses need to be identified and their precise needs categorized so that the training is done efficiently.

16. PRICE CONTROLS

Prices of farm goods in general are too high. The Government of Tunisia plans to phase out price controls, but in a gradual way. The goal is to end price controls by 1991, except for bread and edible oils.

17. CORPORATE TAXES

Tax reform is in the offing. It includes:

A value-added tax (VAT), introduced on July 1, 1988. Hassen Dachraoui, Director General of Taxes, said VAT was already proving beneficial in widening the tax net and making fraud more difficult.

A profits tax, Impot sur les Benefices, is being prepared for presentation to Parliament later in 1989. This will bring together several taxes now in force, making accounting simpler.

A unified income tax, the Impot General sur le Revenu, IGR, will also be presented this year. This should ease the tax burden on those currently paying very high rates of tax--which does not necessarily mean the highly paid. The Planning & Finance Ministry has yet to decide what rates will be paid by the various categories of wage earners when IGR comes into force, but under consideration is a reduction of the maximum level of income tax to 40 percent.

Under the current system, staff who are relatively low-paid--by the standards of international companies--can pay 70 percent tax on their earnings. Citibank, which is recruiting staff for its on-shore operation, is finding it difficult to compensate higher-grade employees because tax thresholds are very low. Firms often look for ways around the tax system to boost payment to staff.

Already reduced have been social security charges, cut at the end of 1988 to 20 percent of salary from 24 percent. There are also moves to free wage-fixing in the private sector, to allow firms more freedom in deciding how much they pay. Multinationals say that to ease their responsibilities local employees are often hired on renewable short-term contracts.

Tax services are to be reorganized and what Mr. Dachraoui calls "a taxpayers charter" is being put in place--rationalizing the currently complex tax system so that tax payers know where they stand. In theory, this will also widen the tax base, bringing more people into the system.

18. FOREIGN TRADE

Key agricultural exports are olive oil, dates, citrus, and wine. Their export levels stagnated in the early 1980's. Sector imports covered by sector exports have fallen from 81 percent in 1976 to 49 percent in 1985. The trade deficit for agriculture went from 5 percent to 20 percent of overall deficit. The agricultural sector deficit of 185 MM dinars is expected to increase to 565 MM dinars, by 3 1/2 times in the current year. That is, if exports of manufacturing, tourism, and petroleum remain constant. But they will not since petroleum is declining.

Imports subsidized in countries that export to Tunisia for products such as grains do not help Tunisia establish a market oriented system. Thus "tariffication" in Uruguay Round would be helpful from a macro import policy point of view in the long run.

The 1988 preliminary trade figures from the Institut National de Statistiques (INS) reveal a 29.4 percent increase in the trade deficit to TD1.1 Billion (\$1.2 Billion). INS shows exports having risen by 16 percent to some TD2.0 Billion, but the rise in imports was more, some 26.2 percent to total TD3.2 Billion. The export increase was mostly due to increases in phosphates, textiles and fish. The decrease in local supply due to the drought raised imports for food by 53 percent.

If Tunisian agriculture structure is to be changed from import substitution with parastatals to privatization with entrepreneurial incentive, then Tunisia must change the crops it produces from food security based production over to comparative advantage production.

Import duties on food and agricultural products, some of which are inputs, at this writing range from 17 percent to 43 percent with most being near the higher number. Special exceptions are allowed

certain agricultural inputs such as machinery which enters at 10 percent. Please see Table C: Agribusiness Related Import Duties at the end of this section.

a. European Community Changes for 1992

Mr. Jacques Huntzinger of the French Foreign Ministry organized the second Mediterranean Forum for the seven countries that border the western Mediterranean in Tangiers in May. Among other things it focused on the relationship of the AMU to the EC as the changes of 1992 single market approach. They concluded that increases in aid to the AMU is unlikely. They called for a system of private partnerships or "partenariat" between EC and AMU tied to technology transfer and that would be good for both. This could be coordinated by the Chambers of Commerce & Industry.

b. Import Controls

Tunisia has a program for import liberalization. It phases out all quotas by 1991, and reforms the existing tariff system to reduce import duties from 45 percent to 25 percent as a uniform effective rate of protection.

Basic foods do not have tariff protection in order to keep food prices low but by contrast, industrial production has been protected against the exchange rate overvaluation by high tariffs and quantitative restrictions.

c. Tariffs and Import Taxes

Preferential duties exist for: Algeria, Saudi Arabia, Bahrain, Cote d'Ivoire, U.A.E., Iraq, Jordan, Kuwait, Libya, Morocco, Mauritania, Niger, Senegal, Sudan, and Syria.

d. Nontariff Measures

An inventory needs to be assembled of the nontariff measures encountered by Tunisian exports both current and potential together with an assessment of their impact. Once those factors are determined, a prioritization of the items necessary for the negotiators in the Uruguay Round of multilateral trade negotiations underway in Geneva can be made. It is suggested that this list be made right away.

e. Free Ports, Free Trade Zones

Free trade zones have been approved and are in use for the textile industry in Tunisia.

f. Export Promotion

The agricultural pride of Tunisia comprises such unique and exemplary products as:

* The best virgin olive oil in the world;

- * The world renown date known as "deglet ennour;"
- * Citrus clementines, some of the sweetest citrus in the world;
- * Citrus Maltese oranges, famous for their red color and sweetness; and
- * A hot sauce called Harissa.

Major products exported from Tunisia include: olive oil, seafood, dates, citrus fruit, apricots, almonds, fresh vegetables, canned fruits and vegetables, and wine.

The Center for the Promotion of Exports (CEPEX) schedule for participation in foreign trade shows for 1989 includes two shows, the ONV exhibition in Berlin held in January and February of 1989, and the ANUGA show held at Cologne in October, which was handled by International Trading Company, part of the Ben Yedder group.

The country needs to focus on shifting resources toward the tradeable goods sector, particularly to non-traditional exports, through promotion of private sector initiatives.

CEPEX, the Center for Promotion of Exports, has an agricultural section and agricultural promotion activities. Created by law No. 73-70 of 1973, it operates under the Ministry of National Economy. It focuses on initiating business connections. According to its promotional material, it:

- * Undertakes market and marketing research;
- * Advises and guides Tunisian exporters;
- * Assists foreign importers;
- * Disseminates commercial information; and
- * Contributes to the development of the national foreign trade policy.

g. Preference Agreements

There is an inter-Maghreb preference arrangement. However, at present, inter-Maghreb country trade is small. For Tunisia, 3 percent of foreign trade is with other Maghreb countries, while 72 percent is with EC. To increase Maghreb trade potential, all three central Maghreb countries are now supporting the idea of a market economy and the aim of achieving currency convertibility at some future date.

TABLE C: AGRIBUSINESS RELATED IMPORT DUTIES

Import Duties Assessed by Tunisia to Imports
of Selected Items Important to Agribusiness Development

		Import Duty	Exc Duty	Inputs	Compe- tition
03.01.A.	Tuna	27		*	
06.01.A.	Bulbs, dormant	25		*	
06.02.A.I.	Date palms, nursery	Proh		*	
06.02.A.II.	Vine plants, nursery	17		*	
06.02.A.III.	Olive saplings	25		*	
07.01.A.a.	Seed Potatoes	17		*	
07.01.C.I.	Strawberry plants	17		*	
08.01.C.	Dates	Proh			*
08.02.	Citrus fruit, fresh	29			*
08.03.A&B.	Figs, fresh or dried	43			*
03.04.A.	Fresh table grapes	29			*
08.05.	Almonds	43			*
08.06.	Fresh apples, pears	43			*
08.07.	Stone fruit	29			*
08.12.	Dried apricots	43			*
09.04.D.	Harissa	43			*
10.01.	Wheat	17			*
10.03.	Barley	17			*
10.05.	Corn	17			*
15.07.D.	Olive oil	43			*
17.01.B.	Sugar, not crude	40			*
18.06.	Chocolate, etc.	43		*	
19.07.	Bread/bakery products	27			*
19.08.	Fine bakery products	43			*
20.00.	Canned fruit/veg.	43			*
22.05.	Wine	43			*
23.01.	Flour	17			*
55.01.	Cotton	17		*	
84.03.A.	Generators	17	10	*	
84.12.	Air compressors	43		*	
84.15.D.	Refrigeration machines	43		*	
84.18.	Centrifuges	17	10	*	
84.21.	Pulverizers	17	10	*	
84.23.	Forage equipment	27	10	*	
84.24.	Agricultural equip.	27	10	*	
84.25.	Harvesters	27	10	*	
84.26.	Dairy machinery	27	10	*	
84.27.	Wine making equipment	17	10	*	
84.28.	Poultry equipment	27	10	*	
84.29.	Flour milling equip.	27	10	*	
87.01.	Agricultural tractors	27	10		

Average of items 30.42

Proh = Prohibition

Exc duty = Exception duty

Mobhtar, Hemmami, Inspecteur Central, Chef de Service de la Valere, Direction
General de Douanes, Tunis, November, 1989.

APPENDIX B: AGRICULTURAL PRODUCTION FACTORS

1. NATURAL RESOURCES

a. Climate

The Tunisian climate is Mediterranean and covers small humid zones in the northwest to large arid areas in the southern deserts. Average annual temperatures in the main agricultural regions range from 64 degrees F in the north and northwest to 68 degrees F in the southeast. Rainfall is highest in the northwestern part of the country and declines significantly towards south. Most rainfall occurs between fall and spring. Characteristic for Tunisian climate is the large variance in annual precipitation as well as in its distribution over the year. The country experienced one of its worst droughts during the past two years.

Selected rainfall data is provided in Table A below.

Table A: Average Annual Rainfall in selected Locations

<u>Location</u>	<u>Average 1901-60</u>	<u>Average 1972-80</u>
Tunis	17.9 inches	19.3 inches
Jendouba	18.3	18.1
Sousse	12.4	15.2
Sfax	8.0	9.7
Gafsa	6.5	8.0
Djerba	8.1	10.6

Source: MOA, Annuaire des Statistics Agricoles 1987, Tunis, November 1988

b. Soils

No detailed assessment of Tunisian soils was undertaken for the purpose of this study. A general soils map of recent date could not be obtained from Tunisian sources by the completion date of this report.

The country's topography indicates that there exists a wide variety of soil types. The lower lying areas of Tunisia which are most intensively farmed consist to a large degree of alluvial soils. These soils are generally very deep. The presence of marine sediments has often a negative impact on soil quality. In some basins in the central and southern parts, evaporation has led to a significant salt crust.

The team from its field tours has gained the impression that soil quality in the inspected regions is adequate for a wide variety of crop production. Soil erosion is present in some areas and was particularly noticed between Tunis and Mateur as well as between Sfax and Sousse.

c. Water Sources and Irrigation

The majority of Tunisian agriculture depends on rainfed production.

In 1987 only 165,070 ha or approximately 4% of the cultivated cropland was irrigated. The VII Development Plan indicates however that there are 243,000 ha of cropland presently irrigable. Thus 32% of potentially irrigable land is utilized as dryland. Most irrigated farmland is in the northwest, northeast and mid eastern regions of the country. Potential water resources are 3.105 million acre feet or only 0.4 acre feet per capita.

The government of Tunisia has given significant priority to investments into the water resource development sector. Between 1982 and 1987, 663.7 million Tunisian dinars (TD), or 42% of all agricultural investments by the public sector, were used for hydraulic projects.

In 1987, water from public irrigation projects cost the farmer an average of TD 26.19 per acre foot. The average subsidy was TD 70.14 per acre foot or 73% of total project water cost.

Salinity of groundwater is high in certain areas.

Unfortunately no map showing the major aquifers and/or water storage and distribution projects could be obtained by the completion date of this report.

d. Land Use

Tunisian land surface is 16.2 million ha with 30% in cropland, 21% in rangeland, 6% in forest and 43% in nonagricultural land. Table B below shows the land use by major regions.

Tunisian agriculture is widely diversified with grain and tree crops occupying the largest areas. Major agricultural production regions are in the northern part of the country and along the east coast. Production regions and major types of production are indicated on the map, Tunisia: Major Production Regions, presented on the next page.

TUNISIA: MAJOR PRODUCTION REGIONS

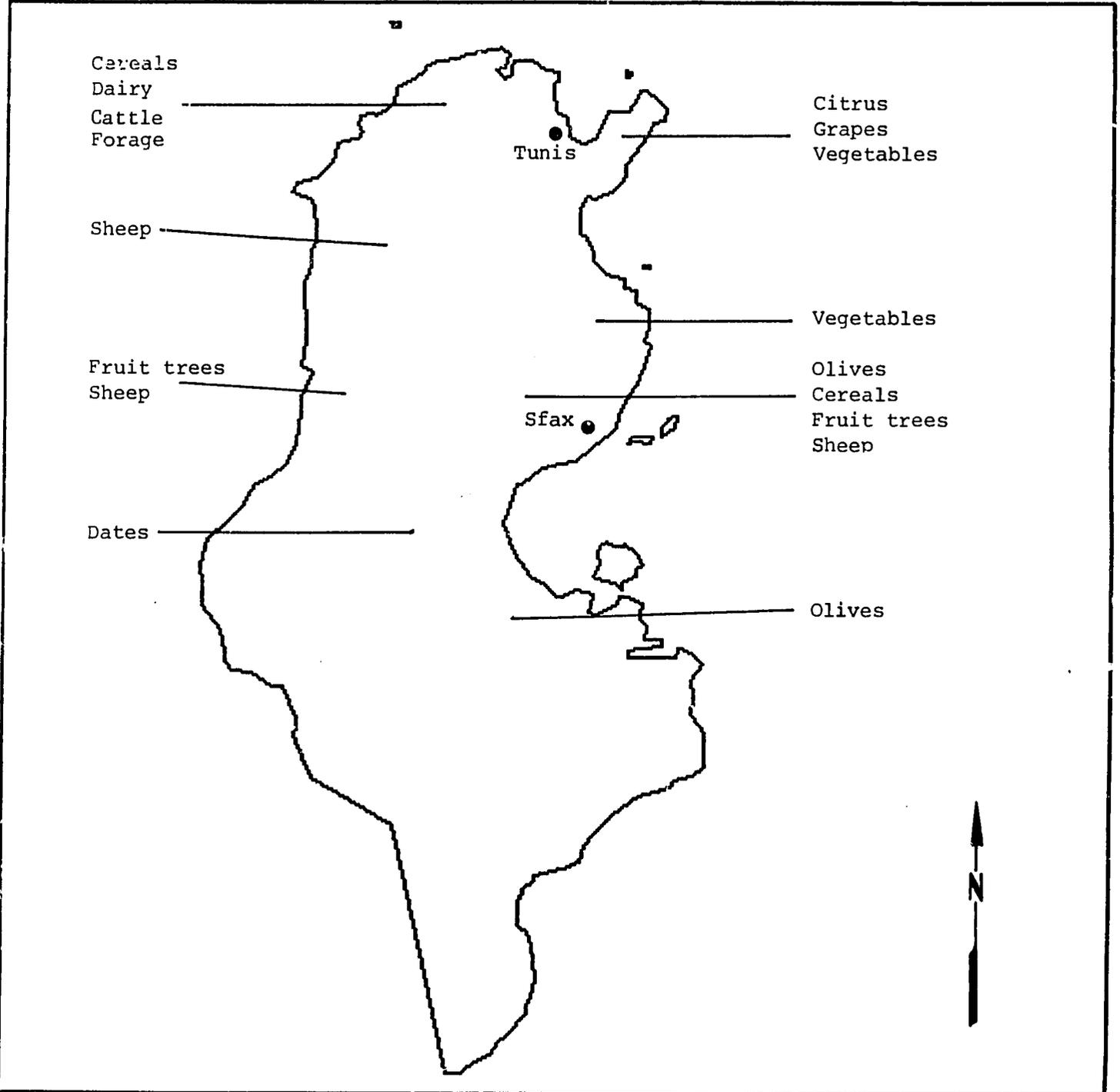


TABLE B: LAND USE (IN 1000 HA) - 1987

Source: MOA, Annuaire des Statistics Agricoles 1987, Tunis, November 1988

USE	R E G I O N					TUNISIA TOTAL
	NORTH-EAST	NORTH-WEST	CENTRAL-EAST	CENTRAL-WEST	SOUTH	
CROPLAND IN PRODUCTION	630.8	880.1	977.6	964.1	603.3	4,055.9
FALLOW	115.3	232.6	106.5	233.1	67.4	754.9
TOTAL CROPLAND	746.1	1,112.7	1,084.1	1,197.2	670.7	4,810.8
PASTURE, RANGELAND	86.6	77.3	96.4	230.1	2,860.4	3,350.8
FOREST, BRUSH	204.5	293.4	26.5	463.1	29.5	1,017.0
OTHER	130.7	156.4	94.8	378.5	6,290.0	7,050.4
TOTAL, 1000 HA	1,167.9	1,639.8	1,301.8	2,266.9	9,850.6	16,229.0

12/01/89

2. PRODUCTION

Agricultural production in Tunisia is widely diversified. Arboriculture and animal production are the dominant sectors each contributing approximately 27% to the farm income. Tree crops and grain production utilized approximately 87% of the total crop land under production in 1987. Table C shows the major crop types by region. Please note, that the total "crop land" does not equal the data in Table B. It is assumed that multiple uses of land (i.e. intercropping in orchards) is the main reason for this inconsistency.

TABLE C: CROP LAND UNDER CULTIVATION (IN 1000 HA) - 1987

Source: MOA, Annuaire des Statistics Agricoles 1987, Tunis, November 1988

CROP	R E G I O N					TUNISIA TOTAL
	NORTH-EAST	NORTH-WEST	CENTRAL-EAST	CENTRAL-WEST	SOUTH	
GRAIN	225.3	642.9	216.1	469.4	240.5	1,794.2
FORAGE	130.3	92.2	18.0	48.8	2.2	291.5
LEGUMES, DRY & FRESH	49.3	51.2	19.5	5.9	3.4	129.3
VEGETABLES	56.6	16.8	20.4	19.9	8.7	122.4
ARBORICULTURE	168.8	82.5	793.4	539.0	312.4	1,896.1
OTHER	11.5	12.4	1.1	0.8	1.5	27.3
TOTAL 1000 HA	641.8	898.0	1,068.5	1,083.8	568.7	4,260.8

12/01/89

Production and yield data listed in the two available publications of the Tunisian Ministry of Agriculture are unfortunately not complete for all sectors. No assessment of the quality of the data base can be made. It appears, however, that some data would need further explanation. Shown on the next two pages, Table D gives production and yield data for selected agricultural crops and products.

TABLE D: PRODUCTION AND YIELD OF SELECTED CROPS AND PRODUCTS

Sources: MOA, Annuaire des Statistics Agricoles 1987, Tunis, November 1988
MOA, Enquete Agricole de Base 1988, Tunis, April 1989

1. CROP PRODUCTION

CROP/PRODUCT		UNIT	1984	1985	1986	1987	1988
. WHEAT, Hard	Total	1000 ha	785.0	883.0	723.0	867.0	598.0
		1000 mt	584.0	1,069.0	378.0	1,065.0	167.0
	Yield	kg/ha	743.9	1,210.6	522.8	1,228.4	279.3
bu/acre		11.1	18.0	7.8	18.3	4.2	
. WHEAT, Soft	Total	1000 ha	117.0	180.0	113.0	153.0	102.0
		1000 mt	127.0	311.0	96.0	295.0	53.0
	Yield	kg/ha	1,085.5	1,727.8	849.6	1,928.1	519.6
bu/acre		16.1	25.7	12.6	28.7	7.7	
. BARLEY & Triticale	Total	1000 ha	579.0	855.0	442.0	690.0	490.0
		1000 mt	312.0	699.0	132.0	569.0	70.0
	Yield	kg/ha	538.9	817.5	298.6	824.6	142.9
bu/acre		10.0	15.2	5.6	15.3	2.7	
. POTATOES	Total	1000 ha	12.3	12.1	17.9	17.0	
		1000 mt	135.0	150.0	170.0	188.0	
	Yield	mt/ha	11.0	12.4	9.5	11.1	
cwt/acre		97.9	110.6	84.7	98.7		
. TOMATOES, all	Total	1000 ha	21.2	22.8	23.0	21.6	
		1000 mt	430.0	420.0	418.0	485.0	
	Yield	mt/ha	20.3	18.4	18.2	22.5	
t/acre		9.0	8.2	8.1	10.0		
. OTHER VEGETABLES	Total	1000 ha	61.5	59.3	66.5	67.9	
. OLIVES FOR OIL	OLIVES	1000 mt	750.0	475.0	525.0	570.0	
	OIL	1000 mt	155.0	56.5	64.7	70.4	
. TABLE OLIVES		1000 mt	15.0	13.0	10.0	11.7	
. CITRUS		1000 mt	220.0	196.0	252.0	250.0	
. GRAPES	WINE	1000 mt	75.0	79.0	59.0	55.0	
	TABLE	1000 mt	45.0	50.0	55.0	55.0	
. ALMONDS	IN SHELL	1000 mt	42.0	51.0	42.0	46.0	
. APPLES		1000 mt	23.0	28.0	35.8	37.9	
. DATES		1000 mt	62.0	71.0	85.0	69.0	

2. ANIMAL PRODUCTION - SEAFOOD

CROP/PRODUCT			UNIT	1984	1985	1986	1987	1988
. MILK COWS	STOCK	1000		342.0	352.0	334.0	355.5	346.4
. MILK PRODUCTION	TOTAL	1000 mt		268.0	290.0	203.0		
. MILK DELIVERED TO CENTRAL DAIRIES		1000 mt		35.2	37.0	36.2	44.3	
. PRODUCTION PER COW (assuming 43 % of cows are productive)		kg/cow		1,822.4	1,916.0	1,413.5		
. SHEEP	STOCK	1000		5,561.0	5,846.0	5,409.0	5,707.0	
. GOATS	STOCK	1000		1,069.0	1,154.0	1,047.0	1,155.0	
. MEAT, PROCESSING	BEEF	1000 mt		33.6	36.0	38.9	38.4	
	LAMB	1000 mt		33.3	38.0	36.4	38.8	
	GOAT	1000 mt		5.2	5.6	5.8	6.2	
	CHICKEN	1000 mt		40.5	41.3	43.9	41.3	
. EGGS		million		970.0	1,032.0	1,063.0	930.0	
. SEAFOOD		1000 mt		74.9	88.9	92.7	99.2	

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3. FARM ORGANIZATION AND MANAGEMENT

The average farm size in Tunisia is estimated to be 22 ha, counting all crop- and rangeland. As indicated above, most farms are family operations with labor intensive production. Vegetable farms for example are typically smaller than 5 acres. Inheritance laws have resulted in very small land parcels, many less than one acre. No present statistics pertaining to actual farm size and number of parcels per farm were available. Most larger farms are in the public sector but government is divesting itself of some of its landholdings. This gives the private sector a chance to establish larger farm operations.

4. FINANCIAL SITUATION OF THE FARM SECTOR

a. Prices

The following two tables give a brief overview of selected on-farm product prices and prices paid for input items.

TABLE E: PRICE COMPARISON FOR SELECTED AGRICULTURAL PRODUCTS
PRICES PAID TO FARMERS, 1986 - 1988

PRODUCT	UNIT	PRICE PER UNIT, IN US \$					
		TUNISIA			USA		
		1986	1987	1988	1986	1987	1988
EXCHANGE RATE	1 US \$ = .. TD	0.84	0.78	0.90			
1. CROPS							
. Wheat, all	mt	190.43	228.19		99.58	93.70	122.36
. Potatoes	mt	197.57	245.53		110.89	95.90	121.03
. Oranges, all uses	mt	233.28	305.95		125.52	147.86	192.83
. Almonds shelled	mt	2975.48	4177.91		4232.87	2094.39	2425.08
2. Livestock							
. Beef cattle	kg	1.58	1.80		1.16	1.35	1.47
. Lambs	kg	2.03	2.26		1.52	1.72	1.53
. Milk	kg	0.26	0.29		0.28	0.28	0.27
. Broilers	kg	1.15	1.29		0.76	0.63	0.75
. Eggs	dozen	0.76	0.97		0.61	0.53	0.53

Sources: US Department of Agriculture, ERS, miscellaneous publications
Ministry of Agriculture, Tunis

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TABLE F: PRICE COMPARISON FOR SELECTED AGRICULTURAL INPUT ITEMS
PRICES PAID BY FARMERS, STATUS 1989

PRODUCT - SERVICE	UNIT	PRICE PER UNIT IN \$	
		TUNISIA	USA
1. SEED			
. Wheat	t	204.30	264.00
. Processing tomatoes, open pollinated	kg	32.26	55.00
. Potato	t	376.34	330.60
2. FERTILIZER			
. Ammonium Nitrate, 34 %	t	121.18	138.46
. Superphosphate 45 %	t	117.20	175.82
. Potassium sulfate 50 %	t	306.45	285.71
3. CHEMICALS			
. Furadan	kg	3.40	1.17
. 2,4 D	l	4.30	2.10
. Dithane	kg	6.01	3.74
4. IRRIGATION WATER			
. Westlands Irrigation District California	acre ft		25.00-75.00
. Water system, Mateur - Tunis area	acre ft	86.18	
5. LABOR			
. General Farm Labor, gross salary	h	0.47	4.25
. Payroll taxes employer		4.40%	11.80%
6. CUSTOM OPERATIONS			
. Disking, 110 HP tractor	ha	11.29	14.82
. Combine, wheat	ha	29.57	44.46

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Source: "Fiche te cout", Ministry of Agriculture, Tunis, 1988
Data Huber Farm Management, Memphis, TN & Fresno, CA

b. Production Cost

No regular countrywide survey of production costs is performed by the Tunisian Ministry of Agriculture. The Ministry apparently calculates annually production costs for major crops. These calculations (fiche de cout) are used for budgeting purposes on government owned farms and for economical studies. Table G contains a selection of data which was believed to reflect presently used production practices reasonably well.

TABLE G: PRODUCTION COST OF SELECTED CROPS - 1988

Source: MOA, Fiche de cout 1988

CROP	UNIT	PRODUCTION COST
. WHEAT, IRRIGATED	DT/mt	152.60
	\$/bu	4.47
. LUCERNE (ALFALFA), total cost for average production year, irrigated	DT/ha	574.71
	\$/acre	250.09
. TOMATOES, Irrigated, Field	DT/mt	86.64
	\$/t	84.69
. POTATOES	DT/mt	164.45
	\$/cwt	8.02
. CITRUS	DT/mt	63.84
	\$/box	2.34
. DATES	DT/mt	504.65
	\$/lbs	0.25

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c. Farm Sector Income

The total value of all agricultural products increased over the years 1984-1987 as shown in Table H: Value of Agricultural Production.

TABLE H: VALUE OF AGRICULTURAL PRODUCTION - IN MILLION DINAR

Sources: MOA, Annuaire des Statistics Agricoles 1987, Tunis, November 1988

PRODUCT	1984	1985	1986	1987
. GRAIN	130.7	279.0	95.4	316.4
. ARBORICULTURE	287.0	284.6	312.0	354.4
. VEGETABLE PRODUCTION	184.8	187.6	197.8	226.2
. ANIMAL PRODUCTION	340.8	386.0	437.7	459.9
. FISHERIES	88.0	96.6	108.8	133.9
. OTHER	37.2	60.5	57.6	58.0
TOTAL VALUE, mill TD	1,068.5	1,294.3	1,209.3	1,548.8

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A P P E N D I X C

Agricultural and Trade Facts

SUMMARY AGRICULTURAL FACT SHEET
TUNISIA

A. AREA AND POPULATION - 1988

Total Area: 164.5 (000 Kms) Cultivated: 4.7 (Mil.Ha.) Cultivated: 29 pct
 No. of Farms: 330 thous. Av. Size Farms: 14 (Ha.) mean - 7 Ha. median
 Total Population: 7.6 (Mil.) Pct Rural: 47
 Working Population: 2.0 (Mil.) Pct in Agriculture: 35

NATIONAL INCOME AND PRODUCTION - 1988 Exchange Rate: US\$ 1 equals TD 0.842
 GNP: 9282 (Mil. \$U.S.) GAP: 1057 (Mil. \$U.S.) Pct Agriculture: 11.4
 Per Capita Income: 1205 (\$U.S.) Pct Growth in GNP: - 2.0

B. TOTAL FOREIGN TRADE - 1988

	<u>1981-86</u> ave.	<u>1986</u>	<u>1987</u>	<u>1988</u>
	(Billion U.S. Dollars)			
Total Imports from all countries	3.1	2.7	2.8	3.6
Total Exports to all countries	1.9	1.6	2.1	2.4
Total BOT	- 1.2	- 1.1	- 0.7	- 1.2
Total Imports from USA	0.22	0.19	0.16	0.26
Total Exports to USA	0.29	0.12	0.03	0.03
BOT w/USA	+ 0.07	- 0.07	- 0.13	- 0.23
Pct Total Imports from USA	7.1	7.0	5.7	7.2
Pct Total Exports to USA	15.3	7.5	1.4	1.3

C. AGRICULTURAL TRADE - 1987

	<u>1981-86</u> ave.	<u>1986</u>	<u>1987</u>	<u>1988</u>
	(Million U.S. Dollars)			
Agr. Imports from all countries	611	618	628	910
Agr. Exports to all countries	191	248	336	341
Agr. BOT	- 420	- 370	- 292	- 569
Agr. Imports from USA	109.0	83.0	78.0	153
Agr. Exports to USA	2.7	4.5	8.3	7
Agric. BOT w/USA	- 106.3	- 78.5	- 69.7	- 146
Pct Agr. Imports from USA	17.84	13.40	12.40	16.8
Pct Agr. Exports to USA	1.41	1.81	2.50	2.1

D. 1988 MAIN AGRICULTURAL IMPORTS AND VALUE (MILLION U.S. DOLLARS): Grain: 260 -
 Meat: 19 - Milk: 46 - soybeanoil: 40 - rapeseedoil: 0 - live animals: 11

1988 MAIN AGRICULTURAL EXPORTS AND VALUE (MILLION U.S. DOLLARS): Olive oil: 52 -
 dates: 17 - citrus: 20 - other fruits: 1

1988 KEY AGRIC. PRODUCTS PRODUCED OF TRADE INTEREST (PRODUCT/1,000 MT/PCT SELF-SUFFICIENCY)

Grains <u>1/</u>	292	13
milk	370	63

1/ soft wheat, durum, corn, barley and rice.

Source: Institut National de la Statistique, CY-1988 - (Ministry of Plan)
 Based on January/September 1988 data.

SUMMARY OF AGRICULTURAL TRADE
Tunisia
(Million U.S. Dollars)

Latest Year: 1988

Latest Year: 1988 *

Commodities in Descending Order of Importance	Agricultural Imports			Commodity	Agricultural Exports		
	Total	From U.S.	Percent U.S.		Total	To U.S.	Percent U.S.
wheat	187	99	53	olive oil	52	15	
soybean oil	40	24	60	dates	17		
corn	25	25	100	oranges	20	-	
tobacco, cigarettes	17	3	18	wine	8	-	-
milk	47	-	-	live animals	12	-	-
meat & products (inc. poultry)	19	<u>1</u> /	-	almonds	<u>1</u> /	-	-
live animals of which:	11	<u>1</u> /	-				
purebred heifers	<u>1</u> /	<u>1</u> /	-				
wheat flour	1/	1	100				
processed food	8	<u>1</u> /	-				
almonds	1	1	100				
rice	5	-	-				
sugar	37	-	-				
cotton	29	1	3				
others	483	<u>1</u> /		others	232	2	
GRAND TOTAL FOR AGRICULTURAL	910	153	16.8	GRAND TOTAL	341	17	

Net Trade, All Countries \$ 569
Net Trade, USA \$ 123

NOTE: (Use only country's own statistical sources, not U.S. data)

FAA Standard Trade Form, 2/10/84

1/ less than \$ 500,000

2/ negligible

Exchange rate: one Tunisian Dinar = \$ 1.19 (1987 average).

Source: INS (National Institute of Statistics)

* Based on January-September 1988 INS data.

*Bureau du Commerce Agricole
Ambassade des Etats Unis
6, rue St. Fulgence
Tunis - (Notre Dame)
Tél. : 289.383*

TUNIS, TUNISIA

TUNISIA - Import Dependency for Selected Products, 1988 * ..

PRODUCT	IMPORT AS PERCENT OF CONSUMPTION
Wheat:	50.0
of which:	
soft	78.0
durum	26.0
Milk:	45.0
All meat (carcass weight)	7.0
of which:	
poultry	<u>1/</u>
beef	21.0
other	<u>1/</u>
Cotton (raw)	99.0
Tobacco (unmanufactured)	41.0
Sugar (raw and refined)	84.0
Barley	46.0
Corn	100.0
Soybean meal	100.0

1/ Less than 1 percent

Source: Constructed from figures of the Ministry of Agriculture,
"1988 Budget Economique", Office of Cereals and INS.

* Based on January-September 1988 INS data.

TUNISIAN PER CAPITA EXPENDITURES ON FOOD BY HOUSEHOLD EXPENDITURE GROUP
1985

<u>Household Expenditure Group by Dinars Spent on Food per Capita per Year</u>							
Food Product	< D 100	D 100-150	D 150-250	D 250-350	D 350-500	D 500-800	> D 800
	(in Dinars)						
Cereals	15.8	20.3	24.3	28.0	30.6	33.5	39.1
Beans, Peas and Lentils	1.3	2.2	3.7	5.3	7.1	9.5	11.6
Vegetables	10.8	15.2	21.3	27.6	34.8	43.6	55.5
Fruits and Nuts	1.8	3.1	4.9	7.5	10.0	15.6	27.1
Meat and Poultry	6.2	12.3	20.9	31.8	43.9	60.9	89.7
Fish	0.1	0.5	1.4	3.2	5.2	8.9	18.5
Milk, Dairy Products and Eggs	2.4	4.6	8.3	13.5	19.2	28.0	43.4
Sugar and Sugar Products	2.2	2.7	3.5	4.4	5.3	6.5	8.7
Fats and Oils	4.1	5.5	7.7	9.3	11.6	14.4	18.7
Food and Drinks Outside the Home	3.9	6.1	10.9	18.2	27.3	36.7	67.7
Total Per Capita Expenditures	48.6	72.5	107.4	148.8	195.0	257.6	380.6

<u>Household Expenditure Group by Dinars Spent on Food per Capita per Year</u>							
Food Product	< D 100	D 100-150	D 150-250	D 250-350	D 350-500	D 500-800	> D 800
	(in Percent)						
Cereals	32.6	28.0	23.1	18.8	15.7	13.0	10.4
Beans, Peas and Lentils	2.6	3.1	3.5	3.5	3.7	3.7	3.0
Vegetables	22.2	21.0	19.9	18.5	17.8	16.9	14.6
Fruits and Nuts	3.7	4.3	4.6	5.0	5.0	6.1	7.1
Meat and Poultry	12.9	16.9	19.4	21.4	22.5	23.6	23.6
Fish	0.3	0.7	1.3	2.1	2.7	3.5	4.9
Milk, Dairy Products and Eggs	4.9	6.3	7.6	9.1	9.9	10.9	11.4
Sugar and Sugar Products	4.4	3.8	3.3	3.0	2.7	2.5	2.3
Fats and Oils	8.4	7.5	7.2	6.3	6.0	5.6	4.9
Food and Drinks Outside the Home	8.0	8.4	10.1	12.3	14.0	14.2	17.8
Total Per Capita Expenditures	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Percent of Population by Expenditure Group	4.0	9.1	21.7	18.5	18.2	16.1	12.4

Sources: Institut National de la Statistique, Enquete Nationale sur le Budget et la Consommation des Menages, Ministere du Plan, Tunis, Tunisia, 1980 and 1985

APPENDIX D: CAN MANUFACTURING INDUSTRY

There are two can manufacturers in Tunisia: one in Tunis, which is the largest, and one in Sousse. These plants have the capacity to produce all the cans needed in Tunisia but have little extra capacity above that.

1. LEVEL OF TECHNOLOGY

The plant in Tunis purchases the tin plate for the cans from several sources including France, Italy, West Germany and Spain. Thin tin plate is purchased for most cans to reduce costs. Indented rings are impressed around the cylinder of the can to strengthen it, but they detract from its appearance. They also make the labels more difficult to read. For export markets it may be advisable to eliminate these rings since they are only used on larger cans with paper labels in most countries and the consumer is not used to seeing them on the smaller cans.

Tin plate is varnished on both sides in the plant in Tunis to protect both the inside surface of the can from reacting with the food material and the outside surface from reacting with the oxygen in the air. The tin plate is also engraved, in most cases, with the label design provided by the client so that paper labels are not needed.

Lids or caps are stamped out in the plant in the normal fashion and care is taken to implant sufficient gasket material to prevent leaks. This is extremely important to ensure a hermetic seal.

Many can sizes and shapes are in production in the factory both for food and other products. Several lines are modern, rapid and automatic. Some lines, however, are semiautomatic and produce sizes and designs of cans which are sold in smaller volumes.

The fast modern lines in the factory utilize modern metal-to-metal arc welding to form the side seam; however, some cans are still being made with "lead" metal soldering equipment. The latter method is being eliminated throughout the world because of "lead" contamination of the food within the can. The quantities of "lead" which dissolve in the food are small but still undesirable.

A quick look at the Quality Control Program in the can manufacturing plant indicated it was extensive and detailed. Tolerances have been set up by the Metal Box Company which was involved in the design and construction of the plant and also in the choice of equipment. When tolerances are exceeded, instructions have been given to stop the line until corrections are made.

2. QUALITY CONSIDERATIONS

a. Appearance of cans of Finished Product:

From limited observations and conversations in Tunisia there

seems to be a fairly widespread problem with oxidation of the outside of the bottom and top seams of cans in the market place. It is hard to judge the cause without further investigation, but the most likely cause of the problem is mishandling of the cans in various forms after filling and sealing. If cans are abused by rough handling or overcooling or left in contact with water for prolonged periods of time, they can rust very easily. Type, quality and thickness of the enamel or varnish used on the surface of the tin plate may also be a problem.

The surface of the engraved cans also seems to have more scratches and scrapings than is normal in other countries. Better can-handling procedures will reduce this problem. It is very important to keep these defects to a minimum on products to be exported to create a high quality image and to develop customer acceptance and confidence.

b. Quality of Processed Products:

A brief and rapid look at some Tunisian canned goods was made. The very limited number of samples examined is not representative of production in the entire country. They are just examples of the range of quality which can be expected.

To start with, canned apricot halves were exceptionally good. The color, flavor, size and texture were excellent and uniform throughout the can. This product is so good, as mentioned above, that it should be packed in glass and sold at a premium price.

Green beans and green peas were not high quality. The color was good but the flavor and texture could have been improved.

Canned whole tomatoes were very good. The flavor, color and texture were very acceptable.

Canne artichoke hearts were not high quality. In some countries they are carefully packed in glass jars in a seasoned vinegar solution with uniform sizes and with no visible defects. In this way they are classified as a luxury item and command premium prices.

Jams which were examined generally had a good flavor but were poor in color. Quince jam, which is very popular in many parts of the world, was dark in color and many black specks were distinguishable which resulted from breaking up the seeds.

The texture of the jams examined was variable due to the fact that each fruit has a different natural content of pectin and no pectin is added to the products as is done in other countries.

The tomato catsup examined was packed in a wide-mouthed jar. The flavor and color were both light but pleasant. Some product was lodged between the cap and the threads at the top

of the jar and it had turned dark from oxidation.

In general, it can be said that there was quite a wide range of quality variability in the few products examined.

3. GOVERNMENT ANALYSIS AND TESTING LABORATORIES

The Tunisian government has set up a central laboratory entitled "Laboratoire Central D'Analyses et D'Essais." It contains three departments, namely: Bacteriology, Physico-Chemistry and Beverages. In addition to the Head of the Laboratory, there are five persons working in Bacteriology, seven in Physico-Chemistry and two in Beverages.

This laboratory receives samples from all factories in the area during their packing seasons and samples of shipments of food into the country. It tests the samples to see if they meet the norms and standards of the country and it checks them microbiologically to make sure they are properly sterilized and contain no harmful microorganisms. The laboratory has a counterpart in Sousse which carries out the same type of work for that area.

The Bacteriology Department contains equipment to run the most important tests on microorganisms present in foods, such as total count, Salmonella, Staphylococcus, Clostridium and yeasts and molds.

The Physico-Chemistry Department has the basic equipment to run many of the fundamental tests run on foods but they are lacking instruments to measure color and viscosity. The Department plans to buy a colorimeter in 1990 and they should also buy a viscosimeter such as the "Bostwick" when they can do so.

These departments contain very little sophisticated equipment. As the food processing industry grows in Tunisia and as food exports increase, the laboratories should be reviewed and changes made accordingly.

There are three other laboratories which do testing for the government. One is located in the GICA or Groupement des Industries de Conserves Alimentaires building. It is a small laboratory which needs more equipment if it is to be really effective. Another analytical laboratory can perform more sophisticated analyses but does not do so on a routine basis. Another laboratory is equipped to determine the presence of certain toxins, pesticide residues and heavy metals.

In Tunisia a department in the Ministry of Economy sets the Norms and Standards for the food industry.

Thus, as regards matters of government control, the team recommends a thorough review and update of the Norms and Standards of the food industry of the country. This would be well worthwhile considering the continuous advancements being made in the food industry and related fields and the stricter requirements being enacted into law by the importing developed countries every

year.

A similar project is recommended for the analysis and testing laboratories: to review and update the sampling plans, equipment and procedures they are using.

4. COST, DEMAND, AND GOVERNMENT POLICY ON CANS

More information on the can industry - costs, demand, and government policy - could be developed through additional investigation and research work, but is not presented in this report.

APPENDIX E: TOMATO PASTE PROJECT

Table 4 - Tomato Paste Cost Estimate gives a very roughly calculated cost of tomato paste produced in Tunisia in a factory processing ten metric tons of fresh tomatoes per hour. This is just an example but indicates that the project is in the realm of feasibility. From Table 4, the following information is notable:

1. The estimated cost of 38.3 cents per pound is reasonable and would permit a good profit at present prices and under most normal market conditions.
2. The sale of product from this one factory would increase Tunisia's income from exports by about \$2 million per year.
3. The factory could produce about 4.5 million pounds of paste per year operating 24 hours per day 6 days per week and only 12 weeks per year.
4. Jobs created directly by the factory and related crop production would be equivalent to about 280 man years and salaries earned would total about \$485,000 per year.
5. The costs are calculated on the basis of a field production of an average of 35 metric tons of tomatoes per hectare on about 330 hectares of land. The average yield per hectare of land in California is about 75 metric tons per hectare. Some farms in that state produce as much as 135 metric tons per hectare. There is good reason to believe that yields can be improved in Tunisia by using the proper varieties and good farm management.
6. Costs can be lowered by increasing the yield per hectare, by increasing the solids content of the tomatoes using varietal selection and the best cultural practices, by lengthening the processing season and by efficient operation. Figures 1 and 2 illustrate how solids content and length of season influence the cost of the final product. Figure 2 shows the effect of initial cost on the cost of the final product and assumes an investment cost of \$2.8 million.

Table I - Budget and Comparison shows a preliminary budget estimate of tomato production with comparison to U.S. conditions.

Please note that Tunisian production cost data were basically inserted without adjustment for expected technology improvements. It is reasonable to assume, therefore, that yields could be higher and production costs lower than shown in the calculation presented. This assumption was supported by discussions with local farmers. It seems acceptable to budget with a production cost of \$ 0.60/lbs or less at this time. Substantiation of these assumptions will be needed. Table J - Processing Tomatoes shows the impact of yield on the production cost for fresh tomatoes.

TABLE 4: TOMATO PASTE COST ESTIMATE

TOMATO PASTE
ASEPTIC PACKAGED

GENERAL PARAMETERS					
. Total Plant establishing cost:	2,824,280 TD	PRODUCTION ANALYSIS:			
. Plant Efficiency:	80%	. Av. production:	mt/ha:	35	
. Processing season tomatoes:	12 weeks	. Production needed to supply plant:			
. Processing season other products:	2 weeks	-----> ha:	329		
. Processing capacity, raw material:	10 mt/h				=====
. Weekly operation:	120 h				
1. RAW MATERIAL	COST TD/MT	COST MILL/LBS	MULTIPLIER	PRODUCTION COST, 1 LB PASTE MILLIMES	US CENTS
. Processing tomatoes	70	32	5.60	178	19.1
2. VARIABLE COST PLANT	COST 1985 MILL/CAN	COST 1985 MILL/LBS	INFLATION 85 - 89		
. Labor, Management	44.62	23	30.00%	30	3.2
. Utilities	9.24	5	30.00%	6	0.7
. Other cost	24.01	12	30.00%	16	1.7
Subtotal Variable Cost				52	5.6
3. FIXED COST PLANT	ALLOCATED VALUE	FACTOR	OUTPUT LBS/YEAR		
. Repairs & Maintenance	2420811	5.00%	4533943	27	2.9
. Depreciation	2420811	5.00%	4533943	27	2.9
. Interest on 60 % of capital	1452487	10.50%	4533943	34	3.6
Subtotal Fixed Cost				87	9.4
4. PACKING MATERIAL	COST MILL/BAG	NET COST BOX/BIN	SHARE PACKAGED		
. 55 Gallon bags (512 lbs)	5208	15345	50.00%	20	2.2
. 300 Gallon bags (2,790 lbs)	22553	83700	50.00%	19	2.0
Subtotal Average Packing Cost per lbs				39	4.2
5. TOTAL PRODUCT COST FOB PLANT TUNIS			per lbs	356	38.3
ECONOMIC IMPACT ANALYSIS OF PROJECT					
. Expected sales price of paste, FOB:	0.45 TD/lbs	REMARKS:			
. Annual project income through exports:	2,040,274 TD	TD = Tunisian Dinar			
. Salaries paid to domestic labor:	464,708 TD	MILL = MILLIMES (TD/1000)			
. Jobs created by project :	279 Man Years	mt = metric ton			
		1 US\$ = 0.93 TD			

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FIG. 1 SOLIDS CONTENT VS PASTE YIELD

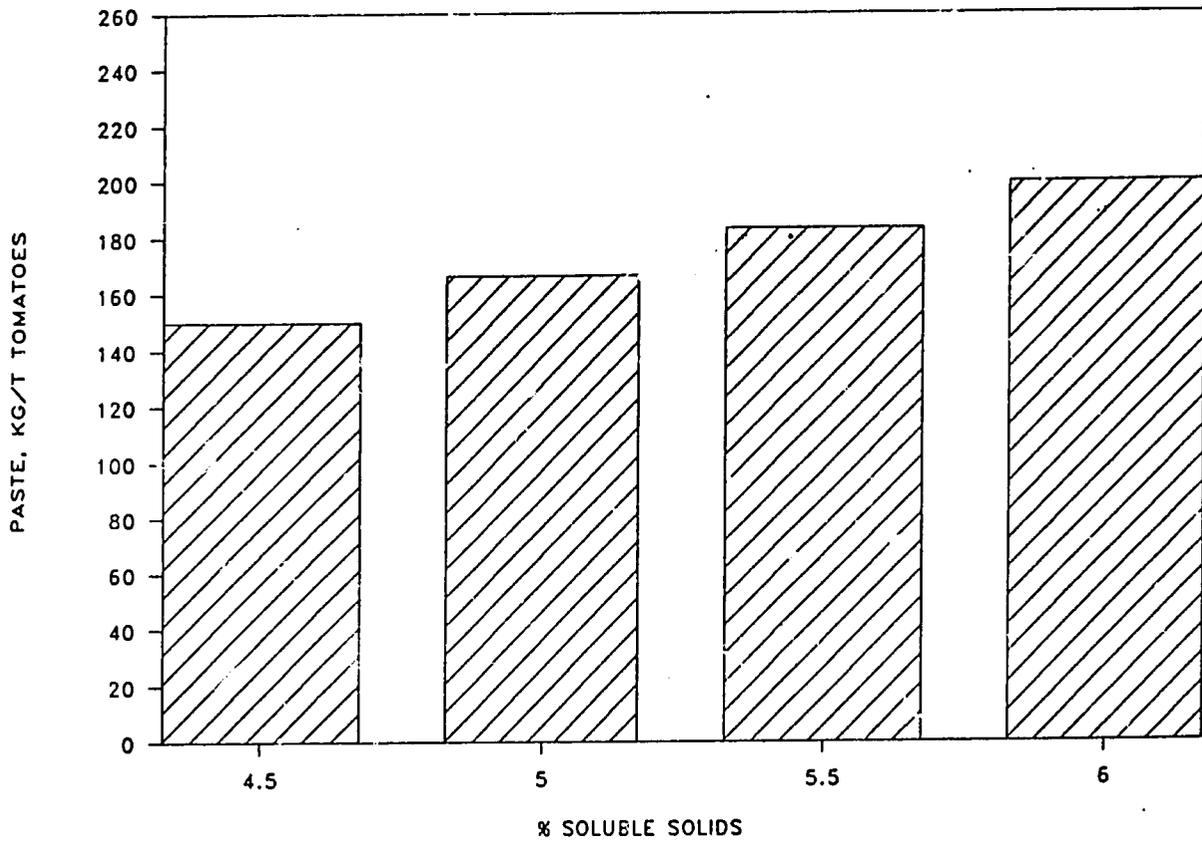


FIG. 2 OPERATION WEEKS VS PASTE COST

PLANT INVESTMENT \$2.8 MILLION

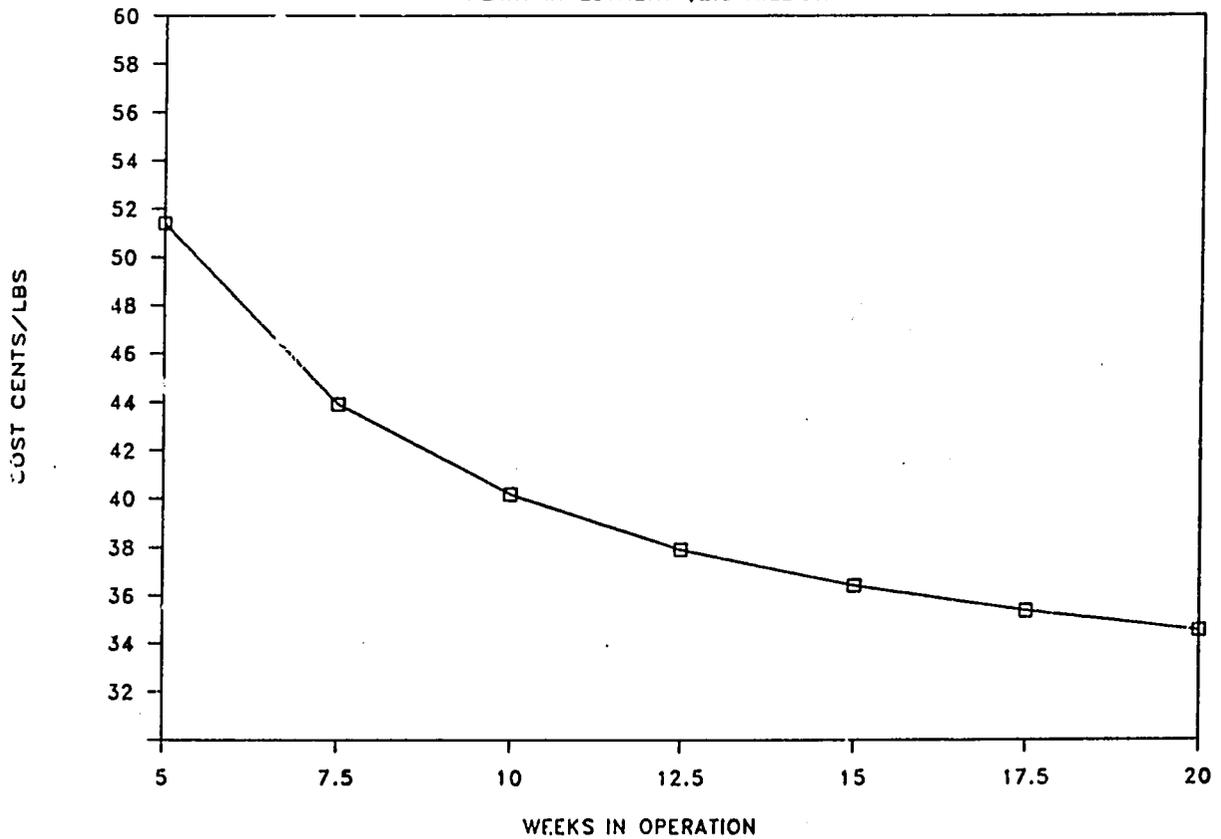


TABLE 1: BUDGET AND COMPARISON

CROP: TOMATOES FOR PROCESSING

				TUNISIA PER 1 HA	COMPARISON PER ACRE	
					TUNISIA	USA (CA)
1. INCOME						

. Yield:	- unit			mt/ha	t/acre	t/acre
	- per unit			45.0	20.1	33.0
. Price:	- per unit	Tunisia: TD/mt	70.00	\$75	\$68	\$55
TOTAL				3,387.10	1,371.29	1,815.00
		UNITS/HA	PRICE/UNIT			
			\$ *)			
2. EXPENSES						

. Seed	1	kg	96.77	109.35	44.27	24.00
. Manure	20	t	16.13	322.58	130.60	
. Fertilizer				224.19	90.77	45.72
. Chemicals				345.49	139.88	70.20
. Water	9,000	m3	0.04	387.10	156.72	90.00
. Machinery, incl. operators	15	h	6.99	104.84	42.44	884.91
. Animals, incl. labor	15	days	7.53	112.90	45.71	
. Other labor	250	days	3.76	940.86	380.92	153.46
. Transport	45	t	5.38	241.94	97.95	
. Management				200.00	80.97	100.00
. Miscellaneous				100.00	40.49	50.00
TOTAL				3,089.26	1,250.71	1,418.28
				per ha / acre		
				68.65	62.28	42.98
				per metric ton / ton		
3. NET RETURN (before land cost, income tax, depreciation, interest operating capital)				297.84	120.58	396.72

12/01/89

REMARKS:

mt = metric ton

t = short ton

*) 1 US\$ = 0.93 TD

SOURCES:

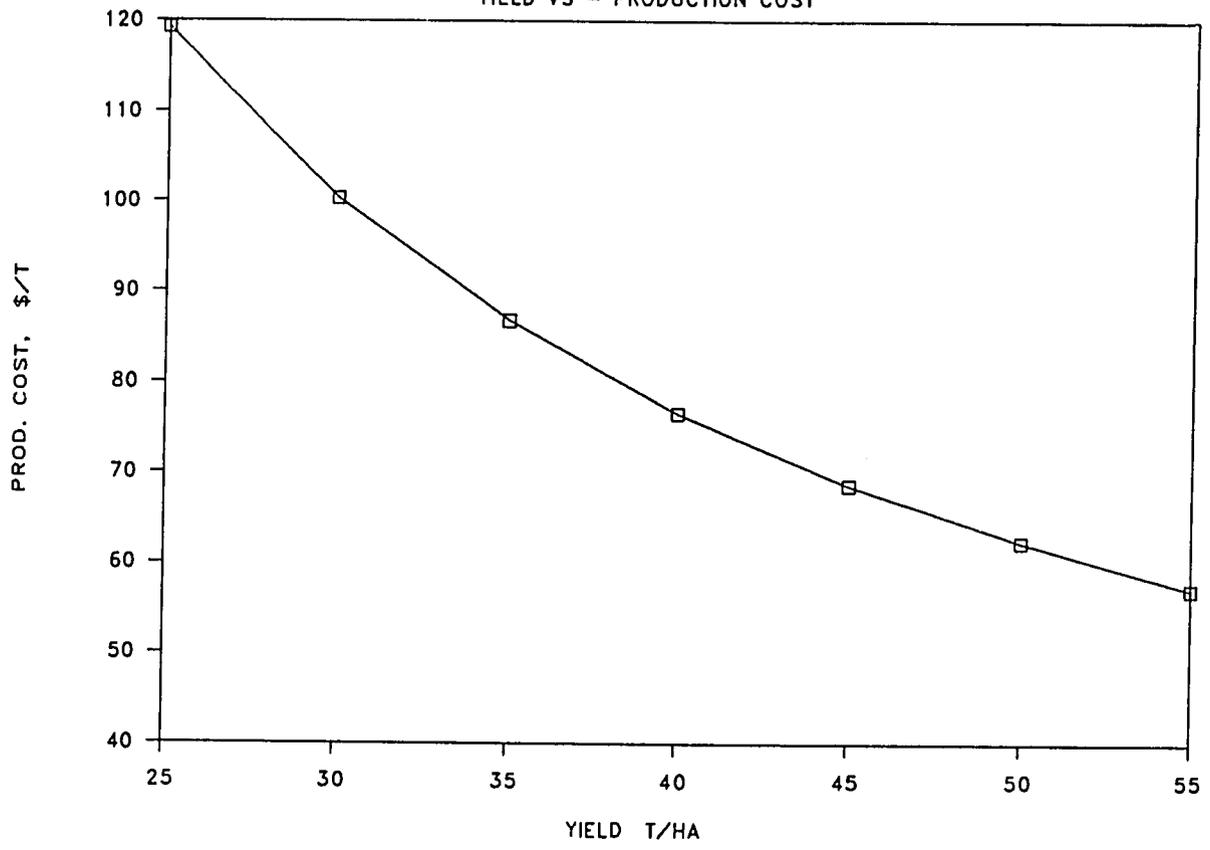
. Fiche cout de production, Ministry of Agriculture, Tunis, 1988

. Cost Analysis Work Sheet, University of California, 1983

. Data Huber Farm Service of California, Inc.

TABLE J. PROCESSING TOMATOES

YIELD VS - PRODUCTION COST



APPENDIX F: CONTACTS MADE BY THE TEAM

WASHINGTON D.C.

Fares T. Zaki
International Finance Corp (IFC)
Investment Officer
Department of Investments-Africa I
1818 H. Street, N.W.
Washington, D.C. 20433
tel: 202/473-0531
telex: RCA 248423
fax: 202/334-0235

David Levintow
Assistant Director
Center for Privatization
2000 Pennsylvania Avenue, N.W.
Washington, D.C. 20006
tel: 202/872-9250
telex: 897124 (CENTR US)
fax: 202/872-9256

Sikander Abdur Rahim
Country Economist
Europe, Middle East, & N. Africa
The World Bank
1818 H. Street, N.W.
Washington, D.C. 20433
tel: 202/473-2351

Edward T. LaFarge
Director, Finance & Admin.
Center for Privatization
2000 Pennsylvania Avenue, N.W.
Washington, D.C. 20006
tel: 202/872-9250
telex: 897124 (CENTR US)
fax: 202/872-9256

Elyes Kasri
Counselor (Commercial Affairs)
Embassy of Tunisia
1515 Massachusetts Avenue, N.W.
Washington, D.C. 20005
tel: 202/862-1850
telex: 248377
fax: 202/862-1858

U.S. EMBASSY & USAID

Elizabeth L. Dibble
Commercial Attache'
Embassy of the United States of Amer.
144, Av. de la Liberte
1002 Tunis-Belvedere
Tunisia
tel: 216-1-782.566
telex: 13379 AMTUN TN
fax: 216-1-789.719

Abdullah A. Saleh Ph.D.
Directeur du Service Agricole
Ambassade des Etats-Unis Amer.
Bureau du Commerce Agricole ATO
6, Rue St. Fulgence
Tunis (Notre Dame)
tel: 289.383
781.553
telex: 14.307

Mohamed Salah Mahjoub
Expert Agricole, Division du
Developpement Agricole et Rural
Mission Americaine de Cooperation
Economique et Technique
28, Rue Suffex
Tunis
tel: 781.947 - 783.400
781.308 - 784.375

Abdelaziz Meddeb
Agricultural Specialist
Ambassade des Etats-Unis Amer.
Bureau du Commerce Agricole ATO
6, Rue St. Fulgence
Tunis (Notre Dame)
tel: 289.383
781.553
telex: 14.307

MINISTRY OF AGRICULTURE & PLANNING & FINANCE

Mohamed Bouden
Ministere de l'Agriculture
Direction General-de l'Agro-Alimentaire
Directeur General
de l'Industrie Agro-Alimentaire
tel: 782.474
680.563

Cheri Rassas
Resident Representative
Agricultural Policy
Implementation Project (APIP)
Ministry of Agriculture, DGPDIA
Abt Associates Inc.
B.P. 24, 1003 Cite El Khadra
Tunis, Republic of Tunisia
tel: (216-1) 681-570/573
fax: (216-1) 785-764

El Benna Daoud
Ingenieur General
Directeur General des Projets
Ministere du Plan et des Finances
tel: 650.625

Sadok Belhadj
Directeur de la Promotion
Ministere de l'Agriculture
Commissariat General a la Peche
32, Rue Alain Savary
Tunis
tel: 892.253
telex: 14 P61

Hassen Akrouf
Commissaire General a la Peche
32, Rue Alain Savary
Tunis
tel: 890.727

API

Mme Bacha Radhia
Chef de Service
Direction des Relations Exterieures
Agence de Promotion de l'Industrie
63, Rue de Syrie
1002 - Tunis
tel: 287.600
telex: 12166

Mohamed Ayari
Directeur des Industries
Agro-Alimentaires
Agence de Promotion de
l'Industrie
63, Rue de Syrie
tel direct: 784.614
tel: 287.700
telex: 14166

APIA

Mohamed Dridi
Directeur
APIA
62, Rue Alain Savary
1003 Tunis
tel: 288.400
288.091
telex: 14.280 TN

Mohamed Jaziri
Directeur General Adjoint
Agence de Promotion des
Investissements Agricoles
62, Rue Alain Savary
1002 Tunis Belvedere
tel: 288.091
telex: 14.280

Abdelmajid Sahnoun
Directeur
Direction Regionale de l'APIA, a Sfax
Immeuble Sellami
72, Rue Kairouan, Sfax
tel: (04) 26.035

UTICA

Abdelkader Chaouch
President de la Chambre
Union Tunisienne de l'Industrie du
Commerce et de l'Arisanat
UTICA
Chambre Syndicate des Frabricants
d'Aliments de Betail
11, Av. Habib Thameur
Tunis 1000
tel: 253.434 - 253.724
telex: 13 982
domicile: 261.764

Majoul Chedly
President
Chambre Syndicale Industriels
en Conserves Fruits et Legumes
103, Av. de la Liberte
1002 Tunis Belvedere
tel: 780.366
34, Rue d'Espagne
1000 Tunis
tel: 241.394

Salaheddine Chabans
Membre Du Bureau Executif
De L'UTICA
Tunis - tel: 280.039 - 289.958
telex: 51.896
Gabes - tel: 05 70.144
05 72.387
05 72.635

Abdallah Ben M'Barek
Secretaire General
Union Tunisienne De L;Industrie
Du Commerce Et De L'Artisanat
UTICA
103, Av. de la Liberte
Tunis - Belevedere 1002
tel: 780.366 - 780.238
telex: 13.982 TN
fax: 782.143

Bejaoui Mohamed
President Directeur General
Fromagerie De Mateur
9, Rue Hedi Chaker
7050 Menzel Bourguiba
Usine Z. I. Mateur
tel: 02 65 084
Domicile: Siege 02 60 898
fax: 02.55281

Abdellatif Arona
Directeur de l' Industrie
UTICA
103 Av. de la Liberte
Tunis - Belvedere 1002
tel: 890.247, 890.298
890.366
telex: 13982 TN

PRIVATE SECTOR

Sadok Ben Yahmed
President de la Chambre Syndicate
des Minsteries et Semouleries de Tunisie
15, Rue Ali Bach Hamba
Tunis
tel: 247.663

Rachid Najar, P.D.G.
Provital
Nutrition Animale
Z. I. de Gromballa 8030
Tunisie
tel: 02.55674.680
telex: 24781 PROVI

Mohamed Lebri
Service Technique
Provital
Nutrition Animale
Z. I. de Gromballa 8030
Tunisie
tel: 02.55674.680
telex: 24781 PROVI

Ferid Ben Yedder
Foly-Photo
4, Rue Danton
Tunis 10002 Belvedere
tel: 892.433 - 892.180
telex: 13443

Jamel El Abed
International Trading Company
4, Rue Danton
Tunis 1002 Belvedere
tel: 892.354 - 892.180
telex: 13443

Karim Garnaoui
Aquaculture Tunisienne Hergla
tel: 48188
fax: 48187
dle: 40479

Jamal Saghir, MA (ecn)
Country Director
Analysis Group, Inc.
Center for Privatization
2000 Pennsylvania Avenue, N.W.
Washington, D.C. 20006
tel: 202/872-9250
telex: 897124 (CENTR US)
fax: 202/872-9256

Bradley C. Lalonde
Vice President
Citibank NA.
3, Av. Jugurtha
1002 Tunis-Belvedere
Tunis
tel: 890.066-513
telex: 15.139

Harrabi Mohammed
Directeur General
Groupement des Industries
De Conserves Alimentaires
GICA
77, Av. Taieb M'hiri
Tunis
tel: 782.633 - 783.206
telex: 13.020

Hatem Logani
Agronomist & Food Industry
Engineer, Managing Director
MLT Engineering
9, Rue Fatma El-Fahria
1002 Mutuelleville - Tunis
Tunisia
tel: (01) 28.31.86/79.14
telex: 14691 SAS LB
fax: (216-1) 78.64.78

Tijani Gargouri
Gerant
Ste' BEPPC
Route de Gabes Km 5
3038 SFAX (Tunisia)
B.P. 117 Sfax
tel: Bur: (04) 40.053
Usine: (04) 44.062
telex: 40.792 TN

Mongi Chabane
Commerçant Industriel
Rue Ben Khalifa - Gabes
13, Rue Med Rachid Ridha -
Tunis
tel: Gabes-05.70.144, 05.72.387
Tunis-280.039, 289.958
telex: 51.876

Emmanuel G. Kampouris
Directeur General
Bethune Import-Export Ltee
666 Quest, Rue Sherbrooke, #204
Montreal, Que., Canada
H3A 1E7
tel: (514) 844-3959
telex: 05-24835
fax: (514) 848-9003
New York tel: (212) 226-5740

Jilani Ben Mbarek
President Directeur General
General Electric Mechanical Systems-GEMS
Zone Industrielle Ksar Said
2010 Manouba - Tunisia
tel: 513.488
telex: 15114 TN

Moncef Ben Yedder
Foly Photo
AGFA-GEVAERT
4, Rue Danton
Tunis
tel: 892.651, 892.433, 892.354
892.180
telex: 13.443

Ben Yedder
Elyssa
Patisserie Confiserie Orientale Fine
Fermeture Dimanche
61, Rue des Petits Champs
75001 Paris
Metro: Pyramides
tel: (1) 42.60.37.47
fax: 42.60.35.47

Naceur Ammar
Chef du Departement
Etudes et Developpement
LCAE, Laboratoire Central d'Analyses
et d'Essais
5, Rue Appolo 11
1002 Belvedere Tunis
tel: 785.285

Tahar Makni
President Directeur General
Filature Centrale de Tunisie
8, Rue Camille Desmoulins
1002 - Tunis
tel: 286.038, 782.784
telex: 15.081, 15.307

Jilani BenM'Barek
Gerant
Oasis Trading Company
Rue 13004
Z.I. Ksar Said
2010 Manouba - Tunisia
tel: (01) 513.488
telex: 15114 TN
fax: (01) 516.872

Youssef Ben Yedder
Directeur General
Foly Photo
4, Rue Danton
1002 - Tunis Belvedere
tel: 892.180, 892.433,
892.651, 892.354
telex: 13.443
fax: (216.1) 78.90.90

Bechir Ben Yedder
Gerant
Grande Fabrique de Confiserie
Orientale
3, Rue de Tabarka
1006 Tunis Bab Souika
Tunisie
tel: 28.29.04, 28.28.51
telex: Rochd 12425 TN

Baccouche Lotfi
GICA, Groupement des Industries
de Conserves Alimentaires
77, Av. Taieb M'Hiri
Tunis
tel: 782.633
telex: 13.020
fax: 783.206

Simon Lorenz
Administrateur
Florasol
4, Place des Fatimites
El Menzah V
1004 Tunis
tel: 230.475

Cooperative Centrale Oleicole
(CCO) Stockage et Collecte des
huiles - Trituration
46, Avenue Habib Bourguiba
Tunis
tel: 255.092, 255.166

Mohamed Fekih
Senior Deputy General Manager
Corporate Division
Tunis International Bank
18, Avenue des Etats Unis d' Amerique
PO Box 81 Belvedere
1002 Tunis, Tunisie
tel: 782.411
telex: 14052/13272 TIB TN

John S. Callaghan
General Manager
Tunis International Bank
18, Avenue des Etas Unis d' Amerique
1002 Tunis, Tunisie
tel: 782.411
direct: 781.463
telex: 14050/14755

Nebil Ben Yedder
Directeur General
La Generale Alimentaire
12, Rue Al Jazira
1000 Tunis R P
Tunisie
tel: 24.24.39
telex: 14.425 Rochd

Allala Ghodbane
Directeur General
Cooperative Centrale des Semences
Et Plants Selectionnes
45, Av. Farhat Hached - Tunis
tel: 340.350
telex: 14.297

Moncef Cheikh-Rouhou
Deputy Chariman & General Manager
BEST Bank
Beit Ettamwil Saudi Tounsi
90, Av. Hedi Chaker
1002 - Tunis - Tunisie
tel: (216) 288.144
telex: 140084

Ouali Sliman
President de la Chambre
des Semi Conserves
Ste' Olivaria Sidi Thabet
2020 Tunis
tel: (01) 552255

Ebrahim Al Ebrahim
Chariman
Tunis International Bank
Tunis:

tel: 780.148
telex: 14 050
fax: 782.223

London:
tel: 493.4685, 581.2911
telex: 941.3605
fax: 629.3574

Kuwait:
tel: 241.0415
telex: 22737
fax: 242.0608

Dubai:
tel: 22.71.91
telex: 45.853
fax: 22.16.29

Sahraoui Mohamed
Gerant
Societe de Commerce et d' Exportn.
2, Rue Ibn Dhiaf
Menza 5
1004 Tunis, Tunisie
tel: 230.588, 230.922
telex: 15129

Mohamed Sahraoul
President Directeur General
International Trading Alimentary
9, Rue Jerusalem 1002
tel: 286.423
telex: 15129
fax: 788.860

Abdeljelil Ben Hassen
Directeur General Adjoint
Frimar S.A.
Siege: 85, Av. de Londres
1000 - Tunis R P
tel: 346.424, 346.318
telex: 13.485
Usine: 5170 La Chebba
tel: (03) 83.822, 83.670

Abdallah Omezzine
Docteur d'Etat
Maitre de Conference
Agro - Economie
Cite CNRPS Imble 6 Appt 672
Sousse 4000
tel: (03) 24.774
Ecole Superieure d'Horticulture
Chott Mariem
Sousse 4042
tel: 48.459

Mustarha Letaief
Directeur
Cooperative Agricole Izdihar
Benjaoua par Oued Ellil 2021
tel: 535.309, 535.329
telex: 15.127

Christopher Mock
Consultant
Small Business, Private Sector
Agricultural Development
Sinkor, Monrovia
tel: (231) 261-850

Pamela Day Pelletreau, Ph.D.
Consultant/Chercheur
144, Avenue de la Liberte'
1002 Tunis - Belvedere
Tunisie
tel: (216.1) 741.986
(216.1) 741.858
telex: 1379 AMBTUN TN

Mohieddine Ben Larbi
Chef du Departement
des Produits Alimentaires
LCAE, Laboratoire Central
d'Analyses et d'Essais
Standard: 240.042, 257.785, 243.261
13, Rue de Roma
Tunis 3000
tel direct: 246.802

Dr. Ingenieur Bouraoui Regaya
Directeur
Ecole Superieure des Industries
Alimentaires
58, Rue Alain Savary
Le Belvedere 1002 Tunis
tel: 285.526

Mouldi Nouri Ammar
President Directeur General
Laboratoire Central d'Analyses
et d'Essais
5, Rue Appolo XI
1002 Tunis Belvedere
tel: 285.927
fax: 783.216

Hedi Ben Hassen
President Directeur General
Siege Social: 85, Avenue de Londres
1001 Tunis - Tunisia
tel: 346.424, 346.318, 344.312
telex: 13485
Usine: 5170 la Chebba - Tunisia
tel: (03) 83.822, 83.670
3060 Mahres - Tunisia
tel: (04) 90.236

Chedly Majoul
Conserves Majoul
S.A.R.L. au Capital de 300.000 Dinars
Concentre de Tomates
Siege Social: Tunis, 32-38, Rue d'Espagne
tel: 241.161, 247.161
et 342.904
Usine: Tunis, Route de Sousse GPI Km 9,300
tel: 295.239

Dr. Wahid Hadjeri
Sponsor
Mediterranean Shrimp Mariculture Project
8807 Liberty Lane
Potomac, MD 20854, USA
tel: 1-301-299-5088
fax: 1-301-299-8202
telex: 401635
easylink: 62864121
11, Rue d'Athenes
1000 R P Tunis, Tunisia
tel: 216-1-244887
216-1-257523
telex: 13344 TN
fax: 216-1-353961
(d): 276.791

A P P E N D I X G

Meeting Agenda - ASAC International Team

MEETING AGENDA (Pre Tunisia Trip)

ASACI TEAM, TUNISIA 1989

DATE TIME	OTHERS	PARTICIPANTS						LOCATION	AGENDA / REMARKS
			JB	BV	SM	HRM			
WED 09-27-89									
15:00	USAID . Paul NOVICK . Robert ARMSTRONG . Dan MASTERS . Robert RILEY . Gary VAUGHAN		X					Department of State Room 4440 Washington, D.C. 202-647-7217	First briefing
TUE 10-03-89									
08:30	IFC . Fares T. ZAKE		X					1850 Eye St. N.W. Washington, D.C. 202-473-7312	IFC investments, investment opportunities
16:30	WORLD BANK . S.A. RAHIM		X					1818 H Street, N.W. Washington, D.C. 202-473-7312	General review Tunisia
WED 10-04-89									
15:30	TUNISIAN EMBASSY . Elyes KASRI		X					1515 Mass Ave., N.W. Washington, D.C. 202-862-1850	Tunisian privatization
THU 10-05-89									
09:30	CENTER FOR PRIVATIZATION . David LEVINTOV . Edward T. LAFARGE	G.V. AID	X					2000 Penn Ave. N. W. Washington, D.C. 202-872-9526	Centers activities, Tunisia
11:00	ERS USDA . John PARKER		X					1301 New York Ave, N.W. Washington, D.C. 202-786-1664	Agricultural statistics Tunisia, background
13:30	USAID . Paul NOVICK . Gary VAUGHAN		X					Department of State Room 4440 Washington, D.C. 202-647-7217	Progress review
14:30	WORLD BANK . Bernard DUSSERD		X					Rm 4149 H. Building Washington, D.C. 202-473-2814	Contacts & background
WED 10-11-89									
20:00	USAID . James LOWENTHAL	MH	X	X	X	X		Bellevue, Washington	Briefing

DATE TIME	OTHERS	PARTICIPANTS				LOCATION	AGENDA / REMARKS
			JB	BV	SM		
SUN 10-15-89							
11:00	Roger MIGLIORE				X	ANUGA, Koeln Messe	Fish buyer, Paris
11:30	ZEN-WOH, Duesseldorf . Rached HORSCHANI				X	ANUGA, Koeln Messe	Produce buyer, West Germany
12:00 - 15:00	INT'L TRADING COMPANY . Ferid Ben YEGGER . Ridha ELLOUZE, Directeur . Jamel El ABED				X	ANUGA, Koeln Messe Cologne, West Germany	Introduced project and requested private sector names.
MON 10-16-89							
11:00	JSAID . Lance MARADEN . Paul NOVICK . Robert ARMSTRONG	MH	X			Department of State 202-647-3694	Final briefing
15:15	UN, Intl. Trade Centre . Rudy KORTGECH-Olesen				X	ANUGA, Koeln Messe Cologne, West Germany	Investment in fish sector in Tunisia
16:00	BER . Mrs. KRAUSE				X	FRG development bank	Investment in Tunisia
TUE 10-17-89							
9:00-11:00	UNCTAD . Dirk Zandee . Aki Kumazawa				X	Palais des Nations Geneva, Switzerland	Trade control measures

12/01/89

MEETING AGENDA

ASACI TEAM, TUNISIA 1989

DATE TIME	TUNISIA	PARTICIPANTS					LOCATION, TEL.	AGENDA / REMARKS
		AID	JB	BV	SM	HRM		
TUE 10-17-89								
Afternoon	Team arrival in Tunis		X	X	X	X		
WED, 10-18-89								
09:00	Shirley PRYOR	AO	X	X	X	X	USAID, 28 Rue Suffex 784-300	Initial briefing, meeting agenda
13:30	APIP . Maxime LESAGE	AO	X	X	X	X	El Mechtel	Info APIP mid term evaluation
THU 10-19-89								
09:00	GICA . Mohamed HARABI . M. BACCOUCHE	AO	X	X	X	X	77 Rue Taieb M'Hiri 782-633	Canned & processed food
11:00	USAID . George CARNER . Nancy TUMAVICK	SP,AO	X	X	X	X	USAID, 28 Rue Suffex 784-300	Briefing director
16:00	APIP . Sheila LARBI	SP,AO	X	X	X	X	USAID, 28 Rue Suffex 784-300	Background info study
FRI 10-20-89								
08:30	US EMBASSY . Liz DIBBLE, Comm. attache		X	X	X	X	144 Av. de Liberte 782-566	Economy, contacts Tunisia US-Tunisian relations
10:15	. R. PEILETREAU, Ambassador		X	X	X	X		
11:00	CITYBANK . Bradley C. LALONDE	SP	X	X	X	X	3 Av Jugurtha 890-066	Activities Citybank Investment climate
14:30	USAID . Monica MC. KNIGHT	SP	X	X	X	X	USAID, 784-300	AID Privatization program
14:30	ATO . Abdullah A. SALLEH . Abdelaziz MEDDEB	SP	X	X	X	X	6, Rue St. Fulgence 289-383	US Exports to Tunisia
SAT 10-21-89								
10:00	MINISTRY OF AGRICULTURE . Mohamed GHARBI		X	X	X	X	30, Rue Alain Savary 681-570	Tunisian agriculture, data policies
10:45	. Cheri RASSAS		X	X	X	X		APIP, studies, contacts
12:00	GICA . M. BACCOUCHE			X			77 Rue Taieb M'Hiri 782-633	Scheduling field trips, la
14:00	ED DAR . Joussef ALI . Ben Heddi CHOMMAKKI			X		X	7, Souk Et-Trouck	Flower & Olive production Isle Djerba

MEETING AGENDA

ASACI TEAM, TUNISIA 1989

DATE TIME	TUNISIA	PARTICIPANTS					LOCATION	AGENDA / REMARKS
		AID	JB	BV	SM	HRM		

MON, 10-23-89								

08:45	USAID	SP,AO	X	X	X	X	USAID, 28 Rue Suffex 784-300	Meeting, departure for API
09:00	API . Mme BACHA . Mohamed AYARI	AO	X	X	X	X	API, 63 Rue de Syrie 287-600	Promotion; codes, processed foods
11:00	GICA . M. BACCOUCHE			X			77 Rue Taieb M'Hiri 782-633	Lab work, balance of day
11:00	MDPF, DG PROJETS . Daoud EL BANNA	SP,AO	X		X	X	MDPF, 650-625	Ag sector plans & projects
15:00	MOA, Dir. Gen. Agro Alim. . Mr. BOUDIN, DG	AD	X		X	X	30, Rue Alain Savary 782-474	Agri Business (Food proces- sing) sector
16:30	AID . Jamal SAGHIR	AO	X		X	X	USAID, 28 Rue Suffex 784-300	Privatization, projects, situation report

TUE, 10-24-89								

05:45	EL MECHTEL	SP	X	X	X	X	Ave Ouled Haffouz 783-300	Departure for market
06:15	PRODUCE MARKET	SP/AO	X	X	X	X	SE of Tunis	Product supply & prices
10:00	GICA . M. BACCOUCHE			X		(X)	77 Rue Taieb M'Hiri 782-633	Organization field trips Lab work, balance of day
11:00	MOA . Statistics & Documentation					X	30, Rue Alain Savary 782-474	Data production factors Yield & Price statistics
10:00	UTICA . Abdallah Ben M'BAREK . Zaghouani KHELIL	AO	X		X		103 Ave de la Liberte 780-366, 780-238 780-366	Small Agri-business
15:00	APIA . Mohamed JAZIRI . Mohamed DRIDI	SP,AO	X		X		42, Rue Savary 288-091	Investment in Agribusiness Promotion of Ag investments

WED, 10-25-89								

10:00	STUMETAL . M. BACCOUCHE			X			Area Tunis	Can manufacturing
11:00	C.G. PECHE . M. AKROUT . Sadok BELHADJ	AO			X	X	32, Rue Alain Savary 890-727	Seafood industries, fisheries Production & potential
15:00	OFFICE DE CEREALES . Ali Debaya	SP AO	X				30, rue Alain Savary Le Belvedere 282-905	Cereals programs
14:30	INT'L TRADING COMPANY . Ferrid BEN YEDDER . Ridha ELLOUZE, Directeur . Jamei EL ABED, others	SP AO	X		X	X	4, rue Danton 892-354, *892-180, 892-651, *892-433	Major exporting company Information on activities Scheduling Farm visits

MEETING AGENDA

ASACI TEAM, TUNISIA 1989

DATE TIME	PARTICIPANTS						LOCATION	AGENDA / REMARKS
	TUNISIA	AID	CB	BV	SM	HRM		

THU, 10-26-89								
09:00-12:30	UTICA . Mohamed BEJAOUJ . J. TRIKI, M. & K. BELLAGHA . M. ZERZERI, M. CHABANE . B. BEN YEDDER, M. LOUATI . Chedly MAJOUJ . Hedi BEN HASSEN . Sliman OUALI . Abdelkader CHAOUCH	AO AO AO AO	X X X X	X X X X	X X X	X X X	103 Ave de la Liberte 780-366	Private sector agribusiness Dairy, Cheese Pastry, candy, chocolate " " Fruit & vegetable canning Seafood canned, frozen Semi processed food Animal feed
14:30	FLORASOL . Mohamed DRIDI, APIA	AO				X	NW of Tunis	Joint venture w. foreign investor, farm visit
15:00	IZDIHAR			X			Area Tunis	Tomato paste, Jam, etc

FRI, 10-27-89								
08:00	BEN YEDDER FARMS		(X)			X	Tebourba, Sidi Othman	Farm inspections
09:30	LABORATOIRE CENTRAL . Mohieddine BEN LARBI			X			13, Rue de Rome 246-802	Quality control system
10:00	MIN. OF ECONOMICS . Abdallah YAHYAOUJ	AO			X		7, rue du Royaume de l'Arabie Saoudite 781-919	Subsidies, commercial policies
11:00	CEPEX . Mme Sana TRABELEGI . Mr. BELKAYA	AO AO			X X		8, rue de Midine 890-003	Tunisia Ag exporters Exportable products
12:00	MINISTRY OF ECONOMICS . Mr. MAKLOUF	AO			X		7, rue du Royaume de l'Arabie Saoudite 781-919	Price building mechanisms, price statistics
15:00	USAID . George CARNER, N. TUMAVICK	SP,AO	X	X	X	X	USAID, 28 Rue Saffex 784-300	Progress report

SAT, 10-28-89								
All day	FIELD TRIP . PROVITAL . AQUACULTURE TN . STHS . ITA . TAIB BELHADJ, Farmer . Hassen MHENNI, Tenant	AO	X			X	Grombalia Hergla Monastir Monastir Sidi Bou Ali Sidi Bou Ali	Farm visits Feedmill Fish production, export Greenhouse,vegetables export fish production, state farm Greenhouse, vegetables " " , potatoes

SUN, 10-29-89								
All day	FIELD TRIP . SICO, BEPPC . NEKTA . Mr. SADDOUD	AO	X			X	Sfax Sfax Sfax	Feedmill Dairy, poultry, state farm Rabbits

MEETING AGENDA

ASACI TEAM, TUNISIA 1989

DATE TIME	TUNISIA	PARTICIPANTS					LOCATION	AGENDA / REMARKS
		AID	JB	BV	SM	HRM		
MON, 10-30-89								
07:00	FIELD TRIP . FISH MARKET . FISH PROCESSORS, G. PECHE . FRIMAR, SA . ITA			X			Sousse Mahdia Mahdia Monastir	Guided by GICA Fish market port of Sousse Canned sardines, tuna " ", frozen fish Fish production, state farm
13:30	MIN. OF ECONOMICS . Salah HANAACHE				X	X	7, rue du Royaume de l'Arabie Seoudite 781-919	National Ag planning
15:30	FERME SELMA . Mahmoud BEN YEDDER					X	4, Rue Danton 892-433, 892-180	Economic data farm production
16:00	CEPEX . Mohammed Ali HAENI . Kamel BELKAYA				X			Foreign trade barriers
TUE, 10-31-89								
09:30	UTICA . Abdelkader CHAOUCH	AO	X				11, Ave Habib Thameur 253-434/724	Animal feed industry
10:00	EEC . Mr. BRETECHE				X		21, Ave Jugurtha 787-865	Policies 1992, loans
10:30	COOPERATIVE CENTR. OLEICOLE . Chakib BOUKALI			X			Area Tunis	Processing of table olives
12:00	BEST BANK . Moncef SHEIKHROUHOU	SP				X	90, Ave. Hedi Chaker 288-144	Project financing Investment Bank
14:30	ECOLE SUPERIEURE IND. AGR. . Bouraoui REGAYA			X				Education & research
WED, 11-01-89								
08:30	DEPUTY OF STATE, AGRICULTURE . Mohsen BOUJEBEL	AO SP,NT	X	X	X	X	30, rue Alain Savary	Progress report
10:00	LABORATOIRE CENTRALE . Mouldy NOURI-AMMAR, PDG			X			5, Rue d'Appollo	Analysis of quality
11:00	OFFICE OF PRIME MINISTER . Ben Farhat MOUREDDINE	SP,CM			X		La Kasbah	Administrative reforms
18:30	MINISTER COUNSELOR US EMB. . Shaun DONELLY	SP,AO CM	X	X	X	X	8, Rue Pres. JFK Carthage, 782-566	Reception

MEETING AGENDA

ASACI TEAM, TUNISIA 1989

DATE TIME	TUNISIA	PARTICIPANTS						LOCATION	AGENDA / REMARKS
		AID	JB	BV	SM	HRM			
THU, 11-02-89									
18:30	FLORASOL . Lorenz SIMON						X	El Mechtel	Flower production & exports
FRI, 11-03-89									
09:00	TUNISIAN-AMERICAN CHAMBER . Mohammed Moncef BAROUNI . Nejb TURKI	CM				X		6, Rue d'Argentine 786-553	Activities, People for proposed mission to Los Angeles
10:00	GICA . Mohamed HARABI			X				77 Rue Taieb M'Hiri 782-633	Final meeting, conclusions
13:00	DIRECTION DES DDUANES . Maaref MOUREDDINE . Ben Attouche ABDELHAMID	AO				X		651-226 651-199	Tariff schedule
15:00	AID . Presentation of executive summary	SP,AO NT,CM	X	X	X	X		USAID, 28 Rue Suffex 784-300	Preparation of Presentation to Mr. Bauhaoulz
SAT, 11-04-89									
07:30	U. MISSOURI TEAM . Michael NOLAN, Ph.D. . William L. MILLER		X	X	X	X		El Mechtel	Training Program Tunisia

MEETING AGENDA

ASACI TEAM, TUNISIA 1989

DATE TIME	TUNISIA	PARTICIPANTS						LOCATION	AGENDA / REMARKS
		AID	JB	BV	SM	HRM			
MON, 11-06-89									
10:00	MIN. PLAN & FINANCES . Mr. BAUOHAOULZ . El Benna DAOUD	SP,AO NT CM	X	X	X	X		MDPF, 650-625	Presentation of teams findings and conclusions
13:30	USAID . Final briefing	SP,AO NT,CM	X	X	X	X		USAID, 28 Rue Suffex 784-300	Conclusions, Follow up
16:00	TUNIS INTERNATIONAL BANK . Ebrahim Al EBRAHIM, Chairm . Mohamed FEKIH . John S. CALLAGHAN	SP,MH			X			18, Ave. des Etats	Investment bank, potential
TUE, 11-07-89									
15:40	SR 37 . Departure for Geneva, Zurich			MH	X	X	X		
17:00	AID . Delivery of report draft		X					USAID, 28 Rue Suffex 784-300	English version only
18:00	MLT ENGINEERING . Hatem LOGANI . Chafika MEHIRI . B. HANDOUS		X					9,Rue Fatma El Fahria 1002 Mutuelleville 28-31-86	Investment projects
WED, 11-08-89									
09:30	TUNIS AIR . Departure		X						

APPENDIX H: BIBLIOGRAPHY *

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* Sources utilized by Agribusiness Team.

APPENDIX I: ASAC INTERNATIONAL TEAM MEMBERS

JOHN D. BAKER, Ph.D.

Dr. Baker is President of J. T. International, Inc. He is a consultant to domestic food processors having volatile input costs, advising them on commodity purchasing organization, business and procurement planning, training, price and profit risk control, price forecasting methods, market research, project feasibility and overseas sourcing. The firm also works in international agribusiness management and integrated rural development programs.

Prior to establishing the consulting business, Dr. Baker was vice president of a large international food, pet food and confectionary manufacturing firm with responsibilities in purchasing and commodity organization, training and sourcing throughout the world. Commodity price forecasting, risk control methods and use of futures markets were significant activities. He has also worked for a large vegetable, fruit and vegetable oil processor as Director of Material.

Dr. Baker has done sourcing, informational surveys, and organizational consulting in the United States, Europe, Brazil, Ecuador, Dominican Republic, Australia, New Zealand, the Philippines, Taiwan, Thailand, Ghana, Nigeria and the Ivory Coast. He has visited many other Third World countries. Some of important commodity specialities covered include cocoa, desiccate coconut, rice, livestock products and pet accessories.

Dr. Baker has a B.S. degree in Animal Husbandry and a M.S. in Agricultural Marketing from Utah State University, and a Ph.D. in Agricultural Economics from Purdue University. He is a member of the American Society of Agricultural Consultants, the American Agricultural Economics Association, Sigma Xi, has served as an officer of the Purchasing Management Association of Washington, D.C. 1984-85 and has been a member of the National Advisory Council, School of Management, Brigham Young University.

HANS-R. MICHEL

Mr. Michel, as president, Huber Farm Management, Inc., Memphis, Tennessee, administers a company which offers a wide range of services to the farming sector. They include agricultural consulting, business analysis, economical and technical analysis and budgeting, customized computer spreadsheet application, appraisals, feasibility studies, farm management, and project planning, development and implementation.

From 1983-1988, as executive vice president, Huber Farm Management of California, Mr. Michel performed farm management and economic consulting in the field of miscellaneous specialty crops. As farm manager and consultant with the company's Memphis office in 1982-1983, he handled the management of row crop farms of rice, cotton, soybeans and wheat.

At the Swiss Agricultural Extension Center, Zurich, Switzerland, Mr. Michel worked from 1975-1982 to develop methods and resources in the fields of agricultural economics and farm management. He conducted basic and continued education courses for extension specialists and did direct farm consulting. Mr. Michel speaks English, French and German.

Mr. Michel is a Certified Member of the American Society of Agricultural Consultants. He has published numerous articles on farm analysis and planning, and has coauthored brochures and books on farm financing and economics.

SCOTT D. MORSE

Mr. Scott Morse is president of Morse Merchant Agribusiness in San Francisco, California. He has worked as a consultant to management of agribusiness corporations and agribusiness and trade sections of governments since 1985 full time. Prior to that, he worked on several projects as a consultant for some portion of his time while he was employed by BankAmerica Corporation; Patton, Boggs, and Blow; California Farm Bureau Federation; and the Executive Office of President, National Security Council.

Mr. Morse has both domestic and international experience in agribusiness but has only focused on international services in the past three years. He has designed trade policies for governments and agricultural producers alike; represented agribusiness firms in obtaining export promotion funds from governments; developed an agricultural trade barrier database with over 50 nations; advised merchants on counter-trade mechanism; and teaches in the MBA Agribusiness program on international trade at Santa Clara University.

Mr. Morse has been resident in countries of the European Community, the Caribbean, and Asia. He is particularly experienced in dealing with investment and counter-trade development for developing countries such as the People's Republic of China, Indonesia, and Morocco. He speaks, reads, and writes French as well as his mother's tongue, English. He also has experience with international organizations such as GATT, OECD, IMF, and UNCTAD.

Mr. Morse is an international trade and trade policy specialist. He earned both his master's (M.S.F.S.) in International Trade Affairs in 1983 and his bachelor's (B.S.F.S.) in International Economic Affairs in 1974 at the Georgetown University, School of Foreign Service. The Master's includes the Karl F. Landegger honor in International Business Diplomacy. His Jesuit training extends back to high school where he graduated from Bellarmine College Preparatory. He is a certified member of American Society of Agricultural Consultants. As a farmer, he produced certified legume seeds and was a member of Cal-West Seeds in Woodland, California.

ROBERT J. VILECE, Ph.D.

Dr. Vilece is president of ITD, a consulting and import - export entity, which has as its main work processing and marketing food products from developing countries, and the preparation, evaluation and financial analysis of business plans. Dr. Vilece designs food plants and lines, locates and purchases equipment, installs and starts up lines, establishes programs, writes manuals both for production and for quality control, and markets finished products. He does food industry surveys with recommendations for improvements and new areas. Finally he writes business plans and has developed a numerical system for scoring projects.

Dr. Vilece served as a Professor at the University of Florida and Central University in Ecuador. He has held top management positions in production, research and development, and quality control in the fresh produce and processing industries in the U.S. and Latin America, plant manager of the largest diversified food plants in Venezuela and Central America for six years. Processed tomato products, baby foods, cold cuts, canned meats, fruits, vegetables, and tin cans, all citrus products, fresh and processed banana and pineapple products and other tropical fruits.

United States - citrus products and fruit juices. Ecuador, Colombia, Costa Rica, Honduras, Panama, Belize, Philippines, Dominican Republic - bananas and pineapples and their products. Puerto Rico - canned pineapple, guava, tomato sauce and nectars and juices. Venezuela - tomato products, baby foods, nectars and juices. Guatemala - cold cuts, canned meats, baby food, nectars. China - asparagus, baby corn, chicken, pear halves, peach halves, salted peanuts. Dr. Vilece is fluent in Spanish.

Dr. Vilece is a food technologist. He completed his B.S. at Fordham University in Chemistry and Biology in 1948 and took a year of graduate work in Biochemistry. He finished his M.S. and Ph.D. degrees at the University of Massachusetts in food technology and chemistry in 1950 and 1953 respectively. He has been a member of the IFT since 1949 and Phi Tau Sigma since 1954. He is a member of the American Society of Agricultural Consultants and the Professional Honorary Agricultural Education Fraternity.