RECOMMENDATIONS FOR EXPANDING
POULTRY PRODUCTION IN MOROCCO AND
OPPORTUNITIES FOR AMERICAN INVOLVEMENT

International Development Cooperation Agency
U.S. Trade and Development Program
RECOMMENDATIONS FOR EXPANDING
POULTRY PRODUCTION IN MOROCCO AND
OPPORTUNITIES FOR AMERICAN
INVolVEMENT

Report Submitted To:
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INTRODUCTION

Between October 16 and 23, 1982 a study sponsored by the Trade Development Program of the United States Department of State was made of the Moroccan poultry situation by R.J. Krueger.

The purpose of the study was to gather background information and offer recommendations for (1) expanding poultry and poultry feed production in Morocco and (2) evaluating the opportunities for (a) U.S. investments, (b) the transfer of U.S. technology and (c) the sale of poultry production products such as breeder equipment, medication, vaccines and feed ingredients.

Information included in this report was obtained from:

1. Mr. Forrest Gerkin, Agricultural Attache, U.S. Embassy, Rabat, Morocco, and
2. personal visits to:
   (a) one large wholesale broiler market in Rabat
   (b) three retail poultry markets in Rabat-Sale, Casablanca area
   (c) two of the 12 significant poultry production companies
   (d) two feed ingredient importers and poultry feed manufacturers
   (e) the largest soybean crushing plant and soybean meal manufacturer
   (f) the president of Morocco's Feed Manufacturing Association, and
3. interviews with 8 housewife's that purchase and prepare chicken in the home for their families and 4 hotel restaurant chef's.

To accommodate readers who are only interested in the highlights of this mission, and to those who want more detail, this report is put together in three sections. Section I, pages 2 to 8 contains only Conclusions and Recommendations. Section II, pages 9 to 18 contains the Key Findings on which these conclusions and recommendations were based, Section III, pages 19 to 31 contains additional Background Information relative to these findings.

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Caution: Because of the short time of this mission, communication problems due to language translations, different currencies, etc., information in this report that may be used for significant decisions should be re-verified.
SECTION I

RECOMMENDATIONS AND CONCLUSIONS
SECTION I

CONCLUSIONS AND RECOMMENDATIONS

The conclusions and recommendations stated below are drawn from information obtained while in Morocco as set forth in the Key Finding-Section II of this report. In keeping with the objectives of this mission they are divided into (1) those relating to the expansion of poultry producing in Morocco and (2) those relating to opportunities for United States involvement.

OBJECTIVE #1 EXPANDING POULTRY PRODUCTION IN MOROCCO Two things must happen if the poultry industry of Morocco is to grow. One, domestic demand for broilers and eggs must be increased and two, production efficiency must be improved.

(A) INCREASE DOMESTIC DEMAND

1. WHY DOMESTIC DEMAND MUST BE INCREASED Morocco already has enough production capacity to over supply its present demand for both broilers and eggs, and any time poultry companies feel they can make a profit they do. As a result the economics of the poultry industry in that country is very unstable (Item 12, page 15) and not much sound industry growth will take place in an unstable economy. Before more broilers and eggs can be produced profitably, more demand must be generated to absorb it. And since Morocco has to import most of the grain used in chicken feed, and therefore can not hope for much poultry exports, the increase will have to be in domestic demand.

2. THE AMOUNT THAT DOMESTIC DEMAND CAN BE INCREASED There is probably far more potential for increasing the demand for broilers and eggs in Morocco than is being recognized. Although it is true that 50% of Morocco's population are subsistence farmers that do not purchase chicken or eggs and in the past 2/3 of the remaining half have not had the means to purchase much if any— with the Five Year Economic Development Plan this will change. But the significant thing is that already 15% (or more) of the people, or about 3,200,000 have enough money to buy the food they want (Items 2,3,4 & 5, pages 9 and 10). In addition 1,500,000 tourists visit
Morocco each year who also have money. In total this is about 5,000,000 people that can (and will) eat more chicken and eggs if the products are improved and an effort is made to encourage them. With present total broiler consumption in Morocco at 40,000,000 head, each additional chicken that these 5,000,000 people eat in a year will increase broiler demand 12% and each additional egg will increase egg demand 1.2%. Judging from what has been accomplished by demand stimulation programs in other countries it is reasonable to assume that a modest program in Morocco would generate extra consumption of 2 more broilers and 10 more eggs a year among these 5,000,000 people. This would be a 25% increase in demand excluding the 3.2% annual expected population increase and the 5.7% increase in household incomes.

This increase in demand if it were brought about would result in a need for 11,000,000 more broiler chicks, 275,000 more layer chicks, 45,000 more tons of broiler feed and 7,600 more tons of layer feed a year**. A "set aside" of only 1¢ a chick on the extra chick sales of 11,000,000 and $1.00 a ton on the extra 52,600 tons of feed would generate $(110,000+52,600)=$163,600 a year which would be enough to finance the effort. If present average profit is only 5¢ a chick and $5.00 a ton on feed, the extra returns generated by this demand stimulation effort would be 5 times the investment.

3. HOW DOMESTIC DEMAND CAN BE INCREASED Domestic demand can be increased by (a) the individual efforts of companies now in the poultry business and (b) by the collective efforts of all poultry companies through the formation of a Moroccan Trade Association. Both are recommended but emphasis is placed on the latter.

POULTRY TRADE ASSOCIATION

The basis for financing a Moroccan Poultry Trade Association is laid out on page 3 of this report. The specific present consumption of 40,000,000 head, so 5,000,000 more head is $(5,000,000+40,000,000)=12.5% and present consumption of 420,000,000 eggs so 5,000,000 more eggs is 1.2%

5,000,000 people more x 2 head=10,000,000 head at 91% mortality=11,000,000 chicks. 2.5 pounds of feed per alive pound of broiler for 4 pound broilers is 10 lbs. of feed per broiler x 10,000,000 more broilers is 100,000,000 lbs. ÷ 1200 lbs. M. ton is 45,454 tons, etc.
areas of activity of this association would include:

**FIRST** Setting up programs and working to change things already known to have a negative effect on the demand for broiler and eggs in Morocco such as:

1. consumer attitudes against commercially produced poultry and poultry products (Items 9 and 10, pages 12 and 14.)
2. pricing chicken to the consumer with the entrails in which causes a serious deterioration in flavor for poultry killed prior to purchase,
3. unattractive and unwholesome dressing, display and merchandising practices now being carried on (Items 16 and 17, page 17)

**SECOND** Making a study of the demand stimulation programs carried on by United States and European poultry trade associations, private companies and government agencies. Details of these programs are available for the asking in numerous research and trade journal publications.

**THIRD** Developing and implementing programs for Moroccan circumstances within the financial means and support of the Moroccan poultry companies

**(B) REDUCE PRODUCTION COSTS** The more production costs are reduced, the more profitable poultry will be to those who produce it, and/or the cheaper it will be to the consumer—both which will result in an expansion of the industry. At the present time Morocco can reduce costs in 5 ways:

1. **IMPROVE THE ECONOMIC STABILITY OF BROILER AND EGG PRODUCTION** (Item 12, page 15). Recommendations for doing this are to develop and initiate:
   (a) Accurate government statistics on day old placement of breeder chicks and day old broiler and layer chicks,
(b) Marketable supply projection procedures, based on these statistics
(c) Importation of breeders and chicks must be closely monitored and controlled relative to the domestic situation.
(d) Early warning systems of projected over and under supply situations must be established.
(e) Information on prospective domestic and world supply and prices of corn and soybeans must be compiled and disseminated.

The recommendations for doing these 5 things is the formation of a Moroccan Poultry Trade Association (described earlier) that would promote, help develop and assist existing agricultural government agencies in carrying out the project.

2. IMPROVE THE COMPOSITION AND NUTRITION OF MANUFACTURED POULTRY FEEDS (Item 14, page 15 and 16). The recommendation for doing this is to:
   (a) establish and enforce a government requirement that a "Composition and Nutrition Tag" be attached to each bag of feed accurately listing (1) each ingredient used, (2) the percent it is of the total volume, (3) the quality of corn used, i.e. #2 or #3 and (4) the basic nutrient content, i.e. % protein, fiber and fat, etc.

3. REDUCE GOVERNMENT CONTROL WHERE POSSIBLE AND BRING ABOUT MORE EFFICIENT AND ORDERLY ACTION WHERE GOVERNMENT INTERVENTION IS NECESSARY (Item 7 and 8, pages 10 and 11). The recommendation for doing this is the formation of the Poultry Trade Association referred to earlier.

4. FURTHER INTEGRATION OF THE PRODUCTION AND MARKETING FUNCTIONS (Items 15, page 16 and 17). The hold up to complete integration in Morocco at this time (i.e. adding processing and marketing) is religious customs regarding slaughter at the point of production and lack

* U.S. once had the same feed composition and nutrition problem and it was corrected by bag tagging.
of refrigerated distribution. Recommendations for changing this are the development and implementation of simple consumer education programs by the Poultry Trade Association.

5. ADOPT UNITED STATES AND EUROPEAN BUSINESS MANAGEMENT SYSTEMS AND PROCEDURES FOR REDUCING COSTS

From observation and questioning it is sure that systems and procedures for getting costs down to a minimum (things such as performance accounting, performance standards, improvement planning) which U.S. and European companies could not exist without, are not yet a part of Morocco business management procedures. By their adoption costs could most likely be reduced 25 to 35%. The recommendations for doing this is hire a specialized, experienced consultant who has a good reputation for doing this with other companies.

OBJECTIVE #2 POTENTIAL FOR UNITED STATES INVESTMENTS, TRANSFER OF TECHNOLOGY AND THE SALE OF POULTRY PRODUCTION PRODUCTS IN MOROCCO

The readers of this report is asked to keep in mind that pages 2 through 8 are (a) personal opinions of the writer, (b) based on observations and information collected during only 5 working days in Morocco. Although great care was taken in analyzing this information and much thought was given to the formulation of these opinions they are still the opinions of only one person.

(A) POTENTIAL FOR UNITED STATES INVESTMENTS

Considering the (a) small present use of broilers and eggs (Item 11, page 14), (b) necessity of importing most of the grain used in chicken feed (Item 1, page 9 and Item 13, page 15), (c) early stage of development of production (Item 15, page 16) processing and marketing (Item 16 and 17, page 17 and 18), (d) economic stability of the industry (Item 12, page 15) and (e) the strict government control (Item 7, page 10), there appears to be little potential for United States investment in the Moroccan poultry industry at this time. This situation could be changed after the Five Year Economic Development Program of that country has had a chance to perform (Item 8, page 11 and 12).
(B) POTENTIAL FOR UNITED STATES TECHNOLOGY TRANSFER

The most needed thing for further development of the Moroccan Poultry Industry is technology---PRODUCTION TECHNOLOGY, BUSINESS MANAGEMENT TECHNOLOGY AND MARKETING TECHNOLOGY. This technology can not be purchased in product form like genetic technology—in breeders, engineering technology—in equipment, pathology technology—in medications and vaccines. It must be obtained by experience through trial and error, which is the slowest, most costly way, or hiring some one (a consultant) who knows it and can teach it to others. Although it is the foundation that all other technologies must be built on (breeder, engineering, etc.) chances are the others will be purchased first. The need for it is great but the recognition of its need and value by the Moroccans will be very slow. Therefore, the potential for its transfer from United States will be very slow to materialize. To bring about any materialization will require promotion and expenditures by U.S.

(C) POTENTIAL FOR UNITED STATES SALE OF POULTRY PRODUCTION PRODUCTS

Morocco has to purchase just about everything it uses for poultry production from other countries—breeders, incubation and feed manufacturing equipment, corn and soybeans and medications. However, there are problems connected with exporting to Morocco (Items 6 and 7, pages 10 and 11).

Equipment and medications offer little U.S. potential. These things are imported from Europe, which is much nearer, at a lower price than they can be obtained from United States.

Some of the breeders are already of American origin but they are imported through European companies. However, Europe also has its own breeders and it appears that heavy promotional emphasis is starting to be put on them (Item 9 page 13). As a result American companies
could be pushed out unless they either do the same or start selling direct. In either case, holding what they now have or getting a larger proportion of the Moroccan breeder market offer a worthwhile potential.

Grain sales particularly corn and soybeans also offer a worthwhile potential. All soybeans and 90% of the corn used in chicken feed in Morocco must be imported. This is done on a unique type bidding process by the Morocco Feed Manufacturers Association in conjunction with the government. Total corn and soybean imports for the poultry feed now being manufactured according to the president of Morocco's Feed Dealers Association, is about 165,000 M. tons of corn and 25,000 M. tons of soybean meal a year. The present value of these two imports with corn at $110.00 M. ton and soybean meal at $198.00 is ($18,150,000+$4,950,000) $23,100,000. The poultry demand expansion program discussed on pages 2 and 3 of this report would push the value of grain exports up another $5,775,000 a year if the Moroccan government would permit it.
SECTION II
KEY FINDINGS
KEY FINDINGS

Seventeen key findings relative to the further development of poultry production and United States involvement in that development were extracted from the information collected during the Morocco mission. They were:

(1) MOROCCO IS A SMALL COUNTRY WITH LITTLE ARABLE LAND AND A RAPIDLY INCREASING POPULATION

Morocco has 21.3 million people in a land area no larger than the states of Washington and Oregon (171,953 sq. mi.). Only 11.3% of that land is arable. Population is still increasing 3.2% a year which is almost twice the rate in U.S.

(2) EDUCATION IS NOW COMPULSORY IN MOROCCO

Morocco is placing considerable emphasis on education. Five years is now compulsory and 68% of the young are getting at least a primary education. This is expected to go to 82% soon. Until the results of increased education materialize into a broader base and higher level of spendable income; however, the potential expansion of demand for chicken and eggs lies mainly with the 15%+ that now have money to buy the food they want.

(3) ONE HALF OF MOROCCO'S POPULATION ARE SUBSISTENCE FARMERS

Morocco has only 1 city of over 2 million people and 2 cities of over 1 million people. About 41% of the people live in urban areas and 50% of the total population is estimated to be engaged in subsistence agriculture.
PER CAPITA INCOME OF MOROCCO IS LOW

Figures on per capita income are rough estimates at best. The U.S. Dept. of State, in an April 1982 publication estimates that rural per capita income is $250.00 a year. Urban per capita income is generally considered to be between $700.00 and $800.00.

HOUSEHOLD INCOMES AND CONSUMPTION EXPENDITURES ARE EXPECTED TO INCREASE SLOWLY

The economic growth which the Moroccan government is fostering is projected to result in an increase of household incomes of 5.7% for the next 5 years. After adjusting for expected inflation, per capita household spending is expected to increase only 2.5% per year. Considering that urban incomes average about $750.00 a year and farm incomes $250.00, a 2.5% increase is only $18.75 and $6.25 respectively.

MOROCCO HAS A SERIOUS RISING FOREIGN DEBT AND TRADE DEFICIT PROBLEM

In 1981 the value of imports was almost doubled (192%) the value of exports. Morocco has to import petroleum to meet 83% of its energy needs. More competition from the European Community with higher tariff barriers has slowed Morocco's exports. The 1981-85 economic plan calls for an 8.1% per year increase in exports which is doubtful considering Morocco's shortage of capital for rapid industrialization.

MOROCCO'S ECONOMY IS CLOSELY CONTROLLED BY THE GOVERNMENT

Morocco does not have a free enterprise system as we know it in United States. Because of a shortage of capital, growing trade deficits, and now its aggressive Five Year Plan to rebuild the country, it has both a direct and indirect government controlled economy. Many businesses such as the ste d'exploitation des produits oleagineux, a large oil extraction plant that was visited, although a privately owned stock company, is largely controlled by the government.
Many other companies are partially owned by the government such as PROVIMA-MAROC, a large poultry feed manufacturing company that was visited. Fifty percent is government owned and fifty percent is Swiss-Arab capital.

The government also sets the price of many basic commodities such as corn and soybean meal which are essential ingredients of chicken feed. The general manager of one of the largest poultry feed manufacturers in Morocco said, "prices are often set far beyond the actual value of the ingredient, particularly soybean meal, so we cannot afford to buy it. Then we have to make feed without it or try to substitute something else and you cannot build an efficient poultry industry that way".

The import-export policies in Morocco can probably best be summarized by taking several quotations from a publication issued by the Ministry of Planning called "Plan to Stimulate The Economy". In regard to imports the publication states that the goal is "selective reduction of imports" through (a) re-adjustment of policies to achieve self sufficiency, (b) repression of contraband and (c) necessity of domestic enterprises "to deal with local firms". In regard to exports the publication states that the goal is "promotion of exports" through (a) promotion of industries oriented toward foreign markets, (b) establishment of a High Council of Exporters, and (c) prospection for new markets. More information on this subject can be obtained from the Office pour le Development Industriel.

IN 1981 NOROCCO BEGAN IMPLEMENTING A NEW "FIVE YEAR PLAN FOR ECONOMIC AND SOCIAL DEVELOPMENT"

One of the four overall objectives, of this plan is ECONOMIC GROWTH which is to be brought about by (a) mobilization of private savings, (b) restoration of
public finances, (c) tightening of price control and (d) improvement of foreign trade. The specific section of this plan relating to Agriculture has as it's objective (a) improvement of self sufficiency rates, (b) promotion of Agricultural products, (c) reduction of social and regional disparities and (d) the development of Agro-Industries. It is projected by the Ministry of Planning that the Agricultural related segment of this plan will increase:

1. grain crops an annual average of 3% which will total 52 million metric tons by 1985
2. meat production by 4.5% per year to reach 450,000 tons
3. oil production 8.5% per year to reach 61,000 tons (oil for human food from sunflowers, soybeans, etc.)
4. sugar production 13% per year to reach 614,000 tons, and
5. dairy and milk production 9% per year to reach 120,000 tons by 1985.

The above improved production goals are to be accomplished by (a) improvement of dry farming, (b) improvement of animal production, and (c) installing irrigation systems on 425,580 acres of land.

The big question is—where will the $21.4 billion capital come from for this and the rest of the plan in a country that is already capital deficit-ent and has a rising foreign debt and a serious trade deficit.

9) **TYPES OF CHICKEN PRODUCED IN MOROCCO**

Two types of broilers are produced in Morocco—one is called a "farm chicken" and the other is the "fattened chicken".

"Farm chicken" is produced by small independent farmers who buy a few day old chicks (usually 25 to 50) from a local village chick and feed shop. This type of chicken runs free and forages for it's food. Some farmers do give them a little whole farm grain if and when it can be spared.
"Fattened chicken" is produced on more of a commercial basis by some larger farmers but mostly by a few partially integrated poultry companies that have their own breeders and hatchery for the purpose of producing chicks for sale but who have to "grow out" some chicks when they cannot be sold day old. This type chick is raised in confinement and fed a manufactured grain ration.

The breeds of chickens used in Morocco are either of United States or European origin. Hubbard and Cobb, both popular broiler breeds in U.S. and DeKalb, a popular table egg breed in U.S. are also very popular in Morocco. From figures obtained through the American Agricultural Attache's office; however, it appears that the grandparent stock of these breeds is being imported from Europe rather than direct from U.S. as shown by the following table.

**BREEDER CHICKS IMPORTED BY MOROCCO FOR HATCHING EGG PRODUCTION DURING 1981**

<table>
<thead>
<tr>
<th>Country</th>
<th>Number</th>
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<tr>
<td>Spain</td>
<td>1,194,523</td>
</tr>
<tr>
<td>Netherlands</td>
<td>240,480</td>
</tr>
<tr>
<td>France</td>
<td>55,000</td>
</tr>
</tbody>
</table>

In addition to the importation of breeder chicks for the production of hatching eggs, Morocco also imports some day old broiler chicks on a very spasmodic basis:

**DAY OLD BROILER CHICKS IMPORTED BY MOROCCO DURING 1981**

<table>
<thead>
<tr>
<th>Country</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spain</td>
<td>532,302</td>
</tr>
<tr>
<td>France</td>
<td>311,355</td>
</tr>
<tr>
<td>Netherlands</td>
<td>53,150</td>
</tr>
<tr>
<td>Portugal</td>
<td>14,750</td>
</tr>
<tr>
<td>United States</td>
<td>11,070</td>
</tr>
<tr>
<td>Germany</td>
<td>7,150</td>
</tr>
</tbody>
</table>
CONSUMERS PREFER FARM CHICKEN TO FATTENED CHICKEN

Every housewife that was asked for her preference said she liked Farm Chicken better than Fattened Chicken. Even Moroccan secretaries in the American Embassy preferred Farm Chicken.* Their reasons were as follows:

1. Fattened Chicken smells and tastes like spoiled fish.
   Note: On investigation this was found to be true due to the fact that (a) many feed manufacturers used fish meal as a substitute for more expensive soybean meal for up to 15% of the ration whereas, in U.S. we use it at only 6%, (b) due to poor extraction, Moroccan fish meal contained much more fish oil than American meal and (c) the fish oil in Moroccan meal frequently becomes rancid due to poor and long storage.

2. Fattened Chicken is yellow. Farm chicken is white and looks fresher.

3. Fattened chicken cooks all to pieces but farm chicken stays firm.

4. There are chemicals in the feed fed to fattened chickens that make them grow faster but are not good for humans.

5. etc. etc.

THE PRESENT PER CAPITA CONSUMPTION OF CHICKEN AND EGGS IN MOROCCO IS SMALL

Broiler production in Morocco is estimated at 40 million head a year. With 21 million people this is about 1.9 head (5.7 dressed pounds) per person. U.S. per capita consumption is over 10 times this amount (60 dressed pounds) plus about 15 pounds of Turkey, 125 pounds of beef and 60 pounds of pork.

Egg production in Morocco is estimated at about 35 million dozen a year, which for 21 million people is only 20 eggs per person. U.S. per capita consumption is 8 times that much.

* In total 8 people were asked
(12) **THE ECONOMICS OF MOROCCO'S POULTRY INDUSTRY IS UNSTABLE**

Feed ingredient costs go up and down as much as 40% within the year depending on domestic crop conditions, variations in the world markets for corn and soybeans, changes in Morocco's trade deficit, etc.. Due to the lack and inaccuracy of chick placement statistics and the unsophisticated use of such statistics by business planners, production of broilers and eggs constantly goes from over supply to shortages. As a result profits swing from a modest return for labor and investment to loses. Such swings are bad enough for the Farm Chicken producers who may only buy chicks, but they are a financial killer to the Fattened Chicken (commercial) operations who have borrowed capital and invested in chicks, feed and equipment. As a result commercial producers go in and out of business and the price of broiler meat and eggs continues to roller coaster.

(13) **MOROCCO DOES NOT PRODUCE ENOUGH GRAIN TO SUPPLY IT'S HUMAN CONSUMPTION NEEDS**

Even with population at it's current level of 21.3 million, excluding the 3.2% a year increase, 1/3 of the cereal grains used for human consumption must be imported. About 90% being used for poultry feed is imported.

(14) **POULTRY FEED COMPOSITION AND NUTRITION IS POORLY CONTROLLED**

Chicken feed in Morocco can be almost anything since it is made from what ever ingredients the manufacturer has on hand at the time and in what ever proportion these ingredients can be combined to give a low, competitive cost.

Ingredients are expensive, of poor quality and when the usual ones are not available others that American and European operations would consider unacceptable are substituted. Eighty six percent of the corn, which is the largest ingredient in chicken feed must be purchased from other countries. To keep the cost down a No. 3 quality (which is a very poor
corn for chicken) is imported. The quality and cost problem is further compounded by transportation delays, government import red tape, the lack of sufficient and adequate port and manufacturing storage, etc. Soybean meal, which is the second largest chicken feed ingredient is even more costly ($350.00 to $400.00 a ton) and even more of a problem to get. When it is too costly, or not available, frequent and drastic substitutions of fish meal, rape seed meal, sunflower seed meal, cotton seed meal and even ground barley are made. As a result the amino acid balance in the ration is disrupted, calorie content varies, feed texture and taste is changed which results in poorer performance and higher cost to produce broilers and eggs.

(15) THE BUSINESS STRUCTURE OF MOROCCO'S POULTRY INDUSTRY IS IN AN EARLY STAGE OF DEVELOPMENT

Six separate functions must be performed to produce broilers or table eggs. They are: (1) raising breeders and (2) hatching the eggs, (3) manufacturing the feed, (4) growing these chicks to eating size for broilers (or laying size for table egg production birds, (5) preparing, i.e. processing the broilers or eggs for use by the consumer and (6) marketing. In the most advanced business structures, for efficiency and other economic reasons all six of the functions are performed by the same company through a combination of ownership and contracting called integration. The hatchery, feed mill, and processing facilities are owned by the company who also sells the finished product. Raising the breeders and broilers (or table egg layers) are done under contract by independent farmers for the company.

Morocco's broiler and egg industry is just in the starting stage of integration. Two companies that have feed mills have integrated backward and acquired a hatchery and have breeders. One company
that has a hatchery and breeders has integrated forward and acquired a feed mill. One company has integrated to the extent that they have breeders, a hatchery, a feed mill and grow out the broilers or table egg chicks that cannot be sold day old. But an estimated 85% of the broilers and eggs produced in Morocco are still produced by farmers who buy their chicks and feed (if they use manufactured feed) and either sell what they do not use at home to the wholesale market or to the small shops that re-sell to consumers.

There are no chicken or egg processing plants in Morocco. All chicken is sold alive (and eggs sold in bulk) by the producers whether that producer is a small independent farmer or a poultry company that raises broilers and eggs in conjunction with it's breeder, hatchery and feed manufacturing business.

Farmers near the villages and small towns usually sell direct to small shops that in turn re-sell alive to consumers. Larger farmers and poultry companies near big cities such as Casablanca and Rabat usually sell to middlemen in a wholesale market that in turn re-sells alive to poultry shops.

(16) FOOD PROCESSING AND MARKETING PRACTICES ARE HEAVILY INFLUENCED BY HERITAGE AND RELIGION IN MOROCCO

About 98% of Morocco's population are Muslim and although not all of them practice their religion completely, the Muslim belief's, teachings and heritage relative to slaughter in the home or at the retail shop rather than at the point of production is followed completely.

(17) DISPLAYING AND MERCHANDISING OF BROILERS AND EGGS, PARTICULARLY BROILERS, IS PRIMITIVE

Poultry shops that form the distribution link between the producers; or wholesalers, and the consumers sell eggs (by the egg not by the dozen)
uncleaned, directly from the basket or filler-flat that the producer used to bring them in. Broilers are sold three ways (1) alive with the feet tied together with grass, (2) New York dressed, (i.e. head and feathers removed but evisera in and feet on) while the customer waits and (3) pre-New York dressed, i.e. before the customers arrive.

Feathers are usually removed without scalding by use of a knife, which results in a very poor job of dressing and a very unattractive chicken. Evisera is always left in the chicken regardless of weather it was killed a day or two before or at the time of purchase. No pre-dressed chicken is refrigerated. Display is either by laying the chicken on a board in front of the shop or hanging it by the neck.
SECTION III

BACKGROUND INFORMATION
BACKGROUND INFORMATION, EXHIBIT

MOROCCAN COMPANIES INVOLVED WITH POULTRY LOCATION, CONTACT PERSON AND BRIEF COMPANY DESCRIPTION

At the present time there are at least twelve companies in Morocco commercially involved in one or more of the functions of (a) producing hatching eggs, (b) hatching broilers and table egg chicks and (c) manufacturing feed. The name, location and what information could be gathered on these companies is shown below: This list of companies may not be all inclusive but it is believed to cover most of the significant ones.*

COMPANY I

AVI-MAROC/Sina
Address: Route Principale No. 1
Zone Industrielle
Temara - B.P. 710
Location: In suburbs of Rabot
Phone: 413 15/413 61
Telex: 329 05
Contact: Mr. Felix Chatelier, Director
Type, Size and Description of the Business:

1. AVI-MAROC/Sina is involved in three poultry production activities
   (a) broiler chick production
   (b) table egg chick production, and
   (c) manufacture and sale of broiler and egg feeds.

2. Broiler chick production from company owned breeders ranges from 12,000,000 to 15,000,000 head a year.

3. The hatching eggs for these chicks are produced by 130,000 to 160,000 breeders owned by the company on (3) 62 acre company farms. Each farm has about 190,000 sq. feet of modern breeder houses.

4. In addition SINA imports 8,000,000 to 10,000,000 day old chicks (or hatching eggs to produce these chicks) each year from France and Spain. This puts their total broiler chick sales between 20,000,000 to 25,000,000 a year.

5. Until now Hubbard, a U.S. breed imported from Spain, has been used almost exclusively but the company is starting to switch to a French breed (name unknown).
6. AVI-MAROC/Sina also produces and sells from 2,250,000 to 2,500,000 table egg type chicks a year. The breed used is mostly DeKalb—also of U.S. origin.

7. Sina has a new 2 year old completely modern feed mill
   (a) 20 tons capacity per hour
   (b) 13 minutes per batch
   (c) pelleting capability
   (d) 10,000 M. ton storage facility
   (e) can produce about 100,000 M. tons per year (6 day wk., 2 shift). It is estimated, however, that actual production is less than \( \frac{1}{2} \) this or probably 40,000 tons a year.

8. The company was started in 1971, now has 300 employees and has sales offices in 8 locations
   Tenara---------1
   Casablanca-----3
   Marrakech------1
   Meknes---------1
   Fes-------------1
   Tangier---------1

NOTE: A visit to the breeder farms and hatchery was denied but a tour of the feed mill was permitted.

COMPANY II

S.N.V.
Address: Zone Industrielle
          Temara, B.P. 8
Phone: 411 69
Contact: Mr. Abderrahim Benouna, Director
Type, Size and Description of Business

   1. Company was started in 1977
   2. Employees normally about 80 people but at times runs up to 120.
   3. produces about 7,500,000 broiler chicks per year for sale.
   4. Produces 20,000 M. tons of broiler feed a year for sale.
   5. Has one sales office in Temara.

* Emphasis was placed on getting accurate information but because of the circumstances under which it was obtained it may contain errors.
COMPANY III

SOMADIET
Address: 24, Zankat Sbou
Agdal
Rabat, Morocco
Phone: 727 37
Telex: 316 80
Contact: Mr. Tougard de Boismilon Jean Pierre, Director

Type, Size and Description of Business

1. Imports day old grandparent breeder stock for resale from France and Spain.
2. Has only one sales office which is in Rabat.
4. Does not have breeder flocks for the production of hatching eggs and does not have hatchery.

COMPANY IV

CICALIM
Address: Route de Rabat, Ain Sebaa
Casablanca, B.P. 2606
Phone: 35 02 74/75
Telex: 22 036
Contact: Mr. Ahmed Berdai, Director

Type, Size and Description of Business

1. One of the two largest feed manufacturers in Morocco. Produces 85,000 to 90,000 tons a year.
2. Only deals in feed. Has no breeders or hatchery and does not import or sell eggs or chicks.
3. About 95% of all feed produced is poultry feed i.e. (a) broiler breeder feed, (b) broiler growing feed, (c) layer breeder feed and (d) egg layer feed.
4. Uses about 48,000 tons of corn a year (about a #3 yellow grade) and 10,000 tons of soybean meal a year.
5. Has 4 large concrete silos with a holding capacity of 12,000 M. tons which are used for storing corn. Soybean meal is stored in bags.
6. Corn is imported into Casablanca by the government where Cicalim picks it up in bulk and transfers it to its silos.

7. Soybean meal is purchased from a crushing plant in Casablanca and is imported from United States and Brazil through the government.

8. Feed is sold two ways
   (a) direct to large broiler and layer hatching egg and chick producers who either have it delivered or pick it up, and
   (b) to small shop type dealers who resell to small farmers.

9. Cicalim also maintains a poultry research farm for developing and testing feeds.

NOTE: The feed mill was visited but there was not enough time to go to the experimental farm.

COMPANY V

SOMECONAV
Address: 198, Place Sidi Abdelouahed
Oujda
Phone: 26 14
Contact: Mr. Mohamed Melhaouri, Director
Type, Size and Description of Business:

1. Employs about 30 people
2. Produces about 12,000,000 table eggs a year.
3. Has its own breeders and hatchery.
4. Has egg processing plant.
5. Exports to Algeria and sells locally.

COMPANY VI

SELIMA
Address: KM 6,600 Route d'El Hajeb
Meknes
Phone: 218 45/204 63
Contact: Mr. Jamaleddine Mohamed, Director
Type, Size and Description of Business

1. Company was started in 1975.
2. It now employs 50 people.
3. The company imports breeder chicks for the production of hatching eggs.
4. Owns a hatchery.
5. Produces 150,000 chicks a week for sale.
6. Keeps about 25,000 to 30,000 layers from which it produces and sells 15,000 to 16,000 table eggs a day.
7. Has a feed mill which produces the feed required for its own breeders and layers plus about 20,000 M. tons a year for sale.

COMPANY VII

SONEL
Address: RP L
Temara Centre
Phone: 412 57/412 87
Telex: 328 31
Contact: Mr. Michel Pilot, Director
Type, Size and Description of Business:

1. The company was started in 1978.
2. It is located in the Temara area about 9 miles from Rabat and sells locally in Temara and Rabat.
3. It produces both table eggs and broilers but on a small scale.
4. It has no hatchery or feed mill.

COMPANY VIII

SOUSS ELEVAGE
Address: Route de Tikioune
B.P. 168, Agadir
Phone: 316 74
Contact: Mr. Lahcen Idder, Director
Type, Size and Description of the Business:

1. The company is located about 375 miles south of Rabat.
2. It was started in 1973.
3. It employs about 25 people.
4. It has no hatchery or feed mill.
5. It raises and sells about 240,000 broilers a year and sells them alive mostly to the hotels and restaurants in the area since that is about the only market.
COMPANY IX

PROVIMI MAROC
Address: 149, Route des Ouled Ziane
Casablanca
Phone: 24 28 08
Contact: Mr. Louis DeFoort, Director

Type, Size and Description of Business:

1. The company is in feed production only.
2. It was started in 1975 with 50% government capital and 50% Swiss and Arab capital.
3. Production in 1981 was 74,000 M. tons of which 98% is poultry feed.
4. Estimated production for 1982 is 84,000 M. tons.
5. A new mill is under construction that will be three times the size of the present facility, about 250,000 ton mfg. capacity a year.
   (a) the new mill will have both bag and bulk ingredient storage facilities and bag and bulk customer service capabilities.
   (b) Emphasis will be on bulk sales direct to the larger farmers.
   (c) Bulk sales now are only 5% of the total.
6. Sales now are both direct to the farmers and to dealers.
   (a) farmers who use 50 tons or more a month can purchase direct and get a volume discount plus saving the dealers charges.
   (b) dealers who resell to small farmers are allowed 1% profit (about $2.50 a M. ton) excluding pick up and delivery charges.
7. Provimi-Maroc delivers to the farmers and dealers or sells "less delivery charge" if picked up at the plant.

NOTE: Mr. DeFoort, Managing Director of Provimi-Maroc is also President of the Morocco Feed Dealers Association. He is a very astute, well educated person with good foresight. He has a strong desire to promote the development of a better poultry industry in Morocco and would be a good thought and influence leader for such an endeavor.
COMPANY X

AGRONOR
Address: 6 Rue Gastous
B.P. 1098, Casablanca
Phone: 27 80 97
Telex: 21 939
Contact: Mr. Ablad Abderrahman, Director

Type, Size and Description of Business:

1. This company is in five related poultry activities:
   (a) research and feasibility studies for other poultry or prospective poultry companies,
   (b) importation of poultry production and feed manufacturing equipment mainly from Europe,
   (c) the production of about 66,000 pounds of broiler meat per month,
   (d) the production of about 720,000 table eggs per month, and
   (e) the production of about 1,000 M. ton of feed per month.

COMPANY XI

POUSSALIM
Address: Place de la Marche Verte
Temara
Phone: 412 22
Telex: 226 02
Contact: Mr. Yahia Bouzoubaa, Director

Type, Size and Description of the Business:

1. The company is located about 9 miles from Rabat.
2. It was started in 1979 and sells
   (a) day old chicks (number unknown), and
   (b) about 80 M. ton of poultry feed a day.
COMPANY XII

COUVOIRS du NORD
Address: Quartier Industriel; Sidi Brahim
Fes
Phone: 410 07/417 27
Telex: 51 961
Contact: Mr. Benabdellah Chaouni Foudi, Director

Type, Size and Description of Business:

1. The company is located 156 miles east of Rabat.
2. It has breeders and a hatchery and sells about 1,000,000 day old chicks a month.
Significant to the further development of poultry in Morocco is the government's official "Five Year Plan (1981-1982) to stimulate Morocco's economy". The plan is designed to accomplish four major objectives.

1. defense of territorial integrity
2. recovery of economic growth
3. reduction of social inequalities, and
4. regional development and town and country planning.

Two of these four objectives (recovery of economic growth and regional development) are identified as "SPECIAL SECTORIAL PRIORITIES" i.e., areas that are to receive extra emphasis because they are considered to have "direct impact on Morocco's economic development".

The activity specifically emphasized for development and reform in these two sectors is agriculture as indicated by the following quotes from the Five Year Plan.

"Agriculture and the development of the rural sector will be granted increased priority. Everything must be done to insure that this sector, which is essential to our country's economy, plays a greater role in our economic and social development."

"The Agricultural sector will insure an increased self-reliance as regards food products. It will help toward the recovery of the rural sector and the reduction of the present deficit in its trade balance."

The Five Year Plan for Agriculture has as its major objectives:

1. improvement of self sufficiency
2. promotion of agricultural exports
3. reduction of social and regional disparities, and
4. development of Agro-Industries.
The commodity fields that have been earmarked for Agro-Industry development are:

1. grain crops------------------ 3.0% increase per year
2. meat production------------- 4.5
3. food oil production-------- 8.5
4. sugar production-----------13.0
5. milk & dairy production----- 9.0

These production increases are to be brought about by programs to:

1. improve dry farming technology
2. improve animal breeding, nutrition and pathology
3. increase the amount of irrigated land by 300,000 acres, and
4. establish 48 more cooperatives.
BACKGROUND INFORMATION EXHIBIT

ADDITIONAL STATISTICS RELEVANT TO THE DEVELOPMENT OF POULTRY IN MOROCCO

1 Population (Gov. Est.) 21,300,000

(a) 32.6% 0-9 yrs. old
(b) 54.6% 10-44 yrs. old
(c) 12.8% 45+ yrs. old
(b) 41.2% live in urban areas
(c) 3.2% annual growth rate
(d) Largest cities and their population are:
   Casablanca-------2,554,600
   Marrakesh-------1,256,300
   Kenitra-------1,228,700
   Agadir---------958,800
   Rabat Sale-----901,500
   Meknes---------798,400
   Oujda----------795,300
   Fez------------765,900
   El Jadida-------718,500
   Tetouan--------702,200
   Taza----------634,800
   Nador---------627,700
   Quarzate-------599,900
   Beni Mellal----591,400
   Taounat-------576,300
   Kelaa Sraghna--572,600

2 Total Land Area-----171,953 Sq. Miles (Size of Washington and Oregon combined)

3 Education (1979-80)

   Uneducated---------17,197,646------85.7%
   Primary----------2,051,862--------10.2
   Secondary-------726,659---------3.7%
   University-------73,833---------.4
   2,852,354
   100.0%

4 Religion------98.7% Sunni Muslin

5 Gross Domestic Product
   (a) G.D.P. - 1981----------$16,000,000
   (b) Projected Annual G.D.P. Increase (1981-1985)---6.5% yr.
   (c) Urban Per Capita Income $750.00 Est. (Rural $250.00)
   (d) G.D.P. Distribution (1981)

   Trade 23.8%
   Transportation & Service 18.1
   Industry & Hand Crafts 17.1
   Agriculture 13.3
   Administration 15.4
   Mines 4.9
   Construction & Public Works 4.5
   Energy 2.9
6 Land Distribution
(a) Arable Lands 11.3%
(b) Forest 7.0
(c) Range 28.2
(d) Other 53.5

7 Transportation
(a) Road Network 16,500 Mi.
(b) Railroad Network 1,060 Mi.

8 Communications
(a) 714 Post Offices
(b) 170,000 Telephone subscribers-80% automatic

9 Ports and Maritime Transportation
(a) Main Ports-----------------8
1. Casablanca
2. Mohammedia
3. Safi
4. Agadir
5. Lasyoune
6. Jorf Lasfar
7. Tan Tan
8. Tarfava
(b) Regional Ports 11
(c) 52 Ships with Dead Wt. Capacity of 507,610 Tons

10 Projection of Employment
(a) 1981 to 1985-----------------19.8% increase

11 Economy and Agriculture
(a) Morocco has three basic economic problems
(1) lack of investment capital
(2) 3.2% annual population growth rate
(3) 50% of people engaged in subsistence agriculture with annual estimated income of $250.00
(b) Agriculture supplies 25% of Morocco's foreign exchange earnings and 17% of it's G.D.P.
(c) 34% of Morocco's farm land is held by 3% of the farmers and account for 85% of commercial production.
(d) 1/3 of food grain requirements is imported.
(e) Morocco has 60% of the world's phosphate.
(f) 85% dependent on petroleum needs.
(g) Moroccan government, because of the drastic need for foreign capital has established a new foreign participation investment code that among other things:
   (1) permits 100% foreign participation in various sectors
(2) relaxed government restrictions on
   (a) imports
   (b) price, controls and
   (c) easier access to credit

(h) American financial aid to Morocco is 50% in the form
    of PL 480 loans, 40% support assistance and develop-
    ment loans and 10% supported technical assistance.
    The U.S. Agency for International Development (AID)
    in 1982 will provide Morocco with $10.3 million for
    agriculture, family planning, vocational education
    and renewable energy development.