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REPORT OF THE INVESTMENT PROMOTION MEETING FOR TUNISIAN INDUSTRY

Tunis, 28 - 30 May 1969

Addendum:

PROJECT DESCRIPTIONS AND BACKGROUND PAPERS

and the fact that the present fishing fleet is too small and has a bad geographical distribution. The Development Plan (1969/1972) provides additional equipment for fishing ports and the installation of workshops for shipbuilding and repair work.

The Tunisian fishing industry ranks fourth in earning capacity, after tourism, agriculture and mining. The Tunisian promoters are willing to contribute capital and service in order to expand this neglected market. The extent of their contribution is to be negotiated between the interested parties.

Additional information

It is stated in the investment appraisal that in August 1968, SOCOMENA invited international bids for the above project because it merits international competition. A list of qualified bidders has been prepared. It is felt, however, that the size of the contract and the investment opportunities available should be brought to the attention of other potential investors.

MANUFACTURE OF FLAT AND ROUND DRY BATTERIES

The Société Tunisienne de Banque would like to establish a plant for the manufacture of flat and round dry batteries.

Production

Planned capacity:

	Batteries		Cells
	5,000,000	(flat) 3R/12	15,000,000
	1,000,000	(round) R20	1,000,000
	1,000,000	(round) R14	1,000,000
	1,000,000	(round) R6	1,000,000
Total	8,000,000		18,000,000

The total weight of this production would be:

Batteries		kg	kg
5,000,000	x 0.115	=	575,000
1,000,000	x 0.085	=	85,000
1,000,000	x 0.040	=	40,000
1,000,000	x 0.015	=	15,000
		Total	715,000

Investment

The total investment required for establishing a plant of the above capacity will be 404,000 dinars ($808,000), with a foreign-exchange component of 244,000 dinars ($488,000).

Total investment required for the establishment of a plant with an estimated capacity of 8 million batteries

Equipment (c.i.f.)	Foreign exchange		Domestic		Total	
	Dinars	Dollars	Dinars	Dollars	Dinars	Dollars
Initial stages	69,600	139,200	17,400	34,800	87,000	174,000
Manufacturing	82,960	165,920	20,740	41,480	103,700	207,400
Finishing	41,040	82,080	10,260	20,520	51,300	102,600
Miscellaneous (office and electric installation)	10,000	20,000	25,000	50,000	35,000	70,000
Land	-	-	4,000	8,000	4,000	8,000
Building	-	-	73,000	146,000	73,000	146,000
Erection (including technical assistance and engineering)	20,000	40,000	10,000	20,000	30,000	60,000
Studies	-	-	10,000	20,000	10,000	20,000
Contingencies	-	-	10,000	20,000	10,000	20,000
Total	223,600	447,200	180,400	360,800	404,000	808,000

Factual data

Requested external contribution

Financing: The loan financing required is approximately 244,000 dinars ($488,000) for a 10 to 12-year term loan. This loan will be used to finance the import of equipment with a value of 223,600 dinars ($447,200) and to pay 20,400 dinars ($40,800) in local expenses.

Joint venture or direct investment: Not applicable.

Know-how: The know-how desired is preferably that of an international firm engaged in the production of dry batteries. The sponsor is prepared to pay royalties of 2 to 3 per cent of production turnover.

Tunisian contribution

The promoter of the project is the Société Tunisienne de Banque, one of the leading financial institutions in Tunisia. The Society reserves the option to bring in a private Tunisian investor. This matter will be discussed

in detail with all interested parties. The Society is prepared to finance local expenditure up to 180,400 dinars ($360,800).

Market data

Imports of dry batteries in recent years

	1960	1961	1962	1963	1964	1965	1966	1967
Weight in tons	809	845	980	834	940	595	642	668
Value in 1,000 dinars	261	283	343	302	380	286	295	273

Note: The declining trend has been halted and the imports are beginning to rise towards the 1964 level.

Additional information

A study of this project was made in close collaboration with the Bureau d'Etude Suisse (TRU and Zoller), and it is available to all interested parties. Additional studies by intending investors may still be necessary.

MANUFACTURE OF INCANDESCENT AND FLUORESCENT LIGHT BULBS

The proposed project is the establishment of a Tunisian factory for the manufacture of incandescent and fluorescent light bulbs.

Production

Estimated capacity: 1,500,000 incandescent and 1,500,000 fluorescent light bulbs.

Investment

A reliable estimate of the amount of investment required is not yet available. An approximate figure would be in the neighbourhood of 200,000 dinars ($400,000), including local costs.

Factual data

Requested external contribution

Financing: Financing is to be negotiated if a joint-venture equity is not available.

Joint venture or direct investment: Joint ventures are desired. Percentage of foreign equity is to be negotiated with foreign partners.

Know-how: Equipment and know-how are to be supplied by a foreign partner.

Tunisian contribution

The promoter of the project is the Société Tunisienne de Banque. The Society reserves the option of bringing in a private Tunisian investor. This matter will be discussed between the interested parties.

Market data

At present, 1,300,000 incandescent and 1,300,000 fluorescent light bulbs are being imported from abroad. The estimated needs are: (a) Tunisia - 2 million incandescent and 100,000 fluorescent light bulbs and (b) Maghreb - 10 million incandescent and 500,000 fluorescent light bulbs.

MANUFACTURE OF SYNTHETIC ROPES

The manufacture of synthetic ropes from imported material is an "idea project" which is presently at a preliminary stage of investigation. The available information on this project is limited. The Tunisian sponsors, however, are interested in its promotion and in discussing the most suitable way of establishing such an industry.

Production

Planned capacity: 1,200 tons per year;
Labour force: 50-100 persons;
Raw materials: Polypropylene - split fibre supplied from abroad.

Location

The plant could be located anywhere in Tunisia, but preferably in an industrial location near existing local markets or transport facilities. A final decision as to the location of the plant site has not yet been made.

Investment

A study of the required investment is not yet available. The cost of machinery, buildings, and the working capital needed, amounts to 200,000 dinars ($400,000). However, the cost of preliminary studies, the installation, the initial expenses, and contingencies should be included in the project.

Factual data

Requested external contribution

Financing: The required financing is approximately 200,000 dinars ($400,000).

Joint venture or direct investment: The interested parties will reach an agreement on the most favourable way of establishing and financing the project.

Know-how: The foreign partner will provide the necessary know-how. Key personnel can be trained at existing factories abroad. The supplier of equipment may also assume all responsibility for the installation of the machines, as well as for the establishment of the proposed rope factory.

Tunisian contribution

The promoter of the project is the Société Tunisienne de Banque. The Society reserves the option of bringing in a private Tunisian investor. This matter will be discussed between the interested parties.

Market data

The project will be concerned with supplying the needs of the Tunisian market. The preliminary appraisal does not provide statistical data. The sponsors of the project assume that all imports will be substituted by domestic production in the future.

Export markets should be favourable as far as the four countries of the Maghreb (Tunisia, Morocco, Algeria and Libya) are concerned. Although the emergence of a common Maghreb market is not yet a reality, a permanent consultative committee of the Maghreb has been set up with the objective of studying economic and industrial co-ordination between the four member states.

CENTRE FOR THE COLLECTION OF MILK AT GABÈS, TRANSPORT THEREOF TO EXISTING DAIRY AT SFAX AND ESTABLISHMENT OF A YOGURT PLANT AT SFAX

This project is part of the Development Plan (1969/1972) and as such has the full support of the Tunisian Government.

Production

Estimated production: by 1970, 1,100 cows will produce 10,000 litres of milk per day.

Location

The oasis at Gabès offers an opportunity for collecting an additional supply of milk for the dairy plant at Sfax. This would include weighing the milk delivered by farmers, quick testing of the milk, cooling, storage at Gabès and shipment.

A four-ton refrigerated truck could carry the milk from Gabès to Sfax, a distance of 145 km and bring back general supplies on its return trip.

The yogurt plant will be established as part of the existing dairy facilities at Sfax.

Estimated foreign-exchange cost

	Dinars	Dollars
Equipment for milk collection centred at Gabès	40,000	80,000
Refrigerator truck and equipment	30,000	60,000
Yogurt plant at Sfax	60,000	120,000
Total	130,000	260,000

Factual data

Requested external contribution

Suppliers credits or a bank loan are required for purchasing the necessary equipment. The amount needed is 130,000 dinars ($260,000).

The terms are to be agreed upon between the interested parties.

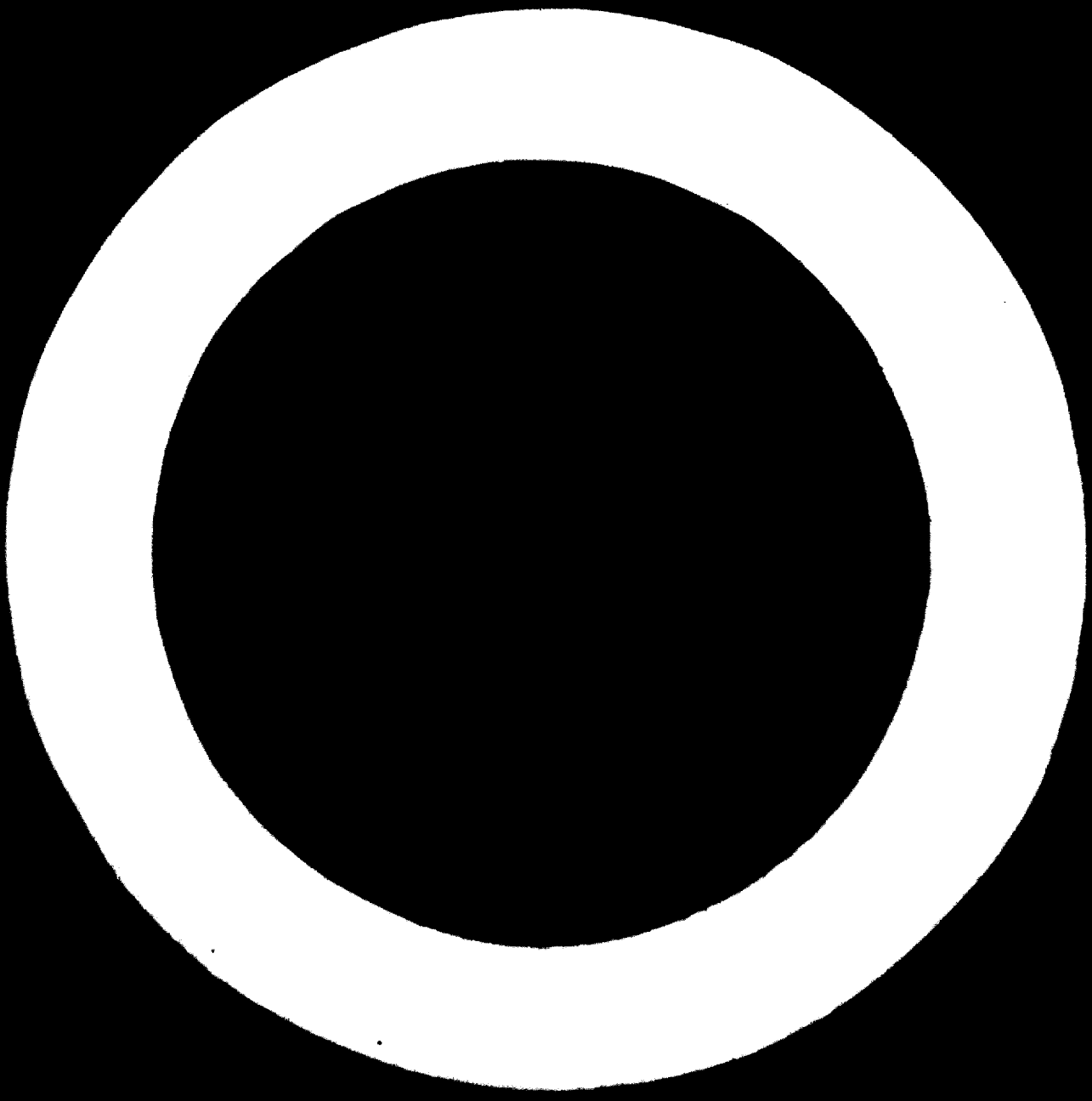
Tunisian contribution

The Tunisian sponsor is experienced in the technique of manufacturing yogurt and in the dairy industry. Technical or managerial assistance are not required.

The promoter of the project is the Société Tunisienne de l'Industrie Laitière.

Additional information

Detailed lists of the items required, plans, photographs and maps can be made available by the promoter.



CHEESE FACTORY

Production

Initially, the factory is to manufacture 909 kg of Edam cheese per day, or a total of 332 tons of cheese annually. Each cheese will weigh 2 kg.

It is expected that during the early stages of operation 10,000 litres of milk per day will be available for the manufacture of cheese. This amount will be increased to 15,000 litres of milk per day as soon as it is feasible. The additional milk output per day will be:

2,000 litres for producing 220 kg of Camembert;

1,000 litres for producing 2,500 kg of double cream;

2,000 litres for producing 50 kg of protein (casein) at 60 per cent moisture, or 37.5 kg casein in powder form.

Investment

	Dinars	Dollars
Machinery and equipment (including packaging and freight)	200,000	400,000
Customs duty	40,000	80,000
Construction (building)	110,000	220,000
Miscellaneous	40,000	80,000
Total	390,000	780,000
Foreign-exchange requirement	200,000	400,000

Factual data

Requested external contribution

The requested contribution is a suppliers credit or a bank loan in the amount of $400,000.

Tunisian contribution

The promoter of the project is the Société Tunisienne de l'Industrie Laitière.

Additional information

Provisional operating cost calculation

Unit operating cost	1 kg of Edam cheese	
	Dinars	Dollars
Raw materials	0.364	0.728
Buildings and machinery	0.054	0.108
Financing	0.154	0.308
Loss on rejects	0.020	0.040
Spoilage	0.010	0.020
Profit	0.055	0.110
Subtotal	0.657	1.314
Taxes	0.145	0.290
Wholesale	0.020	0.040
Retail	0.060	0.120
Total	0.882	1.764

FACTORY FOR MANUFACTURE OF LEATHER SHOES

The project concerns an additional factory, with a production capacity of 500,000 pairs of leather shoes per year, to meet the demand for leather shoes.

Production

Planned capacity: 1,000 pairs of men's shoes and 1,000 pairs of women's shoes per day;

Average number of working days: 250 days per year;

Raw material: cattle hides, 30 per cent imported, 70 per cent supplied locally.

Investment

	Dinars	Dollars
Land	3,500	7,000
Buildings	48,000	96,000
Machinery and equipment	120,000	240,000
Electrical installation	12,000	24,000
Engineering	4,000	8,000
Subtotal	187,500	375,000
Working capital	387,000	774,000
Total	574,500	1,149,000
Estimated foreign-exchange cost	136,000	272,000

Factual data

Requested external contribution

The sponsor of the project has not made a final decision as to the proportionate share of the equity capital that should be provided by the foreign partner. This matter has been left open for negotiation. Under Tunisian foreign-investment regulations there are no restrictions limiting the percentage of foreign ownership or the degree of foreign control in management.

Tunisian contribution

The promoter of the project is a Tunisian Government agency called the Direction des Industries, but this agency will not necessarily be the permanent local partner.

Market data

Existing local production capacity

There is a total of fourteen factories making footwear in Tunisia. These factories are divided as follows:

Type of footwear	Number of factories
Leather	8
Tennis (sneakers)	3
Slippers	2
Plastic	1

The production of footwear in 1972 is estimated to be 7,500,000 pairs of shoes, although 8,455,000 pairs were manufactured in 1967. In 1972 production is expected to be in the following types of footwear:

Type of footwear	Pairs of shoes
Leather	4,500,000
Tennis (sneakers)	2,300,000
Slippers	200,000
Plastic	500,000
Total	7,500,000

Domestic market

The consumption of all types of shoes amounted to 1.04 pairs per person in 1967, and should increase to 1.40 pairs per person by 1972.

The average shoe consumption per person in 1967, divided into the various types of shoes produced locally, is as follows:

Type of footwear	Children	Women	Men
Leather	0.53	0.74	0.85
Tennis (sneakers)	0.15	0.06	0.77
Slippers	0.01	-	0.02
Plastic	0.04	0.16	0.01
Total	0.73	0.96	1.65

The projected average consumption of shoes per person for the Development Plan (1969/1971) is as follows:

Type of footwear	Children	Women	Men
Leather	0.74	0.84	1.07
Tennis (sneakers)	0.39	0.19	0.69
Slippers	0.04	0.01	0.04
Plastic	0.06	0.21	0.03
Total	1.23	1.25	1.83

Additional information

Tanneries

There are five tanneries in the country. The largest of these handles the bulk of the production (52 per cent) and is the only one that has been modernised. The five tanneries treated a total of 2,242,000 kg of raw cattle hides in 1967.

PLANS FOR STEEL WIRE-DRAWING PLANT

The Société Tunisienne de Sidérurgie of El Fouladh is jointly owned by public and private concerns. It is primarily engaged in the manufacture of pig-iron, steel and steel products.

The company desires to enter the field of steel wire-drawing in two phases. During the first phase, it hopes to reach a volume of production that will meet the demands of the Tunisian market. In the second phase it plans to enter the export market.

The total investment envisaged is approximately $4.8 million, including both the Tunisian and the foreign contribution.

The plan for steel wire-drawing can be set up as a division of the Société Tunisienne de Sidérurgie, or it can be incorporated as an entirely new company.

Production

First phase

First production year, 1970-1971

Type of steelwire	Tons per year
Ordinary	5,000
Highly elastic	3,000
Total	8,000

Second phase

This phase will be inaugurated after 1972, when the company has acquired sufficient experience.

Type of steelwire	Tons per year
Ordinary	12,000
For pre-stressed concrete	3,000
For springs	1,000
Total	16,000

Investment

Factory	Dinars	Dollars
Equipment f.o.b.		
stage 1	750,000	1,500,000
stage 2	250,000	500,000
Construction (transport, erection and trials)	240,000	480,000
Utilities (access routes, drainage, water, gas and electricity)	80,000	160,000
Foundations and buildings	270,000	540,000
Study and research expenses	50,000	100,000
Contingencies	150,000	300,000
Supplementary expenses		
Estimated interest	50,000	100,000
Administration	30,000	60,000
Taxes	80,000	160,000
Initial expenses	240,000	480,000
Working capital	150,000	300,000
(All steel needed by the plant will be supplied by the iron production of the parent company. Therefore, it will not have any inventories of its own. Thus its working capital requirements will be lower.)		
Total	2,340,000	4,680,000

Factual data

Requested external contribution

Machinery and equipment should be supplied by the foreign partner on the basis of a supplier credit of 10 to 12 years in the amount of $2,400,000.1/

1/ If the supplier is French an additional "mixed credit" of $1,200,000 will be substituted for the corresponding Tunisian credit.

Tunisian contribution

	Dollars
Medium-term credit	700,000
Working capital	300,000
Owner's own funds	1,400,000
Total	2,400,000

The promoter of the project is the Société Tunisienne de Sidérurgie El Fouladh.

Market data

	Tons per year
Present consumption	
Ordinary steelwire	6,000
Wire for pre-stressed concrete	3,000
Total	9,000
Estimated 1971 consumption	
All kinds of wire other than spring wire	10,000
Spring wire	3,000
Total	13,000

Additional information

The Société Tunisienne de Sidérurgie El Fouladh has a capacity of 80,000 tons of steel per year. It began operations in 1966.

YEARLY PRODUCTION OF 300,000 TONS OF SULPHURIC ACID

According to the Development Plan (1969/1972), a chemical plant located at Maknassi will be producing 300,000 tons of sulphuric acid per year (H_2SO_4). The plant could also be located either at Sfax or Gabès.

Production

The basic raw material is carbonic anhydride ($CaSO_4$). The sources of supply are the natural gypsum deposits at Maknassi and the stock of gypsum from the Société Industrielle d'Acide Phosphorique et d'Engrais (S.I.A.P.E.), a company that produces phosphoric acid. A labour force of about 100 persons will be employed.

Investment

The production costs are said to be very high because of the dehydration process and the elimination of impurities. Therefore, the cost of capital investment is comparatively high. The total construction cost is estimated to be 10,430,000 dinars ($20,860,000), of which 3,500,000 dinars ($7 million) will be used for civil works and buildings and 6,930,000 dinars ($13,860,000) will be employed for machinery and equipment.

There is no indication of the total tonnage consumed or of the cost per ton to be paid for the main types of raw material. It is understood, however, that comparable estimates will be made by the technical experts of the interested parties.

Factual data

Requested external contribution

Financing: The foreign-exchange component is estimated to be 60 per cent of the project, and consists mainly of the cost of imported equipment, know-how, and working capital requirements.

Joint venture or direct investment: This should be negotiated between the interested parties.

Know-how: This aspect of the project depends on the technical process to be applied. The output will depend on the speed of the production process and the capacity installed.

Tunisian contribution

The promoter of the investment is the Société Industrielle d'Acide Phosphorique et d'Engrais (S.I.A.P.E.). This company is very interested in the project and it has been indicated that the amount of the actual contribution will be discussed among the interested parties.

Market data

The chemical industry is called upon to play a major role in the economic development of Tunisia. This major effort of expansion can be explained as follows:

(a) Natural mineral resources are present in the country;

(b) There is a domestic market, which at the moment is supplied almost entirely from abroad;

(c) There is an export market, in the form of final or intermediate consumption of chemical materials.

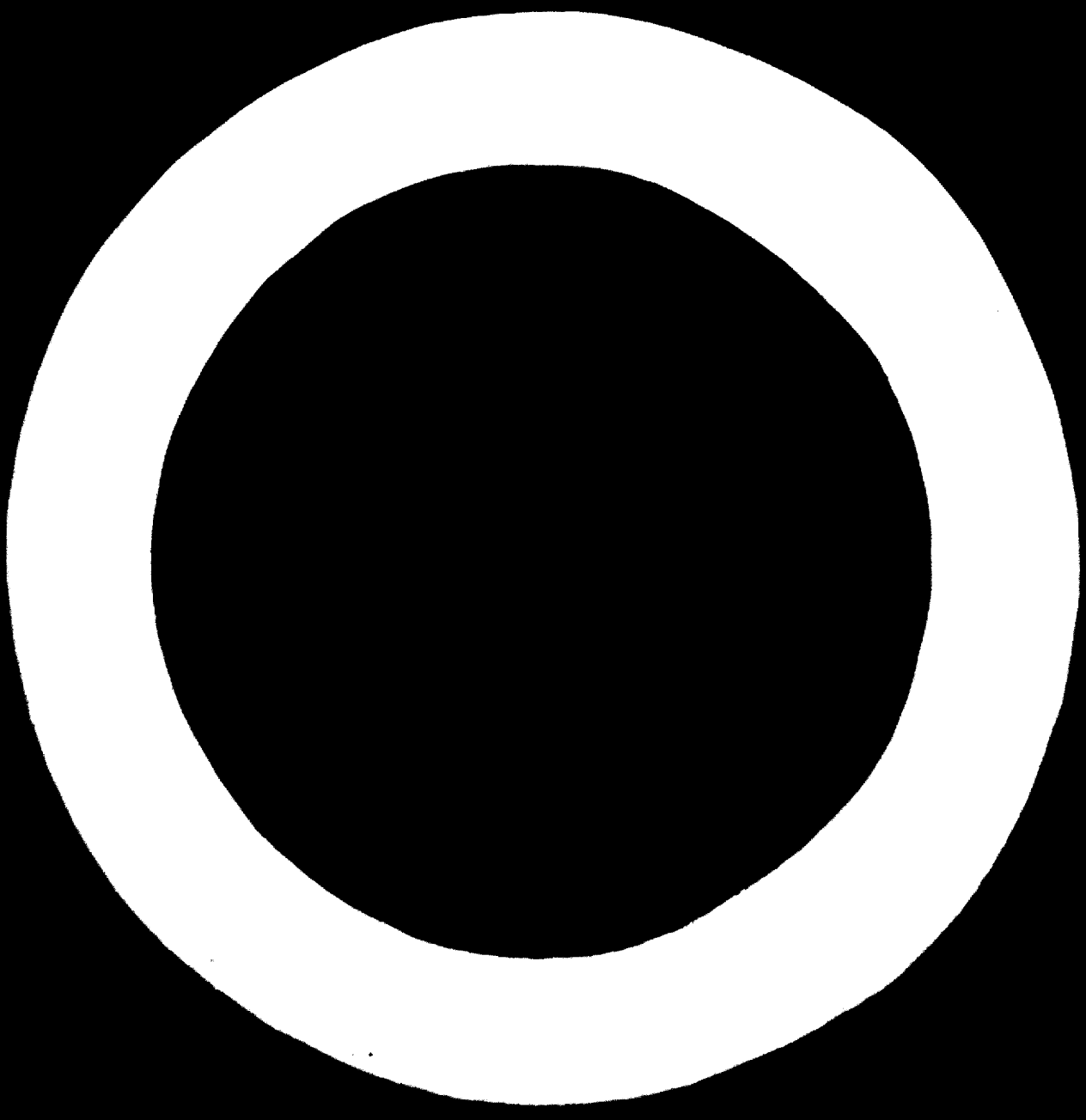
Domestic market

The fundamental issue is the size of the Tunisian market and its ability to compete with imports. Therefore, the enterprises will concentrate on obtaining low production costs and will probably combine the production of cement and of sulphuric acid.

Export market

The contribution of new investments to economic growth, as emphasized in the Third Development Programme, will positively affect Tunisia's export-oriented mining and fertilizer industries. Exports can be expected to increase in the long run; however, the pressure on export prices will continue because of lower production costs, improved quality, and increase in capacity.

It should be kept in mind, however, that the import price for sulphur has been rising. An investment in the production of sulphuric acid is expected to be profitable, but it will require constant appraisal of the market possibilities.



Additional information

The National Centre of Industrial Studies in Tunisia has reached an agreement with UNIDO to recruit a consultant who is an expert in the technical and economical aspects of the production of sulphuric acid.

Special attention should be given to the manufacture of sulphuric acid on the basis of imported pyrites. A comparative evaluation of all alternatives will be undertaken by a qualified chemical engineer.

PRODUCTION OF 300,000 TONS/YEAR OF SULPHURIC ACID ON THE BASIS OF IMPORTED PYRITE

The project concerns the installation of a chemical plant which will produce sulphuric acid from imported pyrite. This project has been conceived as a possible alternative to the establishment of a plant at Maknassi, which will use the natural gypsum deposits of Tunisia.[2/]

Production

Planned capacity: 300,000 tons per year of sulphuric acid;
Labour force: 60 persons;
Raw materials: 221,400 tons per year of imported pyrite.

Location

A final decision on the plant site has not yet been made. The area of Sfax and Gabès is suggested for consideration.

Investment

	Dinars	Dollars
Installation of equipment for:		
The gridding process of pyrite	1,750,000	3,500,000
The absorption of the oxidation process	3,000,000	6,000,000
Total	4,750,000	9,500,000

It is stated in the tentative appraisal that the total cost includes the civil engineering works and technical assistance.

2/ See the project "Yearly production of 300,000 tons of sulphuric acid" described on pp.25 to 27.

Factual data

Requested external contribution

Financing: The details of financing must be clarified with the Tunisian promoters and will be discussed with the potential foreign investors.

Joint venture or direct investment: Information in this respect has not yet been made available and depends on the specific terms of the envisaged investment agreement.

Know-how: This question depends on the technical process to be applied. No details have yet been given on the arrangement for technical assistance.

Tunisian contribution

The Tunisian contribution will be subject to a mutual agreement between the interested parties. The Tunisian Government is aware of the different alternatives for the production of sulphuric acid and will support any effort of potential investors towards a technically sound and economically justified projeot.

Market data

The chemical industry is called upon to play a major role in the economic development of Tunisia. This major effort of expansion can be explained as follows:

(a) Natural mineral resources are present in the country;

(b) There is a domestic market, which at the moment is supplied almost entirely from abroad;

(c) There is an export market, in the form of final or intermediate consumption.

Generally, the market aspects for sulphuric acids are said to be favourable, locally and abroad. It should be taken into account, however, that the import of pyrite and the export of sulphuric acid is a matter of international trade. This complicates the market forecast and entails some uncertainties. The interested parties should keep in mind that the Tunisian authorities are aware of the problems involved and are willing to discuss this matter.

Additional information

The National Centre of Industrial Studies in Tunisia has reached an agreement with UNIDO to recruit a consultant who is an expert in the technical and economical aspects for the production of sulphuric acid. This consultant will be concerned with the manufacturing of sulphuric acid, based on different sources of raw material supply and various technological processes.

MANUFACTURE OF PLASTIC HOUSEHOLD GOODS AND CONTAINERS

This project has as its objective the manufacture (by injection) of larger plastic articles, such as bottle cases, fish tanks and packing cases for fruits and vegetables. These articles are being imported from abroad at present.

The equipment to be acquired will be suitable for the production of other articles of similar dimensions, such as dustbins of 50-75 litres, basins, linen baskets etc.

The proposed equipment is an automatic injection moulding press that can also be adapted to produce articles made from the injection of rigid PVC and from the moulding of rubber mixtures. Each of these articles necessitates a mould of hard stainless or chrome steel weighing up to 10 tons.

The purchase of moulds involves heavy investment. The rental of moulds, however, has been proposed in the suggested programme with the view to reduce investment and at the same time manufacture a wide range of more diversified articles (accumulator tanks, children's baths, buckets etc.).

Production

Planned capacity: 200 tons of finished products;
Labour force: 20 persons.

Investment

	Dinars	Dollars	Dinars	Dollars
Land (6,000 m^2 at $1 per m^2)			3,000	6,000
Buildings (1,000 m^2 at $60 per m^2)			30,000	60,000
One injection press and accessories	44,000	88,000		
Four moulds	42,000	84,000		
Total f.o.b.			86,000	172,000
o.i.f. charges, installation, technical assistance and customs duties			27,000	54,000
Contingencies			9,000	18,000
Working capital			25,000	50,000
Total			180,000	360,000

Factual data

Requested external contribution

Financing: A loan is required for approximately $220,000.

Joint venture: A percentage of foreign equity will be negotiated between the interested parties.

Know-how: The foreign partner is to supply know-how.

Tunisian contribution

The promoter of the project is the Société Nationale d'Investissement (S.N.I.), the principal investment bank in the country, with a capital of $3 million and more than 80,000 shareholders. The Society reserves the option to bring in a private Tunisian investor. This matter will be discussed with all interested parties.

Market data

Present annual consumption of plastic products (based on imports) is 0.15 kg per inhabitant. (This is only 1/120 of the European consumption of 18 kg per inhabitant.)

The results of a market research among the principal importers of plastic containers indicated a consumption of 100,000 articles, divided as follows:

Coca-Cola bottle cases	30,000
Wine and mineral water bottle cases	40,000
Fish tanks	10,000
Containers	20,000
Total	100,000

This figure does not represent the total requirement of consumption which is continually rising because of the growth in the industrial and agricultural sectors.

Users of wooden containers expect a 20 per cent renewal rate. This would produce, for example, a requirement of 22,000 cases for canners based on an amount of 220,000 cases, without taking into consideration the needs of fruit-growers, winegrowers and others.

Other articles that will also be produced are dustbins, basins, linen baskets, children's baths, sinks etc.

Additional information

The production of plastic material is being conducted at the present time on an industrial scale by the three following firms:

1. Comptoir National de Plastique. This company produces the injection moulding of various household articles and the extrusion in pipes and polyethylene bags (PVC). The injection moulding produced by this firm is limited to a volume of 800 cm^3.

2. Plastic - Tunisie. This firm produces footwear (slippers, boots) and household articles of a higher volume than that of the Comptoir National de Plastique (volume injected 1,200 cm^3). It plans to acquire equipment for the production of boots that will lead to an eventual production of household articles of a volume of 2,000 cm^3.

3. Coplacel. This firm produces polyethylene cases and has an air-pressure injection press for the manufacture of feeding bottles.

The combined production of these three firms is around 500 tons.

The equipment of existing firms is not sufficient to meet the actual needs.

MANUFACTURE OF DECORATIVE LAMINATED PANELS

A factory has been proposed for the manufacture of decorative laminated panels by processing impregnated paper.

Production

Planned capacity: 500,000 m^2 per year;

Labour force: 90 persons;

Raw materials: Impregnated paper imported or supplied from a Maghreb source.

Investment

	Dinars	Dollars
Land	20,000	40,000
Buildings (1,500 m^2)	50,000	100,000
Facilities (electricity, water etc.)	20,000	40,000
Plant and equipment	140,000	280,000
Engineering	20,000	40,000
Working capital	100,000	200,000
Total	350,000	700,000

Factual data

Requested external contribution

Financing: The loan required is approximately 140,000 dinars ($280,000).

Joint venture or direct investment: The percentage of foreign equity is to be negotiated with foreign partners.

Know-how: The foreign partner is to supply know-how and management.

Tunisian contribution

The promoter of the project is the Société Tunisienne de Banque. The Society reserves the option to bring in a private Tunisian investor. This matter will be discussed with all interested parties.

Market data

The project will supply the needs of the entire Maghreb,[3/] which were estimated in 1967 as follows:

Country	square metres
Tunisia	100,000
Morocco	160,000
Algeria	70,000
Libya	60,000
Total	390,000

The market is estimated to expand at 10 per cent per year to at least 500,000 m^2 for the four countries of the Maghreb. It is not considered likely that any one country could support such an industry without access to the markets of the other three.

3/ Although the emergence of a common Maghreb market is not yet a reality, a Permanent Consultation Committee of the Maghreb has been set up with the objective of studying economic and industrial co-ordination between the four member States.

MANUFACTURE OF PLASTIC TUBING

This project concerns the manufacture of tubing and piping in rigid pipes and polyethylene bags (PVC) of small diameter, to be used principally in electrical supply, plumbing and small-bore water supply.

The proposed investment includes an extrusion machine for rigid PVC and ancillary equipment (for cutting, lining etc.). This type of extrusion produces the most complex profiles and tubes, and consists of a control box, a twin screw extruder, a calibration device, a cooling system, drilling rollers, cutters and a table for measuring and stacking.

Production

Planned capacity: 60 kg of rigid PVC per day;
Labour force: 4 persons;
Raw material: Imported PVC compound.

Investment

	Dinars	Dollars
Land (1,000 m^2 at 0.50 dinars)	500	1,000
Buildings (250 m^2 at 30 dinars)	7,500	15,000
Plant and equipment	40,000	80,000
c.i.f. charges, installation costs, technical assistance, customs duty	5,000	10,000
Contingencies	2,500	5,000
Working capital	10,000	20,000
Total	65,500	131,000

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION, VIENNA

REPORT OF THE INVESTMENT PROMOTION MEETING FOR TUNISIAN INDUSTRY

Tunis, 28 - 30 May 1969

Addendum:

PROJECT DESCRIPTIONS AND BACKGROUND PAPERS

Including descriptions of 33 projects discussed during the meeting, notes on selected sectors of Tunisian industry, and certain background papers prepared by Tunisian government agencies for the participants on special aspects of Tunisian industry.

UNITED NATIONS

New York, 1970

Factual data

Requested external contribution

Financing: The extrusion machinery and the ancillary equipment are to be supplied on credit to the c.i.f. value of $90,000. An alternate method of financing is the joint venture.

Joint venture: The extrusion machinery and ancillary equipment are to be provided by the foreign partner as a subscription to equity. The percentage is to be negotiated between the interested parties.

Know-how: The know-how is to be provided by the foreign supplier of equipment or raw material, or by the foreign partner.

Tunisian contribution

The promoter of the project is the Société Nationale d'Investissement (S.N.I.), the principal development bank in Tunisia, with a capital of $3 million and over 80,000 shareholders. This project should form part of the activities of the Société Industrielle et Commerciale des Ouvrages en Amiante-Ciment (SICOAC), an important Tunisian manufacturer of piping and tiles in asbestos/cement. SICOAC is suggested either as the purchaser of the machinery or as the Tunisian partner in a joint venture.

Market data

The PVC tubing is not commonly used in Tunisia. This project therefore involves the launching of a new product. Studies already undertaken, however, indicate that its adoption will be rapid. This project will not hinder the plan for soldered tubing that has already been agreed upon because the plastic tubing is different than the soldered type and its quantity is fairly limited.

FACTORY FOR MANUFACTURE OF EXPANDED CLAY TILES

This project is concerned with the establishment of a factory for the manufacture of expanded clay tiles.

Production

Planned capacity: 5,400 tons per year (270,000 m^2/year);
Labour force: 35 persons;
Raw materials: Clay is available locally.

Investment

Fixed assets	Dinars	Dollars
Equipment	116,000	232,000
Engineering	86,000	172,000
Electrical supplies	12,000	24,000
Handling and transport	23,600	47,200
Working capital	20,000	40,000
Sundries	32,400	64,800
Total	290,000	580,000

The foreign-exchange component is 80-90 per cent.

Factual data

Tunisian contribution

The promoter of the project is the Société Tunisienne Industrielle de Matériaux de Construction (SOTIMACO). The form of foreign contribution, whether technical, financial or commercial, has not yet been specified; this is to be negotiated between the interested parties and the promoter. The laws

governing foreign investment do not limit the foreign share of the equity nor the degree of foreign control in management.

Market data

Tunisia already has a considerable market for expanded clay tiles. The complete output of this new factory can be absorbed by the local demand.

FACTORY FOR ALUMINIUM WIRE-DRAWING

The project concerns the installation of a press for wire-drawing with a pressure of 1,500 tons and a total maximum capacity of 2,200 tons in three shifts. This press is designed to manufacture products of dimensions up to a diameter of 140 mm.

In the first stage, in order to minimize investment in plant and technicians during the early years, the factory will not have a foundry.

In addition, it has been decided that during this first phase the equipment for wire-drawing will be imported. Nevertheless, all the possible means of manufacturing this equipment locally at a later stage will be taken into consideration.

It has also been decided to provide a plant for anodic oxidization and colouring in three colours (bronze, gold and black), with a capacity of 1 ton per 8-hour shift, or 275 tons per shift per year (maximum length for anodisation is 6 metres).

Production

Three alloys are involved in the process and, on the basis of a production of 800 tons, they are divided as follows:

Alloy	Tons	Per cent
A 5L	12	1.5
ASGM	114	14.3
AGS	674	84.2
Total	800	100.0

Labour force: 60 employees.

Location

There are three alternatives for the plant site:

(a) Tunis;

(b) Sousse (attached to the Ateliers Mécaniques du Sahel in an existing building);

(c) Menzel-Bourguiba (in a SOCOMENA building).

Investment

Estimated total cost of the three alternatives (in dinars)

	Tunis		Sousse		Menzel-Bourguiba	
	800 tons	1,200 tons	800 tons	1,200 tons	800 tons	1,200 tons
Land	1,400	1,400	-	-	-	-
Buildings	200,000	200,000	70,000	70,000	43,000	43,000
Equipment (in foreign exchange)	615,000	615,000	615,000	615,000	615,000	615,000
Installation expenses	214,607	214,607	197,170	197,170	194,573	194,573
Working capital	74,200	111,300	74,200	111,300	74,200	111,300
Total	1,105,207	1,142,307	956,370	993,470	926,773	963,873
Equivalence in dollars	2,210,414	2,284,614	1,912,740	1,986,940	1,853,546	1,927,746

Factual data

Requested external contribution

Financing: The promoter is seeking finance for this project according to the different estimates of total cost.

Know-how: It is hoped that the foreign partner will contribute the know-how.

Tunisian contribution

The promoter of the project is the Société Tunisienne de Banque.

Additional information

Technical, market and provisional profitability studies have been completed and are at the disposal of interested parties.

FACTORY FOR MANUFACTURE OF CERAMIC TILES

The object of this project is the establishment of a factory for the manufacture of ceramic tiles.

Production

Planned capacity: Either 175,000 m^2 (of tiles of 20/20 or 20/30 mm) or 360,000 m^2 per year;

Labour force: 50 persons;

Raw materials: Clay and glaze are available locally; some or all of the raw materials may be imported.

Investment (for an annual capacity of 175,000 m^2)

Fixed assets	Dinars	Dollars
Equipment	275,000	550,000
Engineering	75,000	150,000
Working capital	20,000	40,000
Sundries	50,000	100,000
Total	420,000	840,000

The foreign-exchange component is 80-90 per cent.

For the alternative capacity of 360,000 m^2, fixed assets will be increased to 500,000 dinars ($1 million).

Factual data

Tunisian contribution

The promoter of the project is the Société Tunisienne Industrielle de Matériaux de Construction (SOTIMACO). The form of foreign contribution, whether technical, financial or commercial, has not been specified; this is to be negotiated between the interested parties and the promoter. The laws

governing foreign investment do not limit the foreign share of the equity nor the degree of foreign control in management.

Market data

The promoters plan to sell the entire production on the Tunisian market. Numerous projects for public and private building construction indicate an adequate consumption for several years to come.

ENLARGEMENT OF FACTORY FOR EARTHENWARE TILES AT TABARKA

This project forms part of the Development Plan (1969/1972) and involves considerable expansion of the production capacity of Faïenceries Tunisiennes, the only local producer of earthenware tiles. In 1968, this firm had a production of 250,000 m^2.

Production

Present capacity: 650 m^2 per day;
Planned capacity: 1,650 m^2 per day;
Labour force: 100 persons;
Raw materials: clay available locally.

Investment

Fixed assets	Dinars	Dollars
Equipment	260,000	520,000
Electrical supplies	15,000	30,000
Engineering	65,000	130,000
Working capital	20,000	40,000
Sundries	30,000	60,000
Total	390,000	780,000

The foreign-exchange component is 50–60 per cent.

Factual data

Tunisian contribution

The promoter of the project is the Société Tunisienne Industrielle de Matériaux de Construction (SOTIMACO). The form of foreign contribution, whether technical, financial or commercial, has not yet been specified; this is to be negotiated between the interested parties and the promoter. The

laws governing foreign investment do not limit the foreign share of the equity nor the degree of foreign control in management.

Market data

The firm Faïenceries Tunisiennes has been asked to expand and extend its production in order to meet the local demand. Part of this expansion is aimed at the Libyan market, which offers an interesting outlet and is supplied at the present time by producers from Europe and the East.

REFRACTORY PRODUCTION AT TABARKA

The Development Plan (1969/1972) includes a project for the creation of the first refractory production unit in Tunisia.

Production

Proposed capacity: 6,000 tons per year;

Labour force: 33 persons;

Raw materials: Clay from Tabarka (aluminium content 28-30 per cent), or imported clay if higher contents of Al_2O_3 are required.

Investment

Fixed assets	Dinars	Dollars
Equipment	358,000	716,000
Electrical supplies	28,000	56,000
Engineering	84,000	168,000
Working capital	25,000	50,000
Sundries	30,000	60,000
Total	525,000	1,050,000

The foreign-exchange component is 80-90 per cent.

Factual data

Tunisian contribution

The promoter of the project is the Société Tunisienne Industrielle de Matériaux de Construction (SOTIMACO). The form of foreign contribution, whether technical, financial or commercial, has not yet been specified; this is to be negotiated between the interested parties and the promoter. The

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laws governing foreign investment do not limit the foreign share of the equity nor the degree of foreign control in management.

Market data

The output of the factory at Tabarka would be completely absorbed by the local market and therefore it would substitute existing importations.

EXPANSION OF BRICK WORKS AT NABEUL

This project, which is part of the Development Plan (1969/1972), is concerned with an expansion of the brick works at Nabeul.

Production

Planned capacity: 30,000 tons per year;

Labour force: 50 persons;

Raw materials: Clay is available locally.

Investment

Fixed assets	Dinars	Dollars
Plant and equipment		
- clay preparation	35,000	70,000
- drying plant	54,000	108,000
- firing plant	100,000	200,000
Electrical supply	20,000	40,000
Engineering	110,000	220,000
Working capital	20,000	40,000
Sundries	51,500	103,000
Total	390,500	781,000

The foreign-exchange component is 60-70 per cent.

Factual data

Tunisian contribution

The promoter of the project is the Société Tunisienne Industrielle de Matériaux de Construction (SOTIMACO). The form of foreign contribution, whether technical, financial or commercial, has not yet been specified; this is to be negotiated between the interested parties and the promoter. The

laws governing foreign investment do not limit the foreign share of the equity nor the degree of foreign control in management.

Market data

The object of this expansion plan is to satisfy in part the local demand for bricks. In addition, Tunisia exports about 55,000 tons per year of this product to Libya. It is considered that the expansion of production capacity will add to the growth potential of the Tunisian share of the Libyan market and it will improve Tunisia's competitive capacity.

FACTORY FOR MANUFACTURE OF EARTHENWARE PIPES

The Development Plan (1969/1972) includes the establishment of a factory for the manufacture of earthenware pipes.

Production

Planned capacity: 10,000 tons per year;
Labour force: 53 persons;
Raw materials: Clay available locally.

Investment

Fixed assets	Dinars	Dollars
Equipment	370,000	740,000
Electrical supplies	25,000	50,000
Engineering	136,000	272,000
Working capital	30,000	60,000
Sundries	39,000	78,000
Total	600,000	1,200,000

The foreign-exchange component is 80-90 per cent.

Factual data

Tunisian contribution

The promoter of the project is the Société Tunisienne Industrielle de Matériaux de Construction (SOTIMACO). The form of foreign contribution, whether technical, financial or commercial, has not yet been specified; this is to be negotiated between the interested parties and the promoter. The laws governing foreign investment do not limit the foreign share of the equity nor the degree of foreign control in management.

Market data

The project is recommended in order to satisfy local demand. The large-scale building construction, both in the public and private sector, should sustain a growing demand for this product.

PRODUCTION OF SODIUM CARBONATE BY THE AMMONIA SODA PROCESS

Production

Planned output: 15,000 tons of sodium carbonate per year for the following industries:

	Tons
Flat glass	1,500
Hollow glassware	1,000
Tripolyphosphates	5,000
Sodium hydroxide	4,000
Other industries	3,500
Total	15,000

Raw materials and fuel: The consumption figures below refer to 1 ton of 98.8 per cent sodium carbonate:

	Tons
Salt (NaCl)	1.5
Limestone	1.05
Coke	0.1
Ammonia	0.003
Steam	1.8

Staff required: 3 graduate chemists; 7 technicians; 40 process workers.

Investment

Investments required: 500,000 dinars ($1 million) covering the following fourteen elements of the plant:

1 limekiln
1 agitator pan for milk of lime
1 distillation column
1 gas refrigeration plant
1 absorber
1 storage unit
1 brine refrigeration plant
2 precipitation towers
1 separator still
2 gas washers
1 filter
1 calcination plant

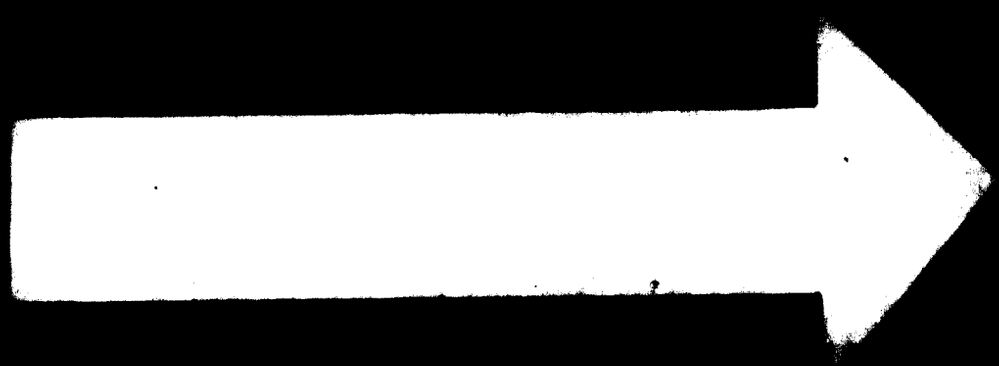
Factual data

Tunisian contribution

The promoter of the project is Radhouane El Ghozzi, Directorate for Industry.

Market data

Forty per cent of the sodium carbonate produced will be used in the glass industry. Other uses are in the production of soaps, detergents and washing powders, in the textile industry, in the production of pulp and cellulose, in the dyeing industry, in mineral oil refining, tanning, sugar production, gas purification and water softening.



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Contents

Contents (cont'd)

Explanatory notes

Dinar refers to Tunisian dinar unless otherwise indicated.

Dollar ($) refers to US dollar unless otherwise indicated.

One hectolitre (hl) equals 100 litres.

Ton refers to metric ton (1,000 kg) unless otherwise indicated.

c.i.f. cost, insurance and freight

f.o.b. free on board

A. PROJECT DESCRIPTIONS

ESTABLISHMENT OF A SHIPYARD AND CONSTRUCTION OF FISHING TRAWLERS

The proposed project is the building of a shipyard in Tunisia and the provision of additional facilities for the construction of five fishing trawlers. The intention is to expand the existing dockyard facilities of the state-owned engineering corporation SOCOMENA.

Production

Planned capacity: 10 fishing trawlers per year;
Possibility of expansion to: 20 fishing trawlers per year;
Labour force: 300 persons.
The wide range of raw materials and equipment needed, according to specifications, and the electrical installations, tools etc., will be either supplied locally or imported from abroad.

Investment

The dockyard	Dinars		Dollars	
Preliminary studies	12,500		25,000	
Plans, drawings, specifications for shipyard	42,500		85,000	
Plans, drawings, specifications for trawlers	16,000		32,000	
Technical know-how and key personnel	165,000		330,000	
Subtotal for technical assistance cost		236,000		472,000
Buildings	52,000		104,000	
Equipment and machinery	150,000		300,000	
Subtotal for investment of capital goods		202,500		404,000
Total		438,500		876,000

Material and equipment necessary for the construction of the first line of five fishing trawlers

	Dinars	Dollars
Sheet iron and profiles	26,000	52,000
Tubes	5,000	10,000
Motors and engines	95,000	190,000
Equipment	37,500	75,000
Refrigeration	62,500	125,000
Different items	25,000	50,000
Total	251,000	502,000

Factual data

Requested external contribution

SOCOMENA also has interests in the fields of civil engineering, steel construction, iron casting, ship repairing, mechanical engineering, etc. It may be possible therefore to make flexible arrangements with various interested parties.

With respect to investment opportunities, special attention should be given to the fact that there are three areas of potential investment: (a) providing and participating in consulting services and technical know-how, (b) participating in the building of shipyards and (c) sharing in the construction of fishing boats.

However, if the promoters and the investors feel that a package deal would be more desirable, i.e., one single investment for the over-all operation, it is possible to reach an agreement with a consortium of interested firms.

Tunisian contribution

Although Tunisia has about 800 miles of coastline, its fishing industry has a low production index, and the Government is naturally interested in its further development. Interested investors would have the promotional support of both the Tunisian Government and SOCOMENA in this respect.

Market data

The Tunisian Government is aware of the obstacles inherent in the development of fisheries, i.e., inadequate installations in certain fishing ports

2 OF 3

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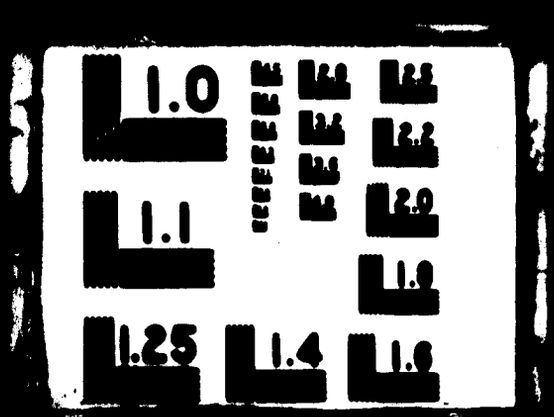


FACTORY FOR PROCESSING SOLID REFUSE OF TUNIS

Production

Planned capacity: 600 tons of refuse per day, for the production of 130,000 tons of compost per year.

Investment

Investment required: 642,500 dinars ($1,285,000) covering:

	Dinars	Dollars
Civil engineering	112,500	225,000
Equipment	530,000	1,060,000
Total	642,500	1,285,000

Factual data

Tunisian contribution

The promoter of the project is the Société Tunisienne des Engrais Chimiques (STEC). The firms with which it is desirable to co-operate have not been specified.

PRODUCTION OF REFRIGERATORS

The Société Tunisienne de Banque has been entrusted, within the framework of ten-year development plans, with the task of promoting the establishment of a Tunisian refrigerator factory, which would be capable of supplying local needs and, if conditions are sufficiently favourable, of eventually exporting refrigerators. It should be noted that the refrigerators sold in the largest quantities at present are of a 200 to 300 litre capacity and cost between 110 and 150 dinars.

The main exporters of refrigerators to Tunisia are the Federal Republic of Germany, France, Italy and the United Kingdom.

Production

Planned capacity: 10,000 refrigerators per year;
Labour force: 120 persons.

Investment

Investment required: 600,000 dinars ($1,200,000).

ESTABLISHMENT OF CHAIR FACTORY

Tunisian chair requirements are supplied by local manufacture and by imports. Machined wooden chairs, tubular steel/wood chairs and tubular steel/Formica chairs are made either by small-scale craftsmen in Tunis and in the country, or by large manufacturers engaged in the series production of more or less standardized models. All the bentwood chairs at present on the market are imported.

An analysis of the import licences issued under customs nomenclature section 9401 "Seats, including seats transformable into beds, and parts thereof", is given in the following table.

Imports of chairs

	1960	1961	1962	1963	1964	First quarter of 1969
Weight (kg)	194,836	196,540	185,506	226,707	216,091	32,478
Value (dinars)	59,010	62,807	161,276	117,383	77,325	10,358

The production capacity given below of the projected chair factory is calculated in the light of the needs of the Tunisian market.

Production

Planned capacity: 21,500 units;

Labour force: 100 persons in the first and second years, 150 in the third year.

Raw materials: Wood and wood derivates, 100 per cent imported from East European countries; foam and rubber, 50 per cent imported, 50 per cent local; cloth, 100 per cent local.

Investment

	Dinars	Dollars
Land and buildings	20,000	40,000
Machinery	120,000	240,000
Labour costs	50,000	100,000
Other expenses	30,000	60,000
Total	220,000	440,000

CELLULAR CONCRETE FACTORY

The project is for the establishment of a factory to produce 50,000 m^3 of cellular concrete walling blocks per year. The finished product, which is in the form of cellular blocks, is intended for the construction of walls and partitions.

Production

Annual production capacity: 50,000 m^3;

Labour force: 50;

Raw materials: Locally available lime, cement and sand; imported aluminium powder accounting for about 3 per cent of the production cost of the blocks.

Investment

	Dinars	Dollars
Land	8,000	16,000
Equipment	910,000	1,820,000
Civil engineering	220,000	440,000
Working capital	75,000	150,000
Other expenses	92,000	184,000
Total	1,230,000	2,460,000

Proportion of foreign exchange required: 75 per cent.

Factual data

Requested external contribution

The conditions for the foreign contribution, whether technical, financial or commercial, have not been specified and are to be agreed between interested investors and the promoter. It should be noted that the laws governing foreign investments in Tunisia impose no limit on the percentage of the registered capital that can belong to foreigners or on the degree of control that the latter can exercise in the running of an enterprise.

Tunisian contribution

The promoter of the project is the Société Tunisienne de Banque.

Market data

The building work to be carried out under the Housing Plan and the plans for building more hotels and tourist facilities offer an outlet sufficiently large to justify the establishment of the planned factory.

ESTABLISHMENT OF TELEPHONE FACTORY

The estimated number of telephones required for the years 1969-1971, for Tunisia and the Maghreb countries, is given below:

	1969	1970	1971
Tunisia	10,000	12,500	15,000
Maghreb countries	30,000	45,000	65,000

It is envisaged that in the beginning telephones should only be assembled in Tunisia, and that later most of the components will be manufactured.

Production

As far as the assembly phase is concerned, the main requirements are the equipment for testing the telephones produced and small tools and equipment for the assembly work. Assembly would be carried out in the Ateliers Mécaniques du Sahel (AMS), a Tunisian company specialising in the production of ironmongery and electrical appliances.

Later, the plastic components would be produced by injection moulding and various other components would also be manufactured, except for the microphone and speaker capsules, the condensers, resistances and permanent magnets.

The necessary equipment consists mainly of: a moulding press, a riveting machine and a belt sander, and of sets of tools for the manufacture of specific parts.

Production costs

For a production level of 10,000 telephones per year, the production cost per telephone would be between 6.5 and 8 dinars, depending on the degree of integration. For a production level of 20,000 telephones per year these figures would be reduced to 5.7 and 7.2 dinars per telephone.

The average price of imported telephones, delivered to Tunis is about 8 dinars.

Investment

Investment required: 20,000 dinars ($40,000) for equipment; 60,000 dinars ($120,000) for manufacture of plastic and other components.

PRODUCTION OF SANITARY GOODS

The project is for the establishment of a factory to produce cotton wool, absorbent gauze and other sanitary goods.

The promoter is the Société Tunisienne de Banque, which has undertaken the execution of this project on behalf of a group of Tunisian druggists.

Production

Estimated capacity:

	Tons
Cotton wool	132
Gauze	98
Sanitary goods	56

Labour force: 32-35 persons;

Raw materials: mainly cotton waste provided by SOCITEX factories.

Location

The factory could be established either at Tunis or in the vicinity of the Textile Complex in the Governorate of Sousse.

Investment

Certain operations involving the cotton raw materials, such as bleaching and weaving, can be carried out in the SOCITEX factories. Two possibilities can therefore be considered in calculating the total investments required:

(a) In integration

	Dinars	Dollars
Buildings	80,000	160,000
Equipment and general services, c.i.f. Tunis	250,000	500,000
Engineering services, assembly and other assistance	50,000	100,000
Working capital	20,000	40,000
Total	400,000	800,000

(b) Integration

	Dinars	Dollars
Buildings	40,000	80,000
Equipment and general services, c.i.f. Tunis	100,000	200,000
Engineering services, assembly and other assistance	50,000	100,000
Working capital	25,000	50,000
Total	215,000	430,000

Factual data

Requested external contribution

Financing: The promoter seeks financing for this project.

Know-how: It is desirable that the foreign partner is able to provide know-how.

Market data

The production capacity has been calculated with a view to meeting the requirements of the Tunisian market (bearing in mind the market's growth rate of about 10 per cent per year).

Additional information

The following studies have been made and could be placed at the disposal of interested parties by the Société Tunisienne de Banque:

A market study;

A study of the profits to be expected.

B. NOTES ON SELECTED SECTORS OF TUNISIAN INDUSTRY

THE CHEMICAL INDUSTRY

Investment during the period of 1965/1968

During the last Development Plan (1965/1968), the investments in the heavy chemical industry were as follows:

Various projects	Amount of investments (round figures in dinars)
Phosphates	7,300,000
Iron	2,900,000
Lead	2,950,000
Zinc	2,150,000
Quicksilver	450,000
Fluoride and derivatives	750,000
Marble	450,000
Others	620,000

During the same period, there were investments in the following branches of the light chemical industry:

Projects	Amount of investments (round figures in dinars)
Phosphate fertilisers	3,890,000
Nitrogenous fertilisers	20,000,000
Other chemical industries	
Establishment of factory making essence of jasmine perfume	60,000
Establishment of factory making marine paint	10,000

Projects	Amount of investments (round figures in dinars)
Pharmaceutical equipment, extension and modernisation of the Central Pharmacy	
Explosives	400,000
Establishment of factory for the manufacture of fuses for mines	50,000
Soap and fatstuffs	
Establishment of factory distilling fatty acid	200,000
Establishment of factory for hydrogenizing vegetable oil	16,000
Other products	
Refined sulphur: Tunisian sulphur refining company	70,000
Study of polyvinyl chloride and calcium carbide plant	200,000
Various studies	450,000

The Tunisian chemical industry is divided into the following types of manufactures:

Manufacture	Number of firms
Fertiliser	9
Industrial explosives	3
Perfumes	30
Paints and varnishes	6
Insecticides	6
Detergents	12
Pharmaceutical products	2
Petroleum refining	2
Soap and soap products	22
Sulphur refining	3

These figures indicate that, with the exception of the production of perfumes, soap and soap products, and the manufacture of detergents, relatively few chemical firms have been established. There are opportunities for investments in a variety of business activities for small- and medium-sized chemical firms.

PRODUCTION OF TRIPOLYPHOSPHATES

The project is for the construction of a factory at Gabès to produce polycondensed sodium phosphates for use as detergent additives and industrial water softening agents.

Production

Planned capacity: 5,000 tons of tripolyphosphates per year.
The factory will require 7,000 tons of phosphoric acid (54 per cent P_2O_5 content) per year, 4,500 tons of Solvay sodium carbonate, and chemical reagents for wet purification of the phosphoric acid.

Investment

Investment required: 500,000 dinars ($1 million); i.e. 350,000 dinars in foreign exchange and 150,000 dinars in local currency.

Operating cost

	Dinars	Dollars
Phosphoric acid (60 dinars/ton)	180,000	360,000
Sodium carbonate	7,000	14,000
Chemical reagents	2,000	4,000
Labour costs	1,400	2,800
Supplies and subcontracting	1,000	2,000
General expenses	1,000	2,000
Electric power	1,400	2,800
Fuel	800	1,600
Unforeseen expenditures	40,000	80,000
Total	234,600	469,200

The turnover for the total output will be 500,000 dinars.

On the other hand, the increase of activities in the large-scale chemical industry (closely related to the sector of mining and power) would require capital-intensive investments, substantial know-how and technical assistance. At present, this sector comprises the following units:

	Number of firms
Mining of salt (four production centres)	1
Mining of iron ore	6
Mining of non-ferrous ore	15
Petroleum	10
Mining of phosphates of calcium	3

The net capital formation for industry during the last Development Plan (1965/1968) was 110 million dinars. Of this amount, the chemicals branch has consumed approximately 25 million dinars, while mining, textiles and petroleum products have each absorbed 20 million dinars. Much of the investment consisted of relatively large units. Of the 25 million dinars allocated to the chemicals branch, for example, 20 million dinars were used in the creation of an ammonium fertiliser plant, the "Industries Chimique Maghrebines" (I.C.M.).

Present investment opportunities

Fertiliser industry

There are plans to invest in the developed part of the chemical industry that is based on the country's natural resources. The fertiliser industry is an excellent foreign-exchange earner and has a very high potential, as the following figures indicate:

Production	Tons
Planned	4,600,000
Crude phosphate	3,000,000
Hyperphosphates	85,000
Superphosphates	150,000
Processed phosphates	300,000
Export	275,000

There are plans to increase the production of ammonium phosphates and ammonium nitrates. The investment desired is one which would be in line with

the present Tunisian policy of diversification of the phosphate-based industry. It is expected that the Moulares phosphate mine will be closed because of dwindling reserves. The new deposits discovered at Djebels Alima and Mrata, however, would double mining productivity if new investments were undertaken.

The Gabès chemical complex has recently gone into operation to manufacture phosphate chemicals and fertilizers for export. The raw material requirements of this plant and the maintenance of the level of phosphate exports necessitate that priority be given to investment in phosphate mining. The mining sector for chemicals as a whole is expected to expand at a higher rate (8-10 per cent per year) than any other sector in the economy (6.5 per cent per year).

Mining sector for basic chemicals

World demand for zinc is growing and this trend is reflected in a constant production increase of 10 per cent per year. Exports for 1968 were 21 per cent higher than for previous years. A report on the mineral deposits at Jebez Hamra has recently been published; of the 400,000 tons of ore present, 16,000 tons are of lead, 1,800 tons of zinc sulphide and 7,000 tons of zinc oxide. The larger mines could extract 250,000 tons of ore (12,500 tons of lead and 1,800 tons of zinc sulphide).

Petroleum industry

Out of an average production of petroleum of 3 million tons per year 850,000 tons are refined. Of this amount, 150,000 tons are exported. There are investment opportunities in the storage or processing of petroleum by-products such as heavy fuel oil and bitumen. Lubricants are still imported at a foreign-exchange cost of about 1 million dinars a year, and an investment in this industry is sought by Tunisia.

Efforts will be made to increase this tonnage of crude oil production. These plans will necessitate sizable investments, and several oil prospecting companies have mentioned their intention to invest more in this industry than is now estimated in the Plan. For this reason, the Plan estimate for 1969/1972 should be considered a conservative evaluation of future expenditure by the oil companies.

Pharmaceutical industry

This branch offers a variety of investment opportunities. There are only a few small industrial establishments producing approximately 100 tons of pills,

syrups, medicines, and various other items per year, and meeting only about 15 per cent of the needs of the Tunisian market. Domestic production could be increased to supply both local needs and neighbouring African countries. The import value of pharmaceuticals is approximately 3 million dinars a year, 90 per cent of which is imported from France.

Proposed investments for 1969/1972

A substantial part of the chemical investment will go into the phosphate industry to modernize and mechanize the mining of phosphate rock and to increase the production of phosphate by-products. The phosphate industry has plentiful resources and is the most important foreign-exchange earner in Tunisia.

Table 1 lists the future projects, based on information collected by the Sous-Comité des Industries Chimiques, a Tunisian governmental committee.

Potential investors may be interested to know that during the period 1969/1972, the Tunisian authorities plan to prepare feasibility studies in the chemical sector for the following industries:

(a) Production of detergents on the basis of tripolyphosphate;
(b) Production of matches;
(c) Production of potash, bromine and magnesium;
(d) Manufacture of glass wool.

Conclusion

The Tunisian Government is encouraging investment activities in the chemical industry because this sector is expected to accelerate the country's economic growth in the future. In the last Development Plan (1965/1968), the investment in the chemical industry amounted to 3.1 million dinars. The total of the over-all investments in the economy was 505.8 million dinars. In the present Development Plan (1969/1972), the investment in the chemical sector will be 21.7 million dinars. The total of the over-all investments in the economy is 617 million dinars. This represents an increase of 600 per cent in the chemical sector according to the new Plan.

In order to start new chemical industries or to expand and modernise existing ones, more foreign investment is necessary. Technically advanced

countries are invited to take part in this project by direct investment or by providing know-how.

A factor to be taken into consideration is the marketing of chemical goods in Tunisia and abroad. Tunisia's application for associate membership in the European Economic Commission (EEC) has been accepted. Plans to co-ordinate the economic development of certain sectors of the Maghreb countries (Algeria, Morocco, Tunisia and Libya) are under consideration by the Permanent Advisory Committee established in Tunisia.

Table 1

Tunisian chemical sector: proposals for investments in 1969-1972

Tunisian promoter	Characteristics of the project	Total investments (Dinars)	Local-currency component (Dinars)	Foreign-exchange component (Dinars)	Production forecast		
					Year	Tons	Dinars
Société Industrielle d'Acide Phosphorique et d'Engrais (S.I.A.P.E.)	Re-building and renovation	3,700,000	1,400,000	2,300,000	1969 1970 1971 1972	525,500 572,000 599,000 626,000	9,740,000 10,560,000 11,050,000 11,550,000
N.P.K. - Engrais	Renovation of storage	1,065,000	265,000	800,000	1969 1970 1971 1972	180,000 190,000 200,000 215,000	4,800,000 5,000,000 5,300,000 5,700,000
Société Tunisienne des Engrais Chimiques (S.T.E.C.)	Production of pesticides and modernisation	360,000	260,000	100,000	1969 1970 1971 1972	3,500 tons per year of pesticides	460,000 460,000 460,000 600,000
Pharmacie Centrale	Pharmaceutical products	800,000	-	800,000	1969 1970 1971 1972	- - - -	730,000 870,000 940,000 1,030,000
Industries Chimiques Maghrebines (I.C.M.)	Production of phosphoric acid	8,000,000	1,600,000	6,400,000	1971 1972	30,000 80,000	1,650,000 4,400,000
Société Industrielle d'Acide Phosphorique et d'Engrais (S.I.A.P.E.)	Production of sulphuric acid of gypsum	7,500,000	3,500,000	4,000,000	1972 1973 1974	75,000 150,000 300,000	1,330,000 2,660,000 5,320,000
Raffinerie Tunisienne de Soufre (R.T.S.)	Refining of sulphur	128,000	81,500	46,500	1969 1970 1971 1972	3,080 2,950 3,000 3,000	208,000 194,000 197,000 197,000
Société Tunisienne d'Explosifs et de Munitions (S.O.T.E.M.U.)	Extension of powder mill for the production of explosives etc.	49,000	45,000	4,000	1969 1970 1971 1972	1,500 1,500 1,500 1,500	572,000 618,000 641,000 673,000
Others	Manufacture of paints, varnishes etc.	125,000	20,000	105,000	1969 1970 1971 1972	- - - -	2,828,000 2,983,000 3,223,000 3,288,000

THE AGRICULTURAL AND FOOD PROCESSING INDUSTRY

Introduction

Agriculture is the most important single economic sector in Tunisia, accounting for about a quarter of the gross domestic product. Industrial activity in the country is based largely on agricultural products, and two-thirds of exports originate in agriculture and the processing industries.

According to the present Development Plan (1969/1972), food industries are the largest single industrial sector in Tunisia. The Plan also lists items such as wine, meat and olive oil which are not usually considered industrial products. This indicates that the major plan targets are processing industries based on the local agricultural production.

The main processing industries are those producing cereal flour, noodles, tobacco, sugar, canned foods, wine, edible oils and fish in terms of value of output. The value added for the whole sector increased by 5 per cent per year from 1960 to 1964. During the period 1965 to 1967 there was a growth of approximately 3 per cent per year that has increased to the present rate of 5 per cent per year.

The growth target for this sector is 6.5 per cent per year. Tunisia's recent association with the European Economic Community and the possibilities of an increasing trade between the Maghreb countries should be taken into account. Because of the population growth, local consumption is growing steadily and recent increases in export were caused by favourable trade agreements with European, African and Eastern countries. New investments are foreseen in the sector of agricultural and food processing.

In 1968 the World Bank recommended that priority be given to the development of industries for the processing of fruits, vegetables and juices for export. The effort to develop these industries should be centred on bringing in major foreign firms which could contribute advanced technology, quality control methods, skilled managers and technicians, marketing know-how and command of distribution channels.

Processing of fruits and vegetables

Tunisia has developed in the past a great number of small-scale canneries for fruit and vegetables, and other small-scale plants for the drying of vegetables and the extraction of orange and lemon juice (see table 2). In addition, there are very good possibilities for increasing the production of raw materials and for supplying the nearby markets of Europe and neighbouring African countries.

Table 2

Production of fruit and vegetables (in tons) during 1965-1967 and plan objectives for 1972

Conserves	Production (annual average 1965-1967)	Plan objectives for 1972		
		Production	Consumption	Exports
Fruits	8,200	13,000	1,000	12,000
Tomatoes	13,300	20,000	9,000	11,000
Harissa	4,200	4,000	2,000	2,000
Artichokes	1,400	1,200	200	1,000
Peas	3,000	6,000	2,000	4,000
Olives	1,600	5,000	1,000	4,000
Others	600	2,000	1,000	1,000

A serious attempt is being made to reclaim desert lands through an irrigation system. Some areas are very suitable for modern agro-industrial development and for the establishment of an integrated food industry. In order to satisfy the growing needs of the country and to improve the basis for better export markets, the Tunisian Government will support investments in the food industry.

Preservation and storage of resistant commodities

The development of agricultural production, which is expected to increase considerably during the Plan period, and the extension of rich crops requiring effective protection, present a storage and preservation problem for agricultural produce in both the original and the transformed state.

The most important aspects of storage are connected with the weather resistance of products. Some products keep if they are merely isolated from

the external environment; others must be kept in refrigeration if their qualities are to be preserved. Thus the increase in the volume of production, and in exports and imports, explains the urgent need for storage facilities and heavy investment. According to the present Plan, a number of storage facilities for grains will be constructed at a cost of 900,000 dinars. New silos will be built at Goulette (1.6 million dinars) and others will be reconstructed (400,000 dinars). The total investment in grain storage is estimated at 2 million dinars.

In 1971, the present capacity of silos and warehouses for cereals will be inadequate. The storage of dry fodder presents a similar problem. It is stated, for example, that a security reserve for extreme high production and for market regularization has to be built up.

Storage of perishables

An existing cold-storage chain for the preservation of perishable commodities like fruit, vegetables, meat, milk and fish will be in constant use. The organization of a cold-storage chain starting at the place of production and ending at the place of consumption offers investment opportunities at different stages of the production and marketing process. The investment Plan lists an expenditure of 550,000 dinars for the storage of 18,000 tons of edible oils in the period 1969/1970, an investment of 735,000 dinars for the quick processing and sterilisation of milk, and an additional amount of 1.4 million dinars for the storage, cleaning and processing of olive oil and its derivates. The estimated total investment amounts to 2.75 million dinars. The protection afforded may vary, according to the product, from cooling to complete refrigeration. The specific types of installations require substantial investments and the operation and maintenance offer various investment opportunities.

Food and beverage industry

The food and beverage industry is an indispensable complement to investment activities in Tunisia's agricultural industry. An additional investment promotion programme will enlarge the range of production (see table 3).

Table 3

Industrial production during 1967

Branch of industry	Number of firms	Capital (dinars)	Employees	Production	
				Quantity	Dinars
Milk and cheese processing	6	299,000	341	115,174 hl	1,380,000
Edible oils and fats	45	1,776,000	1,715	28,606 tons	3,046,000
Beer	11	1,307,000	466	230,214 hl	2,494,000
Mineral water and juices	33	581,000	395	140,114 hl	1,195,000
Chocolate and candies	13	181,000	257	3,585 tons	1,423,000
Vinegar and spices	7	40,000	75	5,210 hl	237,000
Various other food industries	16	200,000	136	1,760 hl	1,734,000

These statistical data indicate that there is an investment opportunity in the milk and cheese-processing industry and in the production of spices of all kinds. An investment activity is welcomed in Tunisia if it creates an outlet for expanding agricultural production, if it improves sales possibilities at home and abroad, and if it diversifies production.

An example of a promising venture is the growing and processing of tomatoes (see table 4). At the present time there are 22 tomato canning factories, mostly small- or medium-sized. Local consumption is limited, but there is ample opportunity for marketing these products in Tunisia. The surplus is at the moment sent to France, Switzerland, the Federal Republic of Germany and some African countries. Since the quality of the concentrated tomato paste, as well as of the finished products, could be improved, an investment for the modernisation and re-organization of methods and equipment is recommended. The statistical data indicate that facilities were not sufficient to process the harvest of 1967. The Tunisian administration is following a new plan which should improve tomato-processing operations. The existing tomato-canning factories also deal with peppers, peas, artichokes, apricots etc.

Table 4

Tomato production in Tunisia, 1963-1967

Year	Plantation (hectares)	Fresh tomatoes received for industrial processing (kg)	Industrial output (kg)
1963	4,762	45,548,453	7,815,962
1964	6,000	62,332,335	10,388,227
1965	7,500	79,327,453	13,035,000
1966	10,000	100,000,000	17,000,000
1967	10,000	60,815,000	10,632,000

Sugar industry

The Tunisian Government is aware of the importance of the beet-sugar industry, especially in view of the fact that there may be an opportunity to market the products in the European Economic Community. Studies have been undertaken to determine the present technological and economic level of the existing sugar industry and to outline a programme of development on the basis of a market analysis. This programme would include the reconstruction of the existing sugar industry, the establishment of new capacities on agro-industrial bases and all investments for the establishment of modern beet-sugar production, specifying the required investments for buildings and equipment, as well as for the distribution and export of the final product.

Tunisia produces approximately 60,000 tons of sugar, either directly from sugar beet or by refining imported raw sugar. The local production is mostly based on refining imported sugar which has to be paid for in hard currency, thus limiting the increase of sugar consumption in Tunisia. The three refineries in the country employ only 515 workers. The capital invested in 1967 was 453,000 dinars, but there are plans to double this investment by 1972. The Société Tunisienne de Sucre also plans to increase its sugar processing operations.

At the same time, many efforts have been made to provide more fertile soil by land reclamation and irrigation. This could create large-scale production of cheap sugar beet to serve as raw material for the sugar mills. A review of the present situation in the sugar industry should give a basis for sound

Factual data

Tunisian contribution

The promoter of the project is the Société Industrielle d'Acide Phosphorique et d'Engrais (S.I.A.P.E.). No specific form of co-operation has been envisaged.

development and profitable investment, in close co-operation with relevant governmental authorities and the sugar industry itself.

Wine industry

Tunisia produces about 1 million hectolitres of wine for the domestic market and for export. The existing wine industry is based on small-scale farm production in small- or medium-sized vineyards and on fermentation of the grapes in small private cellars, where all the typification work, improvement of quality and bottling for export are undertaken (see table 5).

Table 5

Average annual production of wines and spirits and projections for 1972
(in hectolitres)

Wines and spirits	Average annual production 1965-1967	Projections for 1972		
		Production	Consumption	Export
Wines and mistelles	1,300,000	1,200,000	250,000	700,000
Boukha	1,500	2,000	1,700	300
Liqueurs	1,200	2,000	2,000	-

On the other hand, it is possible to develop agro-industrial wine production by using newly reclaimed, fertile soils for large-scale wine-grape production, and by integrating it into modern wine-processing in large, temperature-controlled, bio-engineering plants.

The aim of the Tunisian Government is to invest capital, in co-operation with local and foreign private partners, for the development of a modern wine industry, both by reconstruction of the existing capacities and by the establishment of new ones.

Additional investment opportunities include a long-range development programme for the production of beer, yeast, vinegar and other similar fermentation products and by-products, with the aim of meeting the needs of the growing home markets or for export to nearby African countries.

Flour-milling industry

Tunisia is improving and reconstructing the milling industry and the most important plants that produce noodles, biscuits and couscous. The use of grain as a staple food and the processing of flour into various products are traditionally important factors in the Tunisian food industry.

The processing of wheat and other grains is divided among thousands of small mills that are not listed in table 6. The quality of the final products is below that achieved by the more advanced countries.

Table 6

Flour-milling industry

Branch of industry	Number of firms	Capital (dinars)	Employees	Production	
				Quantity (tons)	Value (dinars)
Flour mills	18	792,000	1,420	318,500	21,665
Flour				171,600	
Semolina				146,900	
Pastry production	23	326,000	492	40,320	3,529
Pastries				35,670	
Couscous				4,650	
Biscuit manufacturing	8	65,000	292	1,571	645
Wafers				241	
Biscuits				1,293	
Others				37	

A programme is under consideration for the reconstruction and development of the whole milling industry, and for the production of bread, biscuits, noodles, etc. A general policy is being outlined on the basis of technological and economic criteria adapted to the socio-economic possibilities of the country.

Conclusion

The Development Plan (1969/1972) emphasises the need for direct private investments in the country. The report to the National Planning Board provides a detailed balance of payments projection indicating that: "The direct private investments will increase approximately 60 per cent between 1968 and 1972; the supplier credit, however, will diminish 33 per cent in the same period, as well as the public credits by about 15 per cent, in favour of direct private investments".

THE CONSTRUCTION AND BUILDING MATERIALS INDUSTRY

General information

The growth rate in the construction and building materials sector may be illustrated by the fact that the demand for cement increased by 11 per cent per year between 1961 and 1967, while an increase of 8 per cent per year is anticipated for the period 1968-1972.

Targets for production capacity in the various types of construction and building materials, suggested by the Planning Committee responsible for examining this industry sector, were as follows:

Building materials	1967	1972
Marble	900 m^3	6,000 m^3
Cement	470,000 tons	930,000 tons
Lime	170,000 tons	224,000 tons
Plaster	20,000 tons	20,000 tons
Sanitary ware	1,800 tons	6,000 tons
Ceramic tiles	-	360,000 m^2
Mosaic cement tiles	990,000 m^2	1,500,000 m^2
Decorated tiles	-	100,000 m^2
Expanded clay tiles	-	270,000 m^2
Earthenware tiles	250,000 m^2	600,000 m^2
Refractory bricks	-	6,000 tons
Clay for tiles and bricks	220,000 tons	350,000 tons

Information on specific products

Marble

Local consumption of marble was estimated at 4,400 m^3 in 1968. Sixty per cent of this amount was imported. Local production was 2,500 m^3, of which 740 m^3 was exported. The plan is to increase output to 6,000 m^3 by 1972, of which 2,920 m^3 would be exported.

The two major producers of building materials recently combined to form a company called "Les Marbres de Tunisie". The planned increase in the capacity of their factory at Megrine will help to meet the higher production target set for 1972.

Cement

Local demand for cement increased from 320,000 tons in 1964 to 520,000 tons in 1968, and is expected to reach 680,000 tons by 1972. Although Tunisia exported 140,000 tons of cement in 1964, exports have been at a much lower level in recent years because local demand has absorbed most of the production.

There are two cement manufacturing plants in Tunisia at present - Ciments Artificiels Tunisiens (CAT), which produced 415,000 tons in 1968, and Ciments Portland de Bizerte (CPB), which produced 185,000 tons in 1968. The total capacity of 600,000 tons is expected to increase to 845,000 tons in 1969 and 930,000 tons in 1972, with the addition of a new kiln by CAT and a small expansion at CPB. No specific projects are proposed to foreign investors.

Lime and plaster

Local production is expected to meet local demand.

Sanitary ware

The plant of the company Manufacture Tunisienne de Céramique (MTC) at Bizerta has a capacity of 1,800 tons per year. The Tunisian market at present is estimated at 1,000 tons per year, and full utilization of the existing plant and future expansion will depend on exports.

At present the raw materials are imported.

Ceramic tiles

A project to replace existing imports is included in this publication. The suggested capacities are 175,000 m^2 or 360,000 m^2.

Mosaic cement tiles

Existing plants were able to meet 90 per cent of the local demand in 1968. Production is expected to reach the target figure suggested for 1972 as a result of the construction of three new plants in 1969.

Decorated tiles

The Development Plan envisages a plant for the production of 100,000 m^2 of decorated tiles.

Expanded clay tiles

A plant to manufacture 270,000 m^2 (5,400 tons) per year of expanded clay tiles is proposed. The project is described in this publication.

Earthenware tiles

There are plans to expand the capacity of the existing plant of Faïnceries Tunisiennes from 250,000 m^2 to 600,000 m^2 per year. The project is described in this publication.

Refractory bricks

The Development Plan (1969/1972) envisages the construction of the first Tunisian plant for the manufacture of refractory bricks at Tabarka with a capacity of 6,000 tons per year. The project is described in this publication.

Clay for tiles and bricks

Production of clay (terra cotta) in 1968 was 235,000 tons, of which 50,000 tons were exported. The target output of 350,000 tons for 1972 includes exports of 65,000 tons, principally to Libya. Some of the existing plants will be expanded to meet the expected increased demand.

Related industries

Asphalt

Present consumption is estimated at 5,000 tons per year, all of which is imported. By 1972 demand is expected to reach 20,000 tons.

Bitumen

Present consumption of industrial and directly distilled bitumen is 1,300 tons per year. By 1972 demand is expected to reach 5,000 tons.

Reinforcing bars

Demand for the reinforcing bars used in the building industry was estimated at 50,000 tons per year in 1967. No forecast was made for 1972, but sufficient supplies should be available from the local steel plant.

Paints

Demand in 1967 was estimated at 4,450 tons per year. No forecast was made for 1972.

Sheet glass

A plant for producing plain, flat-sheet glass has been under consideration for some time. The Economic Commission for Africa has estimated that the entire North African market for this product is about 9,300 tons.

The Development Plan (1969/1972) estimates that by 1972 local demand for the security and mosaic types of sheet glass will be 36,000 m^3 and 60,000 m^3 respectively.

THE TEXTILE INDUSTRY

General information

In 1968, Tunisian production met 90 per cent of the demand for cotton articles and 50 per cent of the demand for wool products.

Owing to the increase in local production, imports of textiles and garments dropped from 14 million dinars in 1961 to approximately 3 million dinars in 1968.

At the end of 1968, the equipment in use for the various stages of manufacturing (spinning, weaving, finishing, ready-made articles, haberdashery could be broken down as follows:

Spinning

(a) For cotton and assimilated products, the installed production capacity is 4,600 tons. The main industries existing at present are the following:

Cotton spinning at Sousse: SOGITEX (32,800 spindles);

Carding and spinning mill at Monastir: SOGITEX (2,444 spindles);

Carding and spinning mill at Sidi Amor (540 spindles);

Carding and spinning mill at Tunis: SOTUMATEX (265 spindles).

(b) For wool and assimilated products, production capacity is 950 tons (coarse counts) and 410 tons (medium and fine counts), with approximately 2,000 spindles. The following industries exist at present:

Spinning mill for combed wool (being installed) at Najeb and Ayoun (620 tons per year);

Factory at Monastir: SOGITEX (260 tons per year);

Spinning and weaving mill: Sidi Amor Ben Salem (150 tons per year).

Weaving

(a) For cotton and assimilated products, the production capacity is 9,265 tons with 1,383 looms. The industries existing at present are SOGITEX, with 983 looms, and about fifteen other firms with approximately 400 looms.

(b) For wool:

Cloth for garments (1.5 million metres of carded cloth and 600,000 metres combed or fine carded cloth);

Blankets (250,000 items per year).

Finishing

(a) The central finishing plant at Bir-Kossaa (near Tunis), for cotton and assimilated products, came into operation in 1966 and is equipped for bleaching and dyeing, printing and finishing. It has a production capacity (1967) of 35 million metres and an actual production (1967) of 21,250,000 metres.

(b) For wool:

Factory of the Manufacture Tunisienne d'Exploitation Industrielle (M.T.E.I.);

Capacity: 2 million metres.

Haberdashery

This sector, which is entirely private, consists of 42 firms, six of which produce hosiery. It has a capacity of 2,360 tons of haberdashery and 125 tons of hosiery.

The existing equipment is capable of producing a very wide range of articles of varying quality, from cotton and wool or from synthetic fibres.

The existing factories are capable of meeting market requirements almost entirely.

Ready-made articles

There are approximately 250 firms manufacturing ready-made articles. Of these firms, eight have between 50 and 300 machines and 240 have between 10 and 20 machines.

Conclusion and proposals for collaboration

Importance of subcontracting

Until now, the textile industry has been mostly concerned with meeting domestic needs. The investments made between 1962 and 1968, as well as the new projects envisaged in the Development Plan (1969/1972), have been directed primarily towards achieving that end.

Three main projects for the setting up of new units have been included in the new Plan:

(a) Spinning mill for combed or carded cotton, haberdashery quality;

(b) Spinning mill for pure polyester or polyester/cotton mixture (estimated investment, 342,000 dinars);

(c) Spinning mill for cotton and rayon staple (estimated investment, 1,383,000 dinars).

These projects are already underway, as their financing has been secured.

The achievement of the objectives, which included decreasing dependence on outside sources, the permanent creation of employment and the diversification of national production, opens up new growth possibilities. The concrete and immediate possibilities afforded by this branch to foreign firms lie particularly in the realm of subcontracting and job-work.

There are various firms dealing in haberdashery, ready-made garments and the finishing of cotton and assimilated cloths who are interested in discussing with the representatives of foreign firms the possibilities of carrying out job-work on order. These firms agree to a technical control of production undertaken by the factory. In this connexion it should be mentioned that for ordinary qualifications the level of labour costs is considerably lower than European salary levels (e.g. hourly wages of approximately 0.135 dinars). Another advantage is that transport between Europe and Tunisia is easy and fast.

Tunisia offers the following advantages to foreign firms interested in a production directed exclusively towards export:

(a) Facilitation of all administrative questions;

(b) A customs officer is placed at the disposal of the firm under the authority of the Textile Board;

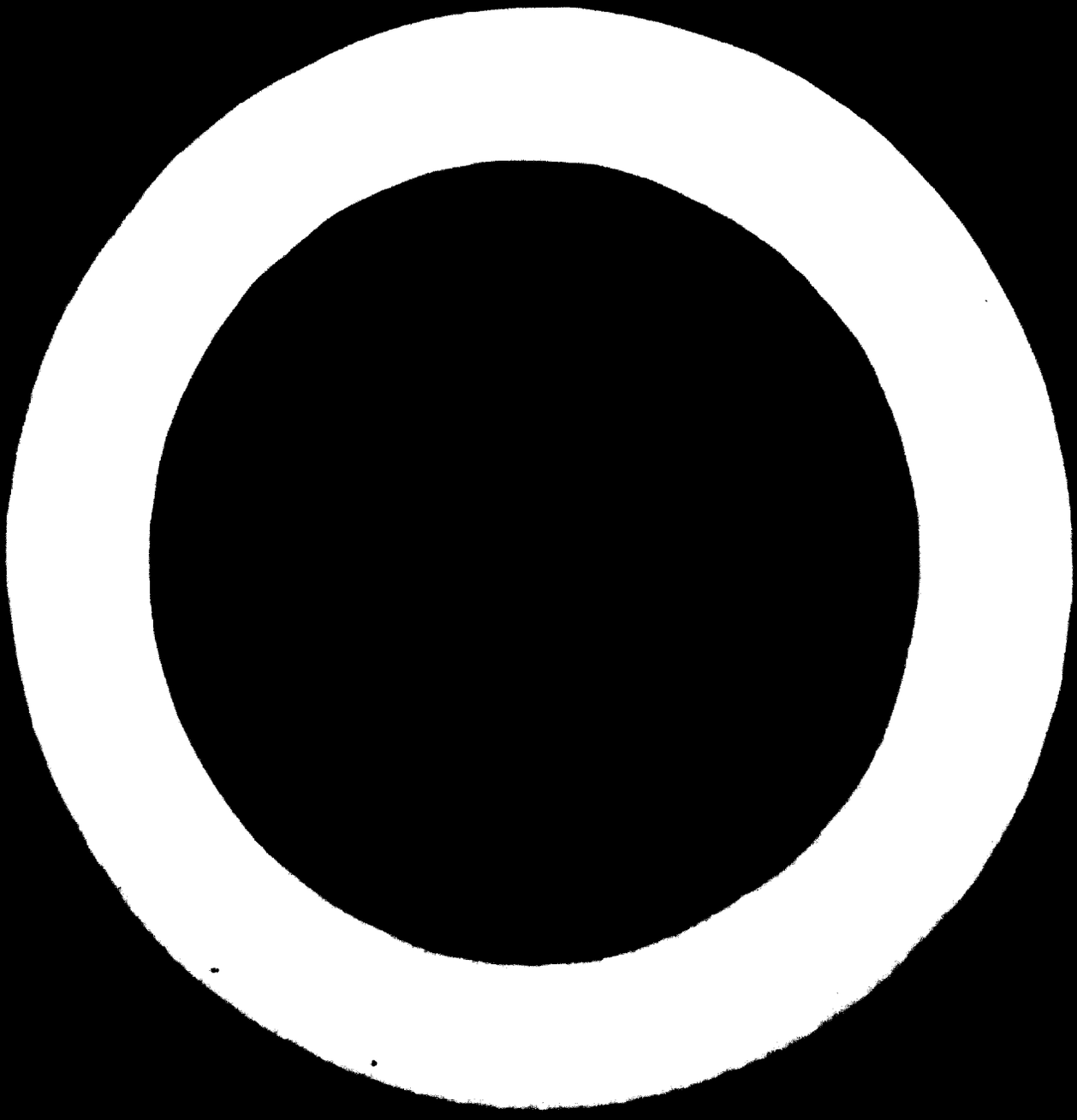
(c) For each installation, a protocol of agreement, under which the factory enjoys conditions similar to those of a free zone, is signed between the foreign firm and the Tunisian Government;

(d) The following transfer guarantees are granted to non-resident investors:

Unlimited transfer of profits derived from investment in the industrial sector;

Unlimited retransfer of the product of liquidation or sale pertaining to investment in the industrial sector.

Tunisian firms in this sector, and the officials of the administrative body that regulates the textile industry, would like to be informed of any ideas or initiatives concerning new projects.



FLAT GLASS FACTORY

Production

Planned capacity: 7,000 tons per year, which corresponds to the present consumption;

Raw materials: The consumption figures below refer to 1 ton of glass:

	Tons
Sand	0.5
Feldspar	0.11
Limestone	0.06
Dolomite	0.11
Sodium carbonate	0.2

Investment

Investment required: 650,000 dinars ($1,300,000).

Factual data

Tunisian contribution

The promoters of the project are SOTUVER (Tunisian Glass Company) and Radhouane El Ghozzi, Directorate for Industry. No specific form of co-operation has been envisaged.

C. BACKGROUND PAPERS

PROCEDURE FOR THE ESTABLISHMENT OF AN UNDERTAKING IN TUNISIA

Approval of establishment

As part of the planning policy, and in order to avoid imbalance between the various sectors of the economy and the country's geographical regions, a legislative decree dated 3 April 1962 stated that the establishment, extension, conversion or transfer of an industrial undertaking must be approved by the Secretariat of State for Planning and National Economy. Without this approval it is impossible to obtain a licence or to operate the undertaking legally.

An application for the approval of an industrial enterprise is made to the Directorate of Industry. Plans for hotel undertakings are submitted for approval to the Commissariat-General of Tourism and Spas.

Applications for initial approval should include a statement naming the objective, capital and director of the undertaking, its investments and how they are financed. A profitability study is also necessary. All applications are examined and approved by a special commission.

Approval of investment

The applicant must deposit an application for preliminary authorisation with the Central Bank of Tunisia and, if foreign money is being invested, with the Exchange Control Department (Services des Finances Extérieures). The Central Bank will instruct him in the procedure of transferring dividends and invested capital.

The head of an undertaking who does not comply with this formality is in breach of the monetary laws and is disqualified for the transfer of profits or capital.

The application must contain all details of the proposed investment, in particular its nature, the amount involved, financing plan and currency, and the place of residence of the investor.

The preliminary approval may be accompanied by an agreement for the transfer of profits or even of the capital on termination of the investment.

Applications for fiscal incentives (letters of establishment) should then be sent to the Directorate of Credit, and those concerned with financial incentives (letters of guarantee and approval) should be submitted to the Secretariat. These applications should be accompanied by a file containing seven copies of each of the following:

(a) A detailed economic study of the particular branch of activity;

(b) A provisional study of the financial implications, including information on:

The undertaking in general;

Its managers and staff;

Its production resources;

Its investment and financial proposals;

A market survey;

A profitability study.

After the preliminary approval

A company establishing its headquarters in Tunisia should acquaint itself with Tunisian law in order to avoid the use of wording pertaining to foreign laws.

A company setting up an agency in Tunisia must have its articles of association translated into Arabic and French and must also produce a resolution of its board of directors ordering the agency to be opened in Tunisia and appointing a managing office responsible for it to the board.

Issue of business licence (patente)

An application for a business licence should be made as soon as possible. It consists of a declaration on forms supplied by the Revenue Department

(Administration fiscale). It is issued without charge but entails payment of a trading duty and a profits tax.

Entry on the trade register

This entry is made on an application filed with the court's registry.

Membership in the National Social Security Fund

This is required by the Act of 14 November 1960 and must be secured in the month following the engagement of the first paid employee. An applicant is notified of the decision to accept his membership within two months of the final completion of the file.

Disclosure of existence to indirect taxation office

Before any business is conducted by the new firm, it must inform the Indirect Taxation Office (Contributions indirectes) of its existence so that its turnover and purchase ledgers may be inspected and signed.

Deposit of declaration with Labour Exchange

A declaration of establishment must be filed in three copies with the Labour Exchange (Bureau public de placement) of the Inspectorate of Labour.

Conclusion

These instructions relate only to the series of formalities preceding or accompanying the establishment of an undertaking, and do not include the legal and administrative formalities necessary for the constitution of any type of company.

The levy for medicine at work is payable by every undertaking employing more than 40 wage earners.

The amount of the insurance against accidents at work varies between 2 and 12 per cent of the wages, according to the nature of the work.

In general, the social taxes payable by undertakings in Tunisia vary between 35 and 40 per cent.

INVESTING IN TUNISIA - SOME QUESTIONS AND ANSWERS 4/

Fiscal and financial benefits granted to investors in Tunisia

Letter of establishment

(a) Renewable five-year exemption from the tax on profits;

(b) The deficit balance accruing over the first five years of operation may be carried forward for five years;

(c) Registration of fixed dues:

Incorporation;

Increase in capital;

Change of legal status;

Merging and transfers.

(d) For a five-year period:

Exemption from tax on the rental value;

Exemption from tax on income from transferable securities backing loans contracted by the enterprise;

Guarantee of a minimum volume of orders from the state in certain cases;

The provision of assurances regarding the import of competing products in certain cases.

Plant

(a) A foreign enterprise wishing to set up operations in Tunisia is permitted to import free of customs duty equipment it has previously used abroad.

(b) Enterprises are entitled to the reimbursement of production taxes they have paid on industrial equipment imported or acquired in Tunisia for their plant.

4/ Some of this information has been outdated by the enacting of the 1969 investment law - Loi no. 69-35 du 26 juin 1969, Portant Code des Investissements.

Letter of guarantee

This letter provides the lending bank with a guarantee from the Government on loans granted for plant and construction.

Letter of approval

This letter enables the enterprise to finance part of its stock (about 80 per cent) by means of an industrial pledge without loss of title.

Taxes

Companies and individuals are permitted to deduct from the tax payable on their profits the sum of their share in certain enterprises. Furthermore, enterprises are exempt from paying taxes on the amount of profits re-invested in the enterprise.

Long-term fiscal regime

(a) Tax stability for fifteen years;
(b) Direct taxation;
(c) Export taxes and dues.

Exports

Exports are exempt from turnover tax and similar dues. "Producers" may also claim a refund of the turnover tax on their purchases of raw materials.

Exchange arrangements

Dividends, office costs, royalties, freight costs and commission fees are transferable. Also,

(a) The proceeds of liquidation may be transferred;
(b) Net actual profit may be transferred by "producers";
(c) Transfers are limited to eight per cent and to the amount of foreign exchange imported by "non-producers".

Guarantees

(a) These are intended to guarantee foreign investors against any spoliation and to enable them to have recourse to international arbitration.
(b) There are bilateral guarantees between Tunisia and various countries.

Inducements for investments in Southern Tunisia

(a) Letter of guarantee;

(b) Letter of approval;

(c) Tax exemption from business licence;

(d) Tax exemption on investment of re-invested profits;

(e) Five-year-protection in case of losses;

(f) Registration of fixed dues;

(g) Tax exemption on rental value;

(h) Tax exemption on income from transferable securities backing loans borrowed for the enterprise;

(i) Guarantee of a certain volume of orders from the Government for five years;

(j) Restrictions on imports of competing products;

(k) Favourable terms for exporting;

(l) Unchanged fiscal regime guaranteed for twenty years;

(m) Free land grants;

(n) Infrastructure works undertaken.

Special benefits provided in the tourist sector

The Government will be responsible for:

(a) Cost of studies (architecture and reinforced concrete);

(b) Works on infrastructure and outside roads;

(c) Electricity lines;

(d) Drinking-water supply;

(e) Access roads;

(f) Telephone lines;

(g) Reimbursement of customs duties on equipment;

(h) Interest allowance at a maximum rate of 3 per cent per year.

Bilateral and international contractual protection granted by Tunisia for investments

Bilateral agreements

In keeping with its policy of promoting foreign investment in Tunisia, the Tunisian Government has already signed a number of bilateral agreements. Such agreements have been signed with:

Belgian-Luxembourg Economic Union

Federal Republic of Germany

France

Netherlands

Sweden

Switzerland

United States of America

The main provisions of these agreements are as follows:

(a) The investments as well as the property, rights and interests of nationals (corporations and individuals) of one of the contracting parties enjoy, in the territory of the other party, non-discriminatory treatment at least equal to that recognized by each party with regard to its own nationals.

(b) Each party undertakes to authorize, under its existing or future regulations:

(i) The transfer of actual profit, interest, dividends and dues accruing to nationals (corporations and individuals) of the other party;

(ii) The transfer of the proceeds from the total or partial liquidation of investments approved by the country in which they are made.

(c) In the event of expropriation or nationalization of property, rights or interests belonging to nationals of the other party, the opposing party shall pay effective and adequate compensation in accordance with international law.

(d) In the case of disputes, the International Court of Justice shall be the final arbiter.

International guarantee

Tunisia's accession to the International Convention for the settlement of disputes relating to foreign investments is wider in scope than the bilateral agreements and reflects the desire of the Tunisian Government to provide every guarantee for foreign capital invested in the country.

Industries open to foreign investments

Tunisian industry is open to any form of public, private or co-operative enterprise, national and foreign. The Government intervenes at three levels:

(a) As overseer in the key activities which form the basis of the Tunisian industry;

(b) As partner of private individuals in the establishment of new industries;

(c) As public authority, through the operation of the law, the taxation system and credit facilities, in order to promote industrialization in accordance with the provisions of the plan.

Sometimes public enterprises are set up when the investments involved are not directly productive and cannot interest the profit-seeking private sector.

TUNISIAN INDUSTRY AND ITS PROSPECTS

Introduction

The political independence won by many African and Asian countries in the second half of the twentieth century was accompanied by the realization that their economies had remained stationary compared to those of the richer nations.

Under these conditions, political independence seemed ineffectual if it were not to be taken as the starting point for a real economic awakening, calling for drastic and appropriate measures to remodel the economic and social structure of those countries.

The conviction grew that a policy of economic advancement, in order to be comprehensive and effective, must be written into specific planned objectives, in which industrialization, the pillar of modern civilization, would be called upon to play a part of primary importance.

During the Protectorate, the Tunisian economy had been mainly oriented towards foreign trade; soon after independence was achieved, it became an exchange economy, exporting its primary products in the raw state and importing almost exclusively consumer goods. Industry was still in an embryonic stage, creating only 20 per cent of the gross domestic product, as compared with agriculture, which was the leading sector producing 39 per cent of the domestic needs. Only the extractive industries had undergone a certain amount of development, but without any notable priming effect.

This sectorial imbalance was aggravated by a lack of regional integration resulting from the fact that the country was divided between the wealthy, grain-producing north and the less developed centre and south.

In addition to these problems, the shortage of management personnel and of capital, the smallness of the market and the limitation of natural resources, created further obstacles to the development of a policy of industrial promotion.

The Tunisian Government was fully aware that industry, by helping to solve the problem of employment and thus raising national income, and by exercising a

a stimulating effect upon other sectors, was the primary requisite for any economic development.

From 1962 onwards, after its political and administrative system was established and consolidated, the Tunisian Government became engaged in its "economic struggle", drawing up a planning policy in which the industrialization of the country was undertaken in a harmonious and balanced way, both from the structural and the operational points of view, through fruitful co-operation between the State and the private sector.

Industrial development - crucial factor in economic take-off

According to the economic projections for the period of 1962/1971, industry should absorb 140,600,000 dinars out of a total of 896,000,000 dinars to be invested over the period.

The same projections also forecast the highest growth in added value for the manufacturing industries, the index being expected to rise from 100 to 394 between 1957 and 1971, while agriculture and trade in 1971 are expected to reach an index of 171 and 216, respectively.

This situation is bound to cause profound changes in the structure of the Tunisian economy, considering that the growth rate for added value in the manufacturing industries was only 0.6 per cent between 1950 and 1960, whereas the figures for agriculture and trade were 2.4 per cent and 2.3 per cent, respectively.

This programme may appear ambitious, but in the light of the institutional and structural limitations on expansion, the development of the industrial sector will probably exceed the forecasts, as it has accounted for an investment of 255,250,000 dinars out of a total of 775,650,000 dinars invested during the period 1962/1968 (the first two development plans).

This advance has created some distortions in the economy, which was until recently predominantly primary, because investment could not be effective immediately owing to the substantial infrastructure required and the usual time lag between actual investment and final results.

Moreover, owing to the limited resources of domestic financing, it was necessary to have recourse to foreign sources, which provided 53 per cent of total investment between 1960 and 1966, thus creating a heavy burden of indebtedness.

Nevertheless, the rise in industrial production enabled the growth rate of the gross domestic product to be maintained at 6 per cent between 1962 and 1968, in spite of the 7 per cent fall in agricultural production in 1966 and 1967.

Moreover, the development of the Tunisian industry, although it is just beginning, made it possible to raise the level of exports by 7 per cent, in spite of the sharp fall in agricultural production.

As regards the balance of payments in 1966, the Tunisian industry, excluding tourism, enabled considerable savings to be made in foreign currency; these amounted to 16,700,000 dinars, broken down as follows:

	Dinars
Textiles	6,000,000
Petroleum products	2,100,000
Sugar refining	3,200,000
Iron and steel products	2,800,000
Miscellaneous products	2,600,000
Total	16,700,000

Industry continues to occupy an important place in Tunisia's economic policy. Of a total of 617 million dinars to be invested during the next four-year plan, which came into operation in 1969, 164,200,000 dinars are to be allocated to industry, i.e., 26 per cent of the gross fixed capital formation.

The balanced development of industry: a contribution to economic equilibrium

The almost complete absence of any basic industry necessarily implied an open choice in the orientation of investments.

The policies elaborated in this regard have aimed at the most thorough processing possible of existing raw materials and the establishment of industries capable of satisfying domestic needs to the maximum extent, thus limiting reliance on imports of finished goods.

ESTABLISHMENT OF A BREWERY

The present production of beer in Tunisia is 240,000 hl per year, from the brewery at Tunis. The establishment of a second brewery in 1972/1973 is now envisaged at Sfax.

Production

Production capacity: 100,000 hl per year;
Labour force: 200 persons.

Investment

Investment required: 600,000 dinars ($1,200,000);
Estimated turnover: 700,000 dinars ($1,400,000) per year.

Factual data

Tunisian contribution

The promoters of the project are the Société Régionale d'Investissement de Sfax (S.R.I.) and Mr. Maeddi, Directorate for Industry.

In the ten-year projections, the largest share of investment is therefore reserved for industries meeting these criteria, such as:

Industries	Investment (dinars)	
Extractive	23,000,000	
Food	10,100,000	
Textiles	15,900,000	
Chemicals	42,600,000	
Metallurgical	24,000,000	
Total	115,600,000	(out of an over-all investment of 140 million dinars)

These same basic industries should also, according to the projections, show the greatest increase in added value.

Extractive industries

After an average of 4.5 million dinars per year between 1960 and 1964, investment in this sector reached 16,600,000 dinars in 1967 and is expected to reach 20 million dinars in 1972.

Added value in this sector rose from 10 per cent between 1964 and 1965 to 15 per cent between 1965 and 1966. After a slight fall in 1967, owing to difficulties encountered in marketing phosphates, the progress was resumed in 1968.

The rise was mainly in:

(a) Phosphates, where production increased from 2,760,000 tons to 3,700,000 tons in 1968;

(b) Iron, where production increased from 831,000 tons in 1964 to 1,220,000 tons in 1966;

(c) Oil, where the increase in added value caused by the discovery of the Borma and Douleb fields was 41 per cent between 1966 and 1967, and 16 per cent between 1967 and 1968, with a production volume rising from 615,000 tons in 1966 to 2.5 million tons in 1968.

The investment programme for the next four-year period will be oriented towards the modernization of existing deposits and the bringing of new ones into production in order to raise the output of phosphates to 5 million tons by 1972 and to increase the output of other ores by 45 per cent.

Meanwhile attention will be given to the enrichment of these ores with a view to promoting the exports of final products, which should amount to

64,300,000 dinars in 1972, as compared with 34,700,000 dinars in 1968 and 26,900,000 dinars in 1965.

Electricity

The annual growth rate in this sector was 8.5 per cent between 1964 and 1965, 13 per cent between 1965 and 1966 and nearly 20 per cent between 1967 and 1968, owing to the construction of the new power station at La Goulette which raised output to 11,137 megawatts in 1968.

The amount invested in this sector averaged nearly 8 million dinars per year between 1965 and 1968 and it is to be maintained at 9 million dinars per year up to 1972.

The agricultural and food industries

The agricultural and food industries, closely connected to the farming situation, were affected by the fall in agricultural output during 1966 and 1967, with a drop of 11 per cent in added value.

Improvement in agricultural production and a complete reorganisation of the food industries (which has already been started) should make it possible to bring about an increase in the added value pertaining to this sector, from index 100 in 1968 to 116.3 in 1972.

This sector, which has already benefited from the existence of basic equipment in vegetable-oil manufacture, cereal-processing and wine-making, has developed considerably since 1967. This development is the result of the establishment of a number of preserved fruit and vegetable plants with a production increase from 20,000 tons in 1964 to 30,000 tons in 1968, a sugar refinery that satisfies all domestic market requirements, and a new dairy industry still in its initial stages.

Investments reached an average of 2 million dinars per year between 1965 and 1968. The same rate will be maintained up to 1972 and should make it possible to expand and improve the production of fruit and vegetable preserves for which there are favourable export prospects.

The textile industry

The textile industry is an example of a market geared to meeting domestic requirements. In six years this industry has experienced a positive boom, with added value rising from 6,200,000 dinars in 1962 to 13,700,000 dinars in 1968.

In this sector, Tunisian production now covers 90 per cent of the demand for cotton articles and 50 per cent of the demand for woollen products.

Imports of textiles and clothing have fallen from 14 million dinars in 1961 almost to the level of 3 million dinars forecast for 1968.

This sector, which has absorbed more than 16 million dinars in capital investment between 1965 and 1968, should be vigorous enough to penetrate foreign markets in which export prospects are likely to become more definite.

Future investment, which will be channelled principally into the ready-made clothing and woollen sectors, will probably be restricted to 2.5 million dinars annually, so that the value added should grow by 57 per cent in four years.

Although primarily intended for import substitution, this industrial output should also replace handicraft production as standards of living rise through the growth of a new demand pattern.

The chemical industry

The establishment of a second superphosphate factory increased the production of this industry by 40 per cent in 1965. Furthermore, the erection of an oil refinery in Bizerta should raise production from 600,000 tons in 1966 to 850,000 tons in 1968.

Much effort has yet to be made in this sector, which will absorb about 22 million dinars of gross fixed capital formation over the next four years, whereas capital investment between 1965 and 1968 did not exceed 3,100,000 dinars. The added value in this sector should in fact increase from 2,400,000 in 1965 and 3,200,000 in 1968 to 4,400,000 dinars in 1972.

Large-scale projects for the manufacture of compound fertilizers with sulphuric acid from elemental phosphorus-bearing gypsum, and for the establishment of a second oil refinery, should be completed by 1972 and will give Tunisia a sizable chemical industry able to contribute about 22 million dinars from exports in 1972 (compared with 9,700,000 dinars in 1965).

The mechanical engineering and electrical industries

These industries have also expanded considerably, especially since the establishment of the Menzel-Bourguiba iron and steel complex, which helped to raise production in this sector by 75 per cent in 1968 (compared with 1965),

and the development of the industries assembling goods ranging from cars and lorries to household articles and television sets.

In 1968, the outputs of 6,100,000 dinars by the iron and steel industry and 8,100,000 dinars by the vehicle-assembly factory (compared with 2,800,000 dinars and 3 million dinars in 1966) mean that the value added in this sector has continued to advance in 1967 and 1968 at a rate of about 21 per cent. Development at a cost of 22,100,000 dinars in capital investment was carried out between 1965 and 1968.

Although future capital investment will have to be reduced to 2.5 million dinars per year, the gross product of this sector is expected to increase rapidly and should reach 11,300,000 dinars in 1972, compared with 2 million in 1965 and 6,800,000 in 1968. Such a result can be achieved by improving the integration coefficient of existing assembly plants, adapting the former Menzel-Bourguiba shipyard to ship repair and trawler building, and setting up units making iron and steel products such as wire. Finally, as a result of substantial new construction, several other manufacturing industries have succeeded in raising their value added from 13,100,000 dinars in 1965 to 18,300,000 in 1968, with a projected figure of 23,100,000 for 1972.

Further developments

In the building materials industry, the development of cement production, the establishment of ceramics and hollow-glass factories, and the expansion of brickworks, have engendered an average increase in output of 15 per cent over the last four years. A large part of this output was exported.

The shoe and timber industries are gradually passing from the handicraft to the industrial stage.

The tire factory in Bizerta should achieve a production of 1.2 million dinars in 1968, and the wood-pulp plant (for paper) in Kasserine will also attain its optimum output, estimated at about 2.5 million dinars.

The capital investment planned for these industries between 1969 and 1972 will probably be about 13,300,000 dinars which should enable them to develop their export value to 20,700,000 dinars in 1972, compared with 12,800,000 in 1965.

The capital investment projected for the port of Gabès, the chemical complex and the establishment of a thermal power station in the same region

is estimated at about 28,000,000 dinars, or 4.5 per cent of all capital investment over the next four years.

The Southern Development Bank, which has already been established, should help to attract other prospective investment to this area.

Tunisian industry: An example of close co-operation between the public and the private sectors

Owing to the shortages in the nation's resources and in private savings, the Government has undertaken the industrial development of the economy by acting as an overseer of the key industries, as the public authority guiding and protecting industries with appropriate tax measures, or by granting credits.

Private capital has not played an important part in investment: the insufficiency of the market, the initial uncertainty of return on invested funds, and the lack of opportunities for private investors in the industrialized countries, were not factors likely to attract substantial sums from this sector.

Private investment, which stagnated at about 15 million dinars in absolute value over the period of 1960/1965, was directed principally at the establishment of certain industries and at commerce, while most of the foreign investment was used to develop oil products and to execute large-scale projects.

Many public or semi-public concerns have thus come into existence because the private sector has failed to provide adequate financing for some industries (textiles, wood-pulp), because they render a public service (electricity, gas, water), or because they execute projects too vast to be financed by private capital (iron and steel works, mines).

Although the Tunisian Government has made the State the principal promoter of domestic industrial development, this trend has not prevented it from adopting measures to encourage and attract private investment. These efforts have been rewarded by the active interest in industrial investment they have aroused in the private sector since 1965.

Table 7 shows the trend of public and private investment in the mines and in the manufacturing industries.

Table 7

Public and private investment in the mines and manufacturing industries during period 1960-1967
(in dinars)

	Average 1960/1964	1965	1966	1967
Public investment	15,000,000	39,700,000	18,900,000	19,000,000
Private investment[a/]	11,200,000	7,600,000	5,000,000	11,500,000

a/ Excluding investment in the tourist industry, which amounted to 3,300,000 dinars in 1965, 7,000,000 in 1966 and 10,400,000 in 1967.

Because of the insufficiency of the available domestic finance, 53 per cent of the total capital investment over the period 1960/1967 came from foreign sources and increased considerably the foreign debt.

This ratio is expected to improve in the next few years, since in 1968 domestic savings provided 55 per cent of the total finance and are expected to rise from 57,500,000 dinars in 1965 to 112 million in 1972.

The prospects for developing efficiency and improving productivity

Industrial development has been included in the Tunisian economic policy as a tool of economic and social improvement, which is to be carried forward in harmony with the other sectors supporting or engendering expansion. Thus the planning has not neglected to encourage the primary sector and to enable it to contribute to the economic advance of the country. In addition, far-reaching structural reforms of the commercial sector have adapted it to the development targets and made it an efficient tool for the expansion and development of industrial production rather than a sector of superabundant services.

POSSIBILITIES FOR ESTABLISHING SUBCONTRACTING OPERATIONS IN TUNISIA

The growth of international trade and industrial co-operation with developing countries is most frequently materialized in the form of foreign investment in these countries. Thus it would seem useful to discuss a new form of industrial co-operation. This possibility is offered by international subcontracting operations implemented by industrial enterprises in developing countries at the request of foreign companies. This form of co-operation is an intermediate phase which does not exclude the possibility of investment in the developing country, but does not make such an investment a mandatory condition of the subcontracting operation.

The impact of subcontracting on industry in developing countries

A "subcontractor" has been defined as "an industrialist or an artisan who fulfils a special order at the request of another industrialist; the item covered by the order consists of a part or sub-assembly which will be included in a final product".

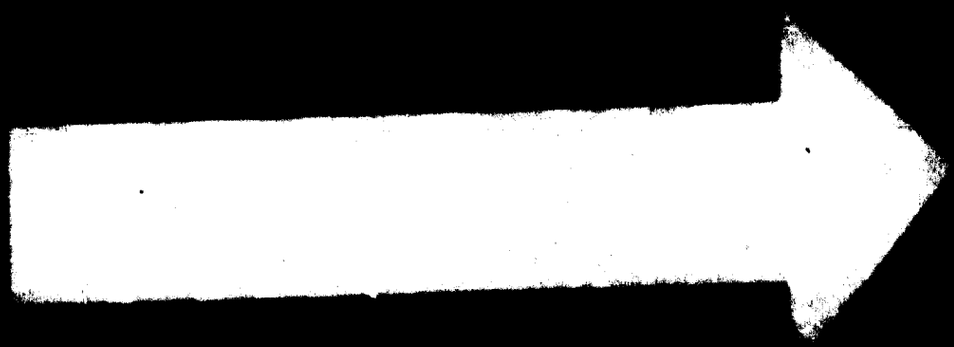
The practice of subcontracting was developed in the United States and Japan. During the last twenty years it has played an increasingly important role in the industrial development of these countries.

In the United States, the Du Pont Corporation follows the policy of not making an investment in production facilities unless it is impossible to replace this investment by subcontracting methods. General Motors, on the other hand, employs 20,000 subcontractors and nearly one half of their total production is conducted by means of subcontracting operations.

In Japan, the cost of the final product contributed by subcontractors has been established as follows:

70 per cent in the manufacture of locomotives, railway cars etc.;

70 per cent in shipbuilding;



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ESTABLISHMENT OF AN AERATED BEVERAGES FACTORY

Two major industrial units producing aerated beverages are at present operating in Tunisia: one in Tunis (Société Tunisienne de Boissons Gaseuses) and the other at Sfax (a branch of the Société Frigorifique et Brasserie de Tunis). Their respective outputs are 80,000 and 23,000 hl per year, and they produce "Coca-Cola", "Boga" and "Fanta" under licence.

It is now planned to set up a new modern aerated beverages factory in Tunis or Grombalia.

Production

Planned capacity: 60,000 to 80,000 hl in 1971/1972;
Labour force: 100 employees.

Investment

Investment required: 500,000 dinars ($1 million).

Factual data

Tunisian contribution

The promoter of the project is Mr. Mseddi, Directorate for Industry. The firms with which it is desirable to co-operate have not been specified.

ESTABLISHMENT OF A STARCH AND GLUCOSE FACTORY

The object of this project is to provide for Tunisian needs, which are at present entirely supplied by imports.

It is planned to set up a starch and glucose factory in 1971/1972. Part of the starch would be processed into dextrine for the needs of Tunisian industry (392 tons of starch would give 350 tons of dextrine).

Production

Planned capacity: 5,800 tons of maize per year, corresponding to an output of 1,800 tons of starch and 1,700 tons of liquid glucose.

Investment

Investment required: 500,000 dinars ($1 million);
Estimated turnover: 300,000 dinars ($600,000);
Labour force: 70 persons.

Factual data

Tunisian contribution

The promoters of the project are Mr. Mseddi, Directorate for Industry and Mr. Taher Abdelwahed, Société Tunisienne Industrielle de Matériaux de Construction (SOTINACO).

PRODUCTION OF FLUORINE DERIVATIVES

The object of this project is to make better use of the fluorite mines at Zriba.

Production

Planned production of hydrofluoric acid, aluminium fluoride, synthetic cryolite and saturated fluorinated hydrocarbons:

	Tons/year
Hydrofluoric acid	23,000
Aluminium fluoride and artificial cryolite	20,000
Fluorinated hydrocarbon derivates (F11 & F12)	10,000

Output of hydrofluoric acid:

10,000 tons exported to non-captive markets;

10,000 tons used for the production of aluminium fluoride;

3,000 tons used for the production of F11 and F12.

The entire output of aluminium fluoride and synthetic cryolite would be exported to aluminium-producing countries. Because of the expansion in the use of air conditioners, the world market for F11 and F12 is growing at the rate of 25 per cent per year.

Investment

Investments required: 3,200,000 dinars ($6,500,000) covering:

Hydrofluoric acid factory costing 1 million dinars ($2 million) (including 375,000 dinars ($700,000) for a sulphuric acid unit with a capacity of 80,000 tons per year);

Aluminium fluoride and synthetic cryolite unit costing 1 million dinars ($2 million);

Fluorinated hydrocarbon derivatives (F11 and F12) unit costing 1,250,000 dinars ($2,500,000).

Factual data

Tunisian contribution

The promoter of the project is the Société Tunisienne d'Expansion Minière (SOTEMI). No specific form of co-operation has been envisaged.

3 OF 3

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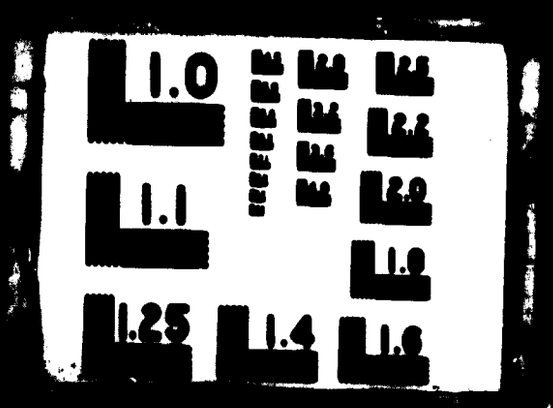

62 per cent in the manufacture of cars;

34 per cent in the manufacture of textile machinery.

In general, the motivation for subcontracting can be defined as the means "to obtain in collaboration with other factories the optimum level of efficiency of industrial production". There are three forms of subcontracting, based on qualitative and quantitative production and prices:

(a) Technical: Large firms do not have all the necessary equipment to diversify their production and they are often interested in using the equipment of a subcontractor to manufacture certain necessary items of a highly technical nature.

(b) To enhance production capacity: This type is generally used when the firm submitting an order faces a "bottle-neck" in its own factory.

(c) To lower the prices: This form of subcontracting is usually based on the cost and availability of manpower.

The practice of subcontracting in developing countries has two aspects:

(a) As a competitive element

For the firm submitting the order: Apart from the advantages inherent in the application of the practice of subcontracting, a solution is often found to the delicate problem of immigration and to the difficulties which arise in exporting because of the high cost of transportation.

For the developing countries: It facilitates the acquisition of know-how and helps in the utilisation of capacity which is often of considerable importance to the internal market.

(b) As a means of co-operation

This form of co-operation does not mean aid must be provided by industrially advanced countries to developing economies. Its aim is to offer an opportunity to improve the relationships between industrial partners by means of an interdependence which could eventually lead to a specialization by the developing countries in certain sectors of industry. This specialization would help developing countries to create increasingly competitive cost structures for these industries.

Subcontracting in Tunisia

The advantages of subcontracting in Tunisia can be examined under three headings:

Its geographical position;

Its labour force;

Its international commercial agreement.

The advantageous geographical position of Tunisia and related transport facilities

Tunisia may be considered the crossroad between Europe, Africa and the Middle East. Its ports (Tunis - Goulette, Sousse, Sfax, Bizerta and, in the near future, Gabès) are good distribution centres for international commerce; they meet all the business requirements and are linked to the interior of the country by a well-developed network of roads and railways. Also to be noted are the transport possibilities of the regular airline services between Tunisia and Europe, the Maghreb countries and the Middle East. Thus when exports from the industrially advanced countries to Africa and the Middle East are limited to an important extent by the cost of transport of the final produot, it is worth considering whether it is advantageous to have the particular item produced by a Tunisian industry.

Three aspects of the Tunisian labour force

(1) Quantitative

The 1966 population census revealed the following:

Per cent of population	Age
18.5	0 - 5
27.8	5 - 15
48.2	15 - 60
5.5	over 60

(2) Qualitative

The Tunisian Government has made considerable efforts to improve the educational system. The Office de la Formation Professionnelle et de l'Emploi was created in 1967 to assure that appropriate skills are developed for all branches of industry. The success achieved by this organisation suggests that the size of the trained labour force will double during the period covered by the next Development Plan.

(3) Labour costs

One of the important characteristics of the Tunisian labour force is its low cost. Minimum hourly wage rates have been established at the following levels:

	Dinars
Tunis and suburbs	0.094
Bizerta, Sousse, Sfax and suburbs	0.084
Other towns	0.066

Social security charges do not exceed 37 per cent of the wages paid.

Studies have shown that labour costs play an important role in the following industries:

Foundry and metal fabrication;

Manufacture of precision instruments, clocks and watches;

Garment industry;

Manufacture of household utensils and furniture.

For these industries, wages account for 30 to 47 per cent of the value added and for 18 to 26 per cent of the final cost.

Tunisian enterprises are already working as subcontractors in the fields of clothing, furniture etc., at the request of firms in the United States, the Federal Republic of Germany and France.

The position of Tunisia in international economic relations

According to the recent agreement which Tunisia has signed with the European Economic Community, the six countries of the EEC will allow free entry, without taxes, custom duties or quantitative restrictions, to all the industrial manufactures of Tunisia, with the exception of cork products and those products that fall under the jurisdiction of the European Coal and Steel Community.

Should the transportation difficulties still discourage certain industries from using Tunisian subcontractors, then it may be worthwhile for these firms to install their own manufacturing facilities in Tunisia. This solution has the following advantages:

The industry would benefit from the special facilities accorded by the Tunisian Government to foreign enterprises establishing themselves in the country.

It would allow the firm to profit extensively from the subcontracting business which is offered. A clearing house established in Tunisia for subcontracting work would facilitate this opportunity.

Apart from these benefits, the industrial enterprise would be able to control more easily the execution of its subcontracting orders.

It would be easier to develop markets in the Maghreb and Middle East.

The use of the Tunisian labour force would benefit that part of the manufacturing process which is subcontracted and result in the increased competitiveness of the enterprise.

Governmental departments concerned with industrial development, the specialised institutions, and the large commercial banks of Tunisia are ready to advise foreign industrialists on all subcontracting projects. Thus interested foreign firms will have the opportunity to discuss with the Tunisian industrial enterprises the possibility of establishing subcontracting operations in Tunisia.

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