

ECONOMIC CONDITIONS

IN

NORTH AFRICA

J. P. MANION

1946

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IN

NORTH AFRICA

J.P. Manion,
Canadian Government Trade Commissioner

1946.

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ALGERIA

PART ONE

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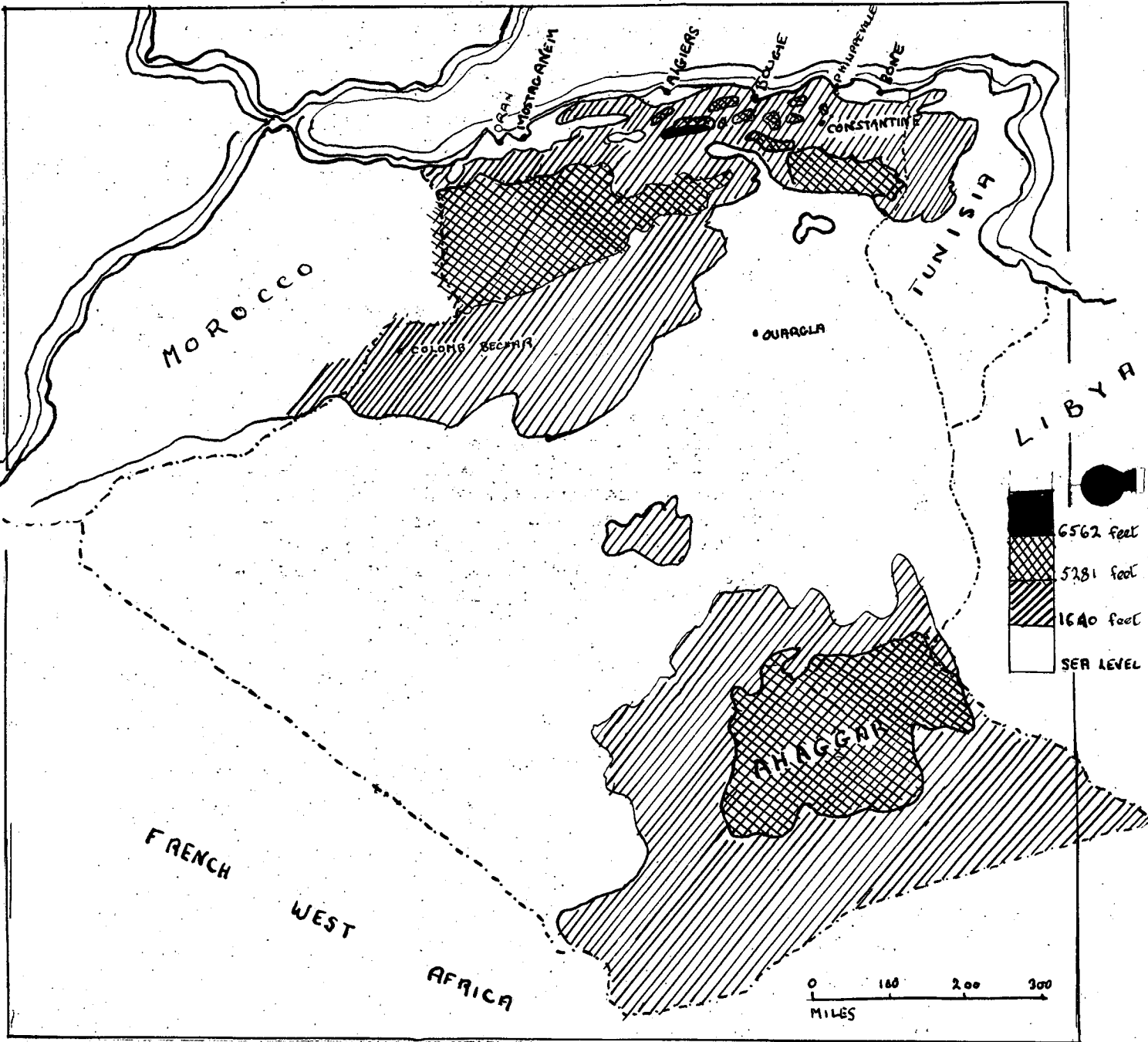
ALGERIA

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MAP NO. 1

The sketch map overleaf is intended to give some idea of the extent and the principal relief features of Algeria. Over 95% of the population is along a narrow coastal belt of which the hinterland is largely unpopulated and rarely satisfactory for agricultural enterprise.



ALGERIA
PHYSICAL FEATURES

CHAPTER ONE

ALGERIA : THE BACKGROUND

Algeria is a country which covers a total area of 847,500 square miles, or about the same area as Ontario, Manitoba and Saskatchewan combined. Like Canada, its populated area is infinitely smaller, extending for a depth of not more than 50 miles along a coast about 750 miles in length. Beyond this is the desert, with a population of only 642,000 out of a total population in 1936 of 7,234,684 -- a figure which has considerably increased in the intervening years, and which now stands at over eight million. The European population, now over one million, was 987,252 in 1936, while the native population is made up mainly of Berbers, an ancient race of Hamitic extraction, and of Arabs.

The country is bounded on the West by Morocco, on the South by an artificial administrative boundary with French West Africa, and on the East by Libya and Tunisia. In structure, however, the country is greatly divided within itself. In most parts of the country, the mountains of the Tell Atlas group reach the sea, leaving coastal plains only in the neighbourhood of Oran and Algiers. These mountains reach their highest points, sometimes over 7,500 feet, immediately south-east of Algiers. Upon passing over this series of mountains, one reaches the High Plateau, which is generally between 2,500 and 3,000 feet in height, and is in some areas strangely reminiscent of the foothills of the Canadian Rockies. South of this again is the Saharan Atlas, and beyond that the vast expanse of desert, often mountainous, nearly always rocky, and only in some areas conforming to our usual conception of limitless sands and shimmering dunes.

Along the Mediterranean coastal zone, the mountains act as a catchment area for rain, and mean average rainfall is in the neighbourhood of 28 inches, increasing towards the East to 36 inches. Most of this rain falls in November, December and January. In the High Plateau area, rain is still between 10 and 20 inches yearly; the effect of the rain is increased by means of streams coming down from the mountains. South of the Saharan Atlas, rainfall averages between 2 and 6 inches per year in the Northern Sahara, and drops down to nil in many parts of the southern desert.

The structure of the country creates an unusual phenomenon in the form of rivers flowing South from the southerly flanks of the mountains into the Sahara, drying up gradually until they completely disappear. A great many "Oueds" of this nature are to be seen, although most of the year they are but dried river beds with little if any vegetation around them. Even the streams running North into the Mediterranean merely trickle in a feeble manner in the summertime, but during the height of the winter rains they are of torrential proportions, and bring down enormous quantities of alluvial soil washed away from the already meagre surface of the land. There are only four important rivers running into the Mediterranean -- the Seybouse, the Rummel, the Chelif and the Bou Sellam. An effort is being made to harness all these streams, for hydro-electric power as well as for irrigation purposes. However, the evaporation problem is serious in the summertime, and even the largest dams may hold water only to have it slowly disappear during the hot summer months.

Communications throughout the country are difficult because of the series of mountain ranges which have to be traversed. Generally speaking, East to West communications are generally easier than North to South, and as a result the main railway line has been built parallel to the coast, with occasional feeders crossing the surrounding mountains from the next valleys or plateaux. There are in addition three good East to West roads, which join with similar systems in Morocco and Tunisia. The ports are in most cases isolated by surrounding mountains, and the main railway line cannot go directly through them all, although Algiers and Oran are on the main line.

The economy of the country is essentially based on water. Frugality with respect to water has been an immemorial custom with the Arab populations, but their primitive means of obtaining it are not sufficient to permit of a stable agricultural economy. For this reason, much must be done if the wide and relatively fertile areas of the country are to be exploited to their full extent. There are some irrigated zones, and plans call for a very great expansion in the irrigated area, in order to care for a growing population without having recourse to continued imports of basic food-stuffs. This will be treated at greater length in Chapter Three.

The second problem with which the country is faced is that of power and fuel. Generally speaking, the rivers of Algeria are too short to permit of great expansion in hydro-electric resources. Although many new projects are on the drawing board, it may be safe to assert that in the long run electricity must be produced by thermal plants, with hydro-electric plants acting as stand-by producers, relieving the load at such times as the water flow is at its height. This is the reverse of the situation in Morocco, where conditions are favourable for the establishment of large hydro power stations,

and where thermal plants will be more and more reduced to a stand-by role.

The very fact that many projects call for increased use of electricity means, however, that the coal consumption of Algeria will continue to increase from the pre-war figure of 768,000 tons per annum, all of which was imported. Since the war, the bituminous deposits at Kenadza and Colomb-Bechar have been exploited, and produce about 150,000 tons a year. These deposits, however, are inaccessible, and certainly uneconomical as a source of supply. One possibility is, nevertheless, that a large power plant might be established near the mines, with a high-tension line running down to the coast, thus relieving the pressure of import requirements to a considerable degree.

HISTORY

The known history of Algeria begins in the twelfth century B.C., when the Phoenicians colonized the coastal areas and used the ports for trading purposes. At that time the country was inhabited by Barber tribes, of Hamitic origin, and strangely resembling Europeans, with many examples among them of fair or reddish hair, blue eyes, long heads, and tall, slim figures. These tribes among themselves never organized into a large, homogeneous group, and it was only under the pressure of foreign invaders that the country was from time to time brought into unison. Thus although the Phoenicians were not interested in the interior of the country, the Carthaginians, who took over from them, managed to pacify a good part of Eastern Algeria, and were the first to introduce agriculture among the nomadic inhabitants.

Even before the destruction of Carthage in 146 B.C., the Romans had already succeeded in establishing themselves in Western Algeria, which they then called Numidia, and they were able to unify the whole country after the fall of Carthage. The Romans, being great colonizers, brought a considerable amount of their culture into Africa, and the native populations were Romanized to some extent, most of the natives learning to speak Latin and follow the religious and legal practices of Rome. Christianity shortly made its appearance, and again the very adaptable Berbers followed the times and were largely converted to the new religion.

By the second century A.D., the Romans had begun to lose their power, and the Vandals, coming down through Spain, established a short-lived Empire in the fifth century. Then the Roman Empire of Byzantine swept into the country, and added the eastern influences of Constantinople and the practices of the Orthodox Church. This Empire too, had a short life, and finally fell before the Arab invasion from the East. It took the Arabs only forty years to penetrate Egypt, Cyrenaica, Libya and what is now French North Africa. By the end of the seventh century, although there were still many



Algiers is a modern city with over 500,000 inhabitants, of which the majority are now natives. It rises steeply to a height of 600 feet, and extends for over five miles along the waterfront.

Berber strongholds holding out, their hold on North Africa was such that their cultural influence began to be felt, and the country gradually turned to Islam, its religion and its institutions. The Berbers seemed to receive the new faith with as much ardour as they had displayed towards Christianity, but yet they gave it a character of their own, which they retain to this day. For despite all the invasions and the intermingling of populations, about 30% of the native population in Algeria is still of pure Berber descent and are readily distinguishable from the more soporific Arabs. In those areas where they have been long isolated from direct contact with the Arabs -- particularly in the Kabylie Mountains just South-east of Algiers, and in the Ahaggar, the mountain range in the far interior of the Sahara -- they retain their own customs, their own language, and even their own particularities of dress. The Touaregs of the Ahaggar, for instance, have a matriarchal organization in which the men wear the veils instead of the women, despite their very great war-like qualities. Throughout North Africa, too, Moslem orthodoxy, which opposes the establishment of a priestly order, is ignored in favour of large numbers of priests, saints -- both living and dead -- and a sort of animism which may have its roots among the many negro slaves who were brought into the country throughout the centuries.

During the period of Arab rule, there were many movements and dissidences among the Arabs themselves, and there was even formed the rather powerful Berber Empire of the Almoravids. This empire also invaded Spain to help the Spanish Moors, and this in turn introduced a great deal of Andalusian culture into Africa, particularly in Morocco, where many eleventh Century monuments show a distinct Spanish character.

In the sixteenth century the reverse movement occurred, and the Spaniards were the ones who formed an Empire in Algeria. The natives thereupon appealed to certain Turkish pirates who had established themselves among the coastal islands, and the latter quickly pushed the Spaniards out and then offered homage to the Sultan of Constantinople. The Turks were not loath to take advantage of this free gift, and soon managed to eject the somewhat independent pirate chiefs, appointing in their stead short-term administrators who carried out Turkish policy but whose chief concern was in lining their own pockets. In effect, therefore, the pirates, who became known as Corsairs, retained effective control and became exceedingly wealthy and therefore powerful. Mediterranean traffic became so unsafe that many attempts were made by European nations to annihilate the Corsairs -- the French made attempts against Algiers in 1661 and 1668, and the Spanish made a landing in 1775, but little success attended these attempts. Slowly, however, there grew certain financial relations between France and the Dey of Algiers, and this in turn brought about certain complications which finally determined the French to land in force in 1830. At first the official policy was that only the coastal towns should be occupied, but

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by 1848 the whole of the populated area in the North had been occupied. Since the Berbers South of this area continued occasional raids against the colonists and the natives to their North, the French progressively occupied more and more of the country, until in the early twentieth century nearly the whole of the country was pacified.

Colonization was fairly rapid, there being 25,000 Europeans in Algeria by 1839. At first there was large-scale exploitation and financial speculation, raising land values to such an extent that natives abandoned their lands without regard to tribal rights and economic necessity. Gradually, however, certain lands were made by law inalienable, in order that Europeans should not indiscriminately dispossess the natives. Under this new policy, the European population increased to 107,000 in 1847, and has increased steadily since then.

ADMINISTRATION

"Unlike Tunisia and Morocco, which are protectorates administered by the French Foreign Office, Algeria is an integral part of France administered by the Ministry of the Interior, and sends representatives to the French Parliament. In the past there has been considerable conflict between the civil and military authorities. Civil rule, supported by the colonists, was associated with a policy of close attachment to France in contrast to military rule, which favoured greater autonomy, coupled with greater respect for the rights of the native and less encouragement for colonization. It was very largely the desire of the colonists to be administered by the home government rather than by the military authorities in Algeria that led to the present connection of Algeria with France."

The above quotation is an excellent synthesis of the trends of thought which led to the present status of Algeria, but it can hardly be held to reflect the present attitude of the French inhabitant. The reasons will be explained in the following paragraphs, and some additional comments will be made in the general discussion which follows in Chapter Five.

The populated area of Algeria, as has been previously stated, is along the coast. This area has been divided into three Departments, similar in structure to those in France itself, and all of them sending representatives and Senators to the French parliament. The remainder of the country, the desert area, is still under military administration, and might be compared to the politically-amorphous stage of development of the Canadian North-West Territories. It is to be noted that the military administrators themselves are subject to the will of the civil authorities, through the Governor-General and thence upwards to the Ministry of the Interior in Paris.

The Ministry of the Interior is represented in Algeria by the Governor-General, who to some extent can be compared to the Regional Prefect in France. In addition, there are the Departments of Oran, Algiers and Constantine, each with a Prefect whose duties are similar to those in any other French Department. The Governor-General, however, has much greater powers than any similar official in France, since the special problems arising from the relationships of a mixed population of Moslems and Christians require a special adaptation of many French laws applicable in Algeria.

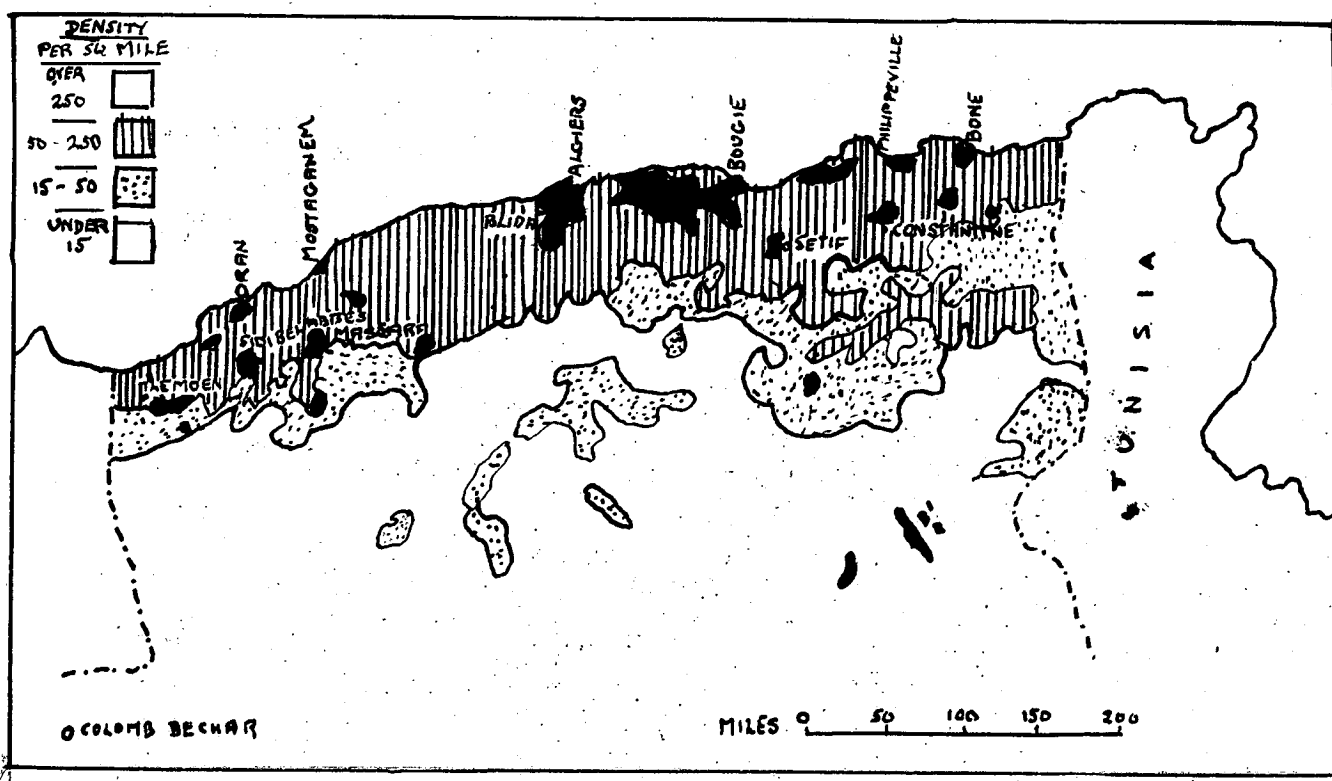
At one time at the turn of the century, Algeria was completely attached to France, and was to follow exactly the same administrative regime. This was soon found to be unworkable, however, since many French laws could not be applied to the Moslems -- including laws with respect to monogamy -- and a far greater degree of control was given to the local administration in Algeria, although this control remained technically in the hands of the Ministry of the Interior. Justice and education remain under the direct control of France, but in financial matters Algeria prepares its own budget, and only occasionally has to call upon French resources for a loan to balance its receipts and expenditures.

At the same time certain anomalies have arisen out of the vague system of "integration" with France at present in existence. Most of the ills are of an economic nature. Economic life remains greatly integrated through the influence that such Ministries as the Ministry of Public Works, the Ponts et Chaussées, Economie Nationale and Production Industrielle can exert through their functionaries in Algeria. At present it is the French industrialist and businessman in Algiers who resents the tutelage of France, whereas the Moslem is more and more vociferous in his demand for complete attachment to France. In the latter case, the Moslem feels that there could be no discrimination, since complete integration would mean the extension of French nationality to all inhabitants, and would give them outright control of Algeria. The European, on the other hand, asserts with considerable truth that the present status of the country prevents its industrialisation and economic development. Indeed, there is every evidence that pressure is being continually applied to prevent the establishment in Algeria of textile industries, oil refining, and all the major industries which would compete with similar industries in France. In other words, from the economic point of view, the French Government would like to consider Algeria as an economic dependency almost colonial in its status.

POPULATION

As stated at the beginning of this chapter, the total population of Algeria according to the 1936 census

ALGERIA



Density of Population and Principal Cities

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was 7,234,684, of which 6,247,432 were natives, and 987,252 were Europeans. The rate of increase during the five-year period 1931 to 1936 had been 681,233, so that during the ten-year period which has intervened since the last census, it is probable that the population has increased by about 1,300,000, and now stands close to 8,500,000.

The density of population in the three northern departments is 81.4 to the square mile, although when the Southern Territories are included, density is 8.4 to the square mile. The native population is increasing at a very much faster rate than that of the Europeans, although the influx of refugees at the beginning of the war may have helped to balance the two populations, since the refugees -- estimated at between 100,000 and 150,000 -- have in many cases settled down in the country.

The European population is mostly French, but there were in 1936 some 128,000 Europeans of Spanish origin, a figure which has been greatly increased as a result of the freeing from concentration camps of large numbers of Republicans who have remained in Algiers because they could not return to their own country. At the same date there were 50,000 of Italian origin, 15,000 of Maltese origin and 18,000 of other nationalities.

Among the natives, the Arabs or Arabized Berbers are the predominating group, with about 60% of the population. The Berbers account for about 1,200,000 inhabitants, while the native Jew probably accounts for 100,000.

The populations of the chief cities in 1936 were as follows. In most cases the population has greatly increased since that time due to a movement away from the country, and in the case of Algiers the number of inhabitants has gone up to over 500,000.

URBAN POPULATION - 1936

	<u>NATIVE</u>	<u>EUROPEAN</u>	<u>TOTAL</u>
Algiers (with suburbs)	81,729	182,503	264,232 367,093
Oran	48,068	152,603	200,671
Constantine	59,368	54,409	113,777
Bone	40,250	46,082	86,332
Philippeville	32,276	33,836	66,112
Sidi Bel Abbes	20,944	33,810	54,754
Tlemcen	40,881	13,382	54,263
Blida	30,113	13,930	44,043
Mostaganem	20,405	18,150	38,555
Setif	26,013	10,028	36,041
Mascara	18,404	15,118	33,522
Bougie	25,510	6,109	31,619

CHAPTER TWO

THE NATIVE PROBLEM

All textbooks and authorities consulted before touring the area insisted that the Pan-Arab movement and all its connotations as regards dislike of the European and contempt for his methods started in the East and filtered down the farther west it came. It was axiomatic with such authorities that Tunisia was the hot-bed of unrest as far as French North Africa was concerned, that it became less grave in Algeria, and was practically non-existent in Morocco.

In personal experience, the writer found that every Algerian native invariably spit when he saw a European. At first this was taken to be an Arab custom, indulged in even in the absence of Europeans. After spending some time in Tunisia and Morocco, however, it can be unqualifiedly stated that the indigeneous population in those two areas do not spit, ergo either the Algerian native spits more or else he spits only in the presence of the European.

The second lesson was imparted by an RAF Security officer, speaking perfect Arabic, who had been in the country three years. His main function was to study the attitude of the native population, and take measures as might be necessary if unrest became a military problem. His very unreserved opinion was that the native in Algeria felt himself inferior to his brethren in Tunisia and Morocco because he did not have his own forms of government, was incorporated into the French state, but yet did not have rights of citizenship therein.

His argument was that the French had an interest in keeping separate the Moslem populations in the three areas of North Africa, and to this end had done three things:

(a) The Moslems in Morocco and Tunisia feel that they are protected by the forms of self-government left them through the Cherif and the Bey respectively. It has even been suggested by other sources that the French fairly often place before these native authorities measures which, being completely unacceptable, will not fail to obtain a veto, in order that the "Rulers" may be more surely confirmed in his own importance.

(b) The Moslem in Algeria is given a salary which varies from 33 to 100 percent higher than that of his neighbours. Although goods are not forthcoming upon which these high salaries may be spent, this results only in higher prices economically, but politically, it results in a supreme contempt of the Algerian brotherhood by his neighbours. This in itself keeps the various native elements apart.



The native population has learned little of modern methods of agriculture, and little has been done to assist them. Besides the old Roman wooden plow -- sometimes steel-tipped -- such water-wheels as the one above are frequently used for pumping water.

(c) The French have retained repression as a political weapon in Algeria, whereas native elements are allowed in Tunisia and Morocco to form political associations according to their lights and fancies. More about this later.

The third impression, confirming the above, came from no less a person than the Directeur de Cabinet of the Governor General, a young man highly thought of in administrative circles. In view of the degree of integration achieved in economic matters, he was asked whether this integration would ultimately be carried further, firstly by the suppression of custom barriers between the three areas, and secondly in the political field. Although the first question remained unanswered, the answer to the second was highly interesting: "It would be impossible for France to grant a higher degree of unification in the political field". Since prompting seemed necessary, I suggested that this might be because a unified North Africa would permit the whole Moslem population to unite in one large and uncontrollable Pan-Arab movement. He admitted that this was so, and admitted that economic differences had to be clearly defined in order that there should be no assimilation of interests between the various factions at present in the field.

We come now to the only Arab demonstration which has so far occurred West of Cairo (x). During the war, the Moslem population was afraid that any demonstrations on their part would be taken as an index of pro-Nazi activity, and they therefore refrained from any sort of anti-European movement. On the approach of VE Day, however, certain of the groups in the Department of Constantine, the most unruly element among the Arabs, petitioned the prefect to allow them to stage a parade and demonstration on the day following the end of hostilities, in Setif. This was agreed to, provided there was no evidence of political intent in such a demonstration. The terms having been agreed to, the parade took place, and it was immediately evident that this parade had a political motivation. Banners against France, and in favour of the liberation of a well-known Moslem political prisoner were prominent. The 50 French people in Setif were indignant, and someone started shooting. Later, a group of Arab hoodlums came back into town, and decimated the French population. The next day, the French Airforce came out and, in reprisal, bombed out a considerable number of Arab villages in the neighbourhood.

This reprisal is stated to be a point of rancour among all the Moslems in Algeria. Two qualified observers have stated that they believed this riot to have been incited by the French themselves, since it just happened that at that particular time a large number of French troops had returned.

(x) There has been one other demonstration, in November 1945, in Tripoli. It was stated that in this riot, some 600 Jews were casualties. This, however, was not strictly speaking an anti-European rising, since the North African Jew has long been assimilated to the native population, however much he may be disliked by some of the Moslem fanatics.

to Algeria, and it was considered expedient to bring into the open any antagonism which might exist, in order to display a show of strength which would quell the native for many months to come.

However it may be, the casualties resulting from this riot were extensive. The official French communique stated that there were some 2500 casualties. The American estimate ranges between 17000 and 25000, while the British are more conservative, and tend to remain below the lowest of the above American figures.

It seems essential for the validity of this exposition to reduce the matter from the general to the particular. There are at the present time some 7,000,000 natives in Algeria. They are divided between the Berbers, the Arabs, and the co-mixture of both. The latter are probably much more numerous, but among the relatively "pure" races, the Berbers are more numerous. They are intelligent, adaptable, and from the fairly frequent red hair and blue eyes one sees among them, they are of Hamitic descent. They were the first inhabitants of the area, and, after having developed customs and a religion of their own -- somewhat similar to those of the ancient Egyptians -- they became Christians and spoke Latin under the Romans. When the Romans were defeated by the Arabs, they were slowly Moslemized, and began to speak Arabic, although there are still isolated areas which speak the native tongue. Although in religious observance they are tepid, in thought and outlook they are nevertheless "fellow-travellers" with the Arabs.

In Algeria they are treated the same way. Although France has held out the opportunity of citizenship to most of them, they feel that this is more to split them by means of self-interest rather than anything else, and most of them have not availed themselves of the privilege -- the more so as citizenship entails military service. Citizenship, however, is important from the point of view of rationing, since there is a considerable difference between the native and the European ration in the country. This is explained on the grounds of religious observance, since the Moslem is not able to enjoy the full fruits of our gastronomic civilization. At the same time, there is a very definite discrimination, which is not entirely lost to the native.

In the matter of clothing, the European is not much better off than the native, since he has had no clothes to speak of for the last five years. Yet the native lives almost exclusively in cotton shrouds, which wear easily and must be frequently renewed. In 1944, his ration was $1\frac{1}{2}$ yards per person, enough to make a shirt for one member of the family. In 1946 the ration is going up to $3\frac{1}{2}$ yards, but this is still insufficient. Although France could import some cloth from outside sources, the whole market is reserved for cotton from the Metropolitan area, on the assumption that the textile industry will be able to provide -- an assumption yet to be proved, but meritorious in that it reduces the requirements in foreign exchange.



This photograph shows two types of native equipment : a press for olive oil, and a grinding wheel for cereals. Both are highly inefficient, but little has been done as yet to substitute modern equipment on a co-operative basis.

There comes now the more important question of training and equipment of the native for the better production of his requirements. Except for the city hooligan or pauper, the unskilled worker and the occasional government employee, who is a point of pride to on one, most of the natives may be divided into two classes -- the nomad, whose wealth is sheep or camels, who moves with the seasons from one pasturage to another and who is no particular asset since he lives within a closed economy; and the settled farmer, who has a tract of land, and cultivates it as best he can, selling his excess, when he has any, on the "Export" market. The latter is a very considerable and consequential class of the population, but the trouble is that he has been reduced, by the colonizing enterprise of the French settler, to plow the more acrid portions of the country.

There are still wide areas of the country which would form good farm land, but which require irrigation. The native could therefore find ample space, but first he would have to be taught something about modern agronomic science, the use of machinery, and other equally important aspects of modern life. He would also have to receive credits much more freely than in the past. Practically nothing has been attempted along these lines, and on the whole it may therefore be said with considerable justification that the native problem in Algeria is an economic one: that political recriminations against the French could be reduced by equitable treatment in the economic field; and that even the ever-present threat of a Pan-Arab revolt is to some extent merely a manifestation of economic unrest rather than being based on kinship and a fellow-feeling for the Arabs of the Eastern Mediterranean.

CHAPTER THREE

AGRICULTURE IN THE ALGERIAN ECONOMY

Agriculture accounts for practically the whole of Algerian production, and may be counted to do so for many years to come. It is therefore important to study the basis of this economy, and determine to what extent derivative industries may be set up at some later stage which will affect the natural economy of the country.

There are of course other products which are of some importance to Algeria from the point of view of her international trade. Iron ores and phosphate production are the chief of these, and there are also such lesser products as cork, alfa or esparto grass, vegetable horsehair, and a few minor products such as barytes, lead, zinc, and kieselghur, all of which will be discussed in a later chapter. Cork, alfa, and "crin vegetal", however, fall naturally into this section, since most of these products are derived from farm or "colonized" land.

In normal years Algeria depends almost entirely on her exports of wine for the accumulation of foreign credits allowing her to buy abroad. During the war, however, she was cut off from the chief market, France, so effectively that her normal production of about 300,000,000 gallons per year was of no benefit to her. This situation has continued since the war due to the unavailability of shipping, and due also to the shortage of casks, which has prevented the utilization of any spare space which might have been available on the normal merchantman.

The second factor of prime importance is that under normal circumstances, Algeria has very few foreign food products to import, and even manages to export more than enough to cover her normal requirements in imported food. Thus her cereal production is generally adequate to permit of some exportation to France, and she has in addition the dates and figs and early vegetables (and some olive oil) which allow her to import dairy products, sugar, tea, coffee, and some few other essentials from abroad. Now in this case also the situation has greatly deteriorated in recent years as a result of cumulative drought conditions resulting in 1945

in the worst crop failure in years. This same drought affected the livestock situation in almost equal proportions, and has generally demoralized the native population if not the European colonist.

In order to obtain an accurate view of the situation, it is perhaps well to visualize the type of country with which we are dealing. There are only two coastal plains of any significance -- that about Algiers, which is perhaps twenty miles long and five miles deep, and that about Oran which has a greater depth but is less broad. These are the lush, ever-watered areas, where lie the truck gardens and the more intensive areas of cultivation.

Immediately behind these plains arises a mountain chain which is suitable mainly for the raising of sheep and goats. Beyond this chain, which rises to an average height of 6000 feet but reaches in some areas crests of 8000 feet, there is a broad plateau, perhaps twenty miles wide throughout the length of Algeria, followed by another chain of mountains and then by the open (and generally mountainous, not sandy) desert.

The plateau mentioned above is at an average height of 2500 feet above sea level. Strangely enough, it greatly resembles the foothills of the Rockies, the farming area about Calgary and farther south. Some of the accompanying pictures may give an idea of the type of farming possible in such country. With the mountains always visible, the land itself is flat or rolling, and eminently suitable for large-scale exploitation. Everywhere, however, the sub-soil is close to the surface, and a large proportion of the area consists of gravelly outcroppings not suitable for cultivation by machine.

The phenomenon one is most likely to see therefore is a vast farm well-equipped with machinery of all kinds, while in the immediate neighbourhood are several native farmers still cultivating the soil with the old Roman plow made of wood and sometimes tipped with iron. Since the natives still own 80% of the arable land, it will be seen that production is far from being what it might be.

There is a constant tendency in Algeria to despise the "fellah" or native farmer as a poor worker who refuses to attempt new methods of culture, and who sows only enough for his own immediate needs. There is evidence, however, that the government itself is largely responsible for this state of affairs. There are no agricultural stations to teach the natives, there are no cinema demonstrations of any kind, and there appears to have been no serious attempt to extend agricultural credits to the native in order to provide him with the means of purchasing adequate modern implements. In addition, the colonists who arrived after 1830 managed to buy up a good part of the best land, and, as pointed out above, the native



This is a new palm plantation with considerable surface water. In many areas, huge pits, ten feet or more in depth, are dug, and the small palms are planted at the bottom, so that their roots can reach down for subsoil water.

is thereupon in many cases left with the most meagre soil upon which to work. There is at the present time, however, a discernible trend towards the sale of land back to the natives by European settlers who for various reasons have decided to quit the land. It is stated that the yield of the land immediately drops, but it would appear that this still has to be proven over the long term.

Since methods of production are under discussion, it is interesting to have some indication as to the number of agricultural implements and machines there are available at present in the country. Fortunately, a census of usable machinery was made in January 1944, and the results should be highly significant. With respect to the following figures, it appears that they would be valueless without some indication as to the number of acres to be worked with them. This figure we must arrive at by estimation: there are about 8,000,000 acres of land sown in field crops; since the natives own 80% of this land, and in most cases do not own any agricultural machinery, a large proportion of the machines below are used on only 1,600,000 acres of land.

No. of Agricultural Machines as at 1 Jan 44

Grain drills	4,500
Fertilizer distributors	2,400
Moldboard plows, tractor-drawn	4,700
Disc plows	2,700
Disc harrows, tractor-drawn	1,400
Harvester-threshers	665
Binders	12,000
Mowers	6,750
Rakes	7,100
Push-headers	3,480
Wheel tractors	1,650
Tracked tractors	3,555

Most of the above machinery is in very bad shape, however, due to the inadequacy of imports during the last few years. The import programme for 1946 is intended to partially remedy the situation, as may be seen from the following table. (It must be realized that the programme figures for 1946 depend on the availability of foreign exchange for fulfillment)

IMPORTS OF FARM MACHINERY
(Figures in metric tons)

	<u>1937</u>	<u>1939</u>	<u>1940</u>	<u>1942</u>	<u>1946 programme</u>
Tillage machinery	199	161	91	168	1460
Harvest machinery	587	932	373	306	1142
Other equipment	1311	1339	832	712	450
Repair parts	1104	1781	1173	933	455

Note: The figures in the above table come from two different sources, and the classifications may not entirely coincide as between past figures and programme figures for 1946.

The import figures for 1946 do not tell the entire story with respect to planned development in agriculture. Other factors enter into the situation, and although accurate data are not available, it may be well to examine these factors before proceeding to a detailed examination of production figures.

Irrigation policy is a question greatly discussed in Algeria. The French tend to point with pride at what they have already done, and what they contemplate doing, in this field. Yet there is no evidence, throughout the fairly large sector of the country examined, of any intensive effort in this direction.

In actual fact there are two problems connected with the obtaining of water for agricultural purposes. In the areas close to the mountains, the problem is that of the catchment of surface water coming from mountain streams, and its proper distribution among the farmers. But in the desert areas the problem is that of drawing water from the subsoil and seeing to its distribution.

In the latter instance, the Berbers have had immemorial methods of drawing water, methods still in existence and still permitting the isolated life of far-away oases. But farther north, nearer the mountain ranges, where the soil could be made to produce, there are only isolated instances of intensive modern methods of finding water. One finds around Tolga and Biskra large date palm areas almost wholly created within a generation through modern attempts to obtain artesian water. But for miles on either side, where geological conditions appear identical, and where the soil is no worse, there is nothing but desert with a few grazing sheep and wandering nomads with their camels and their donkeys. No attempt has been made at deep-well boring on the oil well principle, nor have all artesian sources been tapped.

The problem in other areas is more one of control than of discovery. There are eleven major storage dams, and several more are planned or in the process of construction. But none of these dams appear to be supported by secondary dams to regulate the flow into the storage basins and to prevent erosion. In a country of deep gulches, somewhat similar in aspect to the country surrounding the southern arm of the Saskatchewan River, and in which rain, when it comes, is of a torrential nature, everything is washed into these coulees at flood-time. In order to prevent massive erosion, it would be necessary to have a small dam perhaps every mile or so to catch the eroded soil and perhaps to furnish subsidiary irrigation streams. Instead of that, the water comes pouring into the major dam with the following result: in one particular storage basin, which has a catchment area of 80,000 hectares, 23 million cubic metres of top-soil deposit has accumulated in the period from 1932 to 1944. This is equivalent to 7.5 mm of topsoil from the whole of the catchment area!



When a palm plantation is well developed, it is usually possible to grow other crops within the shade of the palms. In this plantation there are orange and apricot trees, and small, carefully irrigated vegetable gardens.

Thus it would appear, from what has been observed, and from what facts have been made available, that irrigation policy has been far from satisfactory, and that the major part of the work remains to be done. Unfortunately, the Algerian economy depends primordially on water, and the training of the "Politechnicien", the graduate from the highest engineering school in France, does not fit him for such a problem, although his acute feeling of the superiority of his training will prevent him from calling in foreign advice. The Dutch, for instance, who have a great respect for water, and an ingrained sense of its control, could certainly add millions of acres to the cultivable land of this country. Even the Canadian, with long experience in water control for hydro-electric purposes, could do far better than has been done to date. One pertinent observation: many large fields are centred on hillocks or mounds of earth; the French farmers, with no prior knowledge of water scarcity, will unfailingly cultivate such a field from one end to the other, that is, he will start his furrows in a depression and go straight over the crest of the hillock and down the other side. Ordinary water-conservation practice would indicate that it would be far better to cultivate in a circle, in order that the furrows should follow the contours of the ground and so act as impediments to the immediate pouring off of surface water.

PRODUCTION

It has already been indicated that the year 1945 was one of great scarcity due to cumulative drought conditions. How seriously production was affected cannot be visualized without using comparative statistics. The following series of tables will give some idea as to the magnitude of the problem.

ALGERIAN CEREAL PRODUCTION

(In metric tons)

	Average 1934-1938	1942 or 43 as available	1945 estimate
Hard wheat	637,122	500,000	235,000
Soft wheat	315,351	280,000	82,000
Barley	704,072	750,000	155,000
Oats	150,155	180,000	58,000
Others	11,553	6,384	3,000
TOTAL (approx)	1,918,000	1,716,000	533,000
Requirements for food, feed, and seed :			1,484,000
Deficit, crop year 1945-46			951,000

The above table is startling in its implications, since it shows that Algeria, which is normally capable of exporting some 400,000 tons of cereals, and still retain more than its minimum requirements, requires this year considerably more than double that amount from foreign sources. This requirement, incidentally, coupled with inability to export wine, reduces to a tremendous degree the availability of foreign currency for reconstruction and for consumer goods.

Accurate figures with respect to the remainder of Algerian agricultural production are more difficult to obtain, and estimates with respect to 1945 conditions will be treated as tentative appraisals in the following tables

AGRICULTURAL PRODUCTION OTHER THAN CEREALS

(In metric tons unless otherwise indicated)

	Average 1934-1938	1942 or 43 as available	1945 : Observations
Dry legumes	31,044	26,420	Bad crop
Forage crops	333,156	126,883	Practically nil
Oil seeds	113	902	Unknown
Potatoes	118,357	84,189	Bad crop
Olive oil	11,508	16,000	acute shortage
Figs	40,319	42,890	Reasonable crop
Dates	37,261	40,523	Good crop
Citrus fruit	85,052	137,149) Number of trees planted) has tripled in five years,) and although not all in) production, output is) increasing.
Wine (Hectolitres)	17,878,678	8,700,000) About 11,000,000 Hcls.) Stocks very high, despite) large amount turned into) alcohol for fuel.

In addition to crops from arable land, certain other factors enter into the general picture of agriculture in Algeria. Chief among these are the livestock of the nomadic Arab, and the far less numerous livestock raised on farms. The Arab uses his livestock as a sign of wealth; he accumulates it rather than sells it, and to this extent it is difficult to determine to what extent it enters into the realm of productive activity. In all cases, at any rate, the animal population has greatly suffered from the recent drought. There are several areas where as much as 80% of the livestock has died, and although no country-wide figures are available, there have been some curious results: meat, for instance, has been plentiful, and no rationing is imposed, since much livestock is marketed in order to avoid annihilation; on the other hand, beasts of burden such as the camel and the donkey, and beasts used for traction, such as the horse, have been so greatly weakened that they can barely serve their very important functions.

Sheep are by far the most important element in the livestock population, figures for 1943 being 6,546,000. Goats come next with 3,275,000, while the cattle population was 911,000. There are no estimates available as to the number of horses, camels, mules and donkeys.



Nearly everywhere in Algeria one is in sight of the mountains. This is a typical valley between two series of mountains, with drainage from both sides supplementing an insufficient rainfall and permitting good crops of cereals.

FERTILIZERS AND INSECTICIDES

While Algeria produces some 600,000 tons of rock phosphate per year, its superphosphate production is far below this figure. Normally, the requirements of the territory itself are just about covered by an annual production of 80,000 tons, but present production is not much greater than 60,000 tons.

Phosphates, however, are by no means the only type of fertilizer required. Official estimates place the requirements in ammonium sulphate at 25,000 tons per year, and the potash requirements at 24,000 tons. American agricultural experts consider that these figures are considerable over-estimates, and that the country could get along with about half the amounts given above.

In a country having as great a vine production as Algeria, one of the most important chemicals required is copper sulphate in order to prevent the spread of phylloxera. Estimates of requirements are 18,000 tons. In addition, some 22,000 tons of sulphur are required for sprays and for the production of other chemicals including superphosphates.

Among the less important chemicals required are the following:

Lime	15,000	tons
Iron sulphate	3,000	"
Sodium carbonate	2,000	"
Sulphur dioxide	450	"
Lead arsenate	350	"
Barium fluosilicate	300	"
Tartaric acid	250	"
Sodium arsenate	250	"
Dry lime-sulphur	200	"
Copper chloride	60	"
Potassium permanganate	40	"
Sodium fluosilicate	30	"
Calcium cyanide	30	"
Nicotine derivatives	10	"
Methyl bromide	10	"
Citric acid	5	"

An American estimate adds a small number of other products to the list above: strychnine sulphate, carbon disulphide (125 tons for the whole of North Africa), carbon tetrasulphide, sodium borate and paradichlorobenzene.

Requirements in fuels and lubricants are of little interest to Canada, and will not be examined in detail. Total requirements in alcohol, fuel oil, gasoline and kerosene are stated to be in the neighbourhood of 600,000 metric tons per year, in order to permit of proper utilisation of mechanical equipment

There are various other agricultural requirements which might well be mentioned here. Binder twine requirements are estimated at 1,800 tons per year. 100 tons of raphia are required for binding vines, tomato plants, etc. Some 45,000 metres of canvas in widths of one metre or over are required for reaper-threshers and binders. 32,000 square metres of tarpaulins are required for fumigation, picking olives and other farm uses. 50,000 square metres of cloth for the manufacture and repair of harness are required, as well as some 12,000 large bags for gathering grapes.

CORK, ALFA, and VEGETABLE FIBRE

As stated at the beginning of this chapter, these items fall naturally into the category of agricultural products, since their production is a source of added revenue to the farming or nomadic populations.

Cork is one of Algeria's important products. Some 35,000 tons, or one-sixth of the world's production, comes from Algeria. Of this amount, two-thirds are second-growth cork, suitable for use in the bottling trade, while only one-third is broken or first-growth cork suitable only for agglomerates, insulation, etc. It is interesting to note that the Armstrong company in the United States is well represented in the area, having large storage dumps in the various ports and a resident buyer in Algeria. For agglomerates, however, Morocco appears to be the natural source of supply, and the price there is cheaper even than that of Portugal.

Alfa production is in the neighbourhood of 250,000 tons per year. Curiously enough, most of this in pre-war years was shipped to Scotland for the production of various types of paper. The reason for these shipments appears to be that return freights on coal-carrying ships were very moderate, and permitted of a cheaper landed cost in Scotland than was possible even on ships crossing the Mediterranean to France or Italy, both of which countries are small users of alfa. Lately there have been small exports of alfa to the United States. It is known that these are not for the manufacture of paper, but the actual use to which the grass is being put has not yet been divulged.

Vegetable fibre production is growing, and amounted to 23,400 tons in 1937. In order to produce a sort of horse-hair for stuffing furniture, this fibre must be treated in special plants, and Algeria in this respect is far behind Morocco, which has some very modern plants. The most important plant in Algeria is at Nemours, and most of the exports take place through this port.

DERIVATIVE INDUSTRIES

Since Algeria is not highly developed industrially, it is to be expected that agricultural processing plants are limited to the minimum essential for local requirements. Thus

there are flour mills and olive-oil pressing plants, but very few canneries, meat-packing plants, soap-making industries, and other more highly specialized secondary industries dependent on agricultural production.

Algeria is nevertheless highly conscious of the necessity of installing cold storage facilities in order to ensure the orderly marketing of its perishable goods. What has been done in this area, however, is little compared to the developments taking place in Tunisia and Morocco, which will be discussed in their proper place.

At the present time, Algeria is obliged to market very shortly after production its dates, figs, oranges, early vegetables and meat. It is realized that the best profit is not obtained out of the orange market if all the oranges are exported during the December to February season; that dates, unprocessed and not refrigerated, are liable to fermentation and obtain very low prices on world markets; that early vegetables would reach the market in a better state if they were refrigerated; and that there is no possibility of forming an export market for meat unless cold storage facilities are created.

There is an immense amount of work to do in this direction, and plans call for the establishment of complete cold storage equipment during the next five years. This will have to consist of small plants near the production areas, which could combine cold storage facilities, canning, sorting, grading and packing plants. Refrigerated trucks and railway cars will be needed to move produce from production areas to ports. The ports themselves will require cold storage docks, and finally, a fleet of small refrigerator ships of about 5,400 tons, able to enter all the Algerian ports, will be required.

It is estimated that if these dispositions are taken, annual exports of fruit and vegetables could triple the pre-war figure of 150,000 tons per year, while exports of frozen mutton could reach 6,000 tons per year.

The canning industry at the present time has an annual capacity of merely 3000 tons. This is far from sufficient to ensure the use of second grade fruit and vegetables, and very great steps could be taken in this direction. Some thought is being given to the problem, but planning in this direction still appears to be timid, and does not include expansion in facilities for the production of fruit juices, pulps, jams, and other tributary products of the canning industry.

There is a similar hesitancy about the establishment of a sugar industry in Algeria. Moslems are heavy eaters of sugar, and normal consumption, if all restrictions were lifted, would be well over 100,000 tons per annum. Certain parts of the country are ideally suited to the raising of sugar beets,



Another view of the wide open spaces in the High Plateaux. The land here often yields forty bushels to the acre.

and even sugar-cane refining industry will have to await the development of such local production, and in the meantime Algeria is wholly dependent on the importation of refined sugar.

There are only two oil and soap works in Algeria, with a combined capacity of 12,000 tons per annum (Huiles et Savonneries d'Algerie, Algiers, and the Usine Rouge in Oran). In addition, there are some 5 to 6,000 primitive native oil presses whose extraction rate is very low and wasteful, and which produce olive oil of very inferior quality. Plans call for the establishment of cooperative oil plants in the production areas, which in turn would permit the expansion of industrial oil and soap-making facilities.

Finally, some thought is being given to the establishment of a paper industry in the country, based on the large resources of alfa grass. One project calls for a pulp mill producing 60,000 tons per year, and converting this pulp into kraft and other types of paper. One of the difficulties involved is that hydraulic power sources are insufficient to permit such an industry to set up its own power plant, with the result that power would have to be bought at ordinary industrial rates. A further difficulty, which may well prove insurmountable, is the high mineral content, and the enormous amount of silt to be found in the water.

ADMINISTRATIVE CONTROLS AFFECTING CANADA

The main import regulation affecting Canada is that with respect to agricultural implements. In view of the shortage of foreign currency, France is still obliged to control imports, and ensure that what foreign currency there is should be utilized only for the purchase of the most essential goods. This in turn necessitates the continuance of a planned import economy, which means that agricultural implements are to be imported only within the framework of an annual import programme. The total tonnages of agricultural implements to be imported during 1946 are given elsewhere in this report; here, only the method of controlling imports will be discussed.

Before the war there was an import quota system in France, whereby each country received certain specific allotments of particular types of goods. In many cases the actual distribution of import licenses was left in the hands of a professional organization representing the various dealers in the commodity in question. This system has continued, and for each category of products, such as chemicals, or metallurgical goods, or electrical products, or agricultural machinery, there has been formed a "groupement" or syndicate of importers. At the head of the syndicate is a president, who is usually the most prominent man in the trade, and in the case of agricultural machinery, all too often represents a certain American company. The president is responsible for the distribution of licenses among the members of the group.

Although the import quota system is no longer in existence, the president of the group in Algiers has perpetuated the system by allotting licenses in proportion to the amount of imports during the pre-war period. Since Canadian firms had roughly 20% of the market before 1939, this means that our proportion remains about the same. This has not reacted to the benefit of the importing country, since in 1945, for instance, the Combined Boards in Washington allotted to Canada 2,300 tons of the 4,000 tons of agricultural implements to be imported during that year into North Africa. But import licenses were granted in different proportions. Since the firms represented by the license holders were precluded from exporting by the Combined Boards allocation, the total requirements of the country were not fulfilled.

The continuance of this indirect quota system has been strongly protested against, and the higher administration has promised to examine the allocations made by the subsidiary licensing organizations, and rectify any one-sided allotments which may be made. The members of the trade themselves, however, inspired by ethical considerations, are not anxious to take the initiative in following up these protests, and it is possible that the original explanations made to the higher authorities may remain fruitless unless Canadian firms themselves continuously prod their representatives into action. There is every reason to believe that American firms will not be able to supply their customary amounts due to labour unrest and other re-conversion problems, and during 1946 Canada could well assume a dominating position in the market, a position which manufacturers could then hope to maintain. In the absence of permanent official representation in North Africa, however, it is the producers themselves who will have to follow up this matter with their agents in the field, and ensure that they get the highest possible proportions of import authorizations.

CHAPTER FOUR

MINES, INDUSTRY, POWER AND TRANSPORT

As has already been indicated, Algeria is far from being an industrialized country. Besides its agricultural resources, however, it has one more asset which is of considerable importance in its economic structure: its fairly extensive mineral resources.

Algeria is rich in variety of minerals, if not in quantity and quality. It is probable, nevertheless, that in the latter respect, lack of diamond-drill investigation has prevented a truly extensive study of sub-soil possibilities, with the result that many extensive deposits still remain to be found and exploited.

Among Algeria's mineral resources, iron ore is the most important. The country is the eighth largest producer in the world, and before the war its production reached as high as 3,000,000 tons per year. During the war years deterioration of equipment has reduced potential productive capacity to about 1,780,000 tons per annum, despite efforts by the British to resume production among the better deposits. Some of the Algerian and Tunisian ores are among the richest in the world, ranging from 55 to 61% iron and from 0.9 to 1.5% phosphorus. It is this low-phosphorus content which has made these ores highly-prized in Great Britain and other countries, and gives them their especial value in the Bessemer process.

While production in 1944 was only 782,407 tons, much of the equipment ordered during the period of Anglo-American occupation is now coming into production, and it is estimated that during 1946 production may reach 1,500,000 tons, most of which is under contract to Great Britain.

The following are the principal statistics with respect to the various mines in Algeria, brought up to date as much as possible.

SOCIETE DE L'OUENZA. This company is the largest producer in Algeria, its highest production being in 1938, when 1,864,250 tons, or 60% of Algerian production, were extracted by the company. Its principal deposits are at Djebel Ouenza and Djebel bou Kadra (see map). Ores are exported through the

port of Bone, where special loading facilities have been installed. Incidentally, this is an uneconomic method of shipment, since two mountain ranges have to be crossed by the railway in reaching Bone, whereas the use of a Tunisian port would encounter far less technical difficulties. This is merely one result of the political divisions of North Africa and of the jealousies engendered thereby; the Algerians refused to allow Tunisia to benefit from a transit trade originating in their own country. Reserves of ore in this range, which also includes the Chabet Ballout mine, are estimated to exceed 50,000,000 tons.

COMPAGNIE MOKTA EL HADID. This company controls the mines in the neighbourhood of Beni Saf. This basin produced 540,781 tons of ore in 1929, and in recent years its production has been between 300,000 and 400,000 tons per annum. Exports are through the port of Beni Saf, especially developed by the company, although some small independent producers use Port Kelah (capacity 900 tons per hour) and the roadstead off Mersa Honain (capacity 15 tons per hour).

SOCIETE MINIERE DE MILIANA. This company exploits several deposits, the chief one being the Rouina mine in the Chelif Valley 30 miles East of Orleansville. In 1929 production was 146,000 tons, but in 1938 it had fallen to 84,000 tons. In the Dahra, a coastal area between Oran and Algiers, the company has several deposits of haematite ores, but no statistics are available as to recent production. Port Breira, developed by the company, has an electric transporter capable of transporting 650 tons per hour. The port is at present disused. In the Massif du Filfila, 11 miles East of Philippeville, the company owns three concessions which produce specular iron ore with a metal content of 66%. These mines have produced continuously since 1918, but no statistics are available.

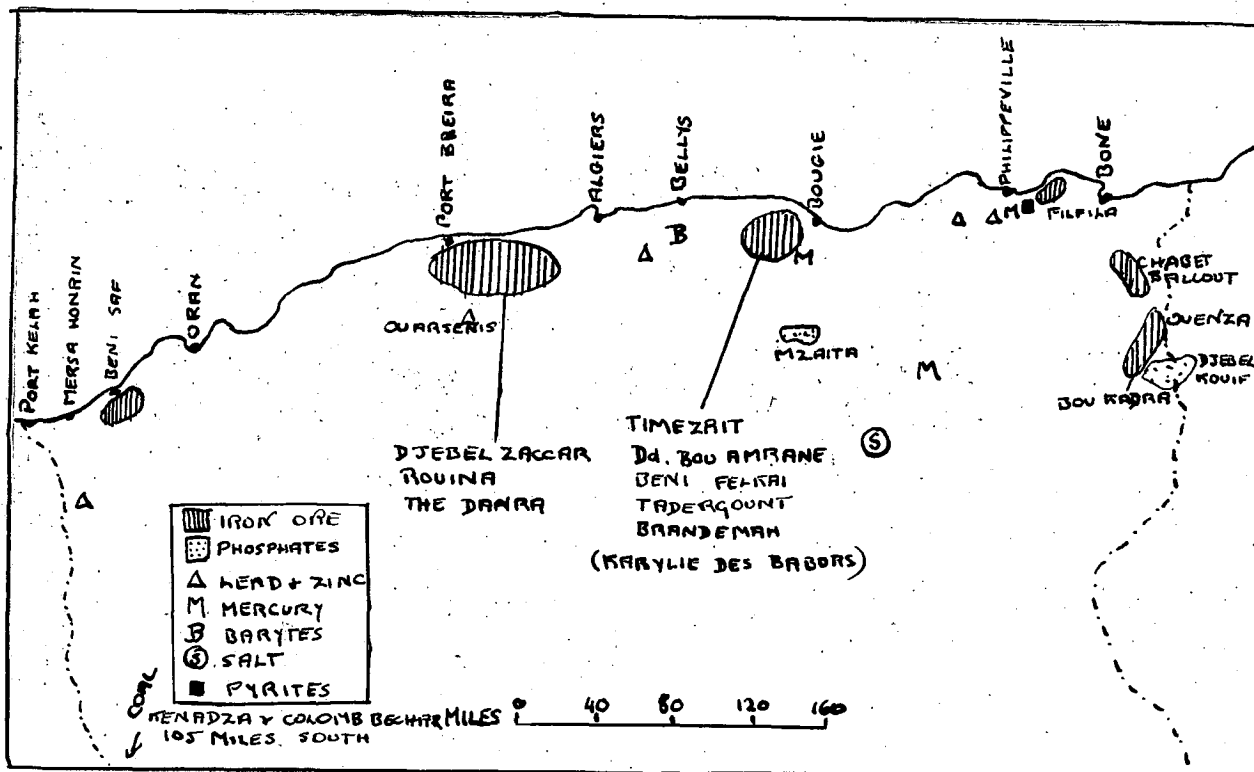
SOCIETE DES MINES DE ZACCAR. This company owns the third largest mine in the country at Djebel Zaccar, with an average production of 250,000 tons per annum shipped through the port of Algiers.

COMPAGNIE DES HAUTS FOURNEAUX DE CHASSE.

SOCIETE MINIERE DE LA KABYLIE. These two companies own several mines in the neighbourhood of the port of Bougie, of which the most important are at Timezrit, Djebel bou Amrane, Beni Felkai, Tadergount and Brahdemah. The basin is called the Kabylie des Babors, and production in 1938 was over 240,000 tons. Ore is loaded at Bougie and by an off-shore electrical transporter at Les Falaises.

The above are the most important active mining groups. There are in addition several inactive mines, and others which have not started producing. Practically all of the iron ore produced is exported, since there is no smelting industry in Algeria. Although Britain has a long-term contract, there is nothing preventing the purchase of iron ore for ballast of up to 2,000 tons per ship.

MINING AREAS IN ALGERIA



All the mining areas mentioned in the text are shown above, as well as the ports equipped with ore-loading facilities.

PHOSPHATES

Phosphate rock occurs in a huge belt along the southern shore of the Mediterranean from Morocco right through Algeria and Tunisia, but it can only be worked economically when the phosphate content exceeds 58%. The United States and the USSR are the only countries which produce more phosphates than French North Africa, and although Algeria comes third in production in North Africa, its 500,000 tons per year is of considerable importance on world markets. The principal deposit is at Djebel Kouif, near the Tunisian border, and is worked by the SOCIETE DES PHOSPHATES DE CONSTANTINE. This company produced 539,470 tons in 1938 but by 1944 production had dropped to 175,000 tons, and it is only now that every effort is being made to re-equip the mine and transport facilities in order to supply the needs of Europe. The port of export is Bone, where modern loading equipment permits of rapid loading. Although the ores are of poorer quality than those of Morocco and Tunisia, the scarcity of phosphates throughout Europe assures the continued working of these mines under cartel arrangement.

There is another phosphate deposit near Setif at Mzaïta, Tocqueville and Bordj Redir, owned and operated by COMPAGNIE MINIERE DE MZAÏTA. These deposits have produced as much as 71,000 tons in 1931, but in 1938 production was 44,000 tons, and the war caused a serious reduction from the latter figure. The port of export is Bougie.

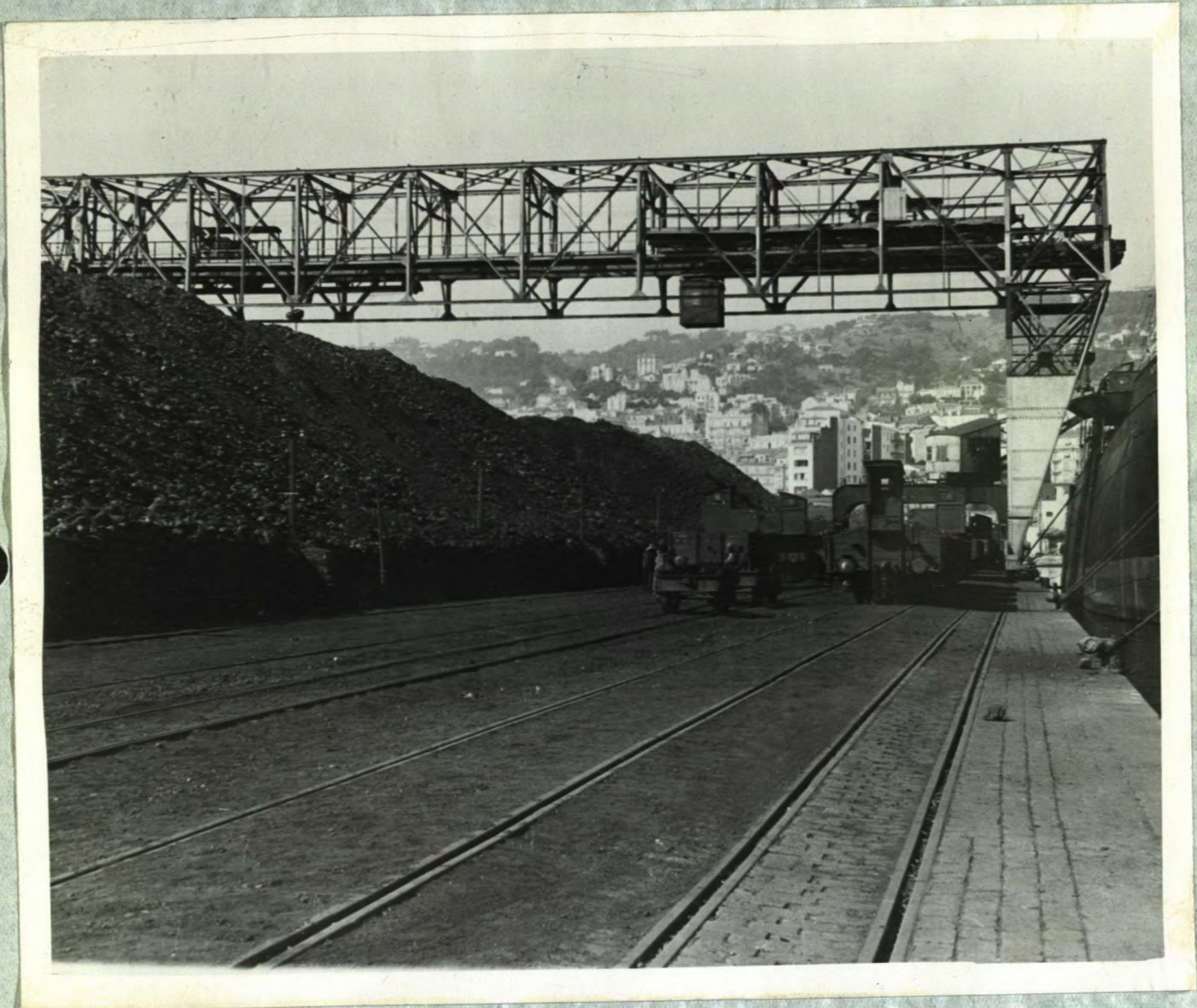
The bulk of the production is exported, but small quantities -- up to 80,000 tons -- are treated and transformed into superphosphates by three factories at Oran, Bone and Algiers. The bulk of the exports pre-war went to France, Germany and Great Britain, but for many years after the war it is likely that this product will be subject to allocation among the consuming nations.

It should be remembered that these mines, as well as the iron ore mines, require large quantities of mining equipment, railway equipment, and port installations, all of which must be kept up to the most efficient possible state and require therefore frequent renewal in many items which Canadian manufacturers might supply.

The analysis of Algerian phosphates works out about as follows:

CaO	43-52 %
P ₂ O ₅	23-33 %
	51-70 % TPL

This is far lower than the Moroccan phosphates, which will be discussed in Part Two of this report.



This is a phosphate dock in Algiers. Similar equipment may be found in Bone, Phillipeville, and other ports, for handling phosphates and iron ore.

COAL

This subject will be discussed at greater length under the section of this chapter dealing with power. It is sufficient to state here that there is a very large known coal-field in the area of the Sahara extending East from Colomb Bechar and Kenadza. This coal field has two seams, one over 20 inches in depth, and the other one somewhat smaller, and is inclined at 25 degrees, starting at the surface.

One of the primary reasons for the war-time extension of the proposed Trans-Sahara railway from its former terminus at Colomb Bechar was the exploitation of the Kenadza field. It has long been realized that the field is uneconomic under normal circumstances, being over 300 miles away from main-line railways, and in an area where labour is hard to find and harder to retain, where water is insufficient, and summer heat indescribable. Yet the Chemins de Fer Algeriens, whose requirements in coal in the western sector of Algeria are fairly considerable -- the eastern sector is electrified -- has thought it worth while to avoid dependence on imported coal by exploiting the most accessible part of this coal-field. Production is not very great, amounting in 1944 to 119,000 tons, but it is considered that 150,000 tons per year is a feasible objective, and it will reduce to that extent an import requirement for normal consumption of 768,000 tons. Actual imports are far less than that, amounting in the aggregate to 36,000 tons per month, mostly of low grade open cast coal, so that the problem of development within Algeria is becoming more and more important. Some thought is being given to the establishment of a thermal plant near the coal mines, but this will depend on the possibility of finding water in the area. The coal is of good quality, averaging 71% carbon, 22% volatile matter, 3 to 4% ash and 2% moisture.

OTHER MINERALS

LEAD AND ZINC. Lead and zinc are usually found in combination, with zinc predominating in Algeria, contrasting strangely with experience in Morocco and Tunisia. Deposits are generally small, and a number of exploiting companies are interested. In 1929 there were 25 exploiting companies, and the total output of concentrates was 14,200 tons of lead and 32,600 tons of zinc. Several of the firms were seriously affected by the depression, and in 1937 production had fallen to 7,960 and 17,740 tons respectively. Most of the concentrates were sent to Belgium for refining, but more and more of the lead is being diverted to France. The SOCIETE DE LA VIEILLE MONTAGNE, a Belgian concern, has the most active mine at Ouarsenis, and produced some 6300 tons of zinc concentrates in 1938. Most of the other lead and zinc mines have an even smaller output.

IRON PYRITES This ore is mined chiefly for its sulphur content, which is used in the Algerian superphosphates industry. The only large deposit which has been worked so far

is 12 miles East of Philippeville, and is worked by the SOCIETE MINIERE DE MILIANA, already mentioned in connection with iron ore. Output in 1938 was 44,150 tons, yielding 19,430 tons of sulphur, 440 tons of copper from its cupriforous content, and some haematite iron ore. Production was not too seriously affected by the war, 35,049 tons being produced in 1944.

ANTIMONY. Algeria is responsible for 2 $\frac{1}{2}$ % of world production. The ores are of five different types (senarmontite, valentinite, stibnite, cervantite and flajolotite) of which total production was about 2,200 tons in 1938. Production in 1944 was only 500 tons.

MERCURY. There are three known mercury workings, one near Philippeville, another in the Aures Mountains, and a third in the Kabylie des Babors district. Production in 1938 was 191 flasks, or 6.6 tons, and approximately the same production (6.63 tons) was recorded in 1944.

KIESLEGUHR (DIATOMITE). Algeria is the second largest world exporter, with a production in 1938 of 15,100 tons, most of which went to Great Britain and France. 1944 production of a 75% SiO₂ product is said to have been the same.

BARYTES. One mine at Bou Mahni, East of Algiers, owned by American interests (and nearly ruined by a Canadian speculator living in Ottawa) is being worked, and produced 3,069 tons in 1938. Capacity for extraction and shipment through the port of Dellys or through Algiers, is considerably greater.

ROCK SALT. About 60,000 tons of rock salt, suitable for fish curing, are mined yearly near Biskra, of which 60% are exported through the ports of Philippeville and Bone.

BUILDING MATERIALS. The following figures are given for the production of building materials:

Cement (1936)	67,000 tons
Gypsum (1938)	33,325 "
Lime (1935)	51,700 "
Marble (1936)	9,050 "
Sand and Gravel (1934)	390,000 "
Rubble (1934)	348,000 "
Limestone (1934)	133,000 "
Paving stones and ballast (1934)	4,500,000

INDUSTRY

Algeria's resources in fuel and power, skilled labour, and to some extent, in raw materials, have been insufficient to foster the rapid development of industry. Many of these conditions can be rectified: education of the native in technical skills, accentuated development of water-power and thermal power resources, and the use of its cross-roads

position in the Mediterranean suggest the possibility of establishing several important types of industry in the country. Midway between Egypt, India, and the United States, there seems to be every possibility of setting up a cotton textile industry to satisfy the extensive demand of the natives; oil refining, with petroleum from the Middle East and from the United States, appears feasible; paper-making, with local supplies of alfa as a base, should be possible; and a far greater extension of the leather trades is warranted. As has already been stated in Chapter Three, it would appear also that much could be done in the processing of agricultural products, by the establishment of freezing and cold-storage plants, the extension of the canning industry, the refining of sugar, and the establishment of various other secondary industries based on local resources or local requirements.

At the present time flour-milling is the most important industry, employing some 3,600 workers. There are some 150 flour mills of commercial importance in the country, but only seven of these, of which four are in Algiers, can supply more than local requirements. Capacity is sufficient to permit some export, and in 1938 a total of 28,251 tons went to France, in addition to 45,965 tons of bran. There are also a number of alimentary paste plants, producing pastes, semolinas and groats, of which 69,014 tons went to France in 1938.

The brewing industry, although badly shaken by the war and by the recent drought which prohibited the use of home-grown barley, is normally of some importance, as is the distilling of wine, which has become still more important in recent years because of the inability of Algeria to export her wines to France, forcing her to transform large amounts into industrial alcohol. In 1941, 14½ million gallons of alcohol were produced, and in view of the heavy wine production of 1945, a still larger amount will probably have to be produced during 1946.

The canning, preserving and cold storage possibilities have already been described in the previous chapter. Closely associated with these industries is fishing, which appears to have been exceedingly slow in developing, since only 18,000 tons of fish were landed in 1935, and of these, only small quantities were canned, dried or salted. There are good prospects for the expansion of tuna fishing, sardine canning, and bottling of anchovies.

The tobacco industry is fairly well-established, in normal times looking after local demand and exporting in addition, as in 1938, 3,028 tons of cigarettes and 100 tons of cigars. Most of these exports went to French Indo-China.

The manufacture of casks and barrels is an important industry in a country which produces as much wine as does Algeria. At the present time, however, the imported lumber from which such products are made is unavailable, and Algeria will have to look to foreign countries for its urgent requirements.

Algeria is not a producer of lumber, the only types of marketable species being the Aleppo and Maritime Pines, cedar, eucalyptus, thuya, and three types of small oak trees (including the cork-oak) unsuitable for the production of lumber. The wood produced is mostly used for the making of charcoal, for fuel, railway sleepers, some types of pitprops, and box shooks. Total production in 1938 was 42,000 tons, which did not begin to satisfy the requirements of the country. Requirements from foreign sources for pit props alone in 1946 are estimated at 2,000 tons, most of which will have to come from Portugal unless other countries such as Canada suddenly find additional supplies available for export. Poles, sleepers, and lumber for construction purposes will also be required in considerable quantities during the coming years.

There is a small chemical and fertilizer industry in Algeria. The largest firm in the field, the SARCE (SOCIÉTÉ ALGÉRIENNE DE PRODUITS CHIMIQUES ET D'ENGRAIS) has three plants, producing mainly sulphuric acid, superphosphates, copper and iron sulphates, carbon disulphide and oxygen, as well as various secondary types of fertilizers. Capacity for the production of sulphuric acid is about 100,000 tons per annum, but far less than this amount has been produced.

The construction and engineering industries have necessarily expanded during the war, since the policy of all the military forces was to get as much workshop repair done under contract by civilians as was feasible. There is one large railway repair shop which also repairs agricultural machinery, several subsidiary railway shops, ship repair yards are to be found at Oran and Algiers, and there are large construction companies interested in the building of dams, roads, electric power plants, etc. Most such houses, however, are subsidiaries of French or Belgian concerns with a world-wide reputation.

In view of mining activity and the mountainous nature of the country, which requires large amounts of explosives for the construction of roads, railways and dams, there is a small explosives industry in Algeria, which produces practically all domestic requirements of cheddite, ammonium nitrate and the nitro-glycerine base explosives (except blasting gelatin, dynamite, gelignite, etc., which are imported). Most safety fuses, detonating fuses, and ordinary and electric detonators also have to be imported. Since the local producers might welcome offers which would permit them to complete their line of explosives, their names are given here:

Société Générale d'Explosifs, Bellefontaine, nr Algiers.
Société Algérienne d'Explosifs, Lavarande, nr Affrevill

Small amounts of boots and shoes and matches are made in the country, and in addition the native craftsmen produce a wide variety of poor quality leather goods, copper ware, woven goods and basketware.

FUEL AND POWER

The coal requirements of Algeria have already been discussed, but not in their relation to electricity. The total production of electricity in 1936 was 202 million KWH, of which more than three quarters was produced in thermal plants. Installed capacity at that time was about 300,000 KW, the principal producers being the following:

THERMAL	Algiers (Agha plant)	19,200 KW
	Algiers (Hamma plant)	66,600
	Algiers (Hussein Dey)	17,600
	Bone	34,000
	Oran	17,200
	Oran (Mers el Kebir)	24,200
HYDRO-ELECTRIC	Illiten	10,700

The above plants accounted for almost exactly two-thirds of production in the entire country, and although there are 24 smaller plants, their individual capacities are small. There are at present several plans to increase hydro electric resources, and there is also a project to step up the production of the Bone plant, which in many ways is the most important in the country, since it supplies electricity not only to the principal iron ore and phosphate mines, but to the railway bringing these products down to the port. The plant has been seriously affected by continuous use and lack of repairs since the allied landings in 1942, and some fear is expressed as to its ability to continue functioning until new machinery, already on order in Switzerland, is delivered.

There are three main exploiting companies in the country:

Lebon et Cie, which owns the Hamma plant in Algiers and the Oran station, and is prepared to submit specifications for new equipment to Canadian producers;

Société Alérienne d'Éclairage et de Force, which owns the two remaining stations in Algiers and the Mers et Kebir station in Oran;

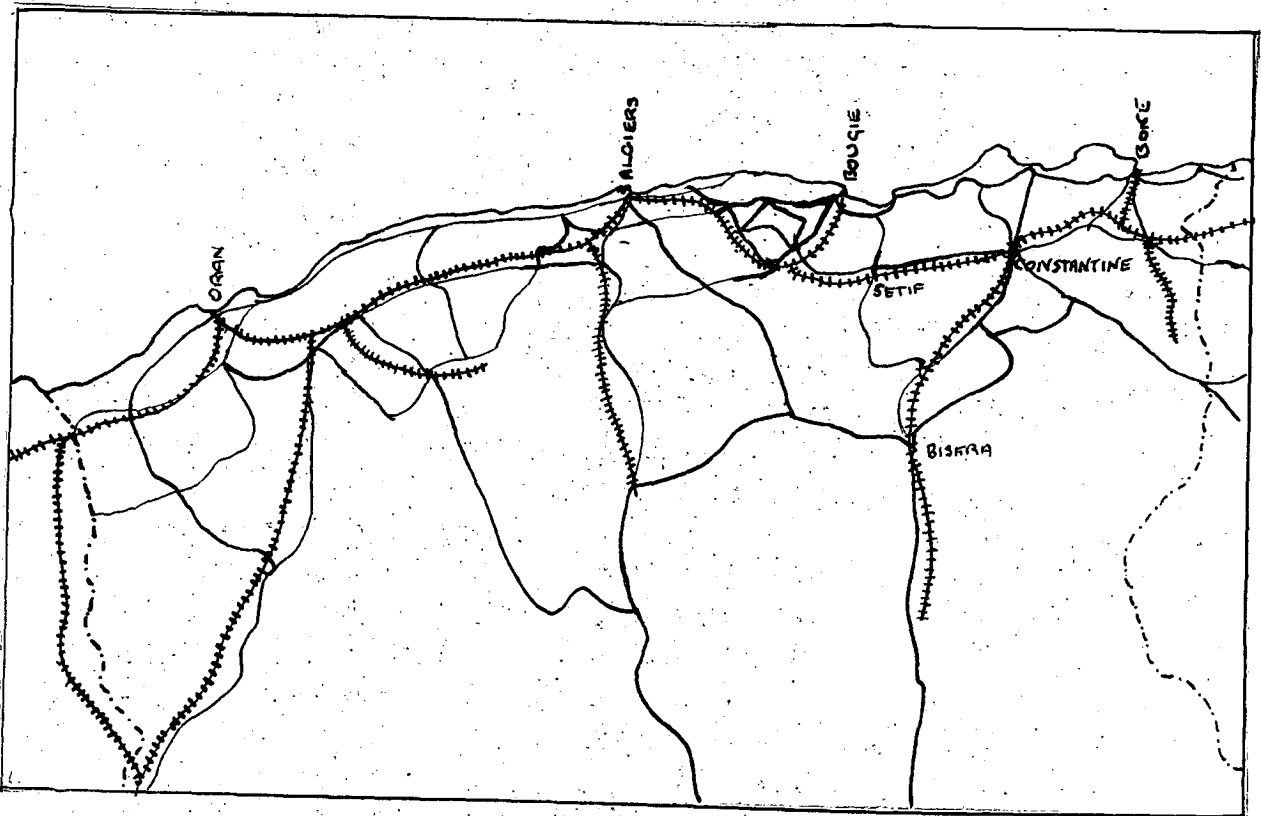
Cie du Bourbonnais, which owns the Bone plant.

Canadian firms producing thermal or hydro-electric equipment would do well to consult the above firms with respect to new projects and the replacement of old equipment. The hope is expressed in Algeria that production will rise to 400 million KWH within the near future as a result of the projects already under way.

COMMUNICATIONS

Below is a sketch map of the main roads and railways in Algeria, showing that the country is well served despite the difficult conditions due to mountainous terrain. The roads as a rule are good, have a stronger base but are not as well surfaced as American roads. They are well conceived, with grades rarely exceeding 7% even in the most difficult mountain country. Some of the mountain passes are over 7000 feet high, rendering the roads impassable on some occasions during the winter due to snow and ice.

The railways encounter the same difficulties as the roads, and although the grades are not excessive the radius of the curves in some mountain areas renders necessary the use of Garratt articulated locomotives.



CHAPTER FIVE

ECONOMIC AND POLITICAL TRENDS, AND THEIR EFFECTS ON FUTURE COMMERCIAL RELATIONS

The problem of Algeria is unique in that it is the only area which is assimilated to the Metropolitan area of France by an almost complete political and economic union. In some cases this union is more apparent than real. For instance, although Algeria is considered as part of France for customs purposes, administrative measures may and often do hamper direct trade relations within the area. France, in sharing out its own production of commodities in short supply, makes a distinction between what can be allotted within its own confines, and what can be spared for the Algerian population. Similarly, it is not inconceivable that France should apply quota restrictions on Algerian goods which, if freely imported into France, would compete on unequal terms with the domestic production of similar goods. This is very likely to happen with respect to wines, and probably would take place if at some time Algeria were allowed to establish its own textile industry. In internal administration too, the same rationing principles need not be applied in the two areas; distinctions are made in Algeria between native and European or assimilated populations with respect to economic rights -- distinctions which would not be tolerated in France -- and by various methods of moral or economic suasion, the Algerian economy is made to feel that it is subsidiary to, and dependent upon, the economy of the French mainland.

It is correct to say in broad terms that in all aspects of life one may discern the dependent submissiveness of a people accustomed to the secondary role of a colony. Among the 800,000 French this attitude takes various forms: an irritated antipathy towards French regimentation and controls; a desire for greater autonomy, or conversely, a willingness to accept more complete assimilation in order to obtain equality of rights and freedom of competitive enterprise; and, more frequently still in recent years, the development of a "Get Rich Quick" attitude which makes life tolerable as long as it permits the hope of returning to France with an accumulated fortune.

This latter attitude is perhaps the most dangerous for the country, since it disposes the settler to an unsound exploitation of natural resources and of the native population.



Algiers has an active and well-equipped port. This is a view of the main railway station, next to the passenger and package freight docks.

It is reflected too in the re-sale to the natives of lands which by heavy exploitation have permitted the colonist to retire in France. This in itself might be a liberalizing influence except that the native has neither the experience nor the mechanical means to keep the land as productive as it formerly had been. Thus agricultural production has decreased during the last five years more than need have been warranted by the wartime shortages of agricultural implements, tractive power, seed, fertilizer and manpower.

The result of all this is that the country as a whole emanates an aura of stagnation. This atmosphere of frustration pervades even the hesitant governmental plans for reconstruction which have been discussed in another section of this report.

The internal doubt and timidity discussed above may be attributed in large measure to the indecisive character of French administration. As already pointed out, the French have granted the forms of equality while retaining an administrative control which in effect reduces the country to the status of a colony. In other words, the French themselves are proceeding according to a doubtful compromise, and until the question of future relations is resolved one way or another, no decisive action appears likely in Algeria.

The two solutions are ultimately as follows:

(a) Either complete economic absorption and integration with the French economy, permitting unrestricted movement of capital, industry and labour between the mainland and Algeria,

or, (b) an economic and financial rupture between the two areas, thus permitting Algeria to have an autonomous growth without tutelage from Paris.

In either case there would be a resurgence of interest in Algeria as an outlet for capital and a site for industry. With cheap manpower, ready access to markets and raw materials through its Mediterranean ports, and growing resources in hydro-electric power, there seems no reason why Algeria should not have a steady industrial growth, based partially on its own agricultural and mineral resources, partly on its strategic location on the Mediterranean route between raw materials and markets.

The determination with which France frowns on such competitive enterprise, however, for the moment suggests that Algeria holds out little hope of providing a permanent market for any but the most essential goods not produced in France. But while the British and American representatives hold views somewhat similar to those expressed above, it is to be noted nevertheless that they have no intention of decreasing their vigilance and preparedness.

It may perhaps be useful to give a review here of British and American influence on and even control over, certain

phases of the North African economy since the landings on 8 November, 1942. On 10 December, 1942, there was formed the North African Economic Board, made up of civilians, but under the jurisdiction of Allied Forces Headquarters. Its major purpose was to exploit and make available strategic materials to be found in the area. For this purpose, they were obliged to take an active interest, often amounting to control, of railways, ports, fuel and electrical facilities. The civilian economy was also affected in the interests of "Public Order", and this included the import of goods to forestall disaffection, and even the control of financial institutions in order to prevent inflation. Among the products required by the allies in 1943 were 300,000 tons of phosphates and 1,250,000 tons of iron ore by the United Kingdom alone. Resumption of large scale production evidently required the provision of supplies not only for the mines, but for the railways, ports and electric generating and distributing systems as well.

The agricultural economy was also subjected to very considerable control and supervision, with the result that the all-pervasiveness of British and American intrusion has had a considerable effect on the outlook of producers, industrialists and even the commercial interests.

If there is one lesson to be gained from this it is that Canada must not lightly abandon her responsibilities and her joint interests in any mutual control organization to be formed in the future. For Britain and America have clung to their privileged position here as long as they could. When AFHQ decided that the North African Economic Board was no longer vital to the success of the campaign, military control was relinquished, but the Board, as of 1 June 1944, continued under civilian auspices (Federal Economic Administration in the United States, Ministry of Supply in the United Kingdom) under the new name "North African Joint Economic Mission". On the 31 December, 1944, this second enterprise was dissolved, on the assumption that joint control was no longer justified. The personnel of the mission remained, however, as separate Economic Missions representing the two countries, and it is only at the present moment, more than three years after the invasion, that they are beginning to disband.

In the meantime the amount of background material which they have acquired is fabulous; but far more important than that is the amount of influence they have had on reconstruction policy. It has been intimated to the writer that orders for many years to come for the re-equipment and expansion of phosphate and iron ore mines, railways, and electric power plants, may have been placed with one or the other of the two countries. Although in other respects the degree of residual influence is not quite as clear, the fact that the United States supplied the full import programme of agricultural equipment for 1943 is indicative of the amount of follow-up business which may result in other instances as well. (In some cases this prevision

may react contrary to expectations. A very excellent authority has stated that the American agricultural equipment manufacturers, in fulfillment of the last orders under Lease-Lend, sent prototypes of their post-war equipment. It now appears that they may be unable to fill orders for similar equipment for two years to come, which will certainly decrease their prestige on the market.)

Perhaps of an interest equal to the internal and external economic and political currents which have been outlined above are the more individual peculiarities of the market.

In the first place, this country has never known direct import-export trade before. There were firms which bought for their own account from French firms, whether those firms were themselves importers or producers. Then there were the "representatives" or travelling salesmen or manufacturers' agents, who again made no distinction as to whether the French firms they represented were producers or themselves agents of foreign firms. In neither case did the local merchant have to worry about documentation, or foreign exchange or customs duties or import licences or any of the innumerable difficulties in the way of the real importer. In other words, there were "imports" from France, or purchase in France of goods which had been cleared into the customs union by French import firms.

Now, however, there is real separation with respect to foreign exchange holdings. Although France wants to keep a finger on the industrial developments within Algeria, they insist that Algeria must soon be self-supporting with respect to its imports from foreign countries. For this reason a very strict exchange control is exercised, and not even French francs may be imported into Algeria. On the other hand, they have agreed, as stated above, that any accumulation of foreign exchange accruing to the credit of Algeria through the export of products other than phosphates or iron ores may be segregated from the French pool and used by Algeria for its own purposes.

This means in effect that Algeria, once special reconstruction requirements have been filled, will have to be self-supporting insofar as imports and exports are concerned. But since there are no firms qualified by experience to undertake this business, a curious situation has arisen.

There are certain old-established firms which have long represented foreign producers, even though the products were only indirectly acquired from these producers through French importers. On the other hand there are a great number of individuals who have had a close association with the administration of a war-time economy, who have well-established contacts within the administration, but who foresee in the immediate future a relinquishment of total control. These individuals are making it quite clearly understood that they are in the market for agencies and foreign representations, and

that they have an accessibility to government circles which assures them of priorities in the issue of import authorizations.

This makes the search for reliable and old-established firms exceedingly difficult, since any person in an official or quasi-official position who is approached refuses to divulge the names of such firms because he already has a vested interest in post-war trade. The same situation of course is arising in Canada, and probably in other countries, but perhaps not to the same degree.

At any rate, the present position makes the choice of agents exceedingly difficult, because there are three categories to choose from:

(a) The old-established firm which ordered on its own account, but has no experience in direct import trade.

(b) The former administrator who has government connections and a strong chance of getting import authorizations, but who equally has no experience in import trade.

(c) The manufacturers' representative, who placed his clients' orders with a manufacturer or his agent, but who treated all suppliers as domestic because, if the goods had been imported, they had been before he had anything to do with them.

There is of course a fourth alternative, which is to place an agency with a Paris firm, in the expectation that affairs will return to the old order.

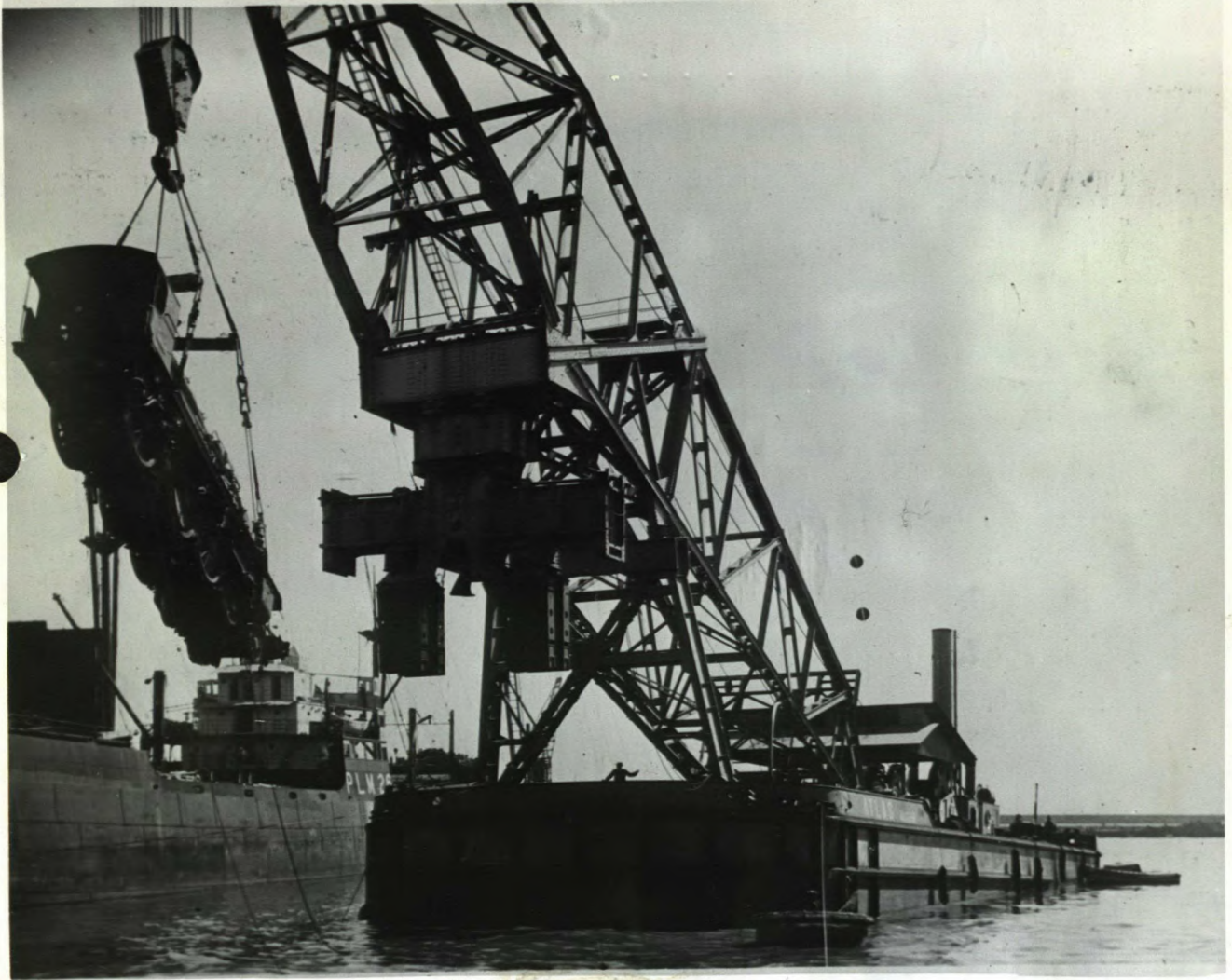
The writer was loath to take the latter course, because there has been without doubt an evolution which, from the point of view of the foreign manufacturer, is a satisfactory one: freedom from intermediaries in a new market. The choice therefore rested among the other three, and as far as possible the following pattern has been followed:

(a) Canadian lines already known on the market should be dealt with by the established firms.

(b) Products which may expect a volume outlet within a relatively short time have been placed in the hands of the new houses which may under present circumstances obtain import authorizations, in the hope that the goods may be established on the market before the immediate advantages of the importer are alienated.

(c) Products which, because of their non-essentiality, have no chance of a market within the next two years, have been proposed to the more reliable among the manufacturers' agents, in the hope that they may learn the import technique during the intervening period.

This does not mean that much hope is held out for substantial Canadian exports to the Algerian market. The shortage of foreign exchange is endemic, and cannot be alleviated until the Algerian economy is once more self-supporting. At the present time the largest import is wheat. On the other hand the native population eats mostly barley, but cannot grow it until



A floating crane in Algiers capable of discharging heavy equipment, as witness the locomotive being unloaded.

they obtain sufficient seed. The year 1945 was so dry that little hope can be held out for a satisfactory 1946 crop, since plowing and sowing conditions were unsatisfactory. This in itself creates a vicious circle, as a full programme of imports vital to an agricultural economy cannot be embarked on as long as derivatives of such an economy have to be imported.

Coming now to personal considerations, there is a point which has to be re-iterated despite the fact that it has already been touched upon, because evidence of its prevalence was forthcoming at every turn: the "precautionary" attitude of the administrator who felt that it was just as well for him to be prepared for a post-war world in which he would no longer have an administrative position. Time and again in interviews in the territory, one came away with the impression that one's interlocutor was serving more than one master, and was erecting the scaffolding for a career in the interests of the person rather than of the state. This made a precise estimation of motives and guiding principles exceedingly difficult to arrive at.

One example may suffice. During the course of interviews with the managing director of the Algerian State Railways, who is a government employee, an impression was gained that this individual was very desirous that an arrangement should be made whereby Canadian railway equipment producers should be represented by one particular firm in Algeria. Since this firm was a large Alsatian producer of machines and mechanical equipment, it was difficult to visualize a policy more contrary to the long-term interests of Canadian producers. Yet the very fact that this solution was not entertained may be contributory to a certain lack of immediate success in the furnishing of equipment during the coming year.

Although the writer has a considerable admiration for the younger French administrator who has been pushed into the foreground by reason of the war -- and many of the younger members of this new higher administration have no personal ambitions other than to be good administrators -- in many instances they can discuss no more than the larger issues, due to the rapidity with which personnel is moved about from one post to another. Christian Cardin, the Secretary General for Coordination of Economic Affairs (Secretary General being equivalent to Deputy Minister) has been in North Africa a year and a half. Two of his senior assistants have been here less than six months. His Chef de Cabinet, or private secretary, is the only Algerian-born person to be met in this office.

In the Algerian Government General, M. Faure, the Secretary General for Economic Affairs, has been in Algiers only three months. None of his senior assistants has been in Algiers over six months. According to Cardin and Faure themselves, who spoke rather bitterly about the subject, they and their assistants are likely to be moved to other posts at a moment's notice, thus providing no assurance of continuity. This is also true with respect to the Governors General themselves.

The present incumbent is one of the few who has not been given the job as a reward for past services. He has conscientiously carried out his functions, has exerted as much influence as possible to obtain sound administrative assistants, but he himself is momentarily expecting to leave.

This lack of continuity is of course similar to that in Paris itself, with the result that any amount of planning is merely a futile game, bearing no promise of ultimate fruition. Since no functionary ever hopes to be given the task of bringing his plans into execution, the whole thing has a sort of a slap-dash, happy-go-lucky complexion which is a reflection of "esprit" rather than intelligence.

Another peculiar feature of the administration which it is well to bear in mind is the complex channeling of responsibility. Since Algeria is part of France, its internal administration is in the hands of the Ministry of the Interior. Technically all communications with French Departments should be through this channel.

And yet the anomaly is this. In the new French Government there has been appointed a Minister of State for the Coordination of North African Affairs. It would appear, therefore, that the new Minister should take over and form a new channel of communication. But not at all. Since this is a new ministry which has no competent administrators, the channel is going to be completely ignored, as are the existing channels in actual fact. The Secretary General for Economic Affairs does not report to the Minister of the Interior but to the Minister of National Economy. Similarly, Cardin's office as Coordinator reports to National Economy, and has no intention of going through any other channel.

If an economic plan involves financial assistance the report is made to the Ministry of Finance. If it involves engineering works, it goes to the Minister of Public Works, while if it involves internal communications it goes to the "Ministre des Ponts et Chaussées". Since each of the ministries is peculiarly jealous and sensitive of its prerogatives, any proposal emanating from outside its own services is likely to be looked upon with considerable disfavour if not derision. In colloquial terms, the French administration just can't get anywhere with coordinated planning.

The above commentary, which is equally applicable to administration in France, may explain in some measure why it is difficult to appraise the "trends" of the next few years in Algeria. Economically, it is safe to assume that a direct import-export trade will develop, replacing the former indirect trade through French firms. Politically, it would appear that the movement away from complete solidarity with France will ultimately succeed, largely because of administrative mismanagement: but the very ineptness of the administration, the

lack of continuity due to rapid changes in personnel, make it difficult to foresee with any degree of accuracy the immediate future over the next four or five years. The necessary contradictions in this report are an index to the bafflement caused by the clash in points of view among the different elements of the population. It is perhaps in an analysis of these very contradictions that the soundest conclusions may be arrived at by the reader.

CHAPTER SIX

PRE-WAR FOREIGN TRADE

Economic conditions have changed so very drastically since the war that too great a reliance on pre-war trade figures as a guide to future developments is unwise and may very well be misleading. For this reason, although figures for a "normal" pre-war year, 1938, will be given below, there are certain points which should be considered when examining them.

At present, Algeria is more than ever tied to the French economy by reason of the fact that, having had no export trade since the beginning of the war, she has had no opportunity of accumulating foreign exchange. Additionally, there has been considerable deterioration of essential machinery, such as agricultural implements, railway equipment, electric power facilities and so on, which necessitates a fairly heavy volume of essential imports of this nature. Finally, the shockingly severe drought of 1945 has necessitated the importation during the present season of some 900,000 tons of cereals to prevent starvation among the native inhabitants.

These three conditions combined have created such a shortage of foreign exchange available for other purposes, that little hope should be held that an immediate market for non-essential consumer goods is likely to develop. But furthermore, since the French Government has been obliged, out of its own restricted supplies, to supply what foreign exchange is now required, this means that France has naturally insisted on control over the import economy of the country, and in the long run, it is the French Government, through the Coordinator of Economic Affairs for North Africa, which determines what goods are essential, and which imports may be postponed. The Algerians bitterly complain that France is not realistic in this control, since she is not permitting sufficient import of those producer goods which are necessary for the re-establishment of export industries. The whole problem appears to the Algerian as a vicious circle, and the state of mind has grown lethargic and embittered, with a consequent reduction of individual effort.

Another problem which acutely worries the Algerians is that of inflation. For reasons which have been discussed in a previous chapter, politically France has thought it desirable to give the native worker wages approximately

the same as those earned by European workers, despite an undeniable difference in efficiency. Thus the natives are accumulating large sums of money, are the chief purveyors of the black market, and, due to their newly-found wealth, are contributing in no small measure to the spiralling of prices which is following fairly closely that in France itself. The discouragement of initiative on the part of those who seek to industrialize the country; the fear of native unrest; the "get-rich-quick" attitude of certain French individuals who tend to exploit without contributing; all these factors have much to do with the reduction of internal activity and the sense of frustration that one senses among responsible business elements.

From the foreign trade point of view, it appears undeniable that until export trade is resumed, imports will be held to the barest minimum. Even export trade, however, may not reach pre-war levels even under the most favorable circumstances, due to the increase of population which is reducing more and more the excess cereal production of a normal year, and which will therefore tend to reduce the amount of foreign exchange available for payment of imports. To balance this, a greater production of citrus fruit, the more orderly marketing of early fruit and vegetables through the installation of cold storage facilities, and the establishment of certain industries which may ultimately reduce import requirements, may counterbalance the unfavourable effects of reduced cereal exports.

As to direction of trade, the Algerians themselves are exceedingly anxious to be liberated from their almost total dependence on France as a market and source of supply. There seems no doubt that they will bend every effort to that end, and that they are anxious to export as well as import direct to and from foreign countries. As soon as Algeria accumulates its own foreign currency supplies, France can have little say in the matter except by indirect pressure and by manipulation of the customs tariff which affects Algeria as well as France.

Bearing in mind these few preliminary remarks, the following tables may be of some assistance in estimating the future possibilities of the Algerian market. Pre-war values of imports and exports in francs have been eliminated from the tables, since they would tend to confuse rather than assist the reader. On the other hand, to give some idea of values, the items are listed in the order of their value, and for the major items an indication is given as to the proportion of foreign trade which the item represents.

PRINCIPAL EXPORTS FROM ALGERIA 1938
(In metric tons unless
otherwise indicated)

<u>COMMODITY</u>	<u>QUANTITY</u>	<u>% OF TOTAL EXPORTS</u>	<u>DESTINATIONS %</u>
Wine (hectolitres)	16,707,272	50	Fr 98
Cereals & products:	211,907	9	Fr 96
Hard wheat	54,855		
soft wheat	41,910		
barley	17,877		
wheat flour	28,251		
semolinas, etc	69,014		
Fruit, fresh or other	128,982	6	Fr 98
Olive oil	24,381	4	Fr 45, US 30, UK 10, Italy 5
Sheep (number)	863,326	2	Fr 100
Iron Ore	2,754,614	2	UK 55, Germany 30
Spirits (hectolitres)	184,129	2	Fr 97
Tobacco & mfrs	18,250	2	Fr, Indochina, W Africa.
Potatoes	77,453	-	Fr 97
Other vegetables	61,199	-	Fr 100
Cork & mfrs	45,961	-	Fr 55, US 25
Wool	10,723	-	Fr 71 Belg 6 Germany 6
Esparto grass (Alfa)	182,495	-	UK 94
Hides & skins	4,626	-	Fr 51, US 30, UK 10
Phosphates	485,579	-	Fr 36, Germ 27, Eire 11
Horses (number)	34,077	-	Fr 99
Meat	1,960	-	Fr 97
Vegetable fibre	23,401	-	Germ 33 Italy 23 Fr 17
Zinc ore	17,668	-	Belg 95
Superphosphates	19,100	-	Egypt 53
Lead ore	7,985	-	Belg 42, Fr 16
Salt	42,930	-	Fr 62, Finld 12, US 11
Kieselguhr	15,410	-	Fr 35, UK 32, Belg 23

It will be noted from the above table that wine constitutes 50% of the value of Algerian exports in a normal year, and that agricultural products account for well over 80% of total exports. In certain categories, exports may well be increased: the value of citrus fruit, the tonnage of phosphates, extended uses for vegetable fibre, greater interest in fishing, may raise the proportionate value of exports of these products in the future. Nevertheless, in an agricultural economy, there are certain very definite limits which have to be considered over a relatively short period of time, and it would appear in the case of Algeria that no great improvement over the 1938 position may be looked for until certain vast irrigation schemes are put into effect and the area of tillable land greatly increased.

The table which follows has been built up on the same basis as the preceding one, and gives the main categories of imports in the order of their value.

PRINCIPAL IMPORTS INTO ALGERIA 1938
(In metric tons unless otherwise indicated)

<u>COMMODITY</u>	<u>QUANTITY</u>	<u>% OF TOTAL IMPORTS</u>	<u>SOURCES OF SUPPLY %</u>
Cotton textiles	13,095	8	Fr 100
Sugar	85,170	5	Fr 96
Machinery	20,367	5	Fr 75
Motor vehicles	7,911	3	Fr 100
Iron & Steel	77,533	2	Fr 99
Other metal goods	44,129	4	Fr 97
Soap & toilet goods	23,901	2.6	Fr 99
Peanut oil	30,877	2.4	Fr 82, West Africa 16
Paper & products	27,225	2.4	Fr 96
Lumber	132,094	2.0	Fr 40, Jugosl 15, Italy 20, Sweden, USA.
Coal	701,178	2.0	UK 63, Germ 20, Morocco 9
Rayon textiles	996	2.0	Fr 95 Japan 3
Gas & coal oil	2,138,334	2.0	Fr 75, Roumania 20
Cheese, butter, milk	7,656	2.0	Fr 98
Rubber goods	4,508	1.7	Fr 88, Belg 10
Leather & products	3,732	1.6	Fr 95
Other mineral oils	92,756	1.4	Fr 40 US 20, Roum 20, Iran 15
Coffee	15,687	1.4	Brazil 79, NEI 13
Jute & wool goods	8,692	1.3	Fr 85 Tunisia 12
Pharmaceuticals	2,125	1.3	Fr 99
Rice & products	54,282	1.2	Indochina 67, Fr 29
Meat	4,495	1.1	Fr 95
Clothing	3,165	1.1	Fr 97
Furniture and woodenware	13,689	1.1	Fr 98
Cattle, number	26,505	1.1	Morocco 64, Tunisia 28
Yarns	5,709	1.0	Fr 98
Sheep, number	128,078	0.7	Morocco 83, Tunisia 17

The above table would suggest that under normal circumstances France is practically the sole supplier of a wide variety of goods to Algeria. This suggestion is probably somewhat exaggerated due to the fact that most Algerian trade prior to the war was done through French import firms, and it therefore is probable that a large percentage of imported goods lost their identity in transit through France, and that the true origin has never been carefully checked. This is particularly true since foreign goods transitting through France, would pay the customs duty upon their original entry into that country, and the customs inspection upon re-entry into Algeria would be of a cursory nature. Motor vehicles, for instance, are shown as coming 100% from France, yet a considerable number of American-type motor vehicles are to be found in Algeria.

Although, as stated above, it is not considered useful to give import and export values in francs in this report because of the wide fluctuations in value even before the war, for the purpose of examining trade by countries it is unavoidable to use such figures. The following table therefore gives figures for two representative pre-war years, 1936 and 1938.

TRADE OF ALGERIA BY COUNTRIES
(In thousands of francs)

	IMPORTS FROM		EXPORTS TO	
	<u>1936</u>	<u>1938</u>	<u>1936</u>	<u>1938</u>
France	2,602,267	3,751,902	3,002,947	4,706,686
French Empire	237,243	490,994	163,911	236,682
U.K.	51,837	120,755	122,931	267,996
U.S.A.	36,290	83,111	36,682	96,725
Germany	21,081	41,102	39,416	117,366
Belgium	20,544	49,401	18,236	40,067
Netherlands	19,446	25,897	8,262	33,246
Italy	5,639	16,160	6,658	25,108
Brazil	53,432	31	69,825	188
Spain	15,453	899	14,976	11,458
TOTAL,				
All countries,	3,233,796	4,995,178	3,469,279	5,638,787

It will be noted that roughly 75% of Algerian pre-war trade was with France, according to the tables above, no reservation being made for transit trade through France with other countries. It is also of interest to note that the value of exports exceeds that of imports. This is true not only of the years in question, but in most pre-war years when Algerian crops were normal. France, however, did practically the whole of Algeria's carrying trade, and obtained a benefit out of transport, marine insurance, etc., which is not reflected in the above table.

CHAPTER SEVEN

COMMERCIAL OPPORTUNITIES FOR CANADA

IN ALGERIA

While this chapter is intended to elaborate upon some of the opportunities which have been discussed in the text of this report, it will also outline the things which should be done to take full advantage of these opportunities. For this reason, the chapter will be divided into the following sections:

- (a) Short term, or "reconstruction" requirements;
- (b) Long term, or normal trade requirements;
- (c) Possibilities of imports from Algeria;
- (d) Governmental representation in the area;
- (e) Direct shipping facilities; ports;
- (f) Representation of Canadian firms in the territory;
- (g) Private credits and financial participation.

SHORT TERM REQUIREMENTS OF ALGERIA

It has already been indicated that a shortage of foreign currency precludes the return to complete freedom of trade in Algeria. As long as the French Government has to supply foreign exchange, imports will be limited to the essential requirements of the market.

These essential requirements may themselves be divided into two categories: there is the satisfaction of an immediate demand for consumption goods which have been in such short supply as to become a hazard to public safety or health if left unsatisfied; there is the equally if not more important necessity of re-equipping industry and agriculture as quickly as possible in order to obtain from renewed export trade those very foreign currencies without which freedom of trade will remain impossible.

In the first category of goods must be mentioned the wheat and other grains which will have to be imported until the 1946 crop is harvested. Total requirements to avert starvation have been estimated at over 900,000 tons for the crop year. The programme is well under way of fulfilment, and need not concern us here, since it is a matter of international allocation of surplus supplies.

The second most urgent consumer requirement is in cotton textiles and boots and shoes. The native population is in a hideous state of under-clothing, far worse than that

of either Tunisia or Morocco, which themselves have grievous shortages. Thousands of natives have nothing but patched and worn gunny bags, already in tatters and rags, for clothing; millions have no shoes of any kind. Whereas it is quite customary in Morocco to see the rural natives walking to market on bare feet, carrying their only pair of shoes on their heads to be worn for show once they get into the market town, the Algerian natives have no shoes to carry on their heads.

The above are the most essential consumer goods, and while there are other urgent requirements, including cooking utensils, sugar and tea for the Moslem "mint tea", most of these requirements can await a more favourable opportunity. One category of goods which should not be neglected but probably will be are "incentive" goods, which could encourage the native population to an accrued productive effort, and would at the same time reduce the black market activities of the majority who have no other means of spending money. These, however, will probably ultimately come from France, although in some categories of goods, certain countries may have an opportunity of replacing the cheap Japanese goods which formerly found their way onto the market. Plastic ware, trinkets, cheap cosmetics, canvas rubber shoes, cheap watches and alarm clocks are among the items which might come under this heading.

It is among industrial or agricultural requirements, however, that Canada could find an immediate market. The transport services have been decimated by the war, and large quantities of rolling stock, rails, locomotives and railway ties will have to be imported. Algerian requirements in this respect for 1946 are programmed as follows: 5,038 tons of rails 60 pounds and over, 2003 tons of rails under 60 pounds, 18 Diesel Electric locomotives, about 20 Diesel locomotives, and some 330 railway freight cars. Similarly, road transport requires to be built up, and some 1,140 tons of trucks, 360 tons of buses, 275 tons of passenger cars, and 116 tons of trailers are programmed for import from countries other than France. A final category of goods, road-building machinery, will have to be imported in considerable quantity, estimates calling for 965 tons of mechanical and electric shovels, 210 tons of cement mixers, 55 tons of levellers, 160 tons of scrapers, 15 tons of bulldozers and angledozers, and 260 tons of other road-building machinery and spare parts.

A second category of urgently-required material of great interest to Canada is agricultural machinery. The 1946 programme estimates the following import requirements (unless otherwise stated, import requirements quoted throughout are only those for which the authorities are willing to pay in U.S. currency, and do not include imports from France, from neutral countries such as Spain, Portugal, Sweden or Switzerland, and from the sterling block): ploughs, 611 tons; harrows, pulverisers, etc, 613 tons; cultivators 92 tons; sowers and fertilizer distributors, 90 tons; other cultivating machinery, 54 tons; reaper threshers, 992 tons; other harvesting equipment, 150 tons; feed presses, 362 tons; spare parts

for agricultural machinery, 455 tons: other agricultural machinery, 88 tons.

Cold storage and electric refrigeration have already been mentioned in connection with the planned development of these facilities. The 1946 programme makes a timid start in this direction, but nevertheless comprises imports of 60 tons of electric refrigerators, 55 tons of industrial refrigeration equipment, 30 tons of ice-making equipment, and 134 tons of air conditioning equipment. A very much larger quantity is programmed for import from Metropolitan France, but it is very doubtful whether this material will be available, and it is possible that a good part of the programme will have to be diverted on foreign countries.

Similarly, the wood and wood products requirements, while programmed for import from "neutral" sources, may not be readily filled from such sources, and may have to be diverted to U.S. currency countries. A total of 51,450 tons of such products must be imported, of which the chief categories are as follows: telephone poles, 4000 tons; pit props 2000 tons; sleepers, 1000 tons; Douglas Fir square timber, 470 tons; cut lumber, 3,100 tons; planks and boards, 22787 tons; oak staves for wine casks, 9,000 tons; plywood, 210 tons; handles for hand tools, 8 tons; newsprint paper, 4,118 tons.

Among the categories of metal goods to be imported, some are of considerable interest to Canada. Among these are galvanized ware, 327 tons; enamelled ware, 96 tons; metal furniture and filing cabinets, 50 tons; petrol stoves, 48.5 tons; parts for stoves, 20 tons; mica for electric ovens, 0.05 tons; in the same category of household appliances are 5 tons of radio receiving tubes.

It is not intended to go through the whole programme here, since a condensation of the programme for the whole of North Africa will be found at Appendix "A" to this report. There are certain other items of specific interest to Canada which might nevertheless be mentioned in this brief review. Among them are:

- 2000 tons of frozen or canned meat;
- 3000 tons of sweetened condensed milk
- 7000 tons of unsweetened evaporated milk
- 850 tons of powdered milk
- 71 tons of caseine glue (payable in sterling)
- 4200 tons of malt
- 17400 tons of dried vegetables
- 5600 tons of seed potatoes (payable in sterling)
- 1674 tons of truck tires
- 186 tons of truck tubes
- 45 tons of lucerne, radish and vegetable seeds.

Apart from the above, which are classed as agricultural products in French statistics, there are various items throughout the programme which might be of interest. Thus, by going through the list given in Appendix "A", many items of port equipment, for the mining industry, and for the building of dams and electric power plants may be found.

A requirement which might be of some interest to Canada is that for cement. It is proposed to import 185,000 tons of cement from France during the current year. This is the minimum possible requirement, since one storage dam project alone calls for 400,000 cubic metres of cement to be poured. However, it is doubtful whether France will be able to supply even this minimum requirement, because of her own reconstruction commitments. Similarly, much hydro-electric equipment may be unavailable in France, despite the fact that the market has been reserved for her according to the 1946 programme.

LONG TERM REQUIREMENTS OF ALGERIA

One of the purposes of the present survey is to determine in what way the evolution of North African economy will affect its future trading relations. There can be neither complete accuracy nor complete assurance in any estimate which may be given of the future. However, certain factors, which have already been evaluated, may be taken into consideration as the basis for an indication of future trends.

In the first place, Algeria, to limit the present analysis to the area under immediate consideration, was a non-industrial country before the war, and imported mostly the type of consumer goods which it was unable to produce, plus strictly limited supplies of producer goods such as transport equipment, electric power equipment, and farm machinery. In judging of future consumption, therefore, the table of imports given in Chapter six may be of some value in determining future requirements. Because of the rapid increase of population, these figures should be increased by 20% on the assumption that normal post-war standards of living will be somewhat similar to those existing prior to the war.

Secondly, the country is determined to be far less dependent on France both for imports and exports than it has been before. To a major extent, this determination will be translated into effective measures only insofar as Algeria is able to extend her export markets outside of the French Empire. But with a growing European demand for phosphates, a favourable contract with Great Britain for iron ore, and the possibility of offering cheap wines in markets which during the war shortage of spirits have become wine-conscious, there is some hope that Algeria will export larger quantities of goods to countries other than France than she did before the war. Another product with a seemingly limitless future is citrus fruit. The average country in Europe before the war consumed less than 15 pounds of citrus fruit per person per year, and Algeria has high hopes that its citrus production, which will triple within the next two or three years, will help to encourage consumption on the continent.

There is some evidence, therefore, that Algeria will be able to emancipate itself from its almost total dependence on French sources of supply. It seems fair to assume

that, from a foreign trade of which almost 95% was with France, Algeria might hope to build up a trade of at least 25% of imports and exports with foreign countries. This might result in imports, according to 1938 standards, of about 6 billion francs from all sources, of which 1.5 billion francs would come from other countries. Since prices in the interim have more than doubled in terms of francs, imports from foreign sources might conceivably amount to about 60 million dollars.

This figure is on the basis of consumer goods imported before the war. But with a balance of trade which is normally favourable, there appears no reason why Algeria could not pursue its planned semi-industrialization long after the present reconstruction period. This would require fairly constant accretions in its supplies of electric power equipment, refrigeration and cold-storage equipment, port facilities, mine and transport equipment, road and general construction machinery and agricultural implements. The rate of importation would necessarily be less great than during the present period, when reconstruction requirements are pooled with those of France and are partially paid by foreign credits, but would nevertheless be substantial enough to warrant continued interest in the market on the part of Canada. Imports programmed for 1946 from countries other than France are, incidentally, estimated to have a value of \$219,000,000 for the whole of North Africa, of which Algeria's share will be close to \$100,000,000.

If this third factor -- continued industrialization of the country -- added 30 million dollars to the value of annual imports from countries other than France, which seems a feasible estimate, it would appear that North American production could hope to supply at least 40 million dollars' worth of total requirements, and that Canada could therefore hope for a market of 8 million dollars per year. The latter figure is based on the assumption that Canada should try to obtain one-fifth of the market for American-type goods. Since this figure represents more than one third of the pre-war value of Canadian trade with Continental France, it is not to be lightly treated as an objective, and warrants putting forth some of the efforts to be discussed in the following sections.

POSSIBLE IMPORTS FROM ALGERIA

Among the efforts which Canada could make would be the encouragement of imports from Algeria. The most important Algerian product is of course wine and its derivatives, such as certain types of reinforced wines, brandies and liqueurs. In these categories of products Algeria can compete with any other country in the world on a price basis, ordinary wine selling for as low as five cents a bottle. If encouragement is to be given to the drinking of wine as an offset against an increasing consumption of spirits, consideration should be given to the import of Algerian wines, and to a revision of

provincial legislation in order to permit of their sale at reasonable prices.

While iron ore and phosphates are both largely contracted for in the immediate future, the iron ore going to Great Britain, and the phosphates being required for European agriculture, there is yet the possibility of importing certain quantities as ballast for ships calling at Algerian ports. If, as seems possible, a fortnightly run were to be established, there is nothing in existing contracts or allocations which prevents taking on, say, 2000 tons of ballast for each of these ships, or approximately 50,000 tons per year. This will be more fully discussed in a later section of this chapter.

Among other products which Canada could take from Algeria are olive oil for industrial and edible purposes, cork, dates and figs, vegetable fibre, "scilles maritimes", a newly-discovered rat poison of maritime origin, barytes, kieselguhr, capers, caroube oil for textile finishing, and perhaps certain types of canned fruit and fruit juices, notably orange juice and tangerines in light syrup, which were formerly imported from Japan. Among finished products, some native tissues, basket-ware, sandals, leather goods and beaten copper products might find a restricted market among curio dealers. Geranium oil and orange blossom oil should also find a small outlet in Canada. Goat and sheep skins and sausage casings are also to be considered as possible imports. There is also a slight possibility that during certain early weeks of the orange season, the North African product might be able to reach the market before the annual reduction of tariff rates in favour of the American product. Canned sardines and tuna fish, and salt for the Maritime fisheries, might also find an occasional Canadian market.

GOVERNMENT REPRESENTATION IN THE AREA

Some indication of the recent representation of foreign governments in Algeria has been given in Chapter Five. There is no indication that either the United States or Great Britain plan to reduce their vigilance. The Consulates-General of both countries are well-staffed, and both include commercial specialists or trade commissioners.

In view of the shortage of personnel in the Canadian service, it would not appear feasible to open offices in both Algeria and Morocco. Since Morocco is the more important long-term market, it would therefore be wiser to concentrate on that area, and open as soon as possible an office in Casablanca to cover the whole of North and West Africa, including the British possessions in the latter area. If it were possible to open such an office in the immediate future, however, it would probably be wiser to send the officer in charge first of all to Algiers for a period of up to three months, in order to make contact, and thoroughly familiarize himself with the personnel and plans of the office of the Secretary General for

the Coordination of Economic Affairs in North Africa. This body may well continue to exist until the end of 1947, in order to control the use of foreign exchange provided by the French Government, and in that case will continue to wield a far-reaching influence through its decisions as to what imports must be considered essential to the welfare of the territories involved.

DIRECT SHIPPING FACILITIES

This section is perhaps imbued with personal ideas or preconceptions, as will be one further section of this chapter. However it may be, the writer cannot envisage the success of a trade campaign in the territory under discussion without the assistance of direct shipping connections between Canadian and Algerian ports.

In Canada there appears to be a predominating trend of thought with respect to shipping: that the United Kingdom needs so much assistance in the post-war period, that Canada must provide at least a minimum of such assistance in the form of maritime profits for Britain. According to this theory, most Canadian shipping will be done by British lines, who will serve shipping lanes assigned to them by Canada.

The writer cannot agree with this view, for the simple reason that wielding the big stick of withdrawn franchises after the fact cannot be as successful as the provision of fair and honest competition before the fact. Thus, if British ships, trading between Canada and North African ports, elected to stop in Britain on the outward and inward voyages, and thus found more profit in trade between Britain and Africa, Canada would have a hard time resuscitating a line of her own to replace the British line, than to establish such communications from the outset.

It is probable that with respect to North Africa the above comments are less applicable than they will be to West African runs. There is indeed one Canadian firm which is highly conscious of the potentialities of the market, and which is considering a Franco-Canadian consortium for post-war shipping into the Western Mediterranean (x). This firm is seriously considering a fortnightly service between Eastern Canadian ports and the western Mediterranean, including Lisbon on the one side, and Casablanca on the other. Once a month a ship would come to Lisbon, call at Spanish, French, Italian and then North African ports, while the other monthly run would start in North Africa and reverse the procedure.

This firm, or the consortium of which it may form a part, should be offered every encouragement, for the following reasons:

Note (x) : - Montreal Shipping Co., and Louis Dreyfus & Co.

(a) Without direct shipping, North African importers will tend to gravitate towards New York brokers as their source of supply;

(b) Importers will have the opportunity of receiving CIF quotations from American houses, with approximate dates of delivery, whereas Canadian houses will have to depend on tramp shipping from Canadian ports or Regular sailings from American ports;

(c) Costs in any case would be increased due to the rail haul to American ports.

Prompt deliveries are at present the most important consideration from the point of view of the importer, chiefly because he is still bound by a quarterly licensing system, and furthermore obtains the earmarking of foreign exchange only within certain definite time-limits. But price, and the forging of a new direct import-export trade not under the tutelage of American firms, demand that Canada should have direct lines wherever potential traffic warrants it.

During the year 1946, total imports into North Africa from dollar currency areas, excluding cereals and coal, will amount to 800,000 tons. Canada should strive to obtain one-fifth of this trade, in order to retain her proportion of trade in this particular area. This means that there is a potential market for 160,000 tons of Canadian goods in the area as a whole.

Without a direct shipping line, Canada will probably not obtain more than one-tenth of this. It is no use therefore adopting a wait-and-see policy, since this will never uncover the potentialities of the market. With shipping, it is a matter of taking the risk first, and then deciding whether the results are worth while.

In the minds of the importers themselves, the establishment of direct shipping facilities would be an earnest of our interest in the market, and would give them confidence in Canada as a source of supply. Furthermore, importers are greatly discouraged at the inability of American industry to ensure prompt delivery of goods. While the trade is appreciative of the fact that lack of labour trouble, lesser reconversion problems, and a production more dependent on export markets than that of the United States are advantages making for prompt delivery and competitive prices, they are equally aware that the lack of direct shipping, requiring transshipment in New York or in a European port would raise prices and delay the arrival of goods, placing Canada in a position identical to that of the United States.

There is one further problem, however, which has to be discussed in connection with shipping. It is the problem of return cargoes. While in Algeria, the writer had the opportunity of appreciating the concern with which ship-owners consider the problem of ocean voyages without ballast. A Canadian ship entered Algiers on the last day of 1945, and unloaded

its last 800 tons of cargo. The captain insisted that he would need 2000 tons of solid ballast for the return journey, but the greatest difficulty arose as to the type of ballast which could be obtained. Phosphates and iron ore, in sufficient quantities to serve as ballast, were both obtainable, but the shipping concern could not find out at the last moment whether these products would be saleable in Canada. Rather than take the risk of buying these commodities, and having to jettison them before arrival, the company finally decided to take on a cargo of sand, which cost only 150 francs a ton, against considerably higher prices for the other two commodities.

This is a very uneconomic procedure. The company has determined to investigate the Canadian market for bulk cargoes, so that they may in future take advantage of any offerings; but at the same time the subject also requires study on the part of the Import Division.

It may be noted in passing that this question of ballast might in the long run be of benefit to Canada, since on a commodity such as iron ore, a shipping company willing to pay for the privilege of taking 2000 tons would be very glad to take 6000 tons at a reduced freight rate which would pro-rate the difference between the regular rate on 4000 tons and the loss which would have been incurred on 2000 tons. Thus, by studying closely the types of freights suitable as ballast but still necessary to the Canadian economy, profitable import trade might result.

For a discussion of ports, see Appendix "B"

REPRESENTATION OF CANADIAN FIRMS IN ALGERIA

In view of the continued necessity to apply for import licenses as long as imports remain under control for lack of foreign currency, importers will have to make out these import demands in a very tangible form, i.e., they will have to give indications as to price, currency to be used, etc. In order to do this, they will necessarily have to receive quotations from abroad, and the only way they will obtain these quotations will be from firms which they represent. Firms not represented will obviously have no import demands in their favour, and it therefore becomes equally obvious that any firm anxious to obtain business in North Africa must seek representation.

In Chapter Five, there has already been some discussion as to the form such representation should take. It was concluded that Algeria is seeking to emancipate itself from the tutelage of firms in France, and that representation by Algerian importers is desirable.

There are several representation arrangements already under negotiation. These are of no concern in this report, but what is of concern is that continuity should be assured through a follow-up procedure which need not be dep-

endent on the presence in the territory of an official representative of the Canadian Government.

Every effort was made to develop such standing arrangements, and some promising contacts have been made in this way.

It should first be explained that the Government in Algeria, as in most other French territories, has delegated the right to issue licenses to professional bodies representing the various members of any particular trade. In Algeria these bodies are called "Groupements", one representing for instance the electrical trades, another the metallurgical trades, and so on. The elected president of such a body is generally one of the most influential members of the trade and is in a fair measure able to control the repartition of licenses. In some trade associations, however, the President already represents strong competitors, and it would be unwise to entrust him with the distribution among his members of requests for representation, since he would tend to reduce the competitive potentialities of the newly-represented firm. Because of this, the "Groupement" is not always the best way of distributing requests for representation, and alternative methods have also been provided.

The following are the contacts which have been made in Algeria, and which may be considered as Standing Arrangements.

CHAMBRE DE COMMERCE D'ALGER, Place du Gouvernement, Algiers, (Attention M Petit)

The Chamber is an energetic body, and is perfectly willing to distribute requests for representation. When no alternative is found among other arrangements cited below, requests should be addressed as above.

GROUPEMENT ALGERIEN DU MATERIEL MECANOGRAPHIQUE ET DU MOBILIER METALLIQUE DE BUREAU, (Attention M. Roger Watin, "Le Matériel de Bureau", 9 Bld Carnot, Algiers)

Importers of Metal furniture and office equipment. The president is also head of the largest firm of this kind in Algiers, and has signified interest in representing Canadian firms.

GROUPEMENT ALGERIEN D'ACHAT ET D'IMPORTATION DES FERS, DES METAUX ET DE LA QUINCAILLERIE, 27 rue de Cherbourg, Algiers.

Association of metallurgical, iron and steel and general hardware importers. Highly interested in obtaining requests for representation, and have already submitted lists already sent forward to Ottawa.

GROUPEMENT ALGERIEN D'ACHAT ET D'IMPORTATION DE L'INDUSTRIE ET DU COMMERCE DES PRODUITS CHIMIQUES, c/o M Octave Conte, "Société Nord-Africain Commercial", 6 Blvd Carnot, Algiers

Chemicals and fertilizers. Have expressed interest in Canadian products.

J. ROUSSEL, PRESIDENT, FEDERATION DES REPRESENTANTS, 121 rue Michelet, Algiers.

There are in Algeria some 600 representatives and agents calling on wholesale houses and retail outlets. Of these only a small number would be satisfactory representatives for consumption goods. The president of their federation has promised to entertain enquiries for representation, and to pass them on only to the most reliable members of the federation.

In many types of trade it seems preferable that enquiries should go direct to the more important firms in that particular trade. The following firms are suggested in this respect:

SOCIETE AFRICAINE DES ETABS MORY & CIE, 2 Blvd Baudin, Algiers.

This firm is a subsidiary of a shipping and freight forwarding firm established throughout Africa. The subsidiary is particularly energetic, and with good contacts in the Public Works administration, is particularly suitable for the representation of firms producing Construction Equipment and Material, Port Equipment, and Mining Equipment. Construction equipment includes road-building machinery.

FORGES ET ATELIERS DE JEUMONT, 88 rue Sadi Carnot, Algiers
(Attention P. Raffali)

A very large construction contractor, particularly for dams, hydro-electric projects, thermal power plants, etc. While they are closely tied up with the important Belgian producer of the same name, they are very anxious for Canadian offers on metallurgical, construction and electrical equipment.

ALGERIENNE D'IMPORTATION, D'EXPLOITATION ET D'EQUIPEMENT, 70 rue d'Iely, Algiers.

While this firm is comparatively new and untried, its director is the former head of External Trade in Tunisia, and one of its very close associates and silent partners is E. deVillars, the director of the Algerian Reconstruction and Equipment Bureau in the Government General. A similar company is being formed in Tunisia and another in Morocco, the three to be grouped under a holding company called the Cie Nord-Africaine d'Importation, d'Exportation et de Reconstruction. The advantage of this firm is that it will know through deVillars long in advance of other firms of any projects requiring imports. Since the same governmental tie-up is being made in Morocco and Tunisia, agencies made with this firm may result in rapid introduction into the other territories. It is too early to determine the types of goods of peculiar interest to this firm, but among projects requiring government assistance will be cold storage plants, slaughtering, packing, canning and general food-processing machinery, etc.

Several other names have been submitted to the Department of Trade and Commerce, but the above seem among the best long-term contacts.

PRIVATE CREDITS AND FINANCIAL PARTICIPATION

It should be borne in mind that all the countries in North Africa are new, relatively undeveloped, but pioneering in spirit. They need capital which France will not be able to supply. In order to re-establish their export industries so that they will no longer be dependent on France for foreign exchange, they will need private credits to supplement the meagre amounts of foreign exchange put at their disposal by France.

Since it seems evident that Canada will be forced by public opinion to reduce her governmental credits to foreign countries within a relatively short time, the encouragement of private investment abroad would be a wise precaution, since it would help to drain surplus capital off the Canadian market, and so reduce the danger of inflation.

Because of its special international status, Morocco would appear to be the most important market for private investment, but opportunities in Algeria should not be neglected. Participation in tourist trade, transport services -- especially air transport in the desert areas -- cold storage and canning plants, should not be lost sight of as possible methods of fostering trade. Canadian participation would permit the purchase of equipment in Canada, and would guarantee a continuing market as original equipment deteriorates or expansion takes place. Similarly, private credits for railways, shipping, power stations, etc, would permit the obtaining in Canada of the equipment necessary for these enterprises.

MORCCO

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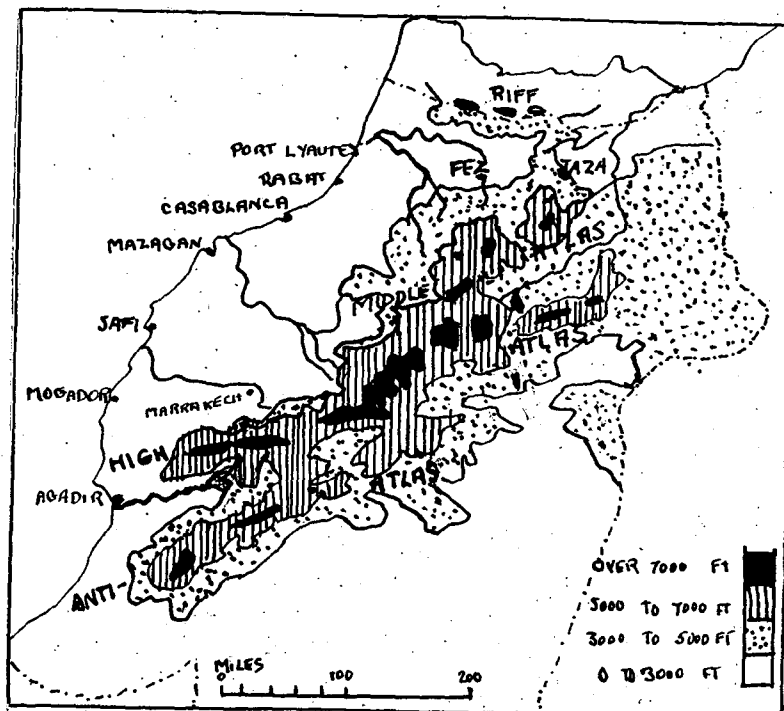






PART TWO

MOROCCO



PHYSICAL FEATURES
OF MOROCCO

CHAPTER ONE

INTRODUCTION

Morocco is in the anomalous position of being a single state divided into three separate spheres for administrative purposes. The whole of Morocco is under the titular rule of the Sultan, but the largest part of the country is under a French protectorate, another ten percent is under a Spanish protectorate, the Tangier zone is Internationalized, and there is a little coastal zone far to the South, called Ifni, which is again under Spanish domination.

The part which interests us, however, is the French protectorate, which has an area of slightly more than 200,000 square miles, or almost two and half times the size of Great Britain. The French zone had, in 1937, a population of 6,300,000, of which 230,000 were of European origin and the remainder were largely of Berber descent. This population was very unevenly distributed, with the greatest proportion in the fertile coastal belt, and a greatly diminishing density as the mountains gave way to the eastern deserts.

In many ways Morocco differs from the countries bordering on the Mediterranean. Its longest coastline is on the Atlantic, and parallel to this, at a considerable distance inland are the Atlas mountains, cutting off this coastal strip from the rest of Africa, and at the same time forming a watershed which generally provides an ample supply of water.

The French part of Morocco again is cut off from close contact with Europe by the Riff Mountains on the Southern fringe of the Spanish zone, which reach rugged summits of up to 12,000 feet.

For administrative purposes, an artificial boundary between Morocco and Algeria has been created well to the East of the Atlas mountains, and therefore the country as at present constituted includes a considerable area of desert of little economic importance except for some mines on the eastern foothills of the mountains.

There is a small part of French Morocco which flanks the Mediterranean to the East of the Spanish protectorate, linking it with the Algerian economy. It is relatively free of access to the remainder of Morocco through the Taza gap, the only pass through the Atlas Mountains at a height of less than 3000 feet. This gap in the natural defences of Morocco has been the immemorial battleground of the past, the defence against the East, and the first objective of Eastern invaders wishing to make their way into Europe via Spain.

Since military occupation by the French, several other routes have been pierced through the higher passes of the mountains, and the country may now be said to be well provided with transportation facilities. Railroads are all standard gauge and mostly electrified, and the roads are well built, with minimum grades even in the steepest mountain areas.

This system of communications has helped the development of even the outlying parts of the country, and promises much more for the future. Many mining deposits are in the mountains, and even on the reverse or easterly slopes, and it is hoped that post-war development of motor transport will make economic exploitation possible on the basis of world prices. The roads too, should assist further exploration among the old geological formations of the Atlas, where, as in the Colorado Canyon, as many as five geological ages are exposed in the same area, ranging from primary through Tertiary to Cretaceous and Jurassic.

One factor of extreme importance to the Moroccan economy is the availability of hydro-electric power resources. Although the flow of water is seasonal, it is in sufficient volume to warrant large scale control measures, and the administration has gone a long way in planning for increased post-war capacity. Since the control and storage works will also provide water for irrigation, it is hoped that the fertility of the country may be further improved to keep step with the increasing population of the country.

GEOGRAPHICAL FEATURES

The accompanying relief map will give some idea of the accidented nature of Morocco. The dominant relief feature is the High Atlas, the central of three groups of mountains generally known as the Atlas. This runs from the Atlantic coast between Agadir and Mogador in a North-Easterly direction into Algeria, where they become the Saharan Atlas. Their highest peaks are in the region to the South of Marrakech, where they frequently rise above 9000 feet and attain a height of over 13,000 feet in one or two areas. The mountains are rugged, with steep and well-wooded valleys running down their westward slopes.

Slightly to the North of Marrakech, another range, called the Middle Atlas, strikes North-East at a slight tangent, towards the Riff Mountains of Spanish Morocco, from which they are separated by the Taza gap. This range of Mountains is the main watershed of the country, and it is here that the Oum er Rebia, the Sebou, the Beth and the Moulouya, the most important rivers in the country, have their sources.

South of the High Atlas is another range of lower mountains called the Anti Atlas. It is joined to the High Atlas by a spur West of Ouarzazate, so that certain mountain streams having their source in the High Atlas, such as the headwaters of the Draa, have to circle around the Eastern end of these mountains before turning westwards towards the Atlantic.

On the Western side of this spur, the River Sous has its source, and flows down an isolated valley to its mouth at Agadir. This valley has not been greatly exploited, but the Germans were greatly interested in its possibilities before 1914, not only from the point of view of settlement, but also as a possible route into the mineralized areas of the interior. Among the plans which for the moment are staying in the drawing-board stage is the construction of a railway from Agadir to Ouarzazate in order to provide a ready access to the sea for the mines of the eastern Atlas.

Although the plains of the Atlantic seaboard are wide in comparison to those along the shores of the Mediterranean, they are divided by rocky outcroppings which themselves reach the sea North of Mazagan and again to the South of Rabat. The plains rise to a height of some 3000 feet towards the foothills, and in many cases at higher levels are not cultivable, being broken by mountain gorges and rugged upland country which in two areas break out into small isolated mountains.

Apart from the Mediterranean Coast of French Morocco, which extends for less than 10 miles from the frontier with Spanish Morocco to that with Algeria, and which has no ports, the whole country fronts on the Atlantic. Generally speaking, the coast is featureless, with long stretches of sandy beach, flanked by cliffs or sand-dunes and marshes, and with few inlets forming suitable ports. The chief ports, from North to South, are Port Lyautey, Fedala, Casablanca, Mazagan, Safi, Mogador and Agadir. Of these, Casablanca is by far the most important, with exports ranging up to 2,000,000 tons per year and imports up to 900,000 tons under good normal conditions. The situation has been reversed lately due to the necessity of importing massive quantities of cereals, and the relatively small output of phosphates. Fedala is another important port, largely because it has been chosen as the oil storage port, and nearly all oil shipments are entered here. Safi is the second most important phosphate port, and has a fairly good trade in general merchandise as well.

CLIMATE

In general the climate along the coastal strip of Morocco is equable and bearable throughout the year. The winter temperature rarely falls to 40°F, while in summer the heat is moderated by cool inshore breezes. Occasionally there are hot Siroccos or Cherguis -- dry winds from the desert -- which sear the crops and parch the soil, and bring about temperatures of up to 130°F. Towards the mountains and beyond them, however, the temperature shows greater variation, and both summer and winter may be extremely uncomfortable. The writer himself saw six foot snowdrifts on the mountain roads South of Marrakech at the end of January, and interruptions to mountain traffic are fairly frequent due to snow, rains and flooding, landslides, and other effects of weather variations.

There are very great differences of rainfall as between various parts of the country. The mean annual rainfall near

the border of Spanish Morocco is 29 inches; at Rabat is 22 inches; at Casablanca, only 60 miles away, is 10 inches; and it decreases along the coast to about 5 inches at the extreme southern extremity beyond Agadir. Going inland towards the mountains, the rainfall generally increases in the North, up to a maximum of about 35 inches in some areas, but it tends to decrease in the South, where the mountains are almost perpendicular to the coast. Once over the mountains, rainfall practically ceases and the country becomes typically desertic in character.

From year to year there are wide variations within this annual mean, and two out of every eight years have to be reckoned with as being years of drought. 1945 was one of the worst of such years, and its effects will be described in a later chapter.

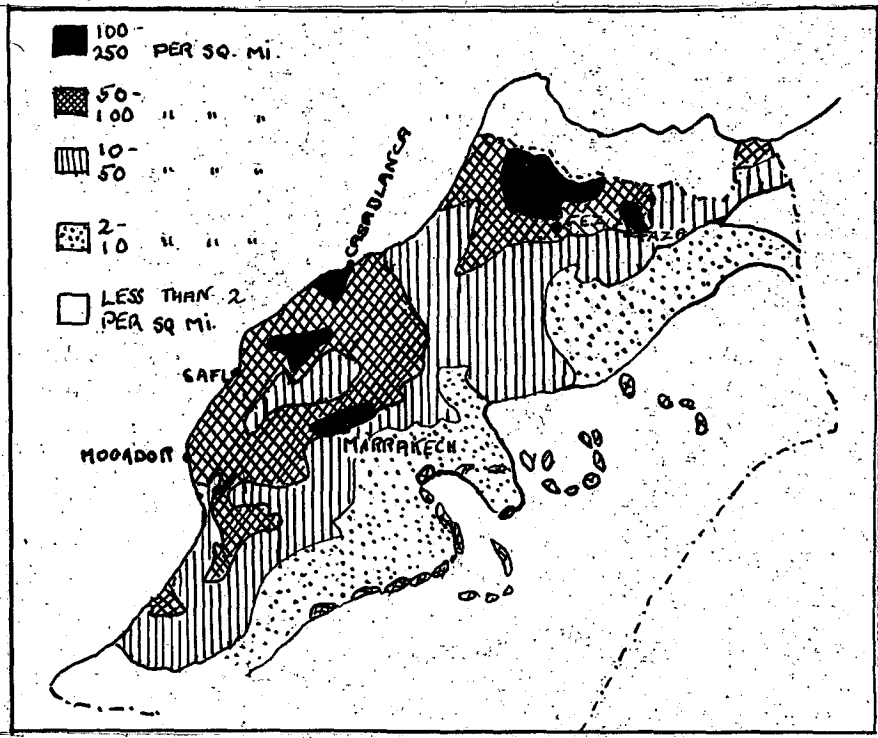
POPULATION

The ruggedness of the terrain and variations in water supply cause the population to be very unevenly distributed.

In the more inaccessible mountain and desert areas, the Berbers, who have already been described as being largely of Mediterranean-European stock (and not of Asiatic or African stock) are practically in sole possession due to their ability to lead a nomadic life. Even near the coast they are in the majority, since the isolated position of Morocco hindered the massive infiltration of Arabs which has so greatly diluted the Berber peoples in Algeria and Tunisia. There are, however, some curious relics of the Moorish invasion of Spain. There are probably over half a million descendants of the Andalous, some of whom were Spanish, but most of whom were probably a mixture of Spanish and Moor. These people withdrew with the defeated Moors in 1248, and since they had previously adopted Mohamedanism, they have continued in the native way of life. There are also some 150,000 Jews, some of whom came to the country in the fourth century B.C., and others of whom undoubtedly came also from Spain at a later date. In the South there are some negroes, and mixtures of Berbers and negroes, descendants of slaves who had been brought across the desert from the great slave market of Timbuctou. Finally, the pure Arab population, although not very large, is centred mostly in the towns, and exerts an influence greater than mere numbers would warrant, since they tend to foster Pan-Arab movements and disturb relations with the Europeans.

This mixed group of natives accounted for a total population of 6,070,000 inhabitants in 1937, but it is probable that their numbers have increased to about 7,000,000 at the present time, at an average rate of increase of 15% per decade during recent years.

The European population was 230,000 in 1937, and here again it is probable that it has now reached about 300,000, not so much due to natural increase as because of the number of



DENSITY OF POPULATION
 IN MOROCCO
 (NOTE THE CURIOUS GROUPS OF DENSE POPULATION
 IN THE DESERT AREAS. THESE REPRESENT THE
 OASES ALONG THE PART-TIME RIVERS
 FLOWING EASTWARDS FROM THE
 MOUNTAINS)

refugees who came to Morocco during the war and have since decided to settle there. Most of the Europeans are French, with a considerable sprinkling of Spaniards, and some Italians, Maltese and Greeks (the Greek restaurant is to be found in semi-desert towns south of Marrakech !). Most of the Europeans live in towns, and Casablanca itself has about one-third of the European population, but some 20,000 live in rural areas and cultivate their own properties.

The following table gives the urban population in 1937. It is to be noted, however, that the population of Casablanca has doubled since then, and substantial increases are to be observed in Fez, Marrakech and Rabat.

URBAN POPULATION, 1937

	<u>Native</u>	<u>European</u>	<u>Total</u>
Casablanca	183,000	74,000	257,000
Marrakech	183,000	7,000	190,000
Fez	134,000	10,000	144,000
Rabat	57,000	26,000	83,000
Meknes	62,000	13,000	75,000
Oudjda	20,000	15,000	35,000
El Ksar el Kebir	?	?	32,000
Sale	31,000	1,000	32,000
Mazagan	23,000	2,000	25,000
Safi	23,000	2,000	25,000

HISTORY

In common with most of the Mediterranean basin, Morocco has had a long and checkered career of invasion and counter-invasion, empire and ruin, culture and decadence. The Phoenicians appear to have been the first within chronicled history to have established trading enterprises there about the twelfth century B.C. They have left no information about the original inhabitants of the area which would help to trace their history and movements, and establish the exact origin of the Berbers of today. It is known, however, that some Jews and some Egyptians entered the country between this period and the time when the Carthaginians, in the eighth century, established their own trading posts and lived on friendly terms with the inhabitants, who quickly learned the Punic tongue and accepted its culture.

From this period onwards, the history of Morocco follows the same general pattern as that of Algeria, usually with some delay due to the remoteness of the country. The Romans first appeared in 146 B.C., but did not annex the country as a province until a hundred years later. Volubilis, now a walled ruin near Meknes, became the capital and the chief garrison of the country, and is known to have been of considerable importance. By assimilation again, the indigenous peoples

quickly adopted the Roman language, customs and religion.

With the decline of Rome and the overrunning of Spain by Visigoths and Vandals, a new threat appeared, this time from the North across the straits of Gibraltar. These raids lasted for a hundred years until the Byzantine Empire revived some of the power of Rome in 533 A.D., and brought with it some share of Eastern culture, evidence of which may still be found in architecture. In the meantime Christianity was taking over from the old heathen gods until 705 A.D., when the Arab invaders from the East finally entered the country and started making recruits for their army and their religion. It was largely with the assistance of these Berber recruits that they were able to conquer Spain and part of France. The very size of the Arab Empire at this time, however, brought confusion in its wake, and permitted the rise of an independent Moroccan Empire, under Moulay Idriss, whose son carried on in the control of a large part of North Africa in almost complete independence of the Caliphate. At the death of the son, confusion became twice confounded with internal strife and dissident movements back and forth across Africa, until a new Moroccan Empire, that of the Almoravids from the South, took hold about 1056, founding the city of Marrakech as their capital in 1062. Some 200 years later, the Spaniards and Portuguese had a brief hold on the country after they had driven the Moors out of Europe, but from then on local dynasties succeeded in retaining control, and were even able to hold the country from the Turks, when the latter had conquered Algeria and Tunisia.

With the growing power of Europe in the nineteenth century, there were greater and greater demands for freedom of access to Morocco. When the French conquered Algeria in 1830, clashes became inevitable along the ill-defined frontier, and Oudjda was taken in 1843. This was later relinquished on pressure from Great Britain, but in the meantime Spain started taking an interest in the part of Morocco facing the straits, and in 1859 went to war against the Sultan, taking a good part of what is now Spanish Morocco. Again the French could not remain indifferent, nor could the British in view of the threat to Gibraltar. Morocco became a veritable centre of power politics, with Italian and German interests thrown in for good measure, and finally, when France determined that she had to move in order to safeguard her Algerian frontier, she proceeded first with a series of treaties. In 1900, Italy and France agreed to give each other clear fields in Tripoli and Morocco respectively. In 1904, similar pledges were made between Britain and France with respect to Egypt and Morocco, and in the same year Spain and France agreed as to the limits of the Spanish sphere of influence. Again in the same year, the Sultan obtained a loan from the French, and agreed to French interest in communications and French reform of the Army. Throughout these manipulations, Germany felt out of the picture, and the Kaiser made his famous visit to Tangier, to talk to the Sultan as man to man and emperor to emperor. This incident culminated in the calling of an international conference at Algeciras in January 1906. The conference guaranteed Moroccan independence, but gave the

French and Spanish certain rights upon which were later built up the protectorates. A few Frenchmen were shot in Morocco, and Oudjda was again occupied. The next incident occurred in Casablanca, and French troops were disembarked there to restore order. The whole country was by this time in a state of complete anarchy, and the Sultan himself was obliged to call upon the French to restore order, and from 1908 onwards, French troops slowly moved in towards the Taza gap and through the port of Casablanca. By March 1912, after the Affair of Agadir, when the Germans sent a gunboat to quell alleged riots in that area, the Sultan was ready to sign a treaty providing for a French Protectorate. Although the Moslem religion and the dignity of the Sultan were not to be encroached upon, France was to have a Resident-General who would be the "adviser" of the Cherifian Government, and who would be his Minister of Foreign Affairs.

The country was far from wholly pacified at that time, including only the coastal areas from Mogador to the Spanish Zone. Since the first World War started soon after, the Germans used the power of two strong tribal leaders, Raisuli and Abd el Malek, to organize resistance, and very little new territory in the north was conquered until after the war. For instance, the Taza gap was not fully opened to direct intercourse between troops in Algeria and those which had come in from the Atlantic coast, until 1919. In 1921, a new leader, Abd el Krim started a serious revolt, mostly against the Spanish, and almost succeeded, in two years of fighting, in driving them back into the sea. By 1924, this revolt had spread into the French Zone, and the fact that the French now had to take part in its suppression probably saved the Spaniards from utter defeat. Marshal Lyautey and General Giraud were two of the well-known figures who participated in the ensuing activities, which ended only with Abd el Krim's capitulation in June 1926. Even after that date, however, there were still several mountain fastnesses and desert areas which had never been overrun, and which continued to threaten lines of communication and peaceful settlement. Organized campaigns therefore continued until 1934, when the last resistance had been quelled after almost continuous military operations which had lasted for 27 years.

It must not be forgotten that it is this sense of building in the midst of danger which gives the French settler in Morocco that feeling of independence and pioneering spirit of which he boasts. Many of these settlers, indeed, were the officers and men who fought so long for the country, and who had no desire to return to a troubled Europe once their military service was over. Based on such a first generation, which is still the main generation of settlers in the country, it is permissible to build high hopes for the future, and to believe that the spirit of enterprise will continue to manifest itself.

ADMINISTRATION

Before the establishment of the French Protectorate, the Sultan wielded both temporal and spiritual power. As Caliph of the West, and direct descendant of Mohammed, he could call upon the faithful to join in a holy war, and it is on this grounds that perhaps his power was the greatest. The spiritual leaders under him, the Kadis and nadirs, were appointed as his personal representatives, and it was they who collected the greater part of the taxes, since secular taxes were frowned upon by Islamic law.

In the secular field, the Sultan appointed his Vizirs or Ministers from among his own entourage, and delegated some of his power to local Pashas and Kaidis also appointed by himself.

His power, however, was largely limited to the plains from Mazagan to Larache, as the independent Berber tribes of the mountains did not acknowledge the temporal power of the Sultan, and only acted in common with the plainsmen as a matter of convenience. Each tribe had its own tribal customs, and the edicts of the Sultan did not apply when they did not conform to traditional forms and rites.

Besides the absolute nature of this type of rule, and the inability to form a civil service which would ensure continuity, the greatest single problem faced by the Sultan was that of finances. As social life became more complex, and relations with the outer world required greater expenditures on defence and public works, the spiritual taxes were found to be insufficient, and many attempts were made to levy state taxes. As these attempts failed or threatened to cause local uprisings, the Sultan was obliged to have recourse to foreign borrowings and thus became economically dependent on the foreign lenders.

Even before the establishment of the French Protectorate, certain foreign obligations had accumulated as a result of various treaties. From about 1856 onwards, certain powers had obtained by treaty the right of Capitulation, or extra-territorial status, permitting their own protected agents and nationals to be tried by their national courts. Upon the formation of reliable courts under the French Protectorate, most of these rights were ceded, but the United States still in theory retains the right of trying its own nationals instead of turning them over to local courts.

In addition, certain economic rights were granted by the Madrid Convention of 1880 and by the Act of Algeciras in 1906. The policy of the Open Door was laid down by the latter act, which stipulates that all signatories must have equality of economic opportunity. Thus tariff rates cannot favour one signatory at the expense of another, which prevents France from obtaining any special concessions on the entry of her goods into the area. This same clause permits equality of

opportunity with respect to coasting trade, so that the ships of signatory nations may pick up and discharge cargo between Moroccan ports, and even between Morocco and France.

After the death of Sultan Moulay el Hassan in 1894, administration broke down almost completely, with assassinations, kidnapping, misappropriations of funds and other evidences of administrative incompetence so flagrant that foreign intervention only became a matter of time.

By the treaty which inaugurated the French Protectorate in 1912, the Resident General became the Sultan's sole representative in foreign Affairs; he could also prepare legislation to be issued in the form of Dahirs by the Sultan's government, with respect to administrative innovations, legal, economic, educational, financial and military organization.

By great good fortune, the French leader in Morocco at that time was Marshal Lyautey, who had already had a wealth of experience in dealing with native populations in Indo China and Madagascar. He determined that as far as possible, the forms, customs, ceremonies, the spiritual and temporal powers of the native state were to be retained in their original form, and this has continued to be the basis of French rule in Morocco. The Sultan remains supreme, so that all laws are issued in his name. The Islamic religious code, which also governs matters of property and succession, is continued, and administered as heretofore by the customary Moslem leaders. On the secular plane, however, all native officials now form part of an organized, selected, and fairly well paid civil service.

The dual nature of the Moroccan administration requires careful analysis in order to be understood. The Resident General is in actual fact the supreme authority, but more and more his role is made to appear secondary in order to spare the feelings of the natives: for instance, he is also called the French Ambassador to the Sultan, and all French higher officials insist on calling him the Ambassador rather than the Resident. (Similarly, the British Consul General in Rabat is also called the Minister to the Sultan). He is assisted by a Secretary General, who is the permanent official in charge of all government departments, and by a Delegate who can assume his functions during his absence. Under him are also four secretariats, civil, military, political and diplomatic (Cabinets Civils, etc., as they are called in France). The administrative services comprise seven directorates -- Native Affairs, Finance, Communications, Production and Labour, Agriculture, Health, Education and Mining.

Apart from this organization, which prepares legislation and controls the administration of each of the branches, there is a special office called the Direction Générale des Affaires Chérifiennes. This is the liaison body which explains impending legislation to the Sultan's Vizirs and which tries to smooth out any differences of opinion which may exist between the Resident's administration and the Sultan's government.

In local administration, the former Kaids, etc., are still the titular heads of the administration, which derives directly from them; however, they are assisted by French advisers, either civil or military depending on whether the territory is still under military control.

To avoid the over-centralization which had been common prior to the protectorate, local bodies, both urban and rural, are given considerable powers, although their decisions are subject to review by local representatives of the central administration.

Although this very short summary cannot begin to give an adequate picture of the administrative organization of Morocco, competent observers, both British and American, believe that it is extremely ingenious and satisfactory. As is too often the case, however, much of its effectiveness depends on the personality of the key man, and some doubt is expressed as to the administrative ability of the present Resident General. There has of necessity been very greatly increased administrative control during and following the war, and there is some tendency to believe that these additional controls have not been ably administered and that considerable corruption exists in the distribution of licenses and in the administration of other controls. To what extent the average civilian is correct in this assumption it is hard to estimate, but certainly it appears that the government is blamed for a far greater proportion of the actual economic ills than seems within the limits of probability.

CHAPTER TWOTHE NATIVE PROBLEM; POLITICAL AND
SOCIAL TRENDS OF TRADE SIGNIFICANCE.

When one first enters Morocco, one is struck by a peculiarly tense attitude on the part of the European population, which talks at length about the probabilities of a native uprising. To the outsider who has already visited Algeria and Tunisia, this is a puzzling phenomenon, since native conditions appear better in Morocco than in other parts of North Africa.

In the first place they have their own government, and all laws in the country are issued as Dahirs of the Sultan. The role of the protecting power is therefore minimized on the surface, and there is an illusion of autonomy which is sufficient to satisfy the local population on political grounds. This illusion is fostered by the protecting power, which is stated to occasionally submit for acceptance by the Sultan laws which there is no intention of applying, in order to give the Sultan a chance of vetoing the proposal.

Secondly, the country is not French, as is Algeria, and there is therefore no troublesome question of nationality or of discrimination as to citizenship. In fact, the European settlers tend to lose their national identity, and to call themselves Moroccan, whether they come from France, Spain or other countries.

Thirdly, a conscientious attempt has been made to safeguard native privileges in land and property. The amount of land placed at the disposal of settlers is strictly limited, and indeed, settlement and purchase rights have been suspended for many years. This policy has been on a basis of tribal rights within each locality, so that there has not been a "grab" of all the best land in any one area as there has been in Algeria: in each tribal area, a certain proportion of the land has been made inalienable, whether this land was in the most fertile part of the country or not.

A further economic incentive is the attempt to form tribal collective farms, in order to permit the natives to enjoy the benefits of mechanized agriculture. As long as each individual cultivates his own little piece of land, it has been realized that total native production cannot be greatly improved. In view of the rapidly rising native population -- about 15% every 10 years, as in Algeria -- it is considered that the

natives must become more and more self-supporting in their agricultural economy, in order to avoid a reversal of the normal surplus economy which has permitted cereal and other food exports in the past. The answer seems to be in collective farming and agricultural credits to allow for mechanization.

Because of these various factors, it is difficult to see why, on political grounds, there should exist the widespread fear of revolt which is evident among Europeans. It is true that the Moroccan population is made up principally of Berbers, who were notable until 1923 for their war-like qualities, and who have a much more active disposition than Arabs. On the other hand, this in itself is an additional safeguard against the spread of a Pan-Arab movement into Morocco, since the Berbers, although Moslems, are far from orthodox, and would be quite prepared to regard their Sultan as the leader of Islam, instead of turning their eyes to the East for leadership. There is no question but that a Pan-Arab movement might be used as an excuse for revolt if it were to make extensive headway in other areas, but there is little likelihood of independent concerted action in this direction among the Moroccan natives.

Any apparent unrest which may exist at the present time may therefore be attributed largely to immediate economic and social problems. These are not lacking in view of the 1945 drought which has dangerously reduced the private accumulations of the wealthier natives in cereals and other foodstuffs, and could well have meant complete starvation for two to three million natives had not foreign wheat been imported in sufficient quantity. The drought caused many natives to seek employment in the larger cities, and although these natives are according to law a charge on their own tribes, and must be returned to their own locality, there is evidence that many have escaped the dragnet and are painfully attempting not to starve in the larger centres, thus adding to the element of instability of the urban population. This floating population gives a demagogic advantage to the educated city-bred Arab who, because he has rarely been trained in other subjects but law, returns from France to find an overloaded profession, and instinctively seeks to make political capital of his economic plight.

The other important point is a psychological one, inherent in the attitude of the European settler. Most of these settlers came to the country about twenty years ago, just at the time when the country had been pacified, and when the native was therefore submissive to the European power which had so recently been demonstrated to him. There grew up among the settlers a tolerant, paternalistic attitude which tended to treat the natives as children. With the growing economic awareness of the last few years, this attitude has become archaic and insufferable in the eyes of many natives. Where the settler feels that his paternalism should have created a sense of obligation towards himself on the part of the natives, the latter consider that they owe nothing to a system which was in a sense a sort of enlightened serfdom. The settler is acutely conscious

of this, though not of its causes, and it is a frequent occurrence to hear him state that there is no loyalty in the native, that after working for you for thirty years, he is just as likely to murder you in bed as to try to protect you in case of revolt. On one farm which was visited, for instance, the colonist had encouraged the establishment of a native village on his property, in order to draw from local sources the 600 labourers he required at certain seasons of the year. Yet the farm-house looked very much like a fortress, with small and infrequent windows, and fairly large stocks of arms and ammunition.

The more recent immigrants are far more dangerous to social stability than the long-time settlers in the country districts. Most of these have settled in the cities and have expected a docile and slave-like native population to cater to their requirements. In their disillusion these Europeans have adopted a contemptuous attitude, and it is all-too-frequent to hear them discussing before their native servants the laziness, thievery, dirtiness and lack of loyalty of the natives. On one such occasion, the writer happened to be reading later in the evening a book about the Russian revolution, in which a reactionary was made to say that "these serfs and workers will never amount to anything, and could never be educated to amount to anything, because they are all lazy thieves, dirty and ignorant." The same syllogistic conclusion is invariably arrived at by the more reactionary European element in Morocco, and it goes a long way to explain the present feeling of uneasiness, since the native demagogues can use the lying and thievery as an element in the general breakdown of respect towards the Europeans.

Although the native ruling classes have every advantage in being loyal to the protecting power, since they have been perpetuated as the channels of command, recent tutelage to France, made necessary by the lack of foreign exchange, has been particularly irksome to them. When France devalued the franc on 26 December, 1945, and made this devaluation effective in Morocco without consultation with the local authorities, there was widespread anger among the ruling officials. This anger had nothing in common with the attitude of the lesser natives, since it was based largely on self-interest. The very wealthy natives have placed, since the resumption of foreign trade, large orders abroad for such consumption goods as cars and household supplies, and they suddenly found themselves faced with the necessity of paying 156% more for these goods than they had counted upon.

These, then, are the various cross-currents which influence relations between Europeans and natives at the present time. It seems unwise, however, to consider that the balance of feeling is all in favour of revolt. The best judges in Morocco are incontestably the military native affairs officers, who have made their careers as local administrators, judges and executive authorities among the natives. They are exceedingly well-chosen, and highly respected by the natives.

Their own opinion is that unrest is mainly in the cities, and that this will be quickly appeased as soon as economic conditions improve. In the country districts, and particularly among the warlike mountain tribes, they find no evidence of concerted feeling against the protecting power, and they consider that no uprising is imminent, and go so far as to give a green light for four years to come which is about as far as they dare predict.

It would seem, therefore, that the present uneasiness is largely a manifestation against the continuance, after the end of the war, of those economic conditions which isolation from the rest of the world had developed during the war years. If there is a good crop in 1946, as seems likely, economic activity will improve, and present feeling will be appeased in a flurry of work.

For the country as a whole has a strong spirit of initiative and resourcefulness. Most of the Europeans are first generation settlers who came to the country in the early twenties, when it was not yet wholly subdued. They have retained a pioneering, frontier spirit, they have no intention of returning to Europe, and they call themselves, not without reason, the "Americans of North Africa". The faults mentioned above are perhaps only a manifestation of their impatience at economic and social conditions which delay their progress towards modern industrialization. Casablanca is built like a Mid-Western town, expansively and optimistically, with wide-open spaces -- the vacant lots of the West -- tall buildings, and an attempt at modernity in architecture. In its ugly way, it personifies the forward-looking eagerness of its inhabitants more than does the peaceful homogeneity of Rabat, the other completely modern town. The people believe in their destiny, and they fear above all the intrusion of a mother country from which they have voluntarily cut themselves adrift.

It is for this reason that there is just now a manifestation of helplessness among these people who feel that they are caught in a web of circumstances beyond their control, and who therefore tend to blame anyone other than themselves for their economic stagnation. During the war years, they were unable to export, and had few strategic raw materials to offer the allies. Their industrial equipment has deteriorated, and now they find that due to severe drought, the limited foreign currency which France has placed at their disposal must be used for consumer goods instead of the industrial expansion which they primarily desire. The very fact, too, that this foreign currency is doled out to them is irksome to a high degree, and still more so is the fact that France has retained the right to decide how that currency should be spent.

There seems no doubt, nevertheless, that the natural resiliency of the people will react against this present lethargy, and that their natural speculative instincts will reassert themselves in the realization of big undertakings and the rapid development of present potentialities.

The present feeling of external restraint will perhaps cause a reaction, too, in the political field. There is no

doubt that the attitude of most European residents is that never again must they allow themselves to return under the tutelage of a French administration, and that this will act more and more in the direction of autonomy or a sort of Dominion status.

The administration has undoubtedly been weak in recent years, but not all the ills of the country can be blamed upon it, as the tendency is at the moment. And no matter what desires the residents may have, the truth is that there are few Europeans living in Morocco who would have the desire or the experience to set up an administration devoid of any trained assistance from the French civil service. The only thing which can be hoped for under such circumstances is that sound administrators, trained in France, will be willing to come to Morocco in order to make their whole career in the country instead of being sent on a temporary basis as at present.

The country is inspiring at its actual level of development, but it is still more inspiring to look at the potentialities of the future. With rapid electrification in prospect, good roads, excellent land, mines whose wealth has only been sounded, and with a cross-roads position on the North Atlantic coast, Morocco may well hope to be one of the important transit centres of Africa, with all which this may mean in the way of building up raw materials. The Casablancans believe that their port is the logical distribution area for the whole of the west coast of Africa down to and including the Belgian Congo. They argue that from a shipping point of view, it would be infinitely superior to discharge large ocean-going vessels in Casablanca, the cargoes to be either worked up first in the city, or transhipped direct to smaller coastal vessels which could run into all the lesser ports along the coast down as far as the Congo. The larger ships would thus save invaluable time which is now spent in idly coasting into small ports for the discharge of uneconomically small tonnages of goods. Similarly, with excellent airfield facilities, Casablanca feels that it is in an excellent situation as the hub of air transport into the interior of Africa as far East as the Nile.

Such a transit trade would of course greatly expand the secondary industries of Morocco, and would encourage the setting up of industries serving the requirements of this vast hinterland. And the future may demonstrate that the Moroccans are not over-sanguine in their expectations.

Of importance from the foreign trade point of view is the high standard of living to which the European inhabitants have become accustomed. The treaty of Algeciras guaranteed that there should be no trade discrimination, and ensured that customs duties should be very low. They have in fact been at a level of 12½% for several years prior to the war. The population was therefore able to purchase from the most economic sources all they required, and they have gravitated towards the expansive home economy of North America --

a car for every family, radios, electric stoves and refrigerators, modern plumbing, and all the amenities of a high standard of living. During the war years they were naturally cut off from such imported products, and since then, control of imports has also meant control of prices -- imported wheat, for instance, could not be sold to millers at prices far inferior to those paid for domestic cereals. In many ways this price-fixing has nullified the effects of the Treaty of Algeciras, because, although import duties have been suspended, the differences between imports and selling prices have in many cases far exceeded the difference which would have been due to normal import duties.

There is some logic in the French argument that if there are wide price differentials in the value of goods from different sources, the country will attempt to buy from only the cheapest source, and will therefore fail to obtain the volume of goods which it requires. At the same time, the theory has been made to favour French industry in no small degree -- before the devaluation, for instance, an American truck which could be landed at less than 100,000 francs was selling at nearly 200,000 francs, which corresponded fairly closely to the price of French trucks of a similar category.

Although this is not in the spirit of the Algeciras agreement, there has been no protest from interested powers so far, and none was contemplated during the course of the writer's visit. One American oil company, however, was dissatisfied regarding the price level on gasoline set by the authorities, and was selling in its own service stations at a price far inferior to that fixed by regulation. This may have been a test case in which the American authorities were interested, but no conclusive steps had been taken on either side at last reports.

All administrative sources consulted, both in France and Morocco, insisted that there was no intention to contest the validity of the Algeciras agreement, and that as soon as the economic situation warranted, a return to low-duty imports would be effected. There is no reason to doubt the validity of this assertion, in view of the temper of the Moroccan population, which would not long tolerate an unjustified continuance of present controls.

CHAPTER THREE

MOROCCAN AGRICULTURE.

Agriculture is the basis of the Moroccan economy, as it is in Algeria, but although it is subject to an even greater expansion than that of the latter country, its proportionate significance may be considerably reduced in the future due to the development of industry and mining.

French Morocco may be divided roughly into three parts for a study of its agricultural background. There is first a wide plain extending the whole length of the Atlantic seaboard, generally broad and rising gradually towards the mountains, but occasionally pinched in towards the sea by outcroppings of the mountain chain. Then there are the mountains themselves, acting as a water-shed, with high precipitation but generally unsuitable for cultivation due to the rugged nature of the surface. Beyond the mountains is the desert, which extends into, and really forms part of the Algerian Sahara.

Because of the prevailing, moisture-bearing winds, the northern part of the seaboard, from Casablanca through Rabat to Larache is adequately watered in a normal year, but precipitation gradually falls towards the south until it reaches nearly desertic levels near Agadir.

The cultivable area is nevertheless subject to periodic droughts, which have averaged two years out of eight during the last few cycles. Because of its own local precipitation, as well as the water coming down from the mountains, the north generally weathers such droughts better than does the south, but this simply means that the south becomes almost completely unproductive during such years. Such was the case in 1945, when crops were about one-third of normal, despite a relatively fair crop in the north. The wide plains leading from Casablanca to Marrakech and back towards the coast were almost completely desiccated during the year, and the parched earth will require more than its usual share of water during the present year to return to a normal standard of output.

Of the area suitable for agriculture, a little over 10 million acres are cultivated; 20 million acres are natural pasture; 6 million acres are forest lands; nearly 5 million acres are generally in fallow (one-third of the cultivable area); and some 500,000 acres are devoted to orchards, vineyards and market gardening. There is another 5½ million acres which,

although not productive in other ways, yield important quantities of Alfa.

The total productive area of 47 million acres is therefore an important proportion of the total area of the country, estimated at 104 million acres, this area including as it does rugged mountain and arid desert land.

Production on this land is variable, the most fertile parts producing as much as 40 bushels of grain to the acre, while other parts are much lower in yield either because of weather or because of poor methods of cultivation. For here as well as in Algeria, 80% of the native population is engaged in agriculture, and so far the vast majority of these employ the most primitive methods. It has already been stated that collective farming on a tribal basis is being attempted, but so far this only affects a small proportion of total native production. There are high hopes, however, that when the results of such enterprises become generally known, more and more tribes will be influenced to attempt similar cultivation, thereby saving in man-power and obtaining greater yields through rationalization and the greater use of mechanization.

Use of agricultural machinery in Morocco is very considerable, since there are very large exploitations even by North American standards. One colonist known to the writer has fifteen different farms (a few of which are in Algeria), totalling some 40,000 acres. Some single farms have as many as 20,000 acres. One farm which was visited had an acreage of 10,000, of which 2500 was one single field sown to seed wheat, another similar field was sown to beans, another 250 acres was in orange groves, and a good part of the remainder was in pasture land for 400 cattle, 250 pigs and 2000 sheep. This particular farm has 12 tractors, 4 reaper-threshers and a vast quantity of other machinery, several trucks and a very well-equipped workshop. All of this equipment was in very poor shape, as there had been no spare parts available for 6 years, and much of it required replacement, which was still hard to obtain despite a relatively liberal import policy.

The census of useable agricultural machinery at 1 January 1944 showed the following categories of machines still in use:

Grain drills or seeders	900
Fertilizer distributors	450
Moldboard plows, horse drawn	unknown
Moldboard plows, tractor drawn	700
Disc plows, tractor drawn	2100
Disc harrows, tractor drawn	550
Cultivators, horse drawn	unknown
Cultivators, tractor drawn	400
Reaper-threshers	1100
Binders	1450
Mowers	1450
Rakes	1050
Wheeled tractors	1130
Tracked tractors	1480

The following table gives import figures for 1938, 1940 and 1942, together with the programme of imports for 1946. Figures are in metric tons, and may not conform as to categories in the case of 1946 figures, which have been taken from a different source than those of preceding years.

IMPORTS OF AGRICULTURAL MACHINERY (In metric tons)				
	1938	1940	1942	1946
Tillage machinery	596	211	157	1630
Harvesting machinery	596	501	227	820
Other machinery	713	327	472	312
Repair Parts	321	328	226	200
TOTAL	2226	1367	1082	2962

More detailed figures are available with respect to projected imports for 1946, and are as follows:

Plows	973 tons
Harrows, pulverisers, etc.	217 tons
Cultivators	259 tons
Seeders, fertilizer distributors	181 tons
Other cultivating mach.	-
Reaper-threshers	524 tons
Other harvesting mach.	296 tons
Feed presses, etc.	64 tons
Other machinery	248 tons
Repair parts	200 tons

The writer had an opportunity of visiting several large farms in Morocco, and discussing agricultural machinery with the proprietors. In most cases they had a considerable amount of criticism to offer with respect to North American machines, and some had specific complaints about Canadian products. In the latter case, however, most colonists agreed that what they had seen of post-war production appeared to be highly improved. Among the new Canadian products now on the market are the self-propelled reaper-thresher and the deep furrow disc plow, with discs over two feet in diameter. Both these products are stated to be highly satisfactory, since deep plowing is necessary in order to retain moisture, and the self-propelled reaper-thresher spares the tractors, which are still difficult to replace. In both cases, too, Canadian equipment seems to have reached the market before that of American competitors, who have merely been able to exhibit prototypes, but have not been able to promise firm deliveries.

The main criticism offered with respect to North American reaper-threshers is that they take no account of the high yields and long straw of North African cereals. The straw is reported to be as much as four and a half feet long, while

yields of 40 bushels to the acre are common on the highly-mechanized farms. These two factors combined tend to clog the machines, which are made for a smaller intake. Due to the length of the straw, the stalks very often fall to the ground, much as they do in the case of stem rust in America, and some sort of raking arrangement would be useful in order to lift these up for feeding into the thresher.

Another common mistake, according to some farmers, is the varying width of the different machines. When a heavy tractor is available, some of the farmers will hitch three machines in series behind this tractor -- a disc plow, a seeder, and a disc harrow is a common combination -- and variations in width contribute to a considerable amount of waste.

These matters were not gone into in technical detail, but it might be well worth while for a progressive Canadian manufacturer to send a technical expert to the country at harvest time to investigate the performance of the various machines and thereby gain an advantage over foreign competitors.

PRODUCTION

As has already been mentioned, agricultural production in 1945 fell off by at least two-thirds in the aggregate, and by much more than that with respect to cereals, due to the drought which pervaded the country throughout the year. In many ordinarily fertile areas there was no rain for over fifteen months -- the first rain in that length of time, for instance, fell in Marrakech during a visit there at the end of January 1946.

The reduction in cereal production was the most vital result of the drought as far as the country generally was concerned, although in the ensuing chapter dealing with electric power and transportation, some indication will be given as to its dire results in that direction also. But in any case, from a country which normally produced 2 million tons of cereals and consumed some $1\frac{1}{2}$ million tons, the country was reduced to a production inferior to 500,000 tons, or one-third the requirements for local consumption. On the basis of this catastrophic crop, two authorities, one military and the other civilian, have stated in private interview that 2 to 3 million inhabitants would have starved to death during the current crop year if it had not been for imports of cereals from abroad. The imports were almost double the exports in a normal pre-war year -- the latter amounting to about half a million tons a year, and the former having been reduced to 900,000 tons from a preliminary estimate of 1,039,000 tons.

Estimates of 1945 crops for other products are not available, but in most cases the falling off in production was not as severe as in the case of cereals. Livestock, however, suffered seriously, and the figure of 80% reduction, often mentioned in Algeria, was re-iterated in Morocco as well.

The following table gives an idea of the average and the most recent agricultural statistics, in such cases as the latter are available.

AGRICULTURAL PRODUCTION			
(In metric tons unless otherwise indicated)			
	Average 1934-1938	1942 or 1943	1945 estimate
Hard wheat	415,000	456,000	108,000
Soft wheat	215,000	210,000	72,000
TOTAL, wheat	<u>630,000</u>	<u>666,000</u>	<u>180,000</u>
Barley	1,147,000	998,000	209,000
Oats	29,000	35,000	10,000
Rye	800	800	---
Corn	213,000	225,000	25,000
Sorghums	51,000	53,000	25,000
Milletts	7,000	8,000	---
TOTAL, all cereals	<u>2,077,800</u>	<u>1,985,800</u>	<u>449,000</u>
Dry legumes	57,434	67,800	unknown
Oil seeds	8,039	31,640	unknown
potatoes	10,000	20,000	unknown
olive oil	12,600	12,000	fair
citrus fruit	42,000	55,000	good
Wine (hectolitres)	549,600	300,000	unknown
Table grapes	30,000	7,000	unknown
Figs	unknown	unknown	unknown
Dates	unknown	unknown	unknown
LIVESTOCK :			
Cattle	1,991,000	2,156,000	unknown
Sheep	9,434,000	12,000,000	unknown
Goats	5,794,000	6,950,000	unknown
hogs	72,000	175,000	unknown
Poultry	Approximately 30, 000, 000		

In addition to the above, there are several other products which are important in the Moroccan economy. Chief among the activities entering into foreign trade are the raising of early fruit and vegetables. Potatoes, tomatoes and green vegetables particularly were widely sought after in European markets prior to the war, since they came on the market even earlier than the Algerian product, and were generally well graded and calibrated. Great Britain was an important importer of Moroccan vegetables prior to the war, and should become so again as soon as transport returns to normal and the Moroccan government is able to reinstate its grading and inspection services, which were allowed to lapse during the war as a result of the almost complete absence of foreign demand.

With some 5 million almond trees in the country, this nut forms an important element of trade, and is freely obtainable throughout the country. On the other hand, the dates and figs of Morocco are generally not of as good quality as those of Algeria, and particularly the well-conditioned products of Tunisia, and will therefore be unlikely to be of great consequence on world markets. The same applies to olives and olive oil, which are poorly treated, and usually very bitter and acidulous. Since the trees are not generally cultivated, it is probable that the greater proportion of Moroccan production will continue to be derived from trees growing wild, and will therefore not find its way onto world markets.

Due to the large number of sheep and goats, the hide and skin industry is of some importance, and the native tanneries make a product far superior to that produced in other parts of North Africa. At the present time, the sale of leather goods is not under ration, and every type of boot and shoe, leather handbags, and other leather goods are available in Morocco. Since style trends have been carefully copied, it is probable that an attempt will be made to enter world markets in the near future.

Although the sheep are not prolific in wool, there is a considerable artisanal weaving industry, the most renowned manifestation of which is in the carpet-weaving industry. The carpets produced are of excellent quality, and here again there is a favourable opportunity for export trade.

The Moroccan natives are even greater sugar consumers than those in the remainder of North Africa, and the climate and soil are favourable to the development of a substantial sugar-beet industry. Average yields among plantations now in production are high, while the plant itself keeps the soil in good condition and provides a good fodder for cattle.

In Morocco as well as in Algeria, the potentialities of the market for citrus fruit are considered optimistically, and a large increase in the number of trees planted is to be recorded. Since the tree takes three years before it starts bearing, and five years before it comes to full maturity, the trees planted within the last few years will be getting into production soon, and will form an added source of supply for the European market.

Among other products which are in small production at the present time are flax for fibre, beans and peas, canary seed, coriander and cummin, bananas, cotton, cherries, pomegranates, walnuts and castor beans, production of which was fostered during the war.

OTHER PRODUCTS

Chief among the other products which may be classed as agricultural are forest products, of which the most important is cork. Almost 20,000 tons per year were produced in the

pre-war years, of which about three-quarters were first-growth cork, suitable only for the production of agglomerates, and for use in the linoleum and insulation industries. The cork oak is generally first stripped after 20 years or more, and thereafter the bark grows more even-textured, and may be stripped about every eighth year.

On the westward slopes of the mountains, there are very appreciable stands of cedar, thuya, argan, and evergreen oak, and although these have been poorly exploited in the past, it is probable that a reasonably important domestic industry can be based on this lumber in the future. At the present time the most important product is charcoal, which is produced throughout the mountainous areas, and has been of importance during the war years when imported coal has been unobtainable and charcoal was used for cooking, heating, and also for the running of internal combustion engines, as was common practice throughout Europe.

The sumac tree produces tannin, used in the local tanning industries, but also exported in small quantities to France. Gum Arabic and Euphorbium are also products of recent exploitation, and the dwarf palm, from which vegetable fibre is obtained, is coming into its own not only for the latter product, but also to make ropes and mats out of the leaves, tensile bands from the flock, and firewood from the roots.

Alfa or esparto grass is another product which has not been exploited as much as in other North African countries, although the area of its occurrence is very extensive. Contrary to conditions in Algeria, however, the grass grows in areas difficult of access to the sea, and exports have rarely exceeded 40,000 tons, although production reached 135,000 tons in 1936. It is possible that with fairly good water and hydro-electric resources in the near-by mountains, a paper-making industry of some importance may develop in the interior, although the only paper-maker in the country was somewhat sceptical about this when interviewed.

DÉRIVATIVE INDUSTRIES

As in the case of Algeria and Tunisia, secondary industries depending on agricultural production for their raw materials are not highly developed as yet. They are however far ahead of similar enterprises in the two other territories, and private initiative is highly aware of their importance to the future of the country.

Leather industries have already been mentioned, but they are far less important in the long run than the establishment of a sound cold storage and quick-freezing "chain" extending from production areas to the ports of embarkation. The government realizes this as well as does the Algerian government, but whereas in the latter country there is a tendency

to await governmental initiative in this respect, private interests in Morocco have already started to lay plans for the future. One group has already tied up with General Foods in the United States through their Swiss associates, and intend to set up quick-freezing plants for the preparation and distribution of packaged foods, probably under the Bird's Eye trade name. This same group is interested in cold storage development generally and intends to proceed with the setting up of the "chain" already described in the Algerian section of this report -- cold storage plants in the producing areas, refrigerated transport, cold storage docks, and refrigerator ships, together with the related packing plants, canneries, grading and sorting sheds, etc.

The canning trades in Morocco should offer a good future, as market gardening, already well-developed, can be extended to take care of a large fruit and vegetable canning industry. Fish products, including tuna and sardines, can also form the basis for a widespread industry and is already fairly well-established. In 1937 production of canned fish was 20,000 tons, and in the following year exports alone amounted to 13,604 tons. Quality has steadily improved, and the local supplies of olive oil assure a continued development. Before the war there were 32 fish-canning factories, of which 17 were in Casablanca and 15 in Safi. Some of these have had to close down during the war because of the restrictions on fishing and the lack of tins, which is normally manufactured into cans in a factory at Casablanca both for this industry and the fruit and vegetable canning industry (12 factories with a production capacity of 230 tons per day during the canning season) as well as for oil and gasoline tins.

The most important food-processing industry, however, is still flour milling. There are 31 commercial flour mills, with a combined capacity of 280,000 tons per annum, mostly centred about Casablanca, where the largest producer is the Société des Moulins du Maghreb, which accounts for 40,000 tons, or 15% of total commercial production. It is to be noted that the commercial mills produce only for the Europeans and the native urban population, since it is still customary for the natives in the country areas to mill their own wheat and barley by very primitive means. Here too, some effort might be made at cooperative milling, but no plans in this respect were noted in Morocco, although Algeria has such a development in view.

As far as the internal economy of the country is concerned, the industries based on oils and fats are probably the second most important. Olive and Argan oil is generally produced by the growers, who use primitive equipment and produce an oil high in acid content. The production of the country is not sufficient for local requirements, and some 15,000 tons per annum of vegetable oil seeds were generally imported prior to the war. Certain modern crushing and refining plants were established near the ports for the purpose of treating these and some domestic oil-bearing plants, and their combined capacity is stated to be about 25,000 tons of oil per annum. The chief producers are:

Société Nord-Africaine des Oleagineux,	Port Lyautey
Huilleries et Savonneries du Maroc,	Casablanca
Les Huilleries Marocaines,	Casablanca
Société Gallia,	Fedala
société Siham,	Fez

The above firms also produce soap and candles, productive capacity for the former being about 6000 tons per year, making the country almost self-supporting. An English firm has opened a candle factory in Casablanca, and the combined production capacity of all plants is 4,600 tons per annum, which should be sufficient in the future in view of the expanding use of electricity and petrol lamps in rural areas.

The Compagnie Marocaine, which is the representative on the market of Massey-Harris Co. Ltd., has a subsidiary called the Compagnie Sucrière Marocaine which is the chief sugar refining plant in the country. The total consumption of Morocco is about 225,000 tons per annum, of which this country alone produced 60,000 tons prior to the war. Transport difficulties drastically reduced imports during and since the war, but local production has carried on from domestic raw materials. Incidentally, this company has "trading posts" throughout the country, and barter native products against manufactured goods, so that they are in an excellent position to tap the indigenous market.

Although the vegetable fibre industry was slow in starting in Morocco, it has now developed into the most important source of supply in North Africa, and 74 factories, at least one of them very large and modern, have been set up for the processing of this product. Capacity is now 100,000 tons per year, although this figure has never been reached in actual production, and exports have generally totalled no more than 65,000 tons per annum, mostly to Great Britain and to the United Kingdom prior to the war. Producers have been organized into the Comptoir Général du Crin Vegetal au Maroc, which may be reached through the Chambre de Commerce de Casablanca.

The Moroccan tobacco monopoly owns two tobacco factories, and normally produces most of the tobacco products required on the market. It was noted during the present tour, however, that a large proportion of the tobaccos sold on the market just now are of Algerian origin, which would suggest a momentary shortage of raw materials.

The only other industry which affects agriculture is the manufacture of fertilizers. This has not been greatly developed, and only one small plant in Casablanca produces some 20,000 tons of superphosphates per year, an amount which has to be supplemented by imports ranging up to 10,000 tons per year. The general fertilizer situation in North Africa has already been discussed in the Algerian section of this report, and will not be repeated here. It would appear, however, that some improvement in the local fertilizer industry is warranted, but nothing was heard with respect to this question during the tour.

ADMINISTRATIVE CONTROLS AFFECTING CANADA

What has already been said about Algeria under this sub-heading is equally true of Morocco. In the latter area, the central administration exercises somewhat more direct control over the activities of the import licensing groups, but the latter are made up of the most important distributors, who tend to perpetuate the quota system by sharing the market according to the proportions of trade they had in previous years. This is the case with respect to agricultural implements.

It was pointed out to the administration that this was harmful to the interests of the country, since there was a very strong possibility that the import programme could not be fulfilled if it depended entirely on imports from habitual sources in fixed proportions. This system gives no latitude to seek other sources if one of the customary producers fails to deliver.

Since the fulfillment of the import programme is a "must" if the Moroccan economy is to be revived, this point of view impressed the central administration considerably, and they promised to review with care the decisions of the licensing group; however, it would also be useful for the distributors of Canadian agricultural machinery to follow-up this matter, and the question was fully developed with them.

CHAPTER FOUR

MINING IN MOROCCO

According to some geologists, Morocco is the continuation of the same geological formation as is found in northern South America. According to others, it bears a striking relationship to the formation to be found in Spain. At any rate, it is striking in that the mountains of Morocco show evidence of every geological strata through the primary, the secondary and the tertiary -- called in Canada the Pre-Cambrian -- right through to the Jurassic and other more recent formations. There are certain areas in which the surface has been so greatly disturbed by more recent earth movements that as many as five stratifications can be noted above ground -- as many as in the Colorado valley and the Painted Desert of Arizona.

Whatever the geological structure of the country, there has always been a wealth of folklore about the riches of Morocco in mineral deposits. The Arabs, the Portuguese and the Romans have all taken a keen interest in the potentialities of the country, and although little is known of their researches, it is known that their extraction could only have been from surface workings, since even until recent days there has been little deep drilling in the country. The greatest interest so far has been in the possibilities as regards coal, phosphates, iron, manganese, molybdenum, cobalt, antimony, graphite, lead and zinc, nickel, tungsten, tin, copper, gold and silver. This gamut of exploitable ores is sufficient evidence that the country has possibilities, although the only ones exploited so far are coal, phosphates, manganese, cobalt, lead and molybdenum, all of which have shown some promise on world markets.

However greatly Morocco's mineral prospects have been over- or under-estimated, certain it is that they account even now for 40% of the country's industrial capitalization and for 20% of its export trade. Since practically all of this development has come about in the last twenty years, despite lack of capital for intensive prospection, it would appear that there is a definite place for Morocco on the world map of mineral producing countries. As such, therefore, it offers scope for the sale of mine equipment if for nothing else. It is of importance on these grounds to examine with some

attention the present position with respect to mineral development.

Phosphates were discovered in 1912, but the first workings were in 1919, and the first export shipments took place in 1921. There are two main basins, that around Oued Zem, East of Casablanca, which is the most important producing area, and that around Port Gentil (see map). The whole of phosphate production has been taken over by the Moroccan Government, and the Office Cherifien des Phosphates has a monopoly of trade, mining and prospecting for this mineral, although it now has a cartel arrangement with producers in Algeria, Tunisia and Alsace. Before the war Morocco was the fourth largest producer in the world, coming after the United States, the Donets Basin in Russia, and Tunisia. At that time some $1\frac{1}{2}$ million tons of phosphates were being produced yearly in Morocco, but capacity is now at the high level of $2\frac{1}{2}$ million tons per year, which will bring Morocco up to second or third place. In addition, the Moroccan mineral is of extremely high quality, is easily worked, and is within easy distance of the sea, which should contribute to the continued exploitation of the industry.

The mines are very well equipped, and although some deterioration of material occurred during the war, a purchasing mission now in the United States -- and it is hoped also in Canada -- is examining the most modern equipment now used in North American mines with a view to adopting all possible labour-saving and cost-reducing devices.

In 1939, production was 1,492,000 tons, against Tunisian output of 1,752,000 tons, and that of Algeria which was in the neighbourhood of 600,000 tons. Since then Moroccan production has carried on at fairly high levels, and in 1944 amounted to 1,446,000 tons against Tunisian production of only 24,000 tons. The latter country suffered very severely from the war in the mining area, and will take a considerable time to regain its former position. The phosphate belt extends from Morocco right through to Palestine, along the southern rim of the Mediterranean, but no deposits as rich as those of the Oued Zem or Khouribga area in Morocco have so far been discovered. These deposits, which are about 100 feet below the surface and are mined through shafts and not by stripping, extend for 60 miles from end to end, and are considered to hold in reserve some 60,000 million tons of high-grade phosphates. The analysis is excellent, averaging 46 to 50% calcium, 34-37% P_2O_5 , and over 70% TPL, as against an Algerian and Tunisian average of only 51-70%.

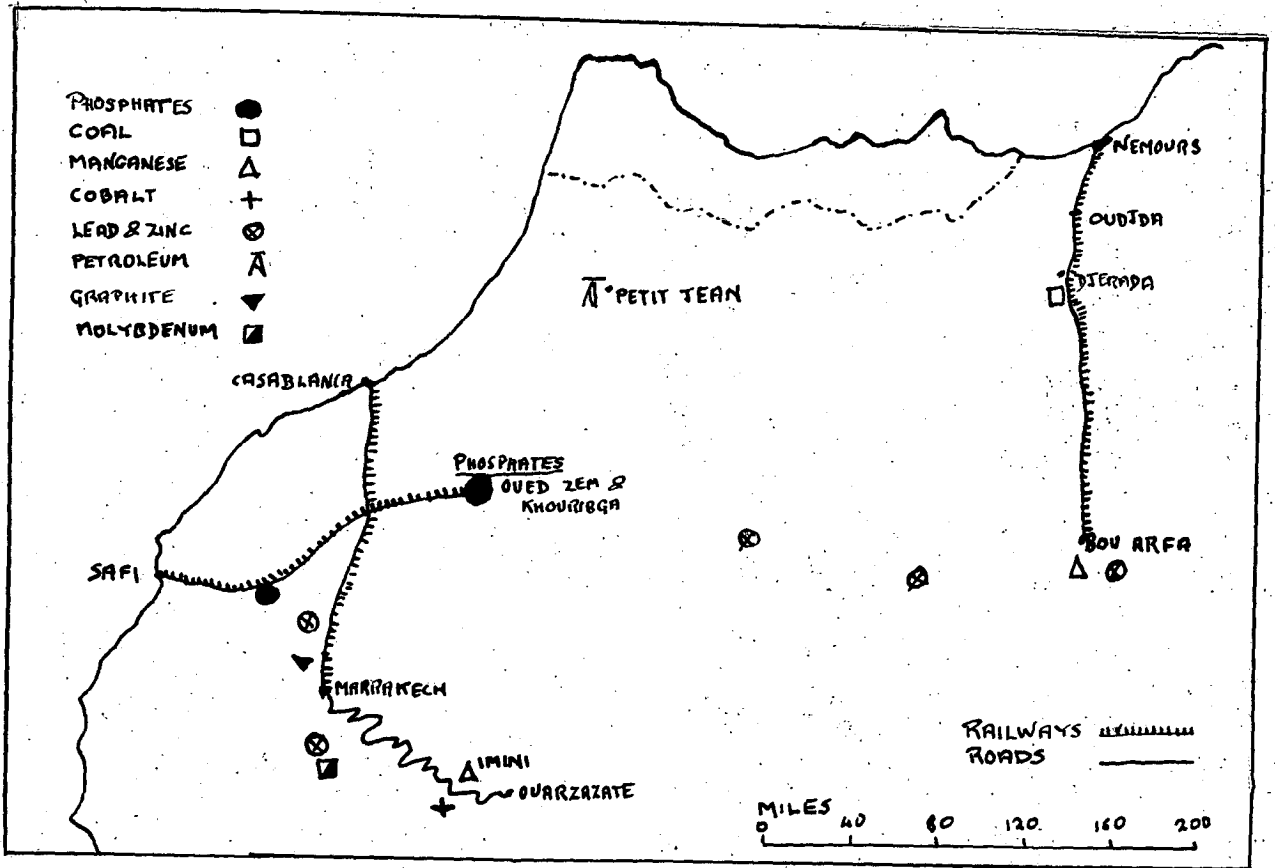
The improvements under consideration at the moment are the use of larger hauling units in the primary adits of the mines -- wagons of up to 10 ton capacity are under consideration -- the installation of conveyor belts in the secondary and tertiary galleries, and the use of mechanical loaders in the stopes. The surface workings are as efficient as may be considered at the moment, and consist of rotary drying ovens, automatic loading, electric railways to the coast, and special high-speed loading equipment in Casablanca and Safi.

Spain, Italy, the Netherlands, Denmark, France, Germany, the Union of South Africa and the United Kingdom were the principal markets before the war, but in view of the general deficiency of Europe in fertilizers since 1940, the post-war market should develop in all countries not under the domination of Russia. Although most of the production is now reserved for the European market, there is a provision allowing the use of phosphates as ballast on ships going to other destinations, and at least 2000 tons per ship could be brought to Canada under such an arrangement.

Iron Ore, which is important to the Algerian and Tunisian economies, is of less importance in Morocco due to the distance from the sea of the deposits at Khenifra. Although reserves are estimated at 50 million tons, production reached a maximum of 360,000 tons, or one-fifth that of Algeria, in 1944. The ore is of good quality, with 50-55% iron content, but it has a troublesome barytic and silica content which reduces its value in comparison with the Algeria-Tunisia ores.

Less than 20 years ago, a valuable anthracite coal basin, with reserves estimated at between 100 and 200 million tons, was discovered in the Djerada district south of Oudjda on the frontier of Algeria. The product is similar to Welsh anthracite, having 80-90% fixed carbon, less than 5% volatile material, and 3 to 8% ash. From small beginnings in 1931, production has steadily increased until in 1944 it reached a total of 134,000 tons. Since the mines are readily accessible by rail, it is believed that production will continue to increase, and that local needs will ultimately be satisfied. Present handling and mining facilities permit an output of 200,000 tons per annum.

One of the most important minerals in Morocco, and that of the greatest interest to Canada, is manganese. There are two main deposits, one at Bou Arfa, and the other near Ouarzazate (see map). The latter is the more important with respect to reserves, it being estimated that there are 10 million tons of good quality ores, while the Bou Arfa reserves may not exceed 400,000 tons. However, the latter are near the railway leading to the Algerian coal reserves, and may be transported to the port of Nemours, in Algeria, without difficulty while the former are 80 miles from railhead at Marrakech over difficult country which traverses the Atlas mountains. (Incidentally, there is considerable Canadian capital invested in the Bou Arfa mine). The Bou Arfa ore has a manganese content of 40 to 50% -- 51-52% is the figure given by the president of the company -- and is mined in rock form suitable for metallurgical uses. The Imini mine near Ouarzazate, which was visited in the course of the tour, is very well equipped, and capable of producing 100,000 tons per year of a 63% concentrate. The mineral here is soft, and must be treated in a sintering plant owned by the company near Casablanca in order to agglomerate it and make it suitable for metallurgical purposes.



SKETCH SHOWING PRINCIPAL MINERALS
 MENTIONED IN THE TEXT, TOGETHER
 WITH MAIN TRANSPORT
 ROUTES.

At the same time, however, the sintering process reduces the content of lead and other impurities, and the owners are confident that, with 10-ton trucks, some of which they are receiving this year, they will be able to compete with world prices despite the road haul to Marrakech.

This mine also produces a chemical grade of manganese with manganese dioxide content of 94-97%. This product is finding a ready sale in Great Britain and other countries. The producers are interested in the Canadian market for their products, and are even prepared to consider Canadian financial participation if this will permit them to buy trucks and other equipment in Canada.

Cobalt is another product which Morocco produces in quantities comparable to those of other countries. The Belgian Congo and Northern Rhodesia are the principal world producers, Canada and Finland coming after Morocco in fourth and fifth place respectively. There is only one producing mine, also near Ouarzazate. In 1938 production reached a maximum of 6,440 tons of ore averaging about 12% cobalt, with about 2½% nickel and small amounts of gold. During the war, while Canada was refining the cobalt produced in the Belgian Congo and Rhodesia, the Moroccan output was going principally to the Union Minière Belge refinery in Hoboken, near Antwerp, and was undoubtedly being used by the Germans. However, now that the Belgians are presumably receiving their ores from the Congo, there might be a possibility of using Canadian refining capacity for the treating of Moroccan ores, since there appears to be no firm commitment on the part of the local producer with respect to the Belgian group.

Molybdenum is the only other metal with respect to which Morocco figures in world statistics, being the fourth largest producer, after the United States, Mexico and Norway. Although production is small, amounting in the period 1936-38 to just over 100 tons in terms of pure molybdenum, it has been of some importance in the past. The Mines Branch of the Moroccan government declares, however, that the molybdenum content is decreasing with the depth of the workings, and that in the future one cannot count on production of more than half the above total.

There are a considerable number of other ores produced in Morocco, the main ones being lead, with an annual capacity of 50,000 tons of ore per year, and zinc, with a capacity of up to 12,000 tons per annum.

Graphite, antimony, tin, tungsten and vanadium are also produced in small quantities, but, with the exception of graphite, the quantities are so small that they do not figure with any consequence in world statistics.

The following table gives the names of the chief producing mines in Morocco, with whatever information was available regarding each of them.

DETAILS OF INDIVIDUAL MINES IN MOROCCO**COAL (Anthracite) :**

Société Cherifienne des Charbonnages de Djerada, P.O. Box 35, Oudja, one-third owned by the government, is the only operating company, and produced 134,000 tons in 1944. Productive capacity now between 200,000 and 250,000 tons per annum, and visible reserves up to 200 million tons. 14 productive seams at a 15 degree slope, some outcropping at the surface. Linked to the Oudjda-Bou Arfa railway line by a 14-mile cable-way to Guenfouda. 17 miles across the border in Algeria is the Kenadza bituminous field, and some hope is expressed of working the two mines in conjunction, making mixtures, briquettes, etc., suitable for railways, thermal power plants and industrial use. Joint exploitation should ultimately provide for all requirements of North Africa, and might provide a surplus for export across the Mediterranean through the port of Nemours, equipped for handling minerals.

PHOSPHATES :

Office Cherifien des Phosphates, Rabat, a government-owned corporation, is the sole producer. Maximum productive capacity 2,500,000 tons per annum. Highly efficient organization, with excellent equipment kept up to date. Two engineers have been sent to America to examine latest mine-equipment developments and technique, and have also been invited to visit Canada. The mines also require one ton of pit-props for each 100 tons of production, and would gladly receive offers from Canada.

PETROLEUM :

Société Cherifienne des Petroles, Rabat, a government-owned corporation, again the sole producer. Production area is around Petitjean in the North, where considerable exploration work is being carried on. Production has barely gone beyond 4000 tons per annum, but some hope is expressed in a higher output from deep borings at present being made.

LIANGANESE :

Société des Mines de Bou-Arfa, Bou Arfa par Oudjda. Omnium Nord-Africain et Société de Prospection & d'Etudes Minières au Maroc, 81 Blvd Jean Courtin, Casablanca. S.A. Cherifienne d'Etudes Minières, 44 Place de France, Casablanca.

Société Internationale Minière au Maroc, 145 Blvd de Paris, Casablanca.

The four mining companies noted above have been listed in the order of their importance in 1937. The mines of the first, second and last are in the Bou Arfa area, and are well served by rail to the port of Nemours in Algeria, producing a combined total of some 60,000 tons in 1937. Their proved reserves are not very high, probably amounting to no more than 400,000 tons.

The richest mine so far discovered is undoubtedly that at Imini, near Ouarzazate, owned by the Société Anonyme d'Etudes Minières, third on the list. Proven reserves are in the neighbourhood of 10 million tons, and include good proportions of chemical grade as well as a high-content metallurgical grade. Present mining and handling capacity is 100,000 tons per annum,

but the chief difficulty at the present time is the distance from railhead at Marrakech. A few 10-ton trucks are being imported this year and if successful, enough will be put into service to handle 300 tons per day. Some thought has been given to a cableway across the mountains, but this has been dropped for the moment. A combination of conveyor belts and chutes might be of interest to a company wishing to supply the material. The company is well financed, being a subsidiary of the Mokta el Hadid group, already mentioned with respect to iron ore in Algeria.

COBALT :

Société Minière de Bou-Azzer et du Graara, 81 Blvd Jean Courtin, Casablanca, is the sole producing company, with a 1938 output of 6440 tons of 12% cobalt ore.

MOLYBDENUM :

Société le Molybdene (Azegour par Amizmiz), 75 rue Nationale, Casablanca. Produces about 100 tons per annum, but reserves appear to be decreasing.

GRAPHITE :

Société des Mines et Graphites du Maroc, 9 rue de Toul, Casablanca. Mine near Marrakech producing 331 tons in 1937.

IRON ORE :

Société Marocaine de Mines & de Produits Chimiques, 6 Blvd du 4e Zouaves, Casablanca. Principal producer of the 360,000 ton output in 1944.

Cie Minière & Metallurgique, 1 rue Horace Guerard, Casablanca.

Mine d'Aim Hamra, 26 rue de l'Aviation Française, Casablanca.

LEAD :

Société des Mines d'Aouli, 1 rue de Thiaucourt, Casablanca. 9,733 tons in 1937

Cie Royale Asturienne des Mines, P.O. Box 24, Oudjda. Produced 4,834 tons in 1937.

Société Minière du Haut Guir, Oudjda. Produced 1755 tons of lead and 4785 tons of zinc in 1937.

Société des Mines de Zellidja, Bou Beker, par Oudjda. Produced 3131 tons of lead in 1937.

Société Minière de Goundafa, 1 Place Edmond Doute, Casablanca. Produced 869 tons of lead and 2694 tons of zinc in 1937.

ZINC (See Lead)

TIN and WOLFRAM :

Société Minière Française au Maroc, Oulmes.

SALT :

Société Les Salines du Maroc, Fedala. 1483 tons in 1937
Société Meridionale Salinière, Rabat. 9547 tons in 1937

Small Quantities of ANTIMONY, VANADINITE, NICKEL, GOLD, COPPER.

CHAPTER FIVE

ELECTRIC POWER IN THE MOROCCAN ECONOMY

The peculiar circumstances which have, during the year 1945, brought about an almost complete collapse of the internal economy of Morocco, are deserving of some further study beyond that already devoted to the subject of agriculture.

As in the whole of North Africa which has escaped from the desert, life and production in Morocco depends to a substantial degree on the availability of water. Generally speaking, water is available in a larger and more continuous flow here than elsewhere, but nevertheless there are wide variations within a normal cycle of about eight years. The mountains of the Middle Atlas normally act as watersheds, interrupting the Eastward flow of rain-bearing Atlantic winds, and ensuring heavy rain or snow which in turn feeds the streams which later water the seaboard plains. While these waters are necessary for agriculture, they also provide electric power, and this in turn drives the trains, assures the working of the mines, allows the use of electric pumps for irrigation, and in general provides for the amenities of life in urban areas.

The story of these life-giving streams in 1945 is a remarkable commentary on the variations of flow which may occur. At the sources of the Oum er Rebia, the most important river in Morocco, the January to April rains generally provide 278 millimetres -- over 10 inches -- of water. This ensures in turn an average flow from the headwaters of the river of 206 cubic metres per second during the month of March. But in 1945 the spring rainfall in the mountains was only 90 millimetres, and the flow of water for March was only 35 cubic metres per second. This reduced flow was not even adequate to fill the large El Kansera storage dam, which normally stores water equivalent to 10 million KWH of electric power at this season, but which remained empty during the period in question.

On the Oued Beth, the second most important river, the situation was perhaps worse. From a normal spring rainfall of 117 millimetres, its sources received but 28 millimetres in the spring of 1945. In consequence, the March flow of 15 cubic metres per second fell to a mere trickle of 0.7 metres per second during the season.

In addition to this almost complete lack of hydro electric power, the Roches Noires thermal plant at Casablanca, which normally produces about 20% of total power requirements, had fallen into such a state of disrepair due

to war-time obsolescence and overworking, that it was sometimes producing only one-eighth of its normal output.

The net result was this: where normal production in March equals the relatively high winter demand of 600,000 KWH per day, in March 1945 production from all sources had fallen to 250,000 KWH per day, or approximately 40% of requirements. By July, reduced summer requirements of approximately 450,000 KWH per day could only be filled to the extent of 180,000 KWH, or about 35% of requirements.

This meant that certain uses of electricity had to be drastically curtailed. For political reasons it was considered unwise to make the domestic consumer suffer too great a reduction, and the inevitable result was that railways, mining operations, and small urban industries had to reduce their activities to a figure very close to the zero point. It also meant, as has been pointed out in the chapter on Agriculture, that water was insufficient for the crops, and one of the worst crop failures in the history of Morocco resulted.

To what extent this lack of water will have long term effects it is impossible to estimate. It seems, however, that if rainfall in 1946 is only normal, there will be insufficient accumulation to fill all the storage dams, and that a continuation of the 1945 situation may to some extent be anticipated in 1946. There was a good fall of rain in January, but it is doubtful whether enough snow was formed to ensure an even flow during the coming months.

THE POWER SYSTEM OF MOROCCO

Power in Morocco is uniformly 3-phase 50-cycle A.C., retailed at 110/190 Volts, distributed at 22,000 Volts, or in some instances at 5,500 Volts, and transmitted over a well-integrated grid at 60,000 Volts. Eastern Morocco, fronting on the Mediterranean, does not form part of this grid, but is connected with the Algerian system. There is some talk of linking up the two systems and stepping up the transmission voltage to 90,000 Volts, but no action along these lines has been taken as yet.

In other directions, however, work had started before the war on a series of storage dams which would have evened out the flow and produced more power. This work was interrupted by the war, and was only resumed in late 1945. Most of the present dams are run-of-the-river dams, merely erected to provide a head of water. The sole exceptions are the El Kansera dam and the Lalla Takerkoust dam, the storage capacities of which are not very great. The In Fout dam, however, has just been completed and when it is filled it will have a storage capacity of 500 million cubic metres and a power plant capable of developing 135 million KWH from a 37.5 metre head. Already plans call for an increase in the height and capacity of this dam, and work is actually starting at the present time. Since production for the whole of Morocco averaged just about 200 million KWH over

the years 1941-43, this single plant in its present form will add 65% to the power resources of the country, and much more once the expansion programme is completed.

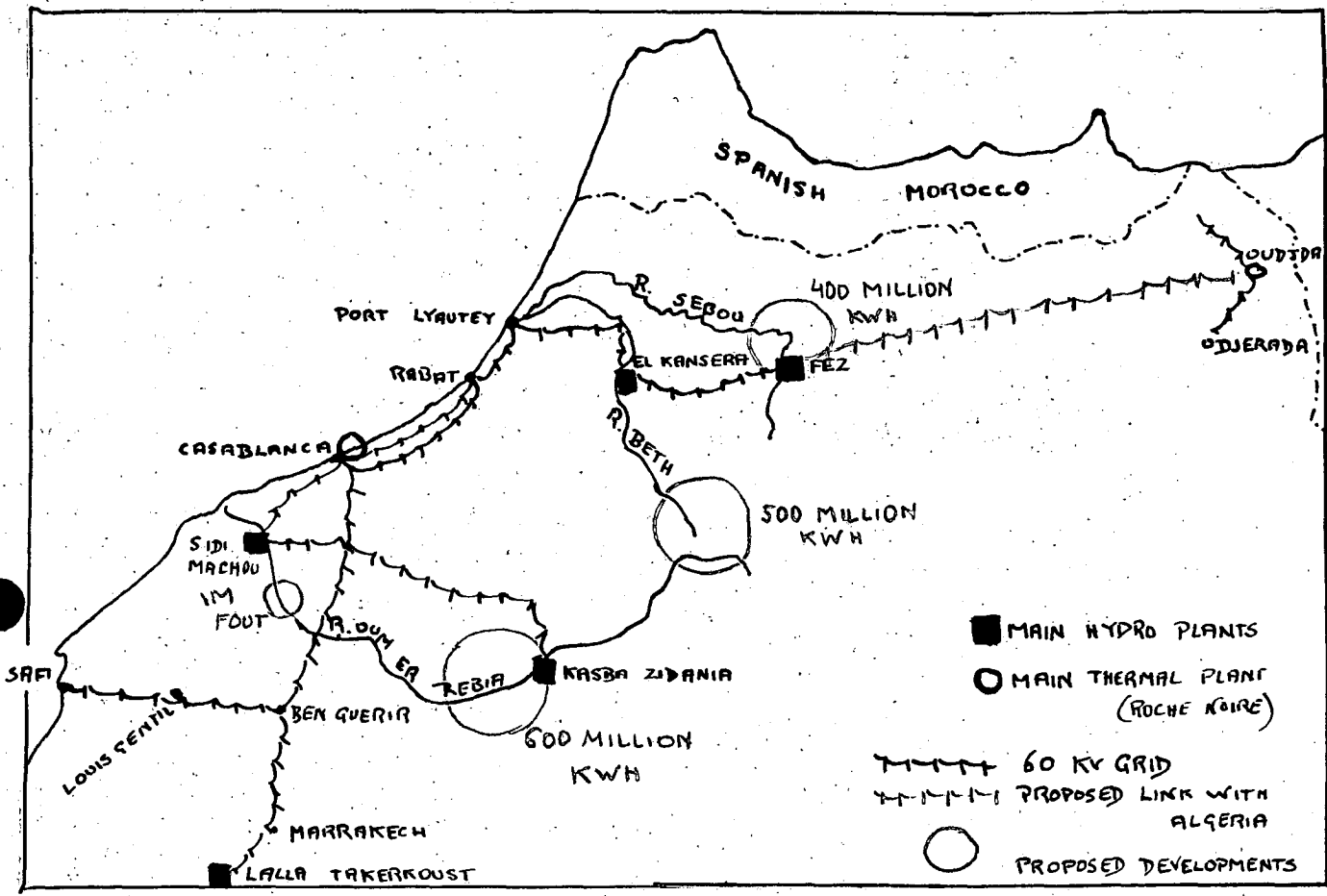
Thermal capacity is being increased simultaneously. The Société d'Energie Electrique du Maroc, which controls nearly all power plants in the country, has ordered in Switzerland for early 1946 delivery, one 5000 HP Diesel generator rated at 3500 KW, and two 1080 HP Diesels, raising the total daily capacity by 125,000 KWH. Since the old generating equipment should be rehabilitated by then, thermal power alone could look after all major requirements even if hydro-electric production should remain far below normal.

Since there is a wide variation in output from run-of-the-river plants, the thermal plants have in the past been able to take up the slack to the extent of 6 million KWH during dry months. Capacity by the middle of 1946 will be greater than this, and it is believed that total requirements, on the basis of 250 million KWH per annum, can be met from that time on.

The following table gives an idea of power production during recent years :

<u>PRODUCTION IN MILLIONS OF KWH</u>							
	<u>Thermal</u>	<u>Sidi Machou</u>	<u>Kasbah Zidania</u>	<u>Fez</u>	<u>Lalla Takerkoust</u>	<u>E1 Kansera</u>	<u>TOTAL</u>
1939	2	65	35	15	11	18	148
1940	10	60	35	16	15	28	165
1941	20	75	35	23	10	37	202
1942	35	81	35	22	15	30	220
1943	45	65	35	22	17	10	196

The long range plans go far beyond those outlined above, and reach a projected maximum capacity of nearly 2,000 million KWH per annum. This necessarily depends on very much larger storage dams, and would be subject to seasonal variations as well as to long term droughts. It seems doubtful whether these plans will ever be carried out in their entirety, although the Im Fout dam, as has already been pointed out, is going to be raised very considerably in the next few years. In the case of other dams, however, little thought seems to have been given to the problem of silting up. The writer passed over the E1 Kansera dam by airplane, and noted by the colour of the water where it was undisturbed the tremendous amount of silt which had already accumulated in this dam. The storage capacity is obviously reduced by the amount of silt accumulated, and until secondary and tertiary dams are erected in far larger numbers than at present, it is difficult to visualize a satisfactory outcome to this vast hydro-electric programme. It is well to know, however, that the possibilities exist, and that Morocco could develop an important industry on the basis of its power potential.



ELECTRIC POWER

MAP OF MOROCCO

About 50 percent of the power generated in Morocco is used in the Casablanca district for industrial and domestic purposes, 23 percent is used by the railways, 12 percent by the phosphate mines, and 6 percent by cement factories. The iron, lead and coal mines also use considerable quantities, and most of the larger towns have electricity for general household use. There is a considerable programme of rural development at present under way.

The accompanying sketch map gives some idea of the present grid system and power plants, and of projected developments.

CHAPTER SIX

INDUSTRY AND COMMUNICATIONS

The most important part of Moroccan industry has already been discussed, since industries derivative of the agricultural economy have been treated under Agriculture, whereas mining, which forms the largest single segment of Moroccan industry, has also been treated separately.

It would therefore be undesirable to devote a chapter of this report to the remainder of the industries of the country, if it were not for the fact that the future holds out hope for a considerable increase in the country's development, and it would therefore be unwise to camouflage the possibilities of the future as solely derivative of the country's natural resources. Indeed, the very fact that there is a good power potential in the country would suggest that much may be accomplished in the way of working up imported products. In addition to this, the cross-roads situation of Morocco, as the first port of call in North Africa for goods coming from the Americas, its ideal location as regards coastal trade and air-borne freight, its forward-looking attitude, and its independence from France or from dependence on any other European nation, all suggest that Morocco will some day be the leader of industry in Africa north of the Congo.

So far there is little evidence of this possible pre-eminence. Manufactured goods form 50% of the imports of the country, while they are an infinitesimal part of its exports. In all its main industrial requirements -- agricultural machinery, tractive power, electrical equipment, etc., it is still totally dependent on imported products. But it has nevertheless developed certain techniques, partly as a result of the war, and partly in the pre-war years. In ship-repair work, it is now able to handle fairly large units, and the marine repair shops are alert and up-to-date. Railway repairs are mostly done within the country, and it may be expected that most automotive repair work will be done here in the early future. In mechanical ability, the native Berbers are far superior to the Arabs of Algeria and Tunisia, and advantage is certain to be taken of relatively cheap local labour under the tutelage of Swiss and French engineers and mechanics, both present in fairly large numbers.

The manufacture of cement, although not greatly developed prior to the war, will almost certainly be increased due to the very great demand which may be expected for dams and various other public works. Consumption has been as high as 400,000 tons per annum in the early thirties, and local

productive capacity reached almost this figure, although actual production never reached it. The brick-making industry is well-established, and pottery, although still primitive in design and technique, has been produced in large quantities due to the war-time deficiency in imported supplies.

As has already been stated, there is a small super-phosphates industry which should expand within a relatively short time. Although other chemicals are made in small quantities -- explosives, tar and bitumen being the main products -- a considerable expansion in the production of electro-chemical industries and of coal-tar derivatives may be forecasted. Iron foundries have increased their production during the war, there is a small industry producing paper and packing products, furniture is produced for the local market, and last but not least, the native industries are becoming more and more competent in the production of leather goods, woollen textiles and copper and silver-ware. With respect to leather goods, it may be of interest to note that it was the only country visited during the tour which sold unrationed footwear of sufficiently good quality to attract the European passing through the country. Carpets are the principal exportable article which may be counted as a product of the textile industry, and production has been rising steadily, although quality has suffered in some instances. For export, however, a strict control is exercised over quality, and the better carpets, at about \$2.00 to \$2.50 per square foot, should be competitive on world markets.

The fishing industry has been incidentally mentioned in connection with the food industries which are derivative of agriculture. It was not stated, however, that just prior to the war, fish landings amounted to about 30,000 tons per year, and showed every prospect of growing as more natives took an interest in the trade. The war caused a very serious diminution in the catch, and it may take two or three more years for the industry to return to normal, partly because of the lack of fishing vessels, and partly because of shortage of fuel, fish-nets, and other imported requirements. Much attention is being paid to this industry, and it may be counted upon to expand in the future.

Another industry which is believed to hold out good prospects for the future is tourism. In 1938, some 40,000 passengers disembarked at Casablanca from cruising liners, and many more continental tourists spent considerable time in the country without being specifically earmarked as tourists. The country has very definite attractions, both climatic and scenic, and the government is interested in the establishment of facilities, such as hotels, bus and railway services, garages and restaurants, which will help to attract tourists in the future. Even at present Morocco has some exceptionally good hotels in highly spectacular surroundings, and considerable expansion may be expected when tourist traffic once more becomes normal. The short distance from Europe, the existence of good roads and contrasts in scenery and living conditions should do much to augment this source of revenue.

COMMUNICATIONS

ROADS.

Because the railways are limited in the area which they can serve, roads are the most penetrating means of communication, and it is probable that they will become relatively more important with time. Even at the beginning of the development of means of transportation in Morocco, there was considerable difference of opinion as to the utility of railways, and many theorists advanced the view that the country should depend entirely on roads. The experience of the war has probably demonstrated the inadvisability of such a course, since a country totally dependent on imported motor fuels would have been utterly petrified into a series of local economies if there had been no railways. Despite this realization, it is still probable that the greatest post-war development in transport will be in the road system. One reason for this is the difficulty of crossing the mountains by any other means.

Almost all the roads in the country have been built since 1912, and since many were primarily intended for strategic purposes, they received close attention and benefited from cumulative improvements in engineering technique and in adaptation to heavy traffic. With about 6 inches of hand-packed rubble and 8 inches of crushed rock, most of the roads can stand heavy traffic.

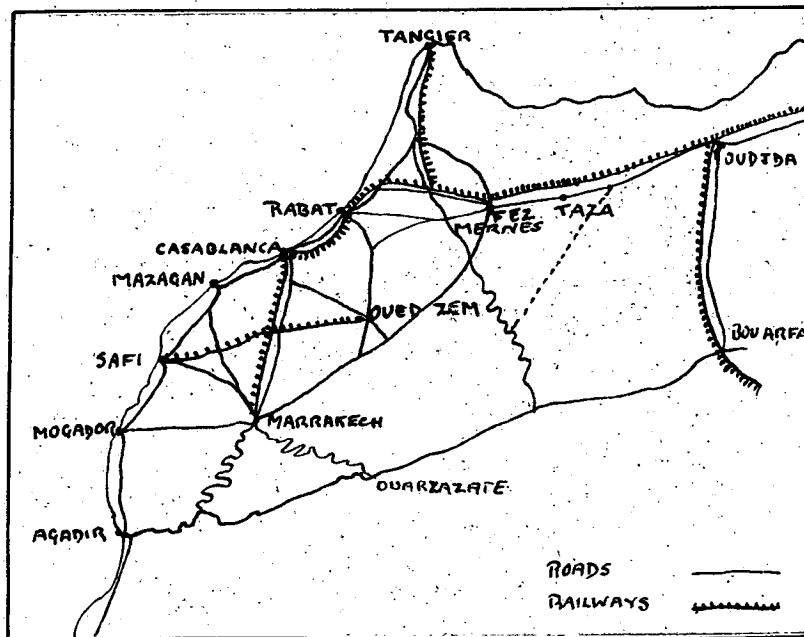
Such roads totalled about 4,600 miles just before the war. In addition to these any desert country such as Morocco East of the Atlas, and any country which suffers summer droughts such as the Western area, is suitable for tracks, of which there are many thousands of miles.

The main roads are shown on the accompanying map. It will be seen that there are three main systems, one running along the coast, one well inland on the western slopes of the Atlas, and one running East of the mountains. These are interconnected by various transverse routes, and the whole system is linked up with that of Algeria for strategic purposes.

RAILROADS.

The railroad mileage, excluding sidings, etc., is 1,136 miles, all of standard gauge, and all single-tracked with the exception of passing areas. Of the total mileage, 517 miles or almost half, is electrified. This includes the lines from Marrakech through Casablanca to Rabat and Petitjean, thence to Meknes, Fez and the Algerian border. Thus the most important line in the country is completely electrified.

3000 Volt D.C. current is used, being transformed at railway sub-stations belonging to the Compagnie des Chemins de Fer du Maroc, which is state-owned. Some 100 locomotives are in use, of which nearly one-third are electric. On the unelectrified lines, the diesel and diesel-electric type is coming into favour as against the steam locomotive, and several of these are on order under the 1946 import programme.



SCHEMATIC MAP OF ROADS
AND RAILWAYS IN FRENCH
MOROCCO

Rail being used now is 93½ lbs per yard. Pre-war, there were some 200 passenger coaches, and 3000 freight cars. Some of the latter have been lost due to the war, and an order was placed for about 300 in 1946.

The most likely types of transport equipment to be required during the coming years will be road-building equipment, railway cars and locomotives, and probably a considerable quantity of refrigerator cars as soon as the quick-freezing and cold-storage plan begins to function.

Ports and Port equipment will be discussed in Appendix II. The only other types of transport equipment which are in short supply and are urgently required are motor transport, particularly lorries, of which the diesel type is preferred, and small vessels for coast-wise trade and for fishing. The French Merchant Marine Mission which has gone to Canada early in 1946 has been advised of Moroccan requirements, and may include some orders for Moroccan account among those which will be passed to Canada.

CHAPTER SEVEN

PRE-WAR TRADE

Before the establishment of the French Protectorate, there was little foreign trade by sea to or from Morocco, and the largest trade was along the old caravan routes crossing the desert in an easterly or southerly direction. The history of Moroccan trade is therefore relatively recent, and it could hardly be said to have reached anything like its potential importance in the pre-war years.

The chief advantage of Morocco as a future market resides in the "Open-Door" provisions of the Act of Algeciras of 1906. This provided that the main ports of the country should be open to all nations, which may even engage in coasting traffic between them. It also provided for a very low scale of customs duties, which has usually been limited to 12½%, but has been lower than this in some cases. For instance, fertilizers, agricultural machinery and books are admitted duty free, while silks, wines and spirits pay only 5%. In both these cases an extra duty of 2½% has been permitted for the benefit of a Public Works fund. These customs duties have been in suspense during the war years, but against this, the control of internal prices has necessitated a standard policy which in effect taxed consumable goods far beyond what would have been permissible in the form of customs duties.

Imports have in the past ranged up to a total of 2,000,000 tons (in 1929), but the most important categories are of little interest to Canada, being coal, sugar products, petroleum products and cement. Exports have been as high as 2½ million tons, and consist chiefly of phosphates, although minerals and agricultural products are of increasing importance.

The major part of Moroccan trade has been with France -- about 37%, Belgium 6.4%, Japan 5.5%, United States 5.1%, the United Kingdom 4.8%, Italy 4.6%, Algeria 4.6%. During this same long-term average pre-war period, other countries not listed above accounted to 31.4% of the total foreign trade of the country.

Imports.

In the tables which follow, only tonnage figures have been given, as the variations in the value of the franc would confuse by suggesting wide changes in import trade which did not in actual fact exist. The imports, however, are listed in the order of their values in the year 1938.

IMPORTS INTO FRENCH MOROCCO
(Tons in order of value)

<u>COMMODITY</u>	<u>1937</u>	<u>1938</u>	<u>Sources in %</u>
Sugar	176,000	180,000	Fr 60, Cuba 16 NEI 10
Mineral oils	137,000	unknown	Roumania, Venez, NWI
Cotton goods	7,600	10,600	Japan 77, Italy 11
Tea	8,000	9,000	China 97
Machinery	10,500	12,000	Fr 40, USA 25, Germ 12
Iron & Steel	49,000	40,000	Fr 65, Belgium 15
Edible oils	16,000	16,000	Denmk 40, Neth 40, Fr 20
Wheat	51,000	500	Canada 76, Tunisia 11
Automobiles (no)	3,303	1,792	USA 57, Fr 35
Rayon	1,900	1,400	Japan 74, Switz 12
Coal	160,000	140,000	Germ 35, UK 30, Belg 27
Rubber	1,800	1,800	Fr 43, USA 20, UK 10
Lumber	41,000	unknown	Yugo 30, USSR 15, Swed 12
Woollens	400	500	Fr 39, Jap 21, Italy 18
Rice	27,500	10,500	Indo-China 94
Spirits (gals)	1,145,000	unknown	Fr 55, Belg 25
Leather goods	1,600	unknown	Fr 44, Czecho 17, US 14
Butter	1,200	860	Argentine 53, Lith 26
Cheese	1,600	1,540	Fr 42, Fin 26, Neth 21
Coffee	2,400	2,400	Brazil 55, NEI 32
Dates	14,000	unknown	Iraq 92
Potatoes	14,500	unknown	Belgium 43
Cement	50,000	46,000	Belg 55, Yugo 22
Fresh fruit	3,700	unknown	Canaries 42, US 34
Meat	1,200	unknown	Den 23, Fr 22, Arg 20
Soap	1,200	unknown	unknown, mostly UK

It will be noted from the above table that although coal forms the most important item from the point of view of tonnage, it is far down the list in terms of value. Sugar, both refined and unrefined, was the most important item, the refined sugar coming from France and the unrefined from various producing countries. It has been pointed out, however, in discussing the derivative industries depending on agricultural production, that local production has been increasing, and there is reason to believe that imports of sugar will be considerably lower in the future.

It is useful to note that prior to the war Japan had assumed the predominant position in the cotton and rayon trades. These are two items in which other countries will now find a more important outlet. The share of Germany in the machinery trade, and that of Jugoslavia in the lumber trade, are again items which may be shared by other countries in the post-war period. In the case of lumber, it appears unlikely that Jugoslavia will retain the important position it held before the war in Mediterranean trade. To some extent Portugal may take its place, but its productive capacity is small in relation to the very substantial demands of the Mediterranean area.

EXPORTS FROM FRENCH MOROCCO
(Tons in order of value)

<u>COMMODITY</u>	<u>1937</u>	<u>1938</u>	<u>Destinations in %</u>
Phosphates	1,529,667	1,410,249	Italy 23, Neth 14, Fr 11, Den 10
Wheat	46,415	111,600	Fr 81, Algeria 19
Fish, preserved	11,586	13,604	Fr 67
Wool & products	11,143	8,169	Fr 58, Belg 25
Early vegetables	24,503	30,129	Fr 90
Dried vegetables	55,222	unknown	Fr 88
Eggs	9,832	6,129	Fr 95
Vegetable fibre	64,874	55,707	Germ 23, UK 12
Hides & Skins	6,906	6,465	Fr 48, USA 28
Animals, head	150,901	238,173	Algeria 71, Fr 22
Cobalt ore	3,478	5,175	Belg 65, Germ 24, Fr 11
Barley	23,521	34,473	Fr 87, Algeria 11
Olive oil	7,150	unknown	Fr 55, Italy 29
Almonds	2,934	1,733	UK 63, Fr 22
Lead ore	16,294	21,142	Algeria 42, Italy 34, Fr 22
Sugar, refined	11,443	11,874
Citrus fruit	9,314	10,327	Fr 71, Algeria 27
Cork	22,904	22,873	UK 23, Fr 17, USA 12
Linseed	10,814	5,678	Fr 94
Canary seed	9,017	7,583	Fr 35, UK 28, Germ 13
Meats	3,439	1,776	Fr 100
Oats	8,294	28,852	Algeria 64, Fr 36
Wheat bran	11,784	unknown	Fr 59, UK 23
Maize	6,938	unknown	Fr 97
Esparto grass	41,477	unknown	UK 100
Anthracite	64,943	99,383	Algeria 90
Zinc ore	7,620	unknown	Algeria 55, Belg 22, Fr 22
Manganese ore	31,211	unknown	Algeria 89, Fr 10
Wine (gals)	1,016,978	unknown	Fr 50, Belg 35
Iron ore	26,170	unknown	Belg 56, UK 28, Fr 16.

Of the above products, phosphates are by far the most important, and account for over 20% of the total value of exports. Wheat has been a variable factor in the past, but its importance will decline steadily because of the growing population of the country, which will require to retain the major proportion of its production. Citrus fruit tree plantings have increased steadily in recent years, and up to 30,000 tons per year should be available for export in the near future. Among food products, most exports are likely to diminish, but fish, meat, almonds, and some fruit and vegetables exports may be counted on to increase with more intensive cultivation or, in the case of fish, greater availability of boats and extension of canning.

Finally, exports of mineral products may be expected to play a progressively more important role in the balance of trade. Phosphate production alone may be expected to increase to 2½ million tons in 1947.

BALANCE OF TRADE

In this section, exports and imports to and from various countries will be given in values, in order to arrive at an estimation of the proportionate value of trade with these countries during the years 1937 and 1938.

TRADE WITH FOREIGN COUNTRIES
(In millions of francs.)

	1937		1938	
	EXPORTS TO	IMPORTS FROM	EXPORTS TO	IMPORTS FROM
France	536.5	558.1	676.2	733.3
Algeria	117.0	-----	180.3	-----
Japan	-----	155.8	-----	222.1
Belgium	64.2	121.0	78.2	138.0
Italy	86.0	47.4	136.0	79.8
United Kingdom	89.7	50.8	104.6	56.2
Germany	40.9	-----	56.4	-----
Netherlands	38.9	55.9	53.7	65.9
China	-----	78.5	-----	116.9
United States	-----	120.6	-----	116.3
<u>Canada</u>	1.3	48.1	-----	-----
Others	169.4	249.6	216.9	598.3
TOTAL	1,143.9	1,485.8	1,502.3	2,126.8

CHAPTER EIGHT

COMMERCIAL OPPORTUNITIES FOR CANADA

The reason that too much stress has not been laid on pre-war foreign trade as a guide to post-war opportunities is that in many ways the nature of trade with Morocco will be sensibly different, and it is considered more desirable to study the opportunities which may exist on a slightly different plane.

In order to do this, the same break-down as was used in the study of Algerian trade opportunities will be followed. This chapter will therefore be divided into the following sections:

- (a) Short term opportunities
- (b) Long-term opportunities
- (c) Imports from Morocco
- (d) Representation of private firms
- (e) Government representation
- (f) Direct shipping
- (g) Financial participation and private credits

SHORT-TERM OPPORTUNITIES.

This term is intended to cover those opportunities which are based on reconstruction activities and which necessarily require a programme of imports in order to prevent the dissipation of foreign currency on inessential products.

The best guide to such opportunities resides in the import programme which has been prepared by the Coordinator of Economic Affairs for North Africa, and of which an abridgement is to be found at Appendix "A". This synopsis is based on the products payable in United States currency, and among those, only the one which may be of some interest to Canada. Some few products payable in sterling or in francs are listed if there appears some probability that they will be unavailable in the countries listed as sources of supply.

There are large quantities of goods of interest to Canada. Although many of them are in short supply even in Canada, it is of some interest nevertheless to note the fairly large requirements in agricultural products -- 400 tons of canned or frozen meats, 3847 tons of sweetened condensed milk, 2000 tons of malt, 530,000 tons of cereals, 7150 tons of dry legumes, 4000 tons of seed potatoes (payable in sterling), 20 tons of industrial casein, also payable in sterling.

The demand for tires is fairly extensive, 1000 tons of truck tires being required from sources other than France

90 tons of truck tubes, and 85.5 tons of tires for motorcycles, bicycles and tractors. 1000 tons of clothing, mostly men's used and new garments, are included in the programme, as well as large quantities of textile materials, all of which, however, have been earmarked for purchase in France.

Among manufactures of iron and steel, the most important category from Canada's point of view is agricultural machinery. This has already been mentioned in the chapter on Agriculture, and will not be repeated here. Railway equipment accounts for a considerable share of imports under this category, and include: 1040 tons of Diesel-Electric locomotives, 123 tons of Diesel locomotives and 2048 tons of railway cars, which have now been ordered in the United States.

Road-making, mining and port equipment are included among the following items: mechanical and electrical shovels, 340 tons; cement mixers 16 tons; levelers 16 tons; scrapers 76 tons; bulldozers 37 tons; and other types of road-building machinery, 65 tons. Pneumatic drills account for 36 tons, and cranes for 62 tons.

There are a considerable number of items of refrigerating equipment, including 375 tons of domestic electric refrigerators, 10 tons of spare parts, 84 tons of ice-making machinery, 238 tons of refrigerating equipment weighing from 1 to 10 tons, and 24 tons of air-conditioning equipment.

The Moroccan programme includes large quantities of motor transport equipment, but it seems more than probable that in view of the shortage of foreign currency during 1946, this part of the programme will be one of the first to be reduced. In any event, the programmed imports consist of 3766 tons of trucks and busses, 1950 tons of passenger cars, and 186 tons of trailers.

Among other iron and steel goods listed for import are 95 tons of domestic appliances, 182 tons of Diesel motors, 64 tons of flour-milling equipment, 400 tons of paper-making machinery, 111 tons of air compressors, 217 tons of rotary ovens and driers.

The less highly-specialized iron and steel goods make up an important list, but in most cases Canada will be unable to supply. It is worthy of note that some 14,000 tons of iron for reinforcing concrete is required. Other forms of wires and bars account for 4000 tons, while sheets of various types account for over 5000 tons. Demand for angle iron runs to over 1500 tons, rails to 2000 tons, pipes and tubes for 1200 tons, screws, nuts, bolts, etc. for 405 tons.

There are in addition demands for 250 tons of enamelled and stamped ware, 250 tons of galvanized and other types of household ware, 18.5 tons of steel office and other furniture, and 300 tons of copper ingots.

Chemical supplies account for an appreciable part of the programme, but most of them have been itemized as comi

from Britain, and therefore payable in sterling. To the extent that the United Kingdom will be unable to supply some of these products, it may be of use to examine the list of such requirements as itemized in Appendix "A". The chief items of interest to Canada are polyvinyl acetate (166 tons), and sulphate of ammonia (4000 tons).

Among the very limited number of consumer goods listed are 3.2 tons of carbon paper, 4 tons of pencils, 0.9 tons of pen-nibs, 0.15 tons of fountain pens, 250 tons of Ruberoid roofing materials, and 1 ton of shaving brushes. All other items are expected to be imported from France, and if the latter country cannot supply, it is expected that this part of the programme will be allowed to lapse.

This short list gives only a general idea of the types of products which are required for the reconstruction of the Moroccan economy, but even this will give an indication of the diversity of such requirements, and of the various economic activities which will be based upon the fulfillment of the programme.

France is granting foreign exchange on a monthly basis for the completion of the programme, and there is therefore no means of knowing whether imports may be interrupted for lack of exchange. This monthly buying has some advantage to Canada, however, as the number of interested Canadian firms who are not yet represented on the market may still hope to obtain a share of the business if they arrange representation agreements during the course of the year. It may again be pointed out here that imports during the present period are against import licenses, and that the importer, in submitting his license applications, must list the names of the suppliers from whom the goods are to be purchased. Unless a firm has connections in the market, there is evidently no chance to obtain a share of the business under such a system.

LONG-TERM OPPORTUNITIES

There are several factors involved in forming an appreciation of the long-term economic evolution of Morocco. Pre-war trade gives some idea of the general direction, but this must be modified first by the new elements which may have entered into the picture, and secondly by plans and programmes which may be translated into future action. The latter can be only nebulously foreseen in the light of all those background elements, social, political and economic, which have been described in earlier parts of this report.

In a more particular sense, however, it may be possible to be a little more precise with respect to those individual opportunities which may be related to the economy of another specific country such as Canada.

Here, then, we come to certain premises which promise to be of some long-term validity.

In the first place, to the extent that Canada can take advantage of certain short-term requirements, we shall have better opportunities in the future. This is not true in the case of such products as lumber, paper products and the like, which could be imported from Canada because of their scarcity value, but which would later revert to natural sources of supply in Scandinavian and other countries. It is true, however, in such cases as present requirements in agricultural machinery, mining and railway equipment, road-construction machinery, and various other commodities of this nature. If we can get onto the market as many as possible of these types of goods during the present programmed phase of import trade, we shall obtain good-will, our products will earn appreciation, and there will be formed a natural market for replacements and spare parts. For this reason, therefore, it is essential that Canadian goods should find their way as early as possible to the Moroccan market in order to obtain the best possible results in the future.

Certain of Morocco's economic plans have already been indicated. In agriculture, there is a desire to intensify production by increasing the number of agricultural machines in use. In order to keep pace with the growing population, this intention applies not only to the European colonist, a large part of whose production is destined to the export market, but also to the indigenous producer, whose duty it will be to keep pace with local requirements. The establishment of collective farms on a tribal basis should be watched with the keenest interest, as a movement of this nature, if successful in Morocco, will be encouraged in all other parts of the Arab world, and the machines most used by the natives in Morocco will find favour elsewhere through the grapevine system of passing on information.

The second basic concept upon which future economic plans are based is that electric power must be developed to the utmost extent. The harnessing of waterways which is contemplated will require large quantities of construction materials, cement, power-plant equipment, transmission and distribution lines, sub-stations and the like. With the greater development of electric power will also come a greater demand for electric appliances for the home, and for electric motors, belting and other necessities for machine shops and other small industries which will have an opportunity to develop.

Another phase of agricultural development will be a fuller use of cold storage and quick-freezing processes to permit the orderly marketing of fruit, vegetables, meat and fish products. For this purpose, a complete "chain" will have to be established, starting with the small freezers and cold-storage warehouses in production areas, railway refrigerator cars and refrigerated trucks, port installations and small ships capable of carrying Moroccan products to Atlantic and Mediterranean ports in Europe. As an auxiliary to this development, there will be packing plants, grading and inspection services, canneries, with all the consequent demand for machinery of different types, packaging materials, and other requirements of this trade.

Another phase of economic development which must not be overlooked is an extension in mining activity. Here mining and transport may usefully be discussed concurrently, since competition of Moroccan minerals on world markets will require a reduction in the costs of transport services. Except in the case of phosphates, a large proportion of Moroccan mines are beyond the Atlas mountains, and inaccessible by railway. Roads must therefore be widened, and heavy haulage units must be used to bring down the price of transporting ores to railhead. One mine already has on order some ten-ton trucks with which it confidently expects to bring down transport costs to a competitive basis. The government is at present disposed to arrange for one-way traffic over the relatively narrow roads in the mountains, but ultimately, if the experiment is successful, the roads themselves will have to be widened, involving very considerable engineering works. And the mines themselves will require a great deal of equipment, some of which is already being manufactured in Canada.

The above are the salient points of Morocco's plans for tomorrow, features which give a relatively good idea of the types of commodities which will find an expanding market in this area. All these developments in themselves will entail others, such as the extension of port facilities, the establishment of a fishing fleet, and the extension of local consumer-goods industries which will all require equipment from abroad.

It may be safely asserted, therefore, that given confidence in the country which is justified by the forward-looking attitude of the European settlers, there are good prospects of a growing trade with Morocco within the framework of a free economy untrammelled by special concessions to any specific countries.

IMPORTS FROM MOROCCO.

As in all countries which have been deprived of markets and sources of supply by the war, the necessity of re-equipping industry has severely drained resources in foreign currencies, so that the country will make a slow start in post-war development unless it can obtain such resources, either in the form of loans or payments for its exports. Up to the end of 1946, Morocco is benefitting to some extent from French credits abroad, but this situation is unlikely to continue after this year.

Morocco therefore requires to extend its export trade as rapidly as possible, and there are certain categories of goods which Canada might profitably buy. In addition, there are some commodities which Canada has formerly purchased through American importers but which, for statistical if for no other purposes, should be imported direct when at all possible. Cork, for instance, is one such commodity.

Morocco's most important export commodity is of course phosphates. Due to the world shortage of this fertilizer, most of the North African supplies are being reserved for use in Europe, and Canada will normally be served by Florida and other sources. There is no reason, however, for not taking small quantities of up to 2000 tons as return ballast for ships which would otherwise return to Canada empty.

It is not nevertheless, among the most important exports -- phosphates, cereals, vegetables, etc., that Canada would find the most interesting Moroccan products from her point of view.

In the opinion of the writer, the most interesting possibilities are concerned with manganese ore and cobalt. Moroccan manganese is of good quality, and may be superior to the ores now being imported from the Gold Coast and other areas. The metallurgical qualities average about 83-87% manganese bi-oxide content, which comes to about 61% in pure manganese. In addition, one of the mines is currently producing a high quality chemical grade, averaging 93-97% bi-oxide which should find favour with Canadian chemical manufacturers requiring this base material. The latter, because of its relatively small bulk in terms of price, is now competitive on world markets despite the long haul to railhead.

In the case of cobalt ore, which runs about 12% cobalt content, the following factors may be of interest: Canada normally produced cobalt before the war from the tailings of old silver mines. Since a refinery had been set up to treat these ores, the Belgian Congo output was diverted to Canada during the war, when the mines in that area were cut off from their refineries in Hoboken, near Antwerp. The result undoubtedly is that Canadian refinery capacity is far higher than Canadian ore production, and there would therefore be an opportunity to treat the Moroccan ores. The war history of Moroccan ores was that they replaced the Congo ores in Europe, and were sold mostly to Belgian and German refiners.

France will undoubtedly take a part of the post-war production, but there seems a possibility that the share which was refined in Belgium and Germany during the war might be purchased by Canada, or refined on a contract basis for the account of the producers. It would be of some interest to explore this possibility with the Deloro Mining & Smelting Co.

Some similar arrangement might be made with respect to molybdenum, antimony, tungsten and other rare metals which would not add greatly to Canadian production but which could benefit from Canadian refining facilities. There might be a similar possibility with respect to zinc ores, although this is more remote in view of the transport costs involved and of the fact that the Moroccan ores are frequently of a type not encountered in Canada, and therefore subject to different refining processes.

There should be a small market in Canada for Moroccan sardines, which are of a quality similar to the Portuguese output. Tuna is another fish product which might find favour on the market. It was also suggested during the trip that Morocco might take an interest in canning clementines -- the seedless variety of tangerines -- in order to compete on world markets with the excellent product of this type which was formerly marketed by the Japanese. Two or three firms indicated their interest in following up this suggestion, and the output should find a market in North America.

Moroccan carpets, when well made, are of excellent quality and design. There is a native crafts bureau in Morocco which examines the whole output and which will not permit the export of any carpets unless they have been stamped as being of export quality. Rugs cost about \$2 - 2.50, which seem to be competitive prices.

The largest part of Moroccan production of cork is "liege male" or first-growth cork, suitable only for granulating or agglomeration. In such form, it is used for linoleum, insulation in refrigerators, packing, and various pressed cork compounds used as table mats, linings for crown corks, etc. Prices are being kept at the same level as Portuguese prices, and it is probable that Canada could import considerable quantities direct rather than through American houses which have no doubt been supplying part of our requirements from Moroccan sources.

Among the lesser products which could be imported in some small quantity are vegetable fibre (artificial horse-hair), tooled leather, beaten brass and silver ornaments, canary seed, almonds, some hides and skins, and a few gums and resins of which the production could very readily be increased. The euclyptus tree, because of its exceptionally fast growth, has been heavily planted in recent years, but no attempt seems to have been made to extract eucalyptus oil. Castor beans were also planted during the war years, and now grow in almost wild profusion, yet little is being done to maintain the production of oil from this source. A number of natural products of this nature, however, are worth further study in view of certain world shortages.

REPRESENTATION OF CANADIAN FIRMS

It has already been explained that an importer, in order to present his request for an import license, must be able to quote a firm offer from a specific foreign supplier. It is therefore necessary for any firm which wishes to take advantage of the actual short-term demand for reconstruction goods, to be represented on the market. It is equally advisable for any firm, even if it cannot supply any goods over the next two years, to be represented now in order to be aware of the development of the market, and to be able to take full advantage of prior knowledge once he has supplies available.

The Chamber of Commerce of Casablanca, Bourse du Commerce, Casablanca (Attention Mr. Renault, Secretary), has promised to disseminate all enquiries among the most representative importers. Grouped within the Chamber are all the more important imports licensing bodies, which, as in the case of Algeria, are formed of the leading dealers in any specific type of commodity. The Chamber of Commerce would therefore pass Canadian enquiries to the Presidents of these groups (for instance, an enquiry for an agent for electric refrigerators would be sent to the President of the Association Syndicale Radio-Froid-Electricite) who would choose among their members a good representative. In some cases the president represents some high-powered competitor, and would not be a suitable person to make the decision. In such cases the Chamber of Commerce has promised to notify individual members of such syndicates.

Several of the syndicates have indicated their interest in being advised directly of any Canadian firms exporting goods falling within their branch of the trade. The Chambre Syndicale de la Metallurgie, 75, rue Nationale, Casablanca (Mr. Dauphin, President), would be interested in any offers for heavy metallurgical supplies. The Groupement Professionnel Consultatif des Negociants Importateurs de Bois, 75 rue Nationale, Casablanca (Mr. Estors, President), would like to receive offers of lumber and wood products, and requests for representation on the market. The Chambre Syndicale des Entrepreneurs Francais, rue de la Bourse (Mr. Lays, President) is the professional association grouping together all the important public works and construction contractors, and would like to be in touch with suppliers of building materials and construction equipment. The Chambre Syndicales des Industries Minières, 1 rue Horace Guerard, Casablanca (Mr. Fournier, President), would be glad to disseminate among the mining companies any offers of mining equipment. In this connection, it is well to note that the Phosphate mines are government-owned, and would therefore not be reached in this way. Their headquarters are the Office Cherifien des Phosphates, Rabat, which may be approached direct with respect to their own requirements.

For certain types of consumer goods, it may perhaps be wiser to find a representative among the commercial travelers and agents who are in close touch with the wholesale and retail trades throughout the country. The 50 or 60 most important of such distributors are grouped together under the Association Professionnelle des Representants, Agents Commerciaux et Voyageurs Francais, Boite Postale 206, Casablanca (Mr. Viaud, President). This group is very keen to represent Canadian producers, and Mr. Viaud has promised to pick with the utmost care those members whom he believes to be most suitable.

Besides the official organizations, the banks are interested in submitting to their clients lists of firms desiring to be represented on the market. The most important of such banks is the Banque d'Etat du Maroc (the state bank), with head office in Rabat and main branch in Casablanca. (Mr. Edmond Spitzer, General Manager in Rabat, Mr. Chereau, Manager in Casablanca). They have indicated that such demands would be

submitted only to high-credit clients, and that credit information would be available to all enquirers.

The Credit Lyonnais, Place de Strasbourg, Casablanca (Mr. Barral, Mr. Revelli), have indicated a similar interest in passing on enquiries from Canadian firms.

In addition to the above means of obtaining advice and assistance as to representation, there are several private firms who have asked for agencies for specific types of goods. These firms have been listed in the preliminary report on the market, and their names will be found on Departmental files.

GOVERNMENT REPRESENTATION.

Because of its progressive outlook, geographical position, and relative wealth in natural resources, Morocco appears likely to be a steadily expanding market on a basis which is almost equivalent to free trade for all countries.

Besides its own internal advantages, West Africa is relatively easy of access from Morocco, either by plane to Dakar and British West African ports, or by ship going into all the various ports. It is similarly well-situated with respect to the remainder of North Africa, and lying as it does between these two important land surfaces, it forms an ideal centre for a Canadian Government office. The British and Americans have both taken a keen interest in the market, and have suitable representation both in Rabat and Casablanca.

It was already stated in the report on Algeria that over the long-term, Casablanca appeared to be the most suitable location for an office to cover the whole of the territory. In that report, however, it was suggested that during the year 1946, and until such time as the Economic Coordination of North Africa lapses, it might be desirable to have the office in Algiers, in order to be in close and constant communication with the representatives of the French Ministry of National Economy which are in practical control of the economy of North Africa. This conclusion remains perfectly valid provided such an official were able to visit the Moroccan market at frequent intervals. It is felt more and more that Morocco is the coming market in this area, and that it is of the utmost importance to lay the ground work for trade expansion in this territory as quickly as possible. Whether, therefore, it is worth while establishing an office in Algiers for a limited period, and the transferring it to Casablanca, is a matter for decision by Ottawa. One obvious disadvantage, besides the economic one, is that the Algerians would naturally resent the closing of an office in their territory after a trial period. For this reason, the advantage of being in close touch with the Cardin organization in Algiers might to some extent be counter-balanced by this unfavourable factor.

In any event, the opening of an office at the earliest possible date is strongly recommended.

DIRECT SHIPPING.

As in the case of all other business men with whom the writer talked during the tour, the Moroccans conceded that Canada was in a good position to supply many needs of their country during the coming years. With prices which have remained essentially stable, with a labour market less mercurial and therefore in many respects more competent, with a level of production which allows a far greater proportion of output to be devoted to export trade, Canada in many ways appears as a more desirable source of supply than the United States.

In all cases, however, and particularly in the course of a long discussion with the leaders of the Casablanca Chamber of Commerce, the final argument was this: any advantages you may have, in the nature of low prices, quick delivery, quality of production and availability of supply, mean absolutely nothing if you are unable to deliver the goods. If you have to ship through New York, we should prefer to deal through American firms who are in constant touch with their own shipping lines, and who are likely to get priority of space. If you cannot guarantee regularity of shipment, you cannot guarantee regularity of arrival, and therefore we must go to those who can do these things.

These arguments are essentially the basis of our whole trading problem in North Africa. Until we have our own direct shipping lines, we shall not obtain our share of the market; and if we judge by our previous share of the market before establishing our shipping lines, the resulting temerity will delay their establishment indefinitely.

As stated before in discussing this problem in relation to Algeria, there is only one sign-post to the future capacity of the market to absorb Canadian goods: that is by formulating our hopes upon an ambitious expectancy. The import programme for 1946 from U.S. currency countries calls for the import (exclusive of cereals and fuels) of approximately 800,000 tons of goods. There seems no reason to doubt that upon the basis of our proportion of world trade, Canada should try to get approximately one-fifth of this tonnage, or about 160,000 tons. This tonnage is sufficient to warrant the establishment of direct shipping facilities. Without the latter we shall probably not get more than one-tenth of that tonnage.

Under such circumstances it is obviously impossible to forecast the amount of movement which direct shipping facilities would foster, since with or without there will be many opportunities for an I-told-you-so attitude. It would nevertheless appear preferable to make a positive mistake than a negative one, and the writer considers that he would be sinning by omission if he were not to strongly recommend that immediate attention be given to the problem under consideration.

From talks with the Montreal Shipping Co., it appears that this firm is willing and even desirous of starting

a fortnightly run, one ship per month running to Casablanca and thence to Algerian ports, Malta, Italy, France, Spain and Portugal, while the other monthly ship would follow the reverse route. If the Department can do anything to encourage the firm to undertake this service, and assist them in obtaining the ships to permit of a published schedule, this should be done at the earliest possible opportunity.

No discussion of direct shipping can be complete without giving some thought to return cargoes. The fact that paying ballast is available -- iron ore from Algeria, manganese ore and phosphates from Morocco -- makes this problem easier, since the loading of ballast will encourage the taking on of additional tonnages over and above ballast requirements. The fact too that there are ships returning directly to Canadian ports will encourage direct import, and to an extent which cannot be estimated, imports of such commodities as cork will tend to come directly to Canada instead of transitting through American ports. The obtaining of additional cargo will largely be a matter of snowballing, since once the minimum cargo requirements are met, favourable freights on excess should do much to make North African products desirable in the eyes of Canadian consumers.

FINANCIAL PARTICIPATION AND PRIVATE CREDITS.

Morocco is an ideal country for the investment of private capital, for the reason that such capital is protected by international agreement. Since all countries have equal rights in Morocco, it is obvious that one investor cannot be prejudiced for the benefit of another, and that no matter what freezing measures may have to be adopted in time of stress such as that just passed, free movement will be insisted upon sooner or later by interested nations.

The Director-General of the Commercial Affairs Division of French Foreign Affairs (Mr Herve Alphanth), has stated to the writer that France can have no objection to the investment of Canadian capital in Morocco. There are some restrictions with respect to mining operations, but even in this case, any participation of less than 50% is acceptable to the French authorities. This was re-iterated to me by representatives of the Ministry of National Economy and by the various government departments in Morocco itself.

The country itself offers opportunities which are peculiarly suitable to the Canadian investor. Mines, transport operations, some electric developments, could all be assisted in the purchase of Canadian materials by the participation of Canadian firms who could make the counterpart of such participation available in Canadian dollars for the purchase of Canadian supplies. In some other cases, such as public works and enterprises owned or operated by the government, there would be many opportunities for the extension of private credits to enable the immediate purchase of goods required but for which no foreign currency is immediately available. This category

includes railways, port installations, shipping, construction of dams and power plants, and many other types of enterprises in which the Moroccan government takes a direct or indirect interest, but for which they are at present hindered by lack of capital or lack of foreign exchange.

Several types of enterprises have already indicated their interest in obtaining Canadian capital, and possibilities in this direction could be discussed at greater length verbally with any Canadian firms which may be interested.

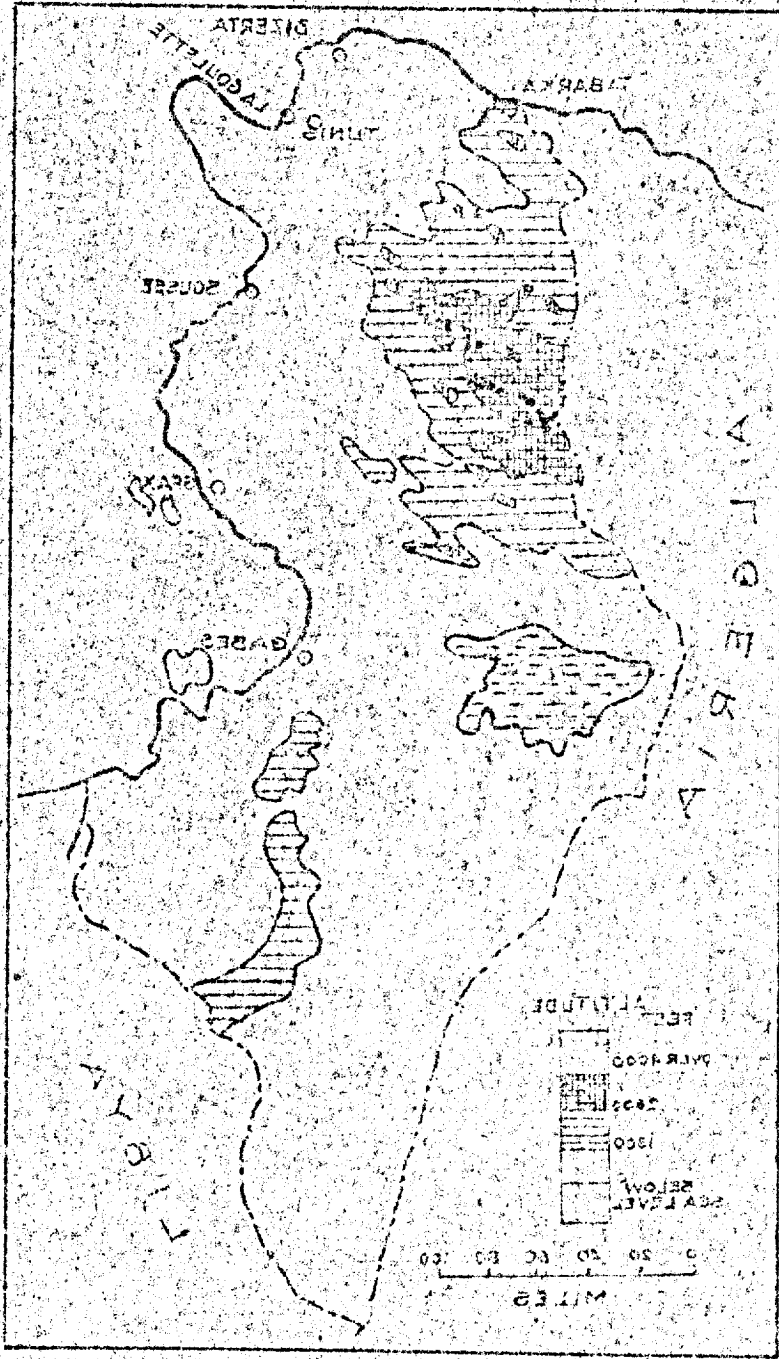
CONCLUSION.

Under the various headings above, an attempt has been made to explore every possibility, in every direction, which Canada may have to improve its trading position in Morocco. It is felt that, despite the relatively small European population, good opportunities exist for Canada if our aggressive search for markets matches the temperament of the Europeans in Morocco and brings us up to the level of our more well-established competitors in our long-term knowledge of the peculiarities and needs of the country's population and its economy.

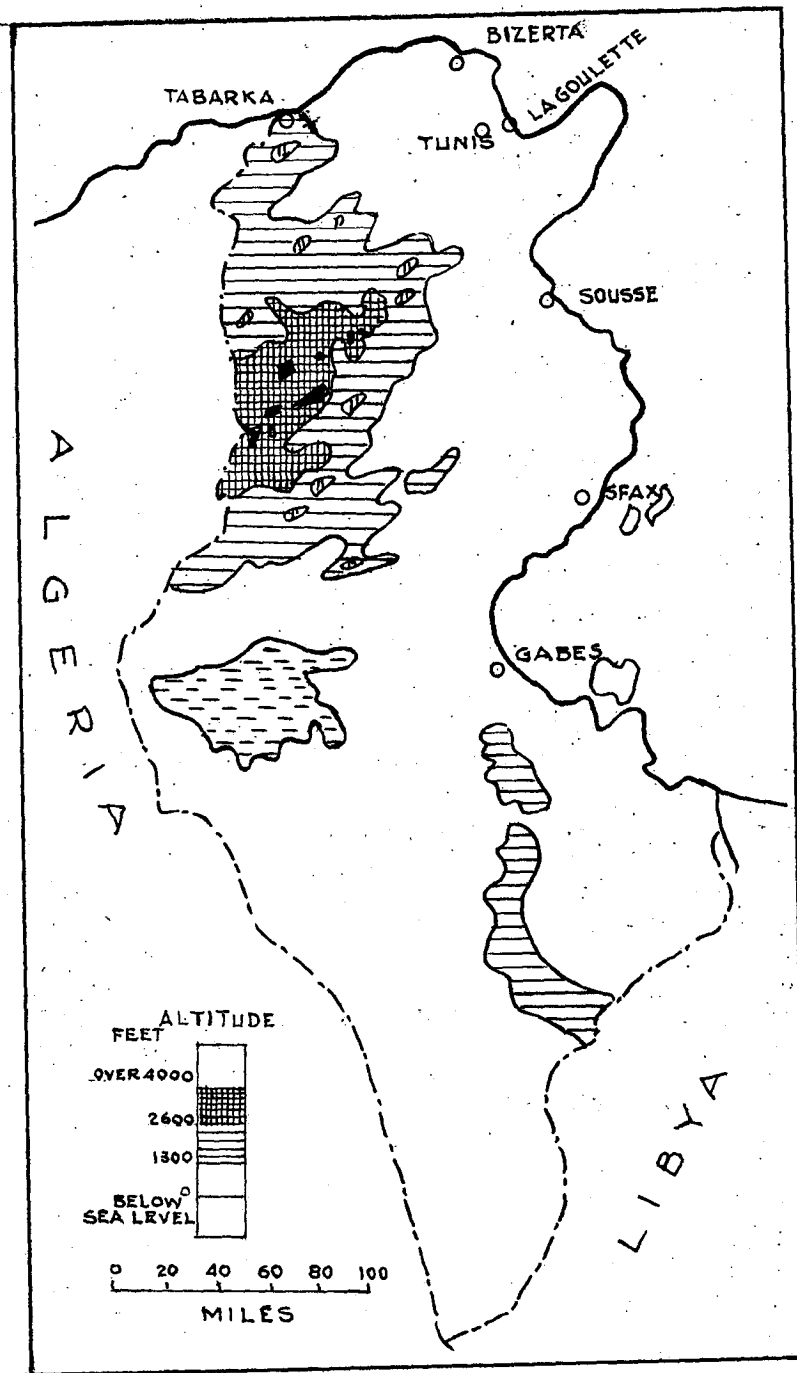
TUNISIA

PART THREE

TUNISIA



— TUNISIA —
PHYSICAL FEATURES



— TUNISIA —
PHYSICAL FEATURES

CHAPTER ONE

TUNISIA : AN INTRODUCTION.

Tunisia is one of the smallest of the French possessions in Africa, having an area of 48,332 square miles, or approximately the same as that of Great Britain. According to the 1936 census, the total population was 2,503,000 inhabitants, of which Moslem natives accounted for 2,230,700, Jewish natives for 59,400. There are barely 210,000 Europeans, of which slightly more than half are of French extraction, slightly less than half are Italian, and some 8,000 are of Maltese origin.

Tunisia has no real geographic entity of its own; it is an easterly prolongation of Algeria, with no very striking differences of structure or topography. In the north are well-wooded mountains, called the Tell, which are an extension of the Kabilye in Algeria. South of these mountains is the valley of the Oued Medjerda which flows eastwards through mountain gorges until it finally reaches the wide and fertile plans of the eastern seaboard.

The southern part of the country is essentially Saharan, and whereas in the north rainfall and climate make for a Mediterranean vegetation, the south falls off into a steppe vegetation of herbs and grasses. In the cases there are date palms and other trees which thrive in a hot atmosphere.

This should not give an idea of the country being torrid and tropical. Indeed, in the north and east, where there is sufficient rain, the climate is similar to that in Italy or other countries bordering on the Mediterranean. The fact of its high mountains adds to the diversity of temperatures, since the winters may be very cold in these higher regions.

History

The first known colonies in Tunisia were established by Phoenician merchants around 1100 - 900 B.C. Among the most important of such settlements was Carthage which for four hundred years maintained the mastery of the Mediterranean despite frequent attacks by the Greeks and later by the Romans, who tried by every means to break the Phoenician monopoly. Finally, in the year 146 B.C. the Romans succeeded in defeating Carthage and completely destroying the city. The Romans then colonized the coastal areas, introducing Latin and Christianity. Peace and

prosperity followed until 439 A.D., when the Vandals were able to conquer the country due to the disintegrating power of the Roman Empire. The Byzantine Empire regained control for a period, but the new Moslem Empire established in Syria and Egypt was slowly extending its conquests to the west, and all resistance was finally crushed around the year 670 A.D. It was then that the Arabs gradually brought in the Arab language and the Moslem religion, but it should be remembered that these are not the original language or religion of the native Berber peoples. These latter, who still form the majority of the population, appear to be related more to the early Egyptians than to the Arabs, and although there has been much intermarriage in the 1200 centuries which have followed the first Arab conquest, there still remain very distinct differences between true Arabs and the Berber-Arab mixture which is common in North Africa.

Geographically, Tunisia has always been one of the battlegrounds of Africa due to the fact that its northernmost extremity is less than 100 miles from either Sardinia or Sicily, and therefore controlled East-West movement in the Mediterranean. Invasions from the East therefore had a tendency to stop or peter out by the time Tunisia was taken. For this reason Tunisia has much greater ties with the Eastern Moslem world than has either Algeria or Morocco. At times of Arab unrest, Tunisia is a sensitive area, and one is more likely to encounter high feeling here than in other parts of North Africa.

It was in this area, the Barbary Coast of pirate days, that Barbarossa established himself in the sixteenth Century and led his raids against shipping and along the coastal towns.

Barbarossa was a Turk, and his exploits drew the attention of the new Ottoman or Turkish Empire, which was able to occupy Tunis in 1574, despite weak opposition from the Spaniards, who by then were gradually extending their own spheres of influence along the African coasts.

The Ottoman administrative forms were adopted in Tunisia, and in 1705 a dynasty of PASHA-BEYS was formed which continues to rule the country to this day. As they became more and more independent from the Turks, they instituted many reforms, suppressed piracy, and improved relations with European countries. However, large loans were accepted from the French, who came to have more and more influence in the country.

Algeria was occupied in 1830, and this proximity made relations with Tunisia still more intimate and important. Some 50 years later, in 1881, the country was overrun, and by the treaty of La Marsa in 1883, Tunisia became a French Protectorate, with the Bey as nominal ruler, but a French Resident and a French Army of Occupation as the effective powers in the country.

Administration.

Administration of Tunisia rests on Moslem law on the one hand, and French codified law, legislation and administrative enactments on the other.

Although the Bey still has a small cabinet of his own ministers, and technically rules through the local Caids, Khalifas and Kahias, in actual fact the orders given by the Bey are in most cases inspired by the French Resident-General or his parallel organization.

Tunisia is not administered through the Ministry of Colonies in Paris, but is a direct responsibility at that level of the Ministry of Foreign Affairs, as is the case in Morocco. Laws passed in France are not automatically applicable in Tunisia, but must be repeated there in the form of an edict issued by the Bey. In the same way, there are many laws, particularly with respect to Moslem practices which are evolved in Tunisia itself, and are applicable only to that country.

In one important respect, legislation in Tunisia is of consequence to Canada. Since the Tunisian protectorate is not subject to international agreement, as is the case in Morocco, there has never been an obligation on the part of France to ensure the application of an "Open Door" policy in commercial and shipping matters. The result is that France has always benefited from preference on the market: indeed, this preference for a number of years has amounted to virtual free trade between the two countries, since there are no restrictions on a wide variety of articles, most of which are the items of primary interest to both areas. Similar freedom of trade exists between Tunisia and Algeria.

Since the war, customs duties have been in suspense due to the controlled nature of foreign trade. Since the internal price structure varies in the different areas, all movements of goods from one area to another are subject to equalization taxes, and to some extent these must be considered as new and far higher customs duties than ever existed before. For instance, Tunisia, which is normally a large producer of olive oil, had a production in 1945 barely sufficient for its own needs. An export control has therefore been applied, and the normal flow into Algeria has been arrested. In consequence, the shortage in Algeria has caused very high prices (300 francs per litre), whereas Tunisian oil is still retailed within the country at 70 francs per litre. When export permits into Algeria are granted, therefore, the Algerian authorities are obliged to levy a tax of about 230 francs per litre to bring the price up to market levels within their own territory.

Since the various administrations benefit from such taxes, there may be some attempt to perpetuate in the form of customs duties some of the extraordinary levies which have been necessary during the war. The desirability of trade with Italy may also encourage a demand for a revision of the tariff structure in Tunisia; in either case, the advantage of France on the market is bound to be reduced, and Canada may indirectly benefit from such possible changes.

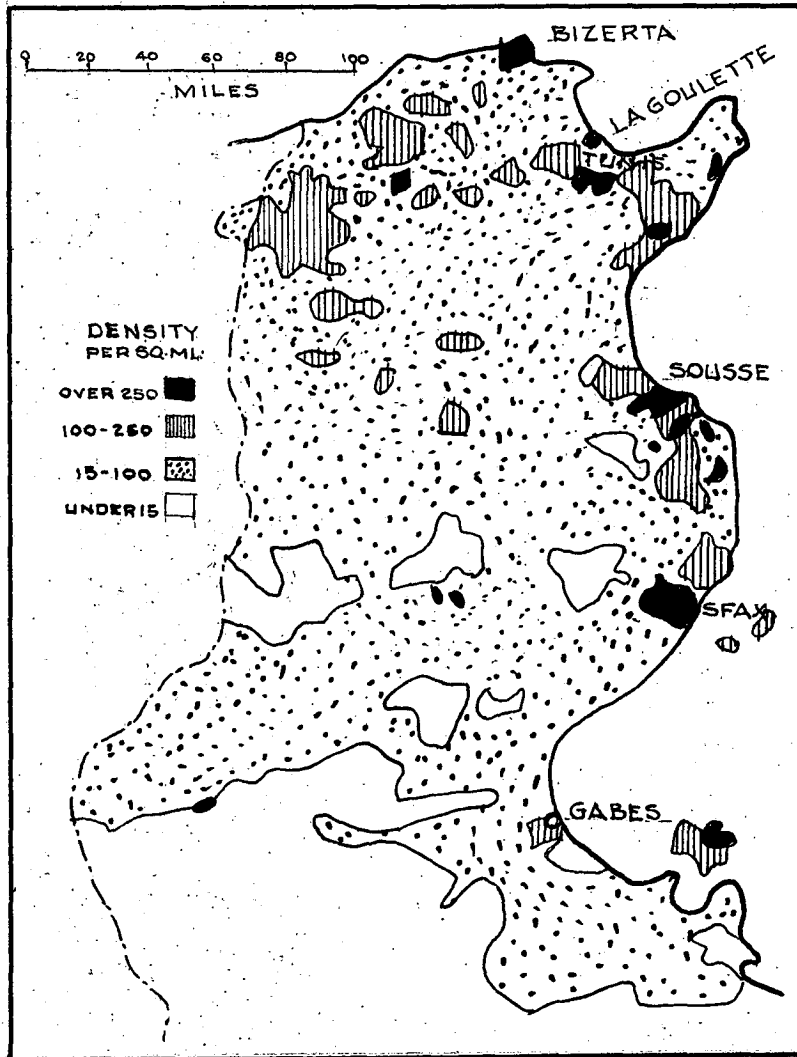
Population.

The population of Tunisia has increased very substantially since the country became a French Protectorate. Estimated population in 1881 was 1,514,000, of which only 14,000 were Europeans. According to the census of 1936, the population at that time was 2,608,313, of which 213,205 were Europeans. Since the rate of increase, as in the remainder of North Africa, is about 15% per decade, the probable population at the present time should be almost exactly 3,000,000.

The native population in Tunisia has intermingled to such an extent that it is impossible to estimate the number of pure-bred Berbers, nor those of purely Arab descent. In most cases the pure stock has disappeared, and it is therefore safe only to say that the Moslem population, consisting of Berber-Arab stock, totalled 2,335,623 in 1936, while native Jews accounted for the remaining 59,485 of the native population.

Among the European races, French and Italians predominate, and are present in almost equal numbers, a fact which caused continual recriminations prior to the war between France and the Fascist regime in Italy. According to the 1936 census, the 213,205 Europeans were of the following racial origins: French, 108,068; Italians, 94,289; Maltese, 7,279; and other origins, 3,569.

Tunis is the only relatively large city in the country, and its population is now close to 400,000, having increased very greatly since the census of 1936, which is cited in the table below:



— TUNISIA —
DENSITY OF POPULATION

Urban Population of Tunisia, 1936.

	<u>European.</u>			
	<u>Native</u>	<u>French</u>	<u>Italian</u>	<u>TOTAL</u>
Tunis	120,701	42,678	49,878	219,578
Sfax	34,672	5,224	2,610	43,333
Sousse	19,825	5,332	2,882	28,470
Bizerta	17,211	8,054	2,980	28,468
Kairouan	22,128	615	171	22,991

CHAPTER TWO.

AGRICULTURE IN THE TUNISIAN ECONOMY.

Since olive oil, wine and wheat are the most important exports from Tunisia, it will readily be seen that agriculture plays a preponderant role in the economy of the country. In most products the country is self-supporting; the only important agricultural imports are rice, sugar, tea, tobacco, dairy products, and some small quantities of coffee, barley, meat and fruit.

Northern Tunisia has a climate similar to that of other Mediterranean countries. It is nevertheless more greatly favoured than Algeria in that the Tunisian extension of the Tell Mountains quickly fall off into a series of rolling hills. The North-West trade winds therefore deposit their rainfall on the eastern slopes of the higher Algerian mountains, and the Tunisian rivers having their source in that area are generally well-watered.

The largest valley in Northern Tunisia is that of the Medjerda. This fertile valley is broad, and extends from the border of Algeria right across to the sea near Tunis. The farms are large and well-equipped, irrigation being largely by means of windmills imported from the United States.

Precipitation decreases as one goes further south along the Gulf of Tunis, and at about the half-way mark the desert almost reaches the sea. To some extent this is an advantage, since it makes more readily available for export desert products such as dates, figs and alfa, and semi-desertic products such as olive oil. However, there exists a large intermediate area which could be made much more fertile by means of an intensive irrigation policy, and this will soon have to be undertaken if the balance between a growing population and its food requirements is to be maintained.

The North African drought of 1945 did not affect Tunisia as severely as it did Algeria and Morocco, for the reason pointed out above. Reduction in cereal production was less than 50%, as against reductions ranging from 60 to 75% in the two other areas. Unfortunately, however, the drought and a low production year for olives were concurrent, and the total result has been just as ruinous to the economy of the country as it was in the two other areas. Although olive trees are not greatly affected by average drought conditions, they have regular cycles of heavy and low production, and it is probable that Tunisia will not return to a normal olive oil production until 1947.

To return to the northern areas, the large holdings have been accustomed to using large quantities of agricultural machinery. The following table gives the results of a census of useable farm machinery as at January 1, 1944:

Farm Machinery in Use, 1 January, 1944.

Grain drills	1,500
Fertilizer Distributors	1,230
Moldboard Plows, horse drawn	6,000
Moldboard plows, tractor drawn	800
Disc Plows, tractor drawn	3,250
Disc Harrows, tractor drawn	1,500
Cultivators, horse drawn	2,000
Cultivators, tractor drawn	900
Threshers	1,100
Binders	3,000
Mowers	2,000
Rakes	2,000
Push Headers	not known
Wheel tractors	1,120
Tracked tractors	1,445

Even the machinery still in use has deteriorated very considerably during the war years, and much of it must be entirely replaced within a few years. In addition, the campaign for greater mechanization will require imports of substantial quantities of new equipment. Programmed imports for 1946 attempt to fill in the gaps caused by the war. The following are the figures:

Imports of Farm Machinery.
(Figures in metric tons)

1946 Programme.

Tillage Machinery	670
Harvest Machinery	326
Other Equipment	70
Repair Parts	100

The only harvest machinery provided for in 1946 are reaper-threshers. The above tonnage represents about 100 such machines, as against the Algerian programme of approximately 300, and the Moroccan programme of 177. The total for the whole area is about 575, but it is extremely doubtful if the usual sources will be able to supply. If the steel situation in Canada improved, Canadian producers would have an undreamed-of opportunity of increasing their share of the market from the 20% which was their customary proportion prior to the war.

Production.

As already stated, the severe drought of 1945 had a very damaging effect on crops throughout the area, but in Tunisia itself the effects were not quite as serious as they were in Algeria and Morocco. For instance, the following table gives an idea of the reduction in cereal production.

<u>TUNISIAN CEREAL PRODUCTION</u>			
(In metric tons)			
	<u>Average</u> <u>1934-38</u>	<u>1942 or 43</u> <u>As Available</u>	<u>1945</u> <u>Estimate</u>
Hard Wheat	220,000	130,000	90,000
Soft Wheat	163,000	72,000	81,000
Barley	167,000	180,000	125,000
Oats	21,300	10,000	10,000
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TOTAL (approx)	571,300	392,000	306,000
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Requirements for food, feed and seed			539,700
Deficit, Crop Year 1945-46			233,700

It will be noted from the above table that Tunisia was not in the past one of the important cereal exporting countries in North Africa, its surplus at present rates of consumption in the period 1934-38 being a mere 30,000 tons per year. To some extent this gives a false impression, since there were bad crops in 1934 and 1935, which were offset by good crops in 1937 and 1938. In the latter years, exports were respectively 82,000 and 106,000 tons (including wheat flour, groats, etc.) It is probable that Tunisia will not again export anything near such quantities, even under normal conditions, due to the growing domestic demand due to a steadily increasing population.

Estimates for 1945 are impossible to obtain with respect to other crops, and only a general indication as to crop results will be given in the following table.

AGRICULTURAL PRODUCTION OTHER THAN CEREALS.
(In metric tons unless otherwise indicated.)

	<u>Average 1934-38</u>	<u>1942 or 43 As Available</u>	<u>1945. Observations</u>
Dry legumes	25,300	6,720	Bad crop
Forage crops	99,400	88,000	Very bad crop
Oil seeds	347	100	Unknown
Potatoes	14,500	21,000	Bad crop
Olive oil	48,000	50,000	Bad crop
Citrus fruit	6,520	7,000	Increased Plantings offset a bad crop
Table grapes	15,000	Unknown	Unknown
Figs	Unknown	Unknown	Unknown
Dates	22,000	7,000	Fair crop
Wine (hectolitres)			
	1,649,800	1,250,000	Fair crop.

As in all Moslem countries, the livestock situation is significant as an index of rural prosperity. There are no figures available as to losses due to drought in 1946, but hearsay suggests a substantial reduction, more particularly in the sheep population, which generally grazes over semi-parched land which drought conditions render completely arid. Sheep population in 1943 was reported to be 4,678,000, which was considerably more than the pre-war average; cattle population was stated to be 553,000 for the same period; the goat population was 2,219,000; and there were estimated to be over 6,000,000 poultry. No figures are given for horses, camels or donkeys.

Other Products.

Apart from the primary agricultural products noted above, there is a large output of Alfa or esparto grass from some 3 million acres of semi-desert land. This production reaches a maximum of about 150,000 tons in years when the cereal crops are poor and farm labourers are obliged to look for other means of subsistence; but even under normal conditions the crop never falls below 100,000 tons. A new and cheap method of extracting the cellulose fibre from this grass has been tried in Tunisia, and it is possible that some attempt may be made to produce paper within the country.

There are approximately 2½ million acres of woods and forests, the principal growths being cork oak, evergreen oak, Aleppo pine and Thuya. None of these woods make satisfactory lumber, but some use is made of them for railway sleepers, pit-props and telephone poles. Tannin is extracted from some of the oaks, large quantities of charcoal are produced, and finally, although Tunisia is less important than either Morocco or Algeria in the production of cork, nevertheless some 5,000 tons per annum are produced.

While discussing acreages of forests and alfa growth, it may be of interest to cite other acreage figures. Of the total area of the country (48,500 square miles, or 31,150,000 acres), 22,500,000 acres are considered "productive", but of this only 7,400,000 acres are arable. In addition there are 250,000 acres of meadow land, 1 million acres of orchards and vineyards, and over 11 million acres of "common" land - mostly natural grazing grounds belonging to the various native tribes.

Derivative Industries.

Tunisia is less developed than either Algeria or Morocco in the industries depending on agricultural production for their raw material. Flour-milling is the only food processing industry with excess capacity permitting of exports. The canning industry is very backward, and capacity is a mere 300 tons per annum. The native leather trades are fairly active, but output is of far lower quality than that of Morocco.

The Bank of Tunisia is taking a very keen interest in the extension of cold storage and processing facilities, and is supplying financial assistance in the hope that rapid development may take place. They are also trying to establish an oil-refining industry which will permit Tunisia to export higher grades of olive oil. Up to the present, the primitive refining methods in existence have permitted only of the export of industrial grades, while large quantities of unrefined oil were generally shipped to Italy where they were refined and canned or bottled for export under Italian trade marks. Both these subjects will be discussed in greater detail in Chapter Five.

Administrative Controls.

The method of controlling imports of agricultural machinery is similar to that in existence in Algeria and Morocco. Remarks on this subject will therefore not be repeated here. There is some evidence, however, that controls are more centralized in Tunisia than elsewhere, and that the trade bodies are subject to greater administrative control. This would permit the hope that Canadian agricultural machinery could enter the market with far less resistance from the vested interests of the trade were such machines found to be more readily available than those from competing areas.

CHAPTER THREETUNISIAN MINES, INDUSTRY, POWER, COMMUNICATIONS

In Tunisia more than in any other part of North Africa, the products of the sub-soil have taken a prominent position in export trade. Although the mines of Tunisia are no more important than those of Morocco and Algeria, the small population and the consequently smaller production of agricultural goods gives the products of the mines a relatively greater place in the country's economy.

The two most important minerals are without question phosphates and iron ore. The output of both these minerals has suffered very greatly because of the war, since much of the heaviest fighting occurred in the mountainous regions where the mines are situated. The high quality of Tunisian iron ores assures a quick "come-back" to this basic trade, but the same does not appear to be true in the case of phosphates. Indeed, during the intervening years, Morocco has steadily expanded her productive capacity, and since her phosphate rock is at once of a higher quality and cheaper in price, there is no very pressing long-term incentive to re-equip the Tunisian mines for competitive exploitation. It seems more than probable, therefore, that production during the next few years of world shortage, will be kept as high as is possible without extensive capital investment for new equipment, and that thereafter only the most economical units will be kept in production.

Another fact which militates against any great advance in the Tunisian mining industry is the fact that it is the best prospected area in the French Empire. Knowledge of extensive Roman, Carthaginian and even earlier mining developments encouraged prospecting when the country was first opened up to French enterprise in 1881, and since then the country has been thoroughly combed for existing and potential mining deposits. Exploitation was slow at first due to the absence of railways, but by 1910 production was well under way, and continued at high levels until 1940. The aggregate tonnage of mineral production from 1892 to 1938 was as follows:

	<u>Metric Tons</u>
Lead ore	1,089,000
Zinc ore	763,000
Iron ore	17,735,000
Phosphates	60,321,000
Manganese ore	26,000
Copper	5,000
Lignite	176,000
Salt	6,000,000

Phosphates

Before 1940 Tunisia was the world's leading exporter of phosphate rock, although in production it ranked third after the United States and the USSR. The phosphate deposits are a continuation of the formation which extends across North Africa from Morocco to the Middle East, and it is only in the nature of the outcroppings, proximity to the sea, and ease of exploitation that Tunisian production was so greatly favoured for many years. First production of 70,000 tons took place in 1899, but after that output increased rapidly until the 2 million ton-per-annum figure was exceeded in 1912. It declined somewhat during the great war, but by 1927 it had reached 3 million tons. From then on production gradually decreased to between $1\frac{1}{2}$ and 2 million tons per annum. Since the invasion of North Africa in November 1942, production practically ceased until 1945 when it started picking up because of the extreme world shortage.

The TCP content (tricalcium phosphate) of Tunisian rock ranges between 58-66%, whereas Moroccan phosphates generally run higher than 71%. There is some possibility, however, that Tunisia may develop an economical method of concentrating the TCP content in order to make it competitive with the Moroccan output.

The principal market for Tunisian phosphates in 1938 were the United Kingdom (242,859 tons), France (527,509 tons), Italy (about 300,000 tons), Netherlands Belgium, Spain, Egypt, Libya. The total of exports during that year was 1,591,276 tons.

Unlike Morocco, where the phosphate mines are owned by a government corporation, and Algeria, where practically all the phosphates are produced by one private company, there are several producers in Tunisia. The most important of these exploiting companies is the Cie des Phosphates et du Chemin de Fer de Gafsa. Since the Gafsa deposits have been exploited since 1899 by this company, their output has been enormous, totalling 42 million tons to the end of 1938. 1937 production from the 3 mines owned by this group was 1,190,910 tons, or approximately two-thirds of total Tunisian output.

Fairly close to Gafsa, which is the major centre of exploitation mentioned above, the Cie Tunisienne des Phosphates du Djebel Indilla had a productive capacity of about 300,000 tons in 1937. The Ste des Phosphates Tunisienne has two deposits which, up to 1937, had produced 9,400,000 tons of which production in the latter year was 213,000 tons.

The French chemical and glass firm of St. Gobain has a deposit which produced 57,450 tons in 1937. The main Algerian producer, the Ste des Phosphates de Constantine, also has a mine in Tunisia which produced 21,000 tons in 1937.

Finally, an English-owned group, the Cie des Phosphates du Dis, exploited a mine from 1906 to 1931 and produced 2,460,000

tons during that period. Although the mine has been closed since that time, it still has rich veins 6 to 10 feet thick, and it may reopen again in the future.

1944 is the last year for which production statistics are available. In that year Tunisian production was 522,245 tons, against Moroccan production for the same period of 1,444,902 tons reversing entirely the pre-war situation. Capacity during the same year was estimated at 1,280,000 tons for Tunisia, as against pre-war capacity of well over 2 million tons, while Moroccan capacity had gone up to 2,480,000 tons, and Algerian capacity had remained stable at 540,000 tons. Here again the reversal in productive capacity may be directly attributed to war damage, but the effects of this changed situation may be expected to be of long duration.

Although Tunisian production had returned to reasonable levels in 1944, exports were practically non-existent, amounting to a mere 24,000 tons against 1,446,000 tons for Morocco and 192,000 tons for Algeria. To a large degree, this lack of movement was due to destruction in the ports of Sfax and La Boulette. Both these ports will be in a position to resume normal operations throughout 1946, and it is presumed that normal export movement will be possible.

Iron Ore

Due to lack of transport facilities, the mining of iron ore on an exportable scale was slow in getting started and it was not until 1913 that both known ore fields were served with economic means of transport. There are four principal deposits, which produced a total of 943,760 tons in 1937 and 821,630 tons in 1938. By 1944, due to war damage, total production had gone down to 88,863 tons but a good quantity of mine machinery ordered under the Military requirements programme was being installed, and exports were expected to increase through 1945 and 1946. The known reserves of Tunisia, at 20,000,000 tons, are far less than those of the adjoining areas of Algeria, where 135 million tons of reserves have been plotted out.

It is possible that productive capacity in Tunisia has now reached 600,000 tons, or approximately one-third of the Algerian production and two-thirds of pre-war capacity.

The principal mining concerned is the Ste des Mines de Djebel Djerissa, which produced 717,978 tons in 1937 by open-cast methods. Its ore is low in phosphorous and sulphur, has a 55% iron content and from 2 to 3% manganese.

Other exploiting companies are:

Ste des Mines de Fer de Djebel Slata et Djebel Hamcima (Belgian), with production of 57,150 tons in 1937.

Sté des Mines de Fer de Donaria, with 1937 production of 108,693 tons of haematite, 55% iron, 6 to 7.5% silica, 0.6% arsenic and 0.3% phosphorus

Sté des Mines de Tamera, 1937 production 35,854 tons. Arsenic content rather high.

Sté des Houilles et Agglomerés, 1937 production 22,347 tons.

Lead and Zinc

Development of lead and zinc mines was rapid, since the higher value of the ores counterbalanced the early lack of transport. By 1913 59500 tons of lead ore and 37,400 tons of zinc ore were being mined, but the total for that year was the highest on record and has never since been attained. The depression, and consequent low prices for lead and zinc caused an almost complete shut-down in 1933, but from then until the beginning of the second World War conditions gradually improved with a maximum of 28,800 tons of lead ore and 1,414 tons of zinc ore were mined in 1938. The war affected production of these as of other minerals, but nevertheless by 1944 output had recovered somewhat and 10,003 tons of lead ore, 1,570 tons of zinc ore, were produced.

The principal exploiting companies are the following:

Sté Anonyme Francaise du Djebel Hallouf, which produced about 4,000 tons of lead in 1937, and whose present productive capacity is stated to be 7,200 tons per annum.

Sté Anonyme d'Exploitation Miniere en Tunisie, whose productive capacity is estimated at 4,000 tons per year.

Sté Anonyme du Djebel Touil, capable of producing some 3,000 tons of zinc ores per year.

Tunisia is the only country in North Africa which reduces lead ores, and three smelters are in operation, treating not only Tunisian ores, but some of the output from both Morocco and Algeria. Occasional ores from Jugoslavia and France are smelted here as well. Total output of metallic lead products in 1937 was 24,816 tons, in 1938 23,790 tons, and it is not believed that productive capacity has greatly decreased due to the war, although production figures are not available.

Other Minerals

Among other mineral products being produced in Tunisia are the following:

Fluorspar: 200 tons per month of 97% calcium fluoride. Produced by Sté Miniere Nord-Africain

Strontium Sulphate and Carbonate: Sulphates are 97-98%. Production about 300 tons per month.

Mercury: 1938 production of 10 tons of ore up to 6.7% mercury content. Silver, Manganese, copper, bromine are all found in varying quantities.

Salt: General production up to 150,000 tons annually.

Lignite: Production has gone up to 67,000 tons in 1944 due to the shortage of imported coal. Normal imports of coal are 250,000 tons per annum.

Industry

Apart from mining, industry is of no great importance in Tunisia, and is mainly concerned with food processing and native artisanal trades. Among the reasons for this are lack of capital, poor sources of power and a labour pool lacking in essential skills.

The following are the main industries of Tunisia:

Flour Milling: There are about 15 commercial mills, and innumerable native mills providing for local needs. The commercial mills have a surplus capacity which occasionally furnishes export supplies of up to 15,000 tons per annum. There are also large grain elevators, one having a capacity of 2,000,000 bushels.

Alimentary Pastes: There are some 60 small factories, providing for domestic consumption and for an exportable surplus of about 10,000 tons.

The Fishing Industry is of growing importance and although pre-war production was not much greater than 10,000 tons per annum, it is realized that the Gulf of Tunis abounds in a wide variety of fish, which would form the basis of a much larger industry.

Sponge Fishing is an industry peculiar to this part of the Mediterranean and Tunisia produced some 125 tons in 1938.

The Canning Industry was mostly dependent on fishing prior to the war, it is now realized that its extension would aid in the orderly marketing of agricultural produce, and progress may be expected in the future.

There are a few refrigerator and cold storage plants but this subject will be discussed more fully in Chapter Five. Other products of industry are soap, cork, tobacco beer and distilled spirits, cement (69,000 tons in 1939). There are small repair shops and marine engineering works which have been extended due to war

requirements, and which may form the basis for an expanded mechanical industry in the coming years. There is also one super-phosphate plant which before the war produced 44,000 tons in 1938.

The native industries are mostly concerned with working up wool, leather and brass and copper ware, although some silk and cotton weaving is carried on, and basketware, perfumes, furniture, pottery and jewellery are also produced.

POWER

Tunisia is more poorly endowed with sources of power than any other part of French North Africa. Normal imports of coal before the war amounted to nearly 250,000 tons. The only Tunisian thermal equivalent is lignite of which 67,000 tons were extracted in 1944. Oil imports were about 14 million gallons before the war, and post-war requirements will no doubt exceed this figure.

Electric power development has been very backward, and hydro-electric sources are practically non-existent, as the larger rivers meander through wide valleys with little change of level. The only power plants therefore are thermal plants, near the ports of entry of imported coal. La Boulette has the most important power plant in the country with an installed capacity of 34,800 K W, or over 80% of the total capacity of the country. Other small plants are located in Sfax, Bizerta, Sousse.

COMMUNICATIONS

There are about 3,730 miles of roads in Tunisia, of which about 900 miles are of asphalt or concrete construction. In addition, there are some 8,700 miles of light roads and 3,700 miles of tracks. The road network is sufficient for the economic needs of the country, and the main roads are well constructed and can withstand heavy traffic. There is a coastal road from Algeria, and a second road passing through Tebessa in Central Tunisia. Other roads radiate from the main ports of Tunis, Sousse, Sfax and Gabes, all the ports being also joined by a coastal road running to the Libyan frontier. Quite a number of bridges were destroyed during the war, but in most cases temporary bridges have been erected.

Railway mileage in Tunisia amounts to 1369 miles. Of this mileage, only 315 miles is standard gauge, owned by the government and operated by the Ste Ferriere des chemins de fer Tunisiens. The main line from Tunis links with the Algerian railways at the frontier town of Ghardinaou. Subsidiary lines running north of this line are also standard gauge, and serve the ports of Bizerta and Tabarka.

Narrow gauge lines (1 metre or 3 ft. 3-3/8 in.) have a total mileage of 1054 miles, and are divided into two systems; the first and more extensive is owned and operated as above, and

serves the area from Tunis south to Sfax and inland from these two ports. The second system with 290 miles of track, is owned by the Cie des Phosphates et du Chemin de Fer de Gafsa, and was built primarily for the purpose of transporting phosphates from the mines to the port of Sfax and the secondary port of Gabes.

CHAPTER FOUR.

PRE-WAR FOREIGN TRADE.

The pattern of Tunisian foreign trade is slightly different from that of the remainder of North Africa, and this difference has and will continue to have a substantial influence on the volume of trade possible with Canada and other North American countries.

The very geographical position of Tunisia makes it more consciously Mediterranean than Algeria. It is close to Italy, and has a large number of Italian settlers. Consequently, it is comprehensible that her trading relations with Italy should be very intimate, and that in the long run most of her industrial requirements should be furnished by Italy when they are unavailable in France. This has not been so obvious in recent years, when much reconstruction material has come from America either in the form of lend-lease or as part of the French programme of dollar imports. However, once Italian industries have been reconstructed and industrial goods are available for export, it seems inescapable that a large share of Tunisian requirements will come from that country. This is all the more inevitable when it is considered that Tunisia is one of Italy's chief suppliers of olive oil, and that it depends on this trade for a large part of its foreign currency revenue.

For these various reasons, Tunisia has been treated throughout this report as a very much less important market than either Morocco or Algeria; this more cursory treatment will be continued in the present section.

Export Trade.

It will be remembered that in the case of Morocco, phosphates are the chief export; in the case of Algeria, wine takes first place. The Tunisian economy is based on a somewhat more typical product: olive oil, which in some years accounts for one-quarter of the total value of exports. Despite the preponderance of this item, however, the exports of Tunisia are perhaps more versatile than those of either of its neighbours. To some extent, this is due to the fact that Tunisia stretches from North to South along the sea, with the result that its desert and tropical production are more readily available for export than are those of Algeria and Tunisia. Thus, although wheat and wine are the second most important exports, dates and figs are beginning to show great promise as export commodities, and a considerable amount of development work is taking place in an effort to condition and market these products under the most favourable conditions. Similarly alfa, which is common to all the desert areas, figures in a higher proportion as an export commodity than it does in either of its neighbouring territories.

Phosphates and iron ore were both exported in large quantities before the war. Although much equipment was damaged during the war, the iron mines were quickly reconstructed in order to serve British requirements: the phosphates mines, however, are making a slower recovery, and it is doubtful if Tunisian phosphates will ever return to their pre-eminent position because of the keen competition of the cheaper and higher quality Moroccan rock.

The following table gives the tonnage exports from Tunisia in 1937 and 1938 in the order of their value in 1938 together with the percentages of exports going to various markets.

Exports from Tunisia, 1937 and 1938.
(In metric tons unless otherwise indicated)

<u>Commodity</u>	<u>1937</u>	<u>1938</u>	<u>Destinations %</u>
Olive Oil	16,536	35,193	Fr.43, Italy 37, US 13
Wine (hectolitres)	969,038	1,118,865	Fr.99
Wheat	68,361	82,200	Fr.75, Algeria 25
Phosphates	1,927,792	1,591,276	Fr.30, Italy 30, UK 15, Spain 9
Iron Ore	974,458	802,542	UK 55, Germ. 20
Wheat Flour, groats, etc.	14,227	24,129	Fr.90, Algeria 5
Lead	28,530	26,780	Fr.90, Belg. 10
Alfa	127,035	129,409	UK 99.
Hides & Skins	3,025	2,709	Fr.68, Den.10, Italy 10
Fruit, Fresh, dried, canned	16,673	10,713	Fr.83, Alg.8, Egypt 6
Wine residues	2,252	5,287	US 66, Fr.17
Vegetables	15,730	15,795	Fr.66, Algeria 22, Malta 7
Barley	34,037	12,942	Fr.47, Algeria 50
Oats	11,761	7,937	Fr.70, Algeria 30.
Wool	3,642	904	Fr.66, Libya 30.
Live Animals (Number)	174,000	101,000	Libya 80, Fr.15, Alg. Malta
Fish	1,277	780	Fr.40, Italy 20, Malta 10
Cork	6,336	5,817	Alg. 75 US 20
Goat and Camel Hair	564	490	UK 50, USA 27
Salt	145,793	93,552	Fr.25, Norway 25, USA 11
Meat	853	80	Fr. 98
Briar Roots	192	186	Fr.97
Zinc Ore	3,990	1,045	Belg. 100

Import Trade.

Although Tunisia is a protectorate as is Morocco, it has not been subjected to international agreements respecting freedom of trade, with the consequence that France has been able to benefit from preferential rates of duty. From 1928, indeed, there has been a virtual customs union, imports and exports between the two countries and Algeria being free of duty on a

long list of commodities. There are nevertheless customs inspections which affect even the goods coming from France, and the war has modified the previous system in many respects, traces of which may subsist after the war. Differences in living standards, cost of living, availability of products, etc. have resulted in price-fixing on different levels in the different territories. Therefore, although customs duties are in suspense, the various governments have been obliged to levy the difference between the import price and the fixed-selling price on many commodities. This is virtually the same as the application of sliding-scale duties, and it is quite probable that from a revenue point of view, some of these levies may continue. (An example: Tunisia is generally a surplus area for olive oil, while Algeria is not. Before the war, there was freedom of movement between the two areas. Under the controlled war economies, however, Tunisian prices were fixed far lower than those in Algeria. The result is that Algeria has to levy a very high equalization tax on imports from Tunisia in order to maintain the internal level of prices).

Because of the favourable treatment accorded French merchandise, most pre-war imports came from France. The rapid recovery of Italian industry, however, suggests that Tunisia will be obliged to import a good part of its industrial requirements from that country, and this may lead to an insistence that the post-war tariff structure should be modified. One way or another, it appears that either France or Italy should be the main beneficiaries of trade with Tunisia, thereby reducing the importance of the territory from the point of view of Canada.

Cotton piece goods were the largest single item of import trade in the pre-war years, nearly all requirements coming from France. Machinery was the second most important category, and here the United States had 20% of the trade and the United Kingdom 5%. In motor vehicles France had 90% of the market. Other metal goods, sugar, rice, coal, petrol, and tea were the other major imports into the area.

The following table gives tonnage imports in 1937 and 1938, listed in the order of their values in 1938.

Imports into Tunisia in 1937 and 1938.
(In metric tons unless otherwise indicated).

<u>Commodity</u>	<u>1937</u>	<u>1938</u>	<u>Sources %</u>
Cotton textiles	4,435	4,922	Fr. 93
Machinery	7,334	7,969	Fr. 70, US 20, UK 5.
Other Metal Goods	15,970	18,293	Fr. 88, Germ. 7
Cars and chassis	2,597	3,521	Fr. 90, US 8.
Rice	31,989	53,435	Indo-China 51, NEI 20.
Sugar	36,595	35,259	Fr. 99.

<u>Commodity</u>	<u>1937</u>	<u>1938</u>	<u>Sources %.</u>
Coal	213,402	238,033	UK80, Germ.8, Fr. 6
Gasoline (hecto- litres)	386,077	925,419	Roumania 92, Iran 3
Iron and Steel, Other	25,933	27,106	Fr. 90
Tea	1,789	2,093	India 60, China 35
Other Petroleum Products	40,433	42,970	Roum. 60, US 28, Mexico 10.
Timber	51,040	56,135	Fr. 60, Jugoslavia 25
Yarns	2,467	2,448	Fr. 93
Perfumery & soap	4,315	4,714	Fr. 94
Paper	8,476	5,166	Fr. 51, Norway 20.
Clothing	747	660	Fr. 70, Algeria 15.
Jute Goods	4,747	3,282	Fr. 40, Fr. Colonies 15.
Rayon Textiles	235	260	Fr. 90, Japan 5.
Cheese	1,207	1,226	Fr. 40, Neth. 25, Argentina 18.
Tobacco	1,119	1,720	US.35, Bulgaria 10
Corn	10,907	9,837	Fr. Colonies 52.
Butter	740	1,736	Neth. 40, Den.20, Argent. 20.
Fruit	9,015	6,156	Fr. 16, Algeria 16, Egypt 14, Italy 13.
Meat	760	725	Fr. 60, Brazil 25
Live Animals, (Number)	11,600	83,309	Algeria 60, Fr. 40.
Pharmaceuticals	410	494	Fr. 98
Coffee	1,448	1,553	Brazil 96
Barley	1,621	5,686	Algeria 99.
Woollen Textiles	115	112	Fr. 80, Algeria 9.
Vegetable Oils	2,469	1,832	Fr. 40, Fr. Colonies 35.
Cement	40,020	21,113	Fr. 90
Fertilizers	6,132	8,774	Fr. 52, Algeria 48
Wheat	15,266	393	Algeria 100.

Balance of Trade

The trade of Tunisia is generally deficitary. Latest total trade figures available for pre-war years are for 1937, as follows:

Tunisian Trade by Countries, 1937.
(In thousands of francs)

	<u>Imports from</u>	<u>Exports to</u>
France	793,398	653,323
United Kingdom	45,586	156,321
Italy	40,820	105,570
Algeria	66,286	55,809
United States	53,399	28,675
Roumania	46,208	8,000
British Empire	36,795	3,325
Belgium	17,407	12,207
Germany	21,688	7,793
Netherlands & Colonies	2,879	25,408
Libya	1,735	24,112
Spain	3,814	9,050
French Colonies	2,841	1,303
Other Countries	191,456	49,980
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TOTAL	1,324,312	1,140,876
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CHAPTER FIVE

COMMERCIAL OPPORTUNITIES FOR CANADA

As was done in the reports on Algeria and Morocco, this section will be treated under the following sub-headings:

- (a) Short term opportunities
- (b) Long term opportunities
- (c) Imports into Canada from Tunisia
- (d) Representation of private firms
- (e) Government representation
- (f) Direct shipping.

Short Term Opportunities

Tunisia suffered more war damage than any other part of French North Africa and as a result the immediate reconstruction programme is more acute here than elsewhere. This is reflected in a 1946 import programme which is disproportionately large for Tunisia, having regard to its comparative population and economic development. Such imports are to a substantial degree "non-recurring" items, and must be considered apart from the long-term demand which is of more significance to Canada.

Nevertheless, the short-term requirements should not be completely neglected, as in many cases they will lead to repeat business, acknowledgement of the reputability of the imported goods, and a large measure of good-will towards the supplying countries.

Appendix "A" to this report lists the various items in the import programme which may be of interest to Canada, and not all of them will be repeated here. There are, however, some items of particular significance as far as Canada is concerned, and some comment is in order.

The food items, being under Combined Food Board allocation, cannot be imported direct, but an examination of requirements may give some indication as to future prospects in those lines. There are, for instance, 3000 tons of various milk products, including powdered, evaporated, and condensed sweetened milk, 500 tons of frozen or canned meat, 1250 tons of malt, and 3000 tons of seed potatoes, all appear to be recurring items for which long-term markets may be available. The same is true of vegetable seeds of which 30 tons are required and of radish seed of which 32.5 tons have been programmed.

It will be noted also that 480 tons of truck tires, 34 tons of tubes and 8 tons of bicycle tires are programmed for import from other sources than France.

In lumber items, some 12,000 tons of telephone posts and pit props are sought, as well as 7,500 tons of railway ties. While the normal source of supply of these commodities is either Portugal or Jugoslavia, the total withdrawal of Jugoslavia from world markets places too great a strain on Portuguese resources, and it is doubtful whether the Mediterranean basin can long abstain from placing orders for these products in North America or Scandinavian countries. Other lumber requirements are equally heavy, the demand for planks and boards amounting to 26,500 tons, that for oak staves 300 tons, that for Douglas fir timber to 120 tons and for plywood to 20 tons. Additionally, among wood products there is a demand for 1000 tons of newsprint.

The iron and steel items are very important, but in view of the Canadian shortage of these commodities no special comment is required with respect to the demand for the remainder of 1946.

In electrical equipment and machinery, however, there are several items which may be of interest. 455 tons of turbo-generators are required; in order to reduce its dependence on imported coal, Tunisia is contemplating the extensive use of diesel locomotives, and 2180 tons of these are listed for 1946. There are 50 tons of other diesel engines, 100 tons of power shovels, and 1860 tons of cranes, mostly electrically powered. 2,000 tons of railway cars, 710 tons of trucks and busses, 1315 tons of trailers, and 100 tons of passenger cars are also required from sources other than France. 60 tons of flour-milling machinery, 75 tons of ice-making machinery, 50 tons of air compressors, and 2,300 tons of mining and other machinery complete the list for other than agricultural supplies.

As in the whole of North Africa, Tunisia is attempting to re-establish its farm machinery position on an economic basis, and considerable imports are anticipated. Planned totals are as follows: plows, 500 tons; harrows 50 tons; cultivators 100 tons; seeders, fertilizers, spreaders, etc. 20 tons; reaper threshers 326 tons; feed presses 70 tons; and parts for agricultural machinery, 100 tons. This equipment is in a different category than most reconstruction requirements, since agricultural implements and machinery distributed now will form the basis for a future demand, not only for original equipment of a similar kind, but for replacement parts for many years to come.

Few other items are of interest to Canada with the possible exception of some of the chemicals required. Among these the most important is for 415 tons of ammonium nitrate.

Long-Term Requirements

While pre-war trade gives some indication regarding items which may be imported into Tunisia in the future, it is of greater utility to examine future trade possibilities from the point of view of the demand based on future economic policy.

Economic plans with respect to Tunisia have already been discussed in general terms in the course of this report. Broadly speaking, they concern transport facilities, equipment of mines, development of ports, extension of cold storage facilities, and increased mechanization of agriculture.

Although a considerable amount of railway equipment has been included in the 1946 programme, the world iron and steel situation suggests that re-equipment will have to be on a long term rather than an immediate basis. In any case, 1946 demand was only for the immediately essential items, and there seems no doubt that large quantities of rolling stock, locomotives, rails, railroad ties and other equipment will have to be imported during the coming years.

In addition, important financial interests are known to be interested in developing a railway running into the interior from the port of Gabes in the far south. It is considered that this projected railway would be more economical than the present link in bringing phosphates and other mineral and natural products onto world markets.

Port development in itself will be an important reconstruction problem. Unlike ports in Algeria and Morocco, the Tunisian ports were seriously damaged during the war, and although they are no longer crippled, they require vast amounts of material to bring them to their highest point of efficiency. If, in addition to this, a port such as Gabes were to be raised from its present secondary position, there would be opportunities for the sale of larger quantities of port equipment.

New roads will also have to be constructed, and road-building machinery is required not only for these new projects but also for the re-surfacing of war-torn roads throughout the country. Similarly, water-control projects involving the erection of dams will require machinery of the same type.

Although electrical developments can be by no means as grandiose as those projected for Morocco and Algeria, here too some activity will be necessary since further electrification will be urgently required to implement some of the other plans outlined below.

One of the most important plans is that relating to the setting up of cold storage facilities. Here, unlike the situation in Morocco where private interests are working on the question, and in Algeria where the government is formulating the plans, the whole scheme is being developed under the financial auspices of only one

organization, the Bank of Tunisia. The plans are similar, however, to those in other areas, and include cold storage facilities in centres of production, isothermic transport facilities such as refrigerator cars and trucks, cold storage docks at the ports, refrigerator ships, and all the other facilities which logically go with such a plan; canning plants, meat packing establishments, grading and inspecting facilities, etc.

In connection with these projects there are two special problems which are specifically Tunisian. The territory is normally a surplus area for olive oil, but in the past much of the exportable oil was shipped to Italy where it was refined and re-exported in tins or bottles for the food trades. Tunisia now hopes to establish its own refining industry and export olive oil to world markets under its own trade names. For this purpose, it will require refining facilities, packing materials, cans, lithographing and printing machinery, etc.

The second of these special problems is the conditioning of dates. Tunisia is one of the important world sources of dates, but before the war most of these were sent to Marseilles as picked, and were conditioned and packed for the retail trades in that port. Tunisia intends to undertake these functions herself, and for this purpose will require conditioning plants (dates are generally treated with steam to clean and separate them, and give them a glossy surface) and large quantities of packing materials, including converted paper products.

Both the phosphates and iron mines were badly damaged during the war, but it is not probable that much of the mining machinery required could be supplied by Canada. In the first place, there seems little likelihood that the phosphate mines will be re-equipped to anything like their pre-war productive capacity because of the great strides made by Morocco, and the consequent difficulty of competing on a price or quality basis. Secondly, since the iron mines are under contract to ship their ores to Great Britain, that country is keenly interested in supplying the necessary mine machinery, and this is now being done under fairly long-term plans which will give the British suppliers a virtual monopoly in this direction.

The final long-term plan concerns the mechanization of agriculture. In this regard, an outline of 1946 requirements has already been given. This short-term requirement will form the basis of a continuing demand, and, as in all North Africa, whoever can supply the immediate necessities will have an excellent opportunity to retain an important share of the market through the coming years. The demand is mainly for reaper-threshers or combines, disc plows and harrows, seeders and tractors. Tracked tractors are preferred throughout North Africa.

In addition to the demand based on economic policy within the country, normal consumption demand will require the importation of considerable quantities of domestic electric appliances, motor

vehicles, textiles, rubber goods, and certain food products such as canned and frozen meats and dairy products, in both of which Tunisia is normally deficient.

In lumber and paper products, there is some hope that Canada might share with the Scandinavian countries an accrued demand due to the probable withdrawal from world markets of Jugoslavia and Czechoslovakia, both large suppliers of the Mediterranean basin before the war.

In iron and steel products, including machinery, Tunisia was formerly dependent on France to the extent of about 80% of its requirements, on the United States for about 15%, and on Germany and the United Kingdom for the remainder. France may not be able to supply its accustomed share for some years to come, and with Germany off the market, there is some possibility that Canada could obtain a small part of the normal market, as opposed to that part required for the implementation of economic policy as outlined above.

Imports into Canada from Tunisia

A glance at pre-war export figures shows that the main Tunisian export was olive oil. If the oil is refined and packed in containers suitable for retail trade, the value of this export will greatly increase and Tunisia will be in search of world markets. This is one product, therefore, which it is well to keep in mind in connection with Tunisian exports.

There do not appear to be many other products which Tunisia could offer Canada, with the possible exception of dates, which would have to be conditioned and packed for retailing. The fishing industry, however, may provide canned sardines and tuna fish, in addition to sponges which are an important Tunisian product. Other products which might find an outlet are vegetable fibre, herbs for pharmaceutical purposes, cork, olives, sausage casings, sheep skins, salt, goat and camel hair, briar roots, fluor spar, strontium sulphate and carbonate and bromine.

Representation of Private Firms

The writer was in Tunisia too short a time to be able to gain an appreciation of the different importing firms in the country. He was advised that, due to the mixed population, business ethics were lower than in the remainder of North Africa, and that it was unwise to deal with any firm without obtaining references from a variety of sources. The Banque de Tunisie, in Tunis, is one such source.

A standing arrangement was made, however, with M. Charles Lemann, Directeur, Office du Commerce Exterieur de la Tunisie (Cable address - OCET), Hotel Claridge, Tunis, whereby M. Lemann is prepared to receive requests for representation from Canadian firms, and submit them to those firms which he considers the most suitable. This

arrangement should prove satisfactory to all firms who desire to quote on items considered essential to the economy of the country. For less essential consumer items, there is not likely to be any foreign exchange available for 2 or 3 years, and arrangements may be made at leisure, after consulting the various references given by the soliciting firm in Tunisia. Generally speaking, it is not wise to be represented throughout North Africa by only one firm. There should be a representative in Algeria and one in Morocco. If necessary, the Algerian representative may also handle the Tunisian market, both because the latter is of secondary importance, and because the economic ties between the two cities are closer than they are with Morocco.

Government Representation

Because of its relatively small population and its relatively close ties with France, it does not appear that Tunisia could ever be an important market for more than a few specialized commodities. The area, therefore, could be covered by a Canadian government representative in either Algiers or Casablanca, and in consequence the presence of a representative in Tunisia itself does not appear to be justified.

Direct Shipping

Tunisia is the most easterly African port which could economically be served by a line going no further than the Western Mediterranean. Since such a line is already in existence, there seems no reason why it should not call at Bigerta or La Boulette as traffic may require.

The only manner in which the government may be of assistance with respect to such a line is in finding a market for such return freight as may be acquired in the country. In the case of Tunisia, this is not as pressing a problem as it is for Morocco, since a ship calling in a Tunisian port will be midway in its Mediterranean run and will not yet be in a position to take on ballast freight. If such were necessary, the two Tunisian products available are iron ore and salt, and these two commodities should be kept in mind if at some future date ballast requirements from the Central Mediterranean require further study.

Conclusion

Although the study above is more restricted in scope than those of Algeria and Morocco, it is considered that sufficient material has been assembled to permit a general view of trading possibilities in the area. While the future does not hold out as much hope as that of Morocco, or even of Algeria, the market is by no means negligible, and it is felt that the present basic review should be followed up at regular intervals until such time as a Canadian representative is established in North Africa.

APPENDICES

A

APPENDIX "A"IMPORT PROGRAMME FOR NORTH AFRICA 1946

IMPORT PROGRAMME FOR NORTH AFRICA.
1946

The tables given below are merely excerpts from the complete programme, which should be obtainable from the French Supply Council in Canada for consultation.

The synopsis given below is made up chiefly of imports payable in U.S. currency which appeared to be of interest to Canadian producers. In some few cases imports payable in sterling or in neutral currencies have also been listed, if there appeared to be a possibility that other countries would be unable to furnish, and that U.S. currency might ultimately have to be used in payment. All figures are in metric tons.

Schedule B		PROGRAMMED IMPORTS 1946 INTO:		
Number	Description	ALGERIA	MOROCCO	TUNISIA
0020.00	Meat frozen or pres.	2000	400	500
0039.00	Milk, condensed sweet	3000	3847	850
0061.00	Milk, evap, not sweet	7000	-	1833
0063.00	Milk, powdered	850	65	290
0942.05	Casein glue (in £)	71	-	20
0999.05	Industr Casein (in £)	6	20	-
1013.00	Malt	4200	2000	1250
1031.00	Cereals	535000	530000	135000
1201.10	Pulses	17547	7150	15000
1211.00	Seed potatoes (in £)	5600	4000	3000
1449.98	Vegetable fats	27	400	-
2014.00	Solvents	3	-	-
2060.00	Truck tires	1674	1000	480
2063.00	Truck tubes	186	90	34
2064.00	Tires bicycle etc.	109	85.5	8
2401.00	Lucerne grass seed	5.6	-	-
2468.90	Radish seed	19.7	-	-
2468.90	Vegetable seeds	20	-	32.5
2813.00	Starches	110	-	30
3681.00	Women's clothing (in £)	70	-	-
3990.00	Men's clothing	834	1000	5
4034.00	Telephone posts (in Neut)	4000	5218	(12000
4039.00	Pit Props (in Neutral)	2000	30000	(

SCHEDULE B NUMBER	DESCRIPTION	PROGRAMMED IMPORTS 1946 INTO:		
		ALGERIA	MOROCCO	TUNISIA
4039.00	Crossings or ties (Neut)	1000	-	7500
4060.63	Douglas fir timber	470	-	120
4130.00	Planks and boards	3100	105	26500
4116.00	Sawn lumber (Neutral)	22787	-	-
4201.10	Oak staves (Neutral)	9000	450	390
4214.03	Plywood	210	1202	20
4288.00	Tool handles	8	-	-
4711.00	Newsprint	4118	1894	1000
5451.05	Asbestos fibre (in £)	-	801	-
5722.00	Light magnesia	6	50	-
	Other magnesia	36		
	Cement from France 185000 which may have to be pro- vided from other sources.			
6022.00	Bars for reinf concrete	10280	13856	9319
6023.00	Steel bars	12287	3254	203
6026.00	Alloyed steel	253	-	-
6029.00	Machine wire	8536	700	4648
6031.--	Sheet steel	6603	-	726
6034.10	Galvanized sheets	2631	2200	2507
6036.00	Black iron sheets	232	2905	100
6035.10	Other sheets	5011	-	2690
6045.00	Angles & shapes, A.D.	17132	1580	5717
6051.00	Rails, 60 lbs & over	5038	1235	9272
6052.00	Rails under 60 (in £)	2003	700	1545
6063.00	Pipes and tubes	501	1180	190
6081.00	Steel wire	1214	600	200
6082.00	Galvanized wire	1057	350	200
6085.00	Galvanized screens	502	-	75
6087.10	Steel cable	738	140	151
6091.03	Welding wire	284	25	100
6099.00	Rivets, washers, screws, etc	732	405	609
6121.00	Articles galv. stamped, etc	327	250	-
6126.00	Enamelled ware	96	250	50
6131.00	Metal furniture	50	18.5	-
6144.00	Petrol stoves	48.5	-	-
6412.00	Copper ingots	4200	300	-
6545.00	Nickel ingots	1.5	-	-
7008.00	Turbo-alternators	-	-	455
7045.00	Diesel-electric locomotives	1200	1040	-
7057.00	Domestic elec. refrigerators	55	375	-
7058.00	Elec. refrgrtrs to 1 ton	4.5	-	-
7078.00	Radio receiving tubes	5	8	2
7073-77	Domestic apparatus	-	95	-
7141.00	Diesel locomotives	896	123	2180
7147.00	Diesel engines	79	182	50
7201.00	Power shovels	1010	364	100
7215.00	Cement mixers	210	16	50

SCHEDULE B NUMBER	DESCRIPTION	PROGRAMMED IMPORTS 1946 INTO:		
		ALGERIA	MOROCCO	TUNISIA
7223-26	Levelers & scrapers	215	92	-
7227.00	Bulldozers	15	37	-
7228.00	Roadbuilding machinery	204	65	-
7224-34	Cranes (some in £)	196	62	1860
7311.00	Rock drills	27	36	-
7605.00	Flour-milling machinery	5	64	60
7628.00	Paper machinery	30	400	-
7650.00	Ice-making machinery	30	84	75
7653-54	Refrigerating equipment	55	238	-
7657.00	Air-conditioning equipment	134	24	-
7705-06	Air compressors	289	111	50
7750.98	Mining and other machinery	585	217	2300
7810.00	Plows	611	973	500
7814.00	Harrows, etc.	613	217	50
7818.00	Cultivators	92	259	100
7827.00	Seeders, fertilizer spreaders	90	181	20
7839.00	Other cultivating machines	54	-	-
7849.00	Reaper-threshers	992	524	326
7859.00	Other harvesting machines	150	296	-
7896.00	Feed presses	362	64	70
7899.05	Parts for agric. machinery	455	200	100
7899.98	Other agric. machinery	88	248	-
7902-05	Trucks, busses, etc.	1500	3766	710
7908-09	Passenger cars	275	1950	100
7931.90	Trailers	116	186	1315
7966.00	Railway cars	4000	2048	2000
8020.05	Naphthaline (in £)	180	80	16
8011.00	Toluene "	50	30	-
8012.00	Xylol "	50	1	-
8023.00	Phenic acid "	12	-	4
8024.09	Cresyl "	66	160	60
8060.00	Vanillin "	1.5	-	-
8205.96	Calcium cyanide"	25	30	-
8205.98	Paradichlorobenzene	60	10	20
8258.19	Synthetic resins "	50	4	-
8258.19	Plyvinyl acetate "	10	166	-
8300.00	Acetic acid "	34	30	-
8303.07	Citric acid "	25	30	10
8313.00	Butyl alcohol "	10	10.5	-
8316.00	Acetone "	55	15	10
8317.00	Butyl acetate "	18.5	15	-
8329.98	Hexachlorethane "	20	-	-
8423.00	Carbon Black "	55	40	5
8505.00	Ammonium sulphate"	15000	4000	-

SCHEDULE B NUMBER	DESCRIPTION	PROGRAMMED IMPORTS 1946 INTO:		
		ALGERIA	MOROCCO	TUNISIA
8604.00	Dynamite (in £)	60	55	10
8609.55	Trinitrotoluene "	50	55	-
8609.98	Dinitrotoluene "	22	50	80
-	Ammonium nitrate "	-	-	415
9392.00	Carbon paper	-	3.2	2
9304.00	Pencils	-	4	-
9309.00	Fountain pens	-	0.15	-
9315.00	Metallic pen nibs	-	0.9	-
9699.01	Ruberoid	-	250	-
9824.00	Shaving brushes	-	1	-
9800.00	Matches (in Neutral curr.)	-	-	450



APPENDIX "B"

THE MAIN PORTS OF NORTH AFRICA

THE MAIN PORTS OF NORTH AFRICA

Generally speaking, the Mediterranean Coast of North Africa consists of rocky cliffs which are the seaward extension of the mountains extending throughout the length of the area. The Atlantic Coast, on the other hand, consists largely of sandy beaches equally difficult of access. The number of natural harbours is therefore restricted, but nevertheless a number of good artificial ports have been created, and these are sufficient in number, capacity and equipment to serve the needs of the area.

The nature of the information obtained with respect to the various ports was lacking in consistency, with the result that some ports are described in greater detail than others in the accompanying notes. Only the main ports are discussed. These consist of the ports of Casablanca and Safi in Morocco, the ports of Oran, Algiers and Bone in Algeria, and the ports of Bizerta, La Goulette-Tunis and Sfax in Tunisia.

THE PORTS OF FRENCH MOROCCO

Casablanca

In 1937 Casablanca handled 71.1% of total imports into Morocco and 76.2% of exports. There were in that year a total of 1,922 entries, with a total tonnage of 4,200,000 registered tons. Only 705 of these ships were French. Imports amounted to 654,000 tons, and exports to 1,567,000 tons, of which

1,200,000 tons were phosphates.

There are 10,000 feet of wharfage, with space for 35 to 40 vessels of draughts up to 23 feet. There are also two floating docks, a phosphates wharf, coaling and oiling facilities. There are two 100-ton floating cranes, travelling transporter cranes, lighters, dredges and tugs in sufficient quantity to make for speedy loading and unloading. Port facilities are generally used for loading and discharging cargo. Good rail connections to the remainder of Morocco exist. Moroccans hope that Casablanca may one day become the trans-shipment point for West African ports, small coasting vessels being used, thus relieving ocean-going merchantmen from the necessity of calling in at the many undeveloped ports in the area. With good air communications across Africa, there is also some hope that express shipments may be landed here for forwarding by air. Some consideration is being given to the development of a free port in order to facilitate such transit.

Safi is the next most important port, and has been developed chiefly for the purpose of handling export of phosphates. It is well equipped for this purpose, but is not particularly suited to the distribution of imports, except in the case of mining equipment.

Fedala between Casablanca and Rabat, is the main port for mineral oil, since most storage tanks have been erected here. It also has vegetable oil processing plants.

Other ports used on occasion by ocean-going vessels are Port Lyautey, Mogador and Mazagan. The port of Agadir, in the far south, has not been developed, but if a railway is built inland from this point, it might become of great importance in handling

mineral production.

THE PORTS OF ALGERIA

General

Each of Algeria's ports is cut off from the remainder by the mountains, which reach down to the sea in most areas. These mountains also cut off from each other the three important coastal plains and centres of population. As a result, the ports of Oran, Algeria and Bone are in many respects of equal importance, and when the volume of trade warrants it, calls should be made at all three, since inter-communication for internal distribution is costly.

Algiers

is the main port of Algeria. It lies on a wide bay, well protected from all directions except the North-East. Ships can therefore ride at anchor in most seasons without trouble. The inner port is protected by breakwaters, and can be used even by the largest naval units. Unloading facilities are adequate, cranes up to 100-ton capacity are available on most docks, tugs and lighters are in sufficient numbers. Rail facilities are available on all wharves. There is a large phosphates dock capable of handling 500 tons per hour.

Oran

is almost as important as Algiers as a port for general merchandise. It is the distribution point for the whole of western Algeria, and also the main port for the shipment of wine. The port is well protected, and has adequate facilities for loading and unloading ships of any draught.

Bone

is the main port for the shipment of iron ore and phosphates. Although somewhat damaged by the war, its facilities are sufficient for the limited commerce of the next few years. Loading facilities are excellent; well over 1,000 tons of either iron ores or phosphates can be loaded every hour. Suitable for ships of any size.

Secondary ports are Mostaganem, near Oran, Bougie, between Algiers and Bone, and Philippeville, which is closer to Bone. The latter ships considerable quantities of iron ore, iron pyrites and rock salt.

There are also a considerable number of mineral ports, which are little more than anchorages with electrical conveyor belts extending out to sea on piles, and permitting rapid loading. Chief among such ports are (from West to East), Port Kelah, Mersa Honrin, Beni Saf, Port Breira and Dellys. Most of these ports are used for the shipment of iron ore.

One further port is worthy of mention. Nemours, on the border of Morocco, is being used more and more to serve the Western part of Morocco. Its chief importance is as the centre of the vegetable fibre industry, and as a port for the shipment of alfa, manganese ore, lead and zinc.

THE PORTS OF TUNISIA

Sfax

In point of tonnage, Sfax is the most important port in Tunisia, largely because of the outward movement of phosphates. In 1937, total freight handled through this port was 1,639,877 tons, of which 1,490,225 tons were exports. Most of this tonnage was in phosphates, with considerable quantities of alfa as a secondary product. There are good facilities, including a 1450 foot phosphates dock capable of loading 940 tons per hour. There are a number of 20-ton cranes, tugs, lighters, and bunkering facilities.

Tunis

Tunis by itself is the second largest port, but if it is considered in conjunction with La Goulette, about five miles away, it is a more important port than Sfax. Total freight handled in Tunis

in 1937 was 1,127,472 tons, of which 711,288 tons was outward bound. The La Goulette tonnage was 905,128 tons, of which 905,128 tons were export commodities. Tunis is on the Lake of Tunis, and is reached by a short canal across the neck of land at La Goulette, and thence by a dredged canal across the Lake. Both ports are available to sea-going ships of 21 feet or more, while ships of higher draught can be unloaded by lighter at La Goulette. The latter port handles much of Tunisia's iron ore, while Tunis handles phosphates. There are adequate unloading facilities, but no repair yards.

Sousse

The port of Sousse is the fourth largest in Tunisia, handling 494,000 tons of freight in 1937, of which 447,581 tons were export commodities. Exports consist mainly of Alfa, olive oil, wheat and barley. The harbour is available for ships drawing up to 20 tons.

Bizerta

Although Bizerta is only fifth in merchant tonnage, having handled 375,148 tons of merchandise in 1937, (of which 217,863 tons were export commodities), it is in many ways the most important in Tunisia, because of its naval installations and the consequent availability of dockyard and repair facilities. Ships of any size may enter the port, and facilities for loading and unloading are good, as are communications with the remainder of the country.

Monastir, Mahdia and Gabes

are the remaining ports of Tunisia, but are of secondary importance, handling not more than 30,000 tons of merchandise annually.



[REDACTED]

APPENDIX "C"

SCHEDULE OF TOUR

APPENDIX "C"

SCHEDULE OF TOUR

19	October	1945	Left Ottawa
31	October	1945	Arrived Liverpool Arrived London
3	November	1945	Arrived Paris
12	November	1945	Left Paris by RAF (TC) Landed in Naples
15	November	1945	Left Naples Landed in Cagliari, Sardinia Arrived Algiers
5	December	1945	Left Algiers. Travelled through Eastern Algeria. Some days in Tunis, visiting Bigerta. Stop in Bone on return journey.
13	December		
13	December	1945	Returned Algiers
1	January	1946	Left Algiers Arrived Oran
3	January	1946	Arrived Rabat, Morocco
10	January	1946	Trip to Meknes and return
14	January	1946	Left Rabat Arrived Casablanca
17	January	1946	Trip to Ouarzazate to visit mines and to Marrarech
22	January		
25	January	1946	Left Casablanca Arrived Rabat for plane to Algiers - Rome
31	January	1946	Plane left for Algiers Arrived Algiers
1	February	1946	Waiting for onward transport to Rome. Due to RAF strike, finally transferred to Air France to go to Paris
8	February		
9	February	1946	Left Algiers by plane to Paris Arrived Paris.

Total number of days 113
Total number of working days 70.

(Days spent travelling, arranging for accommodation or transport, or merely waiting for transport under conditions where no work could be done, are excluded from the number of effective working days. On the other hand, many weekends entirely devoted to work are included. Nevertheless, 43 out of 113 days must be reckoned as having been lost to the Canadian Government due to the extreme difficulties of travel, accommodation and general "housekeeping" arrangements. This record of effective working days was kept solely to demonstrate the point that individuals must waste a great deal of time unless their complete tour can be planned and transport arranged in advance. This is not yet possible in many areas.)

D

A P P E N D I X "D"
LIST OF INTERVIEWS WITH
RESPECT TO TOUR OF
NORTH AFRICA.

APPENDIX "D"List of Interviews with Respect to
Tour of North Africa

Note: This list is exclusive of interviews with French officials in Washington, New York and Ottawa, and with Canadian exporters in Montreal and Toronto, which occurred prior to departure.

Each individual is only listed once, although frequent follow-up visits were necessary in many cases.

LONDON

Air Marshall Johnson
Group Captain Wade

To facilitate transport by RAF Transport Command.

Messrs. Hudd, Langley, Priestman, Holmes, Jones, Canada House.

PARIS

Messrs. Vanier, Magana, Rae, Forget, Sison, Lamontagne, Hebert, Rive, Carter, Bellemare, Cote, Beaulieu, Canadian Embassy.

Hervé Alphard, Director General, Commercial Relations, Ministry of Foreign Affairs.

Comdt. Bonneau, African section, Political Division Ministry of Foreign Affairs.

H. de Fouché, Director General, External Trade, Minister of National Economy

Mr. Masurel, Director, African Section, Ministry of National Economy

Mr. Combe, Minister of National Economy

Mr. Peter, Director General, Ministry of Colonies

Miss Aline Chalifour, Ministry of Justice

Lester Mallory, Agricultural Attache, U.S. Embassy

C. H. Hurb, Mgr., Royal Bank of Canada

V. Bessis, Import-Export, Casablanca

Adrien Girand, exporter Colonial produce

Canadian Army Staff

Canadian National Railways

Jean Duroux, publisher and editor, Algiers

Bernard Toussaint, Ministry of Foreign Affairs

H. Baraduc - Ministry of Foreign Affairs.

W. B. Wedd, European Mgr. Massey Harris Co. Ltd.
 Maj ben Dewar, Surplus Army Stores
 Lt. Col. McFarlane, Surplus Stores
 Lt. Gen. Maurice Pope, Allied Commission
 H. Nicolaedes, Greek Foreign Office
 Jacques Leal, Import-Export
 H. McNulty, Gen. de Gaulle's cabinet
 E. de Miribel, Gen. de Gaulle's cabinet
 Maj. Brodie, going to Algiers to purchase oranges
 M. Clinkard, New Zealand representative.

ALGIERS

Major Hodgson, Town Major
 Major Stevens, H.Q. British Troops North Africa
 Brig. Pickering, Commander, B.T.N.A.
 Maj. Newman, Signals Officer, BTNA
 W/C. Russel, RAF (Transport Command)
 W/C. Craig, RAF 219 Group
 Maj. McCreery, Canadian Army, Purchases for Army (with Maj. Brodie)
 L. H. Pull, Managing Director, Barclays' Bank
 Darryl Wilson, British Consul General
 T. Simmonds, Commercial Secretary, Br. Consulate General
 Heyward Hill, U.S. Consul General
 Gerald Sykes, U.S. office of War Information
 Marion Leonard, Commercial Counsellor, U.S. Consulate General
 C. Bush, Lockheed Aircraft
 Frank Fowler, Chief, U.S. Economic Mission
 Gilbert Stiebel, journalist
 Mr. Lynton, California Research Corp. (Oil reserves North Africa)
 Emile Rigollet, President, Chamber of Commerce of Algiers
 M. Gillet, Director General, Economic Region of Algiers
 Mr. Petib, Secretary, Chamber of Commerce
 John Harrison, British Council
 Cte. Alain de Serigny, editor, Echo d'Alger
 Mr. Manning, Br. Consul in Tunis
 W. H. Humphreys, U.K. Commercial Corporation
 G. Kissack, Chief, U.K. Economic Mission
 L. Muzard, Assistant Chief Coordinator of Econ. Affairs in N.A.
 M. Costes, Statistician, Office of Coordinator of Econ. Affairs
 M. Bouche, chef de cabinet, Office of Coord. of Econ. Affairs
 Mr. Kottnauss, U.S. Economic Mission
 Paul Picquot, President, Syndicat Commercial
 M. Jourdain, Secretary, Syndicat Commercial
 M. Davat, Gen. Mgr., Librairie, Hachette
 John Burroughs, Br. Council
 Maj. Patterson, Br. Council in Morocco
 M. Kruger, President, Federation of Wine Merchants
 Ph. Payel, representative of Cockshutt Flow
 M. Lefesore, Off. of Coord. of Econ. Affairs
 Ken Clark, repp of Swift & Co.
 M. Bremont, local rep., Massey Harris Co. Ltd.

ALGIERS (continued)

M. Grazagne, Secretary General, Algerian Government General
 M. Fabregouille, Asst. Sec. General, Algerian Government General
 M. Faure, Secy. Gen. for Econ. Affairs, Algerian Government General
 M. Eauzé, Chef de Cabinet, Algerian Government General
 M. Villevielle, Director Public Works, Algerian Government General
 M. Lecoanet, Mg. Director, Algerian State Railways
 M. Bise, Director of Equipment, Algerian State Railways
 M. Manent)
 M. Servel) Import groups interested in
 M. Buteb) agricultural machinery
 M. Souraux)
 M. Lombard, importer of books and publications
 M. Peygnerolles, Director of Finance, Algerian Government General
 Supervisor Gordon, Canadian Army on purchasing mission
 André Roussel, President, Federation of Representatives and
 Commercial Travellers' Syndicates
 G. de Montgolfier, Cie Charles Le Borgne, shipping agents
 W. T. Thomas, U.K. Economic Mission
 Louis Vignes, Mory & Cie, shipping agents
 M. Brohem, mg. Director, Ste Africaine des Etabs Mory & Cie.
 M. Ehrhard, Director, Econ. Section, Algerian Government General
 F/L Donet, RAF Security Specialist on native problems
 Christian Cardin, Dir. Gen., Coord. of Econ. Affairs for N.A.
 M. Alduy, Directeur du Cabinet of Governor General
 Yves Chataigneau, Governor General
 M. de Longevialle, Director General of Empire Equipment, Ministry
 of National Economy, on tour of North Africa
 M. Garcin, Dir. Algerian Tourist and Commercial Office (OPALAC)
 M. Stupfen, Cie Generale Transatlantique
 Col. Viard, Algerian rep. in French Chamber of Deputies
 M. Nodon, Civil Administrator, Bon Saada area
 M. Hayoun, rep. of Coleman Lamp and Stove Co.
 M. Dubost, Mg. Director, Worms & Cie (bankers and shipping agents)
 Andre Guerin, Mgr. of Foreign branches, Worms & Cie., Paris
 Gastone Conte, plastics importer
 A. Lemoyne, Frigidaire repp - seeking other agencies
 H. A. Chanter, starting import business
 H. Balaesque, construction contractor
 A. de Villas, Director of Reconstruction - Algerian Govt. General
 H. Lefevre-Paul, President of Syndicate of Hotel proprietors
 M. Revel, Ste. Africaine des Etabs Mory & Cie
 M. Mercier, Pres. Banque Nationale du Commerce et de l'Industrie
 Marcel Theron, President of Syndicate of Algerian Mines
 Leon Bidet, owner of Barytes Mine
 P. Raffalli, director, Foreges et Ateliers de Jeumont
 Octave Conte, Pres. of Syndicate of Chemical Importers and Merchan
 Roger Watin, Pres. of Office Equipment syndicate
 M. Audry, Dir. of right-of-way equipment, Algerian State Railways
 M. Souraut, Dir. of rolling stock, Algerian State Railways
 M. Bertin, Mg. Dir. Cie Labour, electric power producers
 H. W. Mills, Montreal Shipping Co. repp
 M. Estienne, Cie Africaine des Transports Tropicaux
 Capt. Foy, S.S. "Alexandria Park" from Montreal
 M. Gagnon, Air France
 Lt. de Chavigny, Air Priorities

TUNIS

Mr. Brennan, British Consul General
 M. Jamet, Director General at Residence General
 Bey of Tunis
 Gen. Rist, Resident General
 Prime Minister of native government under the Bey
 President of Bank of Tunisia
 M. Rodière, Secy. General, Economic Affairs, Residence General
 M. Culman, Director of Finances, Residence General
 Charles Lemann, Director of External Commerce (OCEP)
 M. Leclercq, Etabls Leclercq, Cockshutt Flow Co. repp
 P. Parrenin, President) Etabls Parrenin & Cie, Massey-
 M. Dumas, Mg. Dir.) Harris repps.

ORAN

M. Hurlin, Manager for North Africa, Massey-Harris Co. Ltd.
 Edouard Kruger, Pres. Oran wine merchants' syndicate

RABAT

BVU Simson, Canadian business man in Morocco
 C. Monin, Agriculturist
 Georges Huguenin, cork producer
 M. Guiramand, Chef du Cabinet Diplomatique, Residence General
 M. Marshat, Sec. Gen. Political Bureau, Residence General
 M. Boussiere, Chef de Cabinet to Sec. Gen.
 Capt. Dallier, Military Secretary to Resident General
 M. Luciers, Secy. Gen., Residence General
 Col. McErith, Br. Minister/Consul General
 M. Girard, Dir. of Public Works
 H. E. Gabriel Puaux, Resident General
 Cte. M. de Fontainieu, Agriculturist and Importer
 M. Butscher) Office Marocain d'Exportation et d'Importation
 M. Loutrel)
 M. de Castelbazac, Secy. Gen., State Bank of Morocco
 M. Buchere) visited large truck farms of these
 M. Flegue) individuals
 M. Soulmagnon, Dir. Econ. Affairs, Residence General
 M. Felici, External Commerce Sec. Residence General
 Admiral de la Fleche, fishing egpt sec., Residence General
 M. Boullinier, director of large manganese mine
 M. Bondon, Dir. Office Cherifien des Phosphates
 M. Vigier, Dir. Ste Charifienne des Petroles
 Col. Sagnes, Dir. Native Affairs Section of General Staff
 Edmond Spitzer, Mg. Dir., State Bank of Morocco
 M. Dubois, Chef du Service des Mines, Residence General
 M. Chancel, Counsellor to the Sultan
 Georges Donhet, starting import-export business
 M. Perret - visited farm
 Comdt. Soleil Habou, interested import trade.

CASABLANCA

- Moyse Serfati, Coleman Lamp and Stove rep.
- J. Bessis, importer
- M. Baille, president, Chamber of Commerce
- M. Dauphin, Dir., Comptoir Metallurgique
- M. Croze, Past President, Chamber of Commerce
- M. Marill, Vice President, Chamber of Commerce
- M. Renaud, Sec., Chamber of Commerce
- M. Friarg, importer-exporter of cereals and wool
- M. Lugab, importer, paper and cardboard
- Director of Chargems Reunis
- Director of Ste Marocaine des Etabs Danestry (ships' chandlers)
- M. Barral, Gen. Mgr., Credit Lyonnais
- M. Revelli, Asst. Gen. Mgr., Credit Lyonnais
- M. Anguille, Dir. Henry Hamelle SA (Massey Harris Johnson line)
- M. Morel, Asst. Dir. " "
- M. Restany, cie Marocaine, Massey Harris rep.
- M. Chereau, Mgr. State Bank of Morocco
- M. Neade, British Consul
- M. Castle, U.S. Consul
- N. Monnot, President) Manufacture Papetiere
- M. Heraire, Mgr.) du Maroc
- M. Garcin, President, Syndicate of merchants in Morocco
- M. Bar, Syndicate of Chemical importers
- M. de la Boide, Syndicate of Office Egypt importers and merchants
- M. Pellagrini, Syndicate of paper dealers
- M. Estors, Syndicate of lumber importers
- M. Fournier, Syndicate of mining industries
- M. Viand, President of Representatives & Commercial Travellers' Assn.
- M. Cazes, Syndicate of Electrical Equipment
- M. Colombat, Syndicate of rubber merchants
- M. Huyghe, mine owner, shipyards, shipping co. industrialist
- Edouard Hinnen, architect
- M. Veigas, Belgian mining engineer
- Jacques de Galembert, importer
- M. poutz, Ste. Nantaise d'Importation au Maroc

MEKNES AREA

- M. Pagnol, largest wine producer in Morocco. Visited farm
- M. France, oldest settler. Visited large farm.
- M. Gazagnol, wine and citrus fruit. Visited farm
- M. Fontan, seed producer. Visited 10,000 acre farm.

Mauakech Area

- M. Boulinier, director, S.A. Centre d'Etudes Minieres
- M. Moulinou, wine mgr., Mine de l'Imini (Manganese)
- Col. Salanie, military governor of district
- M. Jacquinet, Minister for North African Affairs, on tour of N.A.
- M. Ponthus, chef de cabinet
- M. du Colombier, expoert on native affairs
- M. Maheu, native arts and crafts

RECAPITULATION

Number of Individuals Called Upon

London	7
Paris	38
Algiers	92
Tunis	12
Oran	2
Robot	30
Casablanca	35
Meknes	4
Mauakech	<u>7</u>
Total	227

Note: This list does not include repeat calls. In Algiers, for instance, the actual number of calls, including follow-ups, was 233. Follow-up was not as frequent in other localities because of lack of time but total number of calls during the trip was slightly over 400. Total number of effective working days (apart from travelling and days devoted solely to finding accommodation, arranging transport, etc.) was 70. Average number of calls - 6 per working day. Of the working days, many were over weekends. Otherwise, most office work was done at night.

The above does not include purely social contacts.

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Manion, James Patrick, 1907-1959

Economic conditions in North

Africa. --

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