

A POPULATION PLAN FOR EGYPT

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DURING the past decade in Egypt there has been a steadily increasing interest in the population problem and the accompanying social conditions. In the spring of 1937 the Egyptian Medical Association held a series of forums on the subject, and over the next two years the matter was considered top news by the local press. One hopeful development was the creation of the Ministry of Social Welfare in August, 1939, which was to be charged with all such questions. Although certain definite work was undertaken, the outbreak of war in September and the transfer of the Government's energies to problems of defense greatly hindered the new ministry's growth.

A little over a year ago the Royal Society of Political Economy appointed several commissions to study postwar problems as related to Egypt, one being for social reconstruction. This commission has been hard at work. But in the meantime the flow of events has intervened with its own type of solution through typhus and malaria epidemics and widespread destitution and malnutrition on a scale not experienced for many years past. The net effect of these conditions can not be measured accurately as the vital statistics have been scanty for the past three years.

At a meeting of the Cairo Scientific Society early in 1939, I tried to direct discussion to a plan for attacking the population problem, in the hope of getting some governmental action, at least in the direction of further intensive study. My desire today is to expose to this Round Table the elements of the plan suggested at that time, in the hope that your criticisms will help toward the solution of these problems, which belong not alone to Egypt but also to the whole world.

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Certain sections of this paper have already appeared in *L'Egypte Contemporaine*, Tome XXX, Cairo, 1939, pp. 461-484.

Five important conditions specifically affecting population growth in Egypt may first be considered briefly:

1. *Age Distribution.* Since Dr. Kiser's paper has dealt with several points pertaining to age composition it only remains to remark here that Egypt has a relatively young population. Thus we may expect still further increases in the younger marriageable age groups.

2. *Health.* Malnutrition and endemic diseases are widespread. The diet is deficient and unbalanced and health services are very inadequate. In February of this year, Egypt had 4,012 physicians, 2,297 in the public services and only 1,715 in private practice. This gives an over-all ratio of about one physician per 1,100 persons in the large cities, but only one per 13,000 in the rural areas where over 80 per cent of the people live. The Ministry of Health is aiming at a ratio of one physician per 1,000 of the total population, which may mean eventually 17,000 doctors. As better health services are rendered the death rate should fall, particularly among infants and children. At present, children under 5, although but 14 per cent of the population, account for 65 per cent of the deaths. Furthermore, the burden of chronic illness and the deteriorating effects of the worm diseases on both physical and mental activity make it difficult to arouse the people to any sense of need for social betterment.

3. *Natural Resources.* Egypt's chief resource is her rich black soil, plus a regular supply of fresh water. Father Nile provides annually some 85 to 90 billion cubic meters of water, and the "black land" measures 13,500 square miles, of which about 64 per cent is arable—some 5,500,000 acres, with a possibility of expansion to 7,100,000 acres when certain irrigation works are carried out. Thanks to the irrigation system, the land as a whole yields an average of a crop and a half per acre, so the arable area is really equivalent to 8,500,000 crop acres, and is eventually expandable to 11,430,000 crop acres. Discovery of considerable subterranean water gives hope of increasing arable land in the western desert.

There is some growth in industry from both agricultural and mineral products. Cotton and silk fabrics are being produced, and paper and jute mills are flourishing. There is some fruit preserving and packing. Mineral oil seems to offer rich opportunities, as does glass manufacturing. Iron and other ores, phosphate deposits, and various clays are promising, and with the electrification of the Aswan dam, cheap power and synthetic nitrates should be available. Furthermore, Egypt hopes to become a great junction for air travel, and to be able to exploit her antiquities more than ever before. The excellent climate should also attract vacationists.

4. *Social Standards.* This heading has been used to suggest the general desires and ambitions of the people, as these are manifested in the scale of living, the degree of education, religion, communications, traditions, and recreations. Here we find the values that the peasant considers most worth while. The average dwelling of those who make up more than 90 per cent of the country's inhabitants consists of three small rooms with walls and floors of mud, and a thatched roof, the outer room being the stable, the whole a sort of mud blister on the face of the land. In this hovel the furniture consists of little more than a broken chair or two and a few coarse rugs for sleeping, since bedsteads are rarely found. There may also be two or three cooking utensils and a receptacle (frequently an oil tin) for carrying water. With an expenditure of one or two pounds a month for food, fuel, and clothing, the fellah drags out an existence not much above that of his water buffalo, goats, geese, and chickens, with which he lives in the closest contact. He cultivates a bit of land, either his own or rented, or else sells his services to others for two or three piasters a day.² The routine is not very exacting, except at times of irrigation or harvest, and is rather well fitted to people enervated by worm diseases and not too well informed on modern affairs. Of those over 5 years of age, only 19 per cent are

² At "normal" exchange rates the Egyptian pound (£ E) is worth about \$5 and the piaster about five cents.

literate, and the percentage actually using their claimed literacy is even smaller. In such circumstances one would not expect to find many ambitious to break away from the restricted environment; and such is indeed the case. The fellah is a fatalist and regards his condition as unchangeable beyond very narrow limits. In view of this situation among the masses, who are poor and ill and ignorant and "contented," as the upper class says, it will be most difficult to create among them desires sufficiently strong to make them struggle to break their social and economic bonds.

5. *International Relations.* Until there is peace, relief from heavy defense costs, and better cooperation, economic and social, among Near Eastern nations and in the world at large, processes of social reform are going to be greatly hampered. Egypt is a victim of circumstances, and until she can get, by international action, economic and political assistance, she will not be able to solve her problems. This point will be elaborated below.

A PLAN

In view of Egypt's rapidly increasing numbers, poor health, poverty, low standard of living, and threats from outside, is there any chance at all of formulating a population plan that will gradually improve matters? First of all, I should like to set the goal. Speaking in terms of the Egyptian family, what would we like to see as the minimum standard? Here we must focus our attention on Egypt, for it would not do to borrow too closely the standard of any other country.

In the following plan I see an average family of from three to five children with intelligent, literate parents, living healthy lives in solid, clean houses, very simply furnished, which will belong to well-ordered, sanitary communities, all members having equal opportunities for plenty of clean water, electric light and power, a well-balanced diet with enough protective foods, simple but adequate clothes, steady and sufficient work to bring an income of not

less than £ E. 100 per year, or its equivalent, and also cheaper land and lower rents, with more cooperation among farmers and in industry. The communities would have adequate schools free to all, adults and children, and provision for the use of leisure time in recreation or other constructive activity. There should be good roads between communities and public services with honest administration in the fields of health, irrigation, communications, and justice.

It should be noted that we have left out much that might be regarded as "embellishment," such as old age pensions, unemployment and accident insurance, elaborate institutions for the needy of whatever kind, and luxury features such as parks, museums, and playgrounds.

Let us now estimate probable costs for those items which would be contributed by the State and result in the release of energies for private initiative in a population of 2,500,000 families, or about 12,000,000 people. Why this figure and not the 16,500,000 of today? My answer is that Egypt has at least 4,500,000 too many inhabitants. There are about 3,300,000 families. If agriculture demanded 1,400,000 families (which allows an average of 4 acres to be worked per family) and industry and commerce eventually absorbed 1,000,000, there would still remain some 900,000 families or 4,500,000 persons, without adequate employment.

In public health if the per capita expenditure were to approximate that of New York City in 1943 (but counting only half of the budget for hospitals) the figure would be about \$3.50, or at normal exchange rates 70 piasters, and this would bring the annual cost for 12,000,000 people to £ E. 8,400,000. In education, children of school age, 5 to 14, would number 3,100,000. At £ E. 10 per head, the lowest rate in recent years of any single state in the United States, the total would be £ E. 31,000,000. Then, to rebuild most of the villages, install fresh water and sewage disposal systems, and make a general sanitary clean-up, the total bill according to the late Mahmoud Shaker Ahmed Bey, Under-Secretary of State of the

Ministry of Health, would be £ E. 71,000,000, which, if spread over thirty-five years, would amount annually to about £ E. 2,000,000. Next, to make good roads throughout the land, another £ E. 1,000,000 could be spent each year. The above figures include only the public expenditures that would seem to be necessary to make possible the attainment of our minimum goal, the creation of such a level of living as would enable individuals to begin gathering a little surplus for the supplying of their further needs at their own expense. The total comes to £ E. 42,400,000. In addition to this sum, there would presumably be no less an amount than existed in the prewar budget of 1939 for Government departments other than those mentioned, that is, some £ E. 33,000,000; so that the grand total of annual expenditures for a period of ten or more years would be about £ E. 75,400,000³. Indeed, if defense expenditures should continue for some years at an annual figure of £ E. 7,500,000, the total would become £ E. 82,900,000, or two-fifths of the prewar national income. This is undoubtedly a very high figure for such a poor country, representing a cost of nearly £ E. 7.00 per head annually. There might be a little relief by borrowing for the public works, or else drawing on the reserve fund, but it would not reduce annual costs by more than 3 or 4 million pounds at the most.

The crux of our problem is this: how can the wealth of the country be increased enough to produce revenue equal to this expenditure; and at the same time how can the population be reduced to 12,000,000 and held there, so that a balance may be maintained between resources and people?

Three general classes of solution occur to me, and they should all be applied simultaneously: (1) means should be found to increase and conserve the national wealth, (2) outlets should be found for emigrants, and (3) numbers should be kept down.

1. *Increase and Conservation of National Wealth.* Many agencies

³ The budget for the year 1943-1944, largely due to war conditions, is about £ E. 65,000,000.

are at work on this problem. Not only is private enterprise looking for new ways to make money, but the government itself is giving much attention to the question. As for arable land, various works are in progress to extend irrigation and reclaim waste lands that will eventually bring the arable land up to 7,100,000 acres, an increase of about 30 per cent over the present area. In the matter of the conservation of land I should like to emphasize the necessity of saving and recovering arable land for agriculture. As we have indicated before, more than 90 per cent of Egypt's wealth is in her cultivable land. If that land is going to be used for many purposes not related to its cultivation, such as dwellings, flower gardens, cemeteries, parks, and other more or less luxury uses, then by that much is agriculture going to lose. Canals, roads, and railways are absolutely necessary to the public economy, and the 800,000 acres used for public purposes are not begrudged. But for such matters as luxury, sport, decoration, and burying the dead, greater use should be made of the desert land. Indeed, a great many of the dwellings could just as well be on the desert as on agricultural land, excellent examples of which are Heliopolis and Maadi. There are at present at least 500,000 rich acres used for commercial purposes and private dwellings. A survey should be made to see what savings could be effected in the uses of land, for every acre that is taken from planting takes also the livelihood of one or two fellaheen. When one observes how such cities as Assiut, Giza, and Tanta have spread out over the arable fields during the past twenty years, one wonders what the end is to be.

2. *Emigration.* Where can Egyptians find a suitable environment to which they might migrate? Three regions offer some hope: the Anglo-Egyptian Sudan, Iraq, and perhaps Ethiopia.

The Anglo-Egyptian Sudan has an area of 1,000,000 square miles, two and a half times that of all Egypt, including her deserts; and her population was estimated in 1938 at 6,000,000. Allowing for extensive tracts of desert and swamps, which reduce the habitable

area, there is yet good reason to believe that irrigation engineering can turn millions of acres into productive lands. The relatively small Gezira area of 3,000,000 acres between the Blue and White Niles, equivalent to one-half the cultivable land of Egypt, is already being brought under perennial irrigation by gradual stages. But beyond this lie the great Sudd region and the great bog of the Bahr el-Ghazal on the upper White Nile, now enormous shallow swamps of apparently rich soil, some 62,500 square kilometers in extent, or almost twice the area of cultivated land in Egypt. This region, "owing to its position, its climate and its rainfall, is too valuable to remain forever a marsh. There seems little reason to doubt that in the future it may be a thriving pastoral, agricultural, or timber country."⁴ When to this is added 541,000 square kilometers of higher land in the Bahr el-Ghazal Basin, we have a total habitable area of 603,500 square kilometers, or seventeen times the arable area of Egypt. The work of draining the swamps, primarily with a view to conservation of some 12,000 million cubic meters of water lost annually by evaporation, has been under consideration for some years, and will probably be carried out in connection with another Nile dam yet to be built at Lake Albert. As these waters in time become available for Egypt, is it not possible that the reclaimed and thinly populated land might become available for Egyptian settlers?

More distantly situated, but with a remarkable similarity in physical setting, climate, products, and social organization, is the Kingdom of Iraq. With an area of 143,000 square miles, a population estimated at about 4,000,000, and a mean density of 90 per square mile of the cultivated area, this land is evidently in need of more dependable labor. As pointed out in the latest *Encyclopaedia Britannica*, "The development of the system of irrigation is likely to extend the range of the population considerably." Speaking the same language, holding the same customs, cultivating the same

⁴ Macdonald, Sir Murdoch: *NILE CONTROL*. Cairo, Government Press, 1920.

crops in the same way, Egyptian immigrants could easily add greatly to the wealth of the nation in both manpower and produce.

Ethiopia has about the same area as Egypt, including her desert, and has a population of about 12,000,000. It is thought that there are great mineral resources, as well as agricultural, and that a much greater population could be sustained to the advantage of the country. The centuries of cultural association between the two countries should facilitate arrangements for immigration of Egyptians.

If the political arrangements could be made, it might be possible to subsidize emigrants who would be acceptable to the Sudan, Iraq, and Ethiopia. With attractive offers of land and aid in getting started, it is conceivable that the more ambitious fellaheen would be willing to take the risk. Furthermore, the benefit to these countries would be enormous, for the land to be distributed in homesteads is now mostly waste and unclaimed by anyone, least of all by the natives of those regions. The unreclaimed areas of the Sudan alone might take a population equal to Egypt's present number and still have a density of less than one-tenth that of Egypt.

3. *Reduction of Births.* In this connection it is important to understand the social attitudes and traditions of the people, particularly as related to children. I have been interested in gathering some information from various quarters as to why people in Egypt want children and why they have so many. The answers may be summarized as follows:

In General:

a. It is the will of Allah to have as many children as possible, and any interference with natural processes will bring punishment. That is one reason why so many children die, as a punishment for sinful parents.

b. It is an honor to have a large family and in old age to be in the position of sheikh of a big tribe. Also, in Upper Egypt especially, security lies in numbers, because of village feuds.

c. Children, while still very young, can help in caring for the animals, weeding, removing plant pests, picking cotton, etc.; and the expense of maintaining them is little indeed.

d. Many children, particularly many sons, afford something of an old-age security policy. It will be easier to live in comfort if many are contributing. Because of this attitude, perhaps, it is difficult to persuade Egyptians to migrate. The elders do not want the young to leave home. In consequence, such migration as there is, is largely by families as units.

e. Children are desired early in life because life is short and there must be time to enjoy them while the parents are still young and strong.

The Woman Wants or Has Children:

a. To out-do her neighbors. She boasts of her fertility and is especially proud of many sons.

b. To hold her husband, for children are a bond. The fear of divorce is ever present, but the chance of being divorced is greatly reduced with each additional child. For example, of women divorced in 1935, after having been married more than five years, 49.7 per cent had no children, 30.2 per cent had one child, 14.6 per cent two children, 4.6 per cent three, and 0.9 per cent over three. The chances of divorce, therefore, are roughly in inverse relation to the number of children. When a woman has sons she feels secure against both divorce and poverty. Furthermore, a child born within a year after marriage is a proof to the community that the husband loves the wife.

c. To keep her husband's affection, she must attract him sexually and so she develops the art of coquetry. If she can keep her husband's sexual potency at a low level, she feels he is less likely to be attracted by others. Girls are trained in the arts of sex by their mothers and by the conversation of the women generally, and there is even a professional class of women who instruct girls before marriage. There being so little entertainment in the village, the sexual skill of the women is a matter of some importance. On the other hand there are women who tire of childbearing and fear to lose their attractiveness as they rapidly age in appearance. Particularly do they fear having more girls. Consequently, abortion is practiced in secret.

As For the Man's Attitudes:

a. He wants sons more than daughters, and demands that his wife produce until there are enough sons.

b. He is proud of his sexual potency, and is ashamed or perhaps even afraid to admit weakness to his wife, lest she suspect him of preferring

some other woman. For this reason, among others, the peasants have sought relief in drugs which they think possess special values as aphrodisiacs.

Several things are apparent from the foregoing: first, children, and especially sons, are a great economic asset in the primitive environment of the peasant class, and if this value of security is not to be lost when births are reduced, something must be substituted for it. Second, the fear of divorce among the women, perhaps often subconscious, leads them to overemphasize sex, the only talent which many of them possess; and when sexual intercourse becomes a daily habit, a high birth rate is inevitable. The abuses of divorce must be removed in one way or another. In Egypt, 25 per cent of the marriages result in divorce. Third, the people are in utter ignorance, especially the women whose literacy is less than 10 per cent, of the many alternative methods of developing into attractive personalities, of using leisure time, and of safeguarding the values of the family.

We have seen that children in large numbers seem to possess an extraordinary social value, or else are a by-product of certain other social values, and to reduce the number of births, it is going to be necessary to change fundamental ideas and customs. Two approaches are possible: the *direct*, in which by legislation and the use of force attempts are made to modify age-old customs in a short time and bring quick results; and the *indirect*, in which situations are provided that will gradually develop in the people a spontaneous desire for smaller families. In my opinion, a reduction of births will be achieved only in direct ratio to the indirectness of the plan.

One must begin by getting a re-orientation of the public mind as to the purpose and value of children. In a peasant society children are regarded as economic assets; in an urban or more industrialized society the young child is considered a liability until his education is finished. Under the latter circumstance, therefore, parents tend to desire no more children than they can care for until the children

become self-supporting. Fewer children with higher cultural standards are preferred.

The question is, how can we convince the masses of fellaheen that numerous children are not necessarily an advantage? Several ways may be mentioned.

1. *Raising Standards.* The first step includes raising the standard of living by various devices, and this would probably result in decreased fertility. In more advanced societies, growing and healthy children themselves possibly bring such satisfaction to the parents that the psychological longing for children is appeased. On the other hand, in groups where infant mortality is high, the constant anxiety lest children may not grow to maturity may create greater longing and consequently greater fertility. One might state this hypothesis in terms of child-years in this way: one child living to maturity, that is with 20 child-years, gives greater satisfaction than four children living an average of five years each, which would also be 20 child-years. But in the former case the birth rate would be just one-fourth that of the second case.

Our aim then would be to do everything possible to sublimate the emotions and attention of the fellaheen while trying to raise their living standards. Emphasis needs to be put on the use of leisure time. Imagine the drab conditions of a village after sundown with no lights, no amusements, no diversions of any kind except sex. *Time Magazine* some years ago reported that the new quarters being provided in Libya for Italian immigrants were not to have electric lights, as Italian savants had observed a direct negative correlation between bright lights and the birth rate. If the long hours of leisure of the fellah could be filled with education, recreation, and wholesome amusements, all suitable to his type of life, living standards would be improved. With the installation of electricity, radios, cinemas, sports grounds, and various other improvements and diversions at an early stage in our plan, we would expect the birth rate to decline. In particular we need to raise the cultural

standards of the women. One Egyptian gentleman summed it all up recently when he said, "Educate the girls of Egypt and they will take care of the birth rate."

2. *Birth Control.* The second stage in holding down the birth rate would be to establish birth control clinics in which would be made available the knowledge of contraceptives, as demanded by those who respond to the influences of improved living standards. And as "birth control" means not only "birth limitation" but also "births at will," information on overcoming sterility would be included. While the main purpose is the limitation of excessive fertility, yet these two factors normally go together.

Perhaps the Egyptians could be persuaded that birth control is not necessarily associated with immorality, if they would follow its history in Europe and America. In many civilized countries it has become quite respectable. There is undoubtedly a lot of prejudice against it, presumably on religious grounds. Roman Catholics are openly opposed, but I know of no definite pronouncements by other Christian bodies in Egypt. The Moslem hierarchy is not opposed, as evidenced by the *fatwa* on the subject issued seven years ago by the Grand Mufti of Egypt, who would permit the use of contraceptives and sanction abortion before the fourth month, that is "before the child is gifted with a soul" or before movement is felt. The Sheikh al-Azhar gave tacit approval to this opinion, and other leading Azhar *ulema* spoke openly in its favor. Some opposition was voiced but it did not seem to have tradition on its side sufficiently to gain a hearing, although many sheikhs and some Moslem physicians are still hostile. However, a few years ago an Egyptian group, practically all Moslems of the upper class, organized "The Happy Family," which has for its aim the opening of a birth control clinic.

The attitude of the common people is problematical, except that it is well known that crude birth control methods, both direct and indirect, are constantly practised and that induced abortions are not uncommon, frequently with dire results to the mother. It is hard

to imagine that the situation could be made any worse for having these practices taken away from the "sheikhas" and put into the hands of qualified medical men and social workers. It is clear that much work needs to be done in the line of public education on the social values and ethics of birth control.

3. *Restrictive Legislation.* A third stage would be the gradual introduction of legislation designed to restrict propagation of the unfit, limit free social services, and raise the age of first marriage.

First, there are the eugenic measures that might be taken to reduce future numbers of those who are unfit and a social burden owing primarily to hereditary mental defects. From our point of view it is not important whether such limitation of defectives is accomplished by sterilization or institutionalization, just so long as something is really done. Recently, one of the *ulema* has declared that sterilization is in accord with Islam.

Second, there are several ways of using the social services to stimulate reductions in size of family:

a. Enforce compulsory education so as to take the children away from parental exploitation for five or more years; at the same time educate the first three children free but put a small tax on the fourth and those after, not enough to be a burden but just to serve as a warning.

b. Do child welfare work free for all children, but place a small tax on families having more than three.

c. Promise to exempt absolutely from military service the first son to attain the age, give a shorter period of service to the second (or if he is not needed, then exemption), and absolutely take the third and other sons; but compensate the parents with some sort of public recognition if the drafted sons are fit and accepted, for example, with decorations.

These devices possibly would cause the parents to think before having more than three children, and perhaps lead them to ask for birth control information.

Third, attempts should be made to raise the age of marriage, particularly of women. The fertile period of a woman's life extends from about ages 12-14 to ages 46-50, a length of from 34 to 38 years.

Since the most fertile years are the early years, the longer marriage can be delayed, the less will be the fertility. It was recently proposed by a lecturer in Cairo that marriage in Egypt should be prohibited before the age of 21; and if this should become fact, one might expect the birth rate to be reduced decidedly for this reason alone. In 1936, 63 per cent of spinster brides were under 20 years of age, as contrasted with 6.2 per cent of grooms.

Delayed marriage might result in an increase in prostitution, but this could be counteracted by the requirement of a medical certificate before marriage. In many countries, a certificate of good health for both partners is now a legal requirement. If applied in Egypt it is probable that the effect on the marriage and birth rates would be considerable.

But apart from legal enactments, there is a great deal of voluntary delay in marriage, especially among educated people. Numerous Egyptians of mature years are not married. In one group of 315 women who have secondary certificates and have been out of school three years or longer, there are 118 still unmarried.

After the delivery of this paper before the Cairo Scientific Society, I had expected some discussion, but the only response I got was the thanks of the Chairman. Perhaps it was because the hour was late. A few days afterward, one of the Egyptian government experts who had attended told me he was so shocked by the suggestions that he could think of nothing to say! I hope for better luck today.