

MULTI YEAR POPULATION STRATEGY

Marocco

Third Draft

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INTRODUCTION

The Multi Year Population Strategy outlined in this paper is one part of an overall A.I.D. effort to make an impact upon population trends in Morocco. It can play a crucial role in influencing certain key factors which affect Morocco's future. It should be seen, however, as but one catalytic element in a total process of economic and social change.

The population growth rate of this country will ultimately be determined by a number of modernizing elements affecting Moroccan society. In view of the GOM's preponderant role in economic development ~~it is necessary to stress the need for a policy that~~ its use of resources will strongly impact upon the lives of its population, both in the urban industrialized areas and in the bled where the poor majority still live in a largely traditional setting. Current government economic development policy stresses industrialization over grass-roots social infrastructure and has major implications for the population problem.

If the high population growth rate is to be significantly retarded, the social and economic conditions of the mass of the population must be improved and, of course, family planning information and services will be essential accelerating factors.

Every aspect of the United States aid program is focussed on this objective. Our activities in agriculture, nutrition, and human resources development -- some now under way and others proposed -- are intended to strengthen those institutions which can play a vital role in furthering the development process. A more productive agriculture can yield more food for the population; a more skilled and better-fed workforce can produce more goods in both agriculture and industry; and in the years ahead these trends are likely to affect the population growth rate

profoundly. In the medium term, a government population program can accelerate these trends markedly by encouraging broader use of contraceptives.

The A.I.D. population program is designed to further this process. It is intended to strengthen Moroccan Government commitment to serious family planning goals and to devote substantial resources to carrying them out effectively. Given the caution of the Moroccan Government in this area, A.I.D.'s efforts must of necessity be discreet and low key. By assisting Moroccan Government delivery of contraceptive services and by demonstrating the existence of widespread demand for these services, the A.I.D. program can help build, from the bottom up, an increased Moroccan Government realization of the dimensions of the population problem and its economic and social implications so that a stronger and more effective Moroccan population program will evolve.

THE SETTING

A.

Morocco today is an interesting blend of the traditional and the modern. The Monarch, King Hassan II is descended from a dynasty dating back to the XVII Century. He is both the religious and political leader. Forty-four years of French colonial rule (1912-1956) did not appreciably alter the traditional characteristics of the monarchy. Following independence in 1956 under the constitutional monarchy of the late Mohammed V and, since 1961 of his son, the present King Hassan II, Morocco has experienced a stable government; one which has stressed its commitment toward parliamentary government (a new Parliament was formed in 1977) and one which represents a moderate and moderating voice in Middle East, African and Arab affairs — an attitude valued by the United States.

As in most developing countries, a shortage of trained Moroccan civil servants; plus the fear of responsible officials to take any initiative without consent of the ^{higher} ~~highest~~ authorities, impedes effective ^{action} government. The civil service, however, is characterized by a small elite corps of highly trained young Moroccan technocrats. These individuals often occupy high positions of great responsibility but supervise middle level bureaucrats of less than modest stature in a civil administration largely patterned after the French model.

Modern industry and agriculture coexist with a large traditional rural superstructure.

Morocco remains predominantly agricultural with 60 per cent of its people living in rural areas. Despite impressive potential, agriculture offers a meager livelihood and the majority of farmers earn less than \$200 per year. There is significant malnutrition among the poor and preschool children.

The People

Most of the population is concentrated north and west of the Atlas mountains. Unlike other countries of the Maghreb, the Moroccan people are more dispersed throughout the plains and mountains owing to greater rainfall distribution. Population density ranges from 1,000 per square mile in the coastal region around Casablanca to small concentrations in the oases of the south. The ethnic line between indigenous Berber stock and Arab immigrants dating from the VII Century tends to be blurred. Generally, about 60 per cent of the population speak Arabic and 40 per cent Berber. Half of the Berber speakers also speak some Arabic. French is widely used in government and commercial circles. The Berbers, concentrated for the most part in the Atlas and Rif mountains, are among the most underprivileged people in Morocco.

Priorities of the present government include major focus on development and modernization. In many important ways, daily life in Morocco's cities (e.g., Tangier, Rabat, Casablanca, and Marrakech) can be likened to life in comparable European cities. The modern physical infrastructure, the cleanliness and orderliness, the hundreds of shops, markets, and businesses, the sidewalk cafes and flower stalls, theatres and kiosks, and the hustle and bustle of men and women going about their daily business create an atmosphere not unlike that of urban Europe.

Major changes in the social and economic life in Morocco's urban areas will continue, inevitably.

While rural Morocco remains essentially traditional in sociological and family life terms, it is not untouched by modern influences. Morocco's excellent road and tele-communication network makes communication comparatively easy, and the continuing flow of population to and from the rural areas ensures an exchange which is having its effect on lifestyles.

Infant and child mortality is still high in Morocco, resulting in a life expectancy at birth of about 53 years, as compared to the 71 years in the U.S. and most European countries. This contributes to high fertility which in turn contributes to high infant, child, and maternal mortality patterns, completing the vicious cycle. One can affect the cycle, ^{by} improving health care for mothers and children or by reducing fertility through family planning or, preferably, by doing both, since increased investment in ^{would have} family planning ^{a marked depressive} impact on infant, child, and maternal mortality.

Life in the cities is stimulating profound changes in family formation, fertility, and the economic structure of the family. In rural areas children may have economic utility, but in the cities they are becoming economic liabilities. With inflation of roughly 13 per cent per annum, absurdly high housing costs and high prices on consumer goods -- even when compared to U.S. prices for similar products, the urban family in Morocco is hard-pressed to make ends meet. Increasingly, families are becoming dependent upon second income wages earned by the wife, sister, brother, or other family member. Thus, the child represents an increasing drain on the family's resources with little or no opportunity to contribute to the income of the family. This, however, is partially offset by the perceived rationality of support for unemployed relatives and children with the hope and implied commitment of a future claim on those individuals' future income. Thus, presumably, after fifteen years or so of economic hardship in raising children, it could be claimed that the "kids will support us".

Status of Women

The Moroccan woman and her status in society is a critical factor in the fertility equation. We believe that there are important and wide-sweeping changes in the role of the woman in modern Moroccan society. These changes are evident in dress and life styles, in increasing participation in the work force, and enrollment in educational institutions. This change is most evident in the cities, but its effect is also seen in the rural areas. Young girls and women are migrating to the urban centers which now contain proportionally higher numbers of women in the childbearing ages (15-44) than do the rural areas. Here and prostitutes. they work as clerks, technicians, secretaries, maids. A very few make it to the technocratic and professional elite. The point of departure for the Moroccan woman is depressingly low: less than 15 per cent of all women are literate, and among rural women only about 2 per cent are literate. Although the absolute numbers are increasing, females represent but 35 per cent of all students.

The effect of the urban environment -- where changes in the status of women are most pronounced -- on fertility is a matter of great interest, and is addressed in a later section.

The Economy

The Moroccan government is determined to pursue an aggressive program of industrial development. This is a continuation of the strategy the government has followed during the last 10 years.

While the 1978-82 development plan will be the result of a careful review of the country's development priorities -- with some resource adjustments probably favoring the hard pressed social and agricultural sectors, the government is expected to maintain its industrialization program. The emphasis on industrialization means

relatively fewer resources for the social sector, especially in the rural areas. It has tended to encourage the expansion of the urban population as underemployed rural dwellers gravitate toward the cities which are growing at the rate of 6 per cent per year -- double the overall population growth rate. This development emphasis, while not encouraging major changes in the rural areas, tends to expose an increasing proportion -- now about 40 per cent -- of the population to the modernizing and destabilizing influences of urbanization. It is this group which is likely to be most receptive to new ways of doing things, including new attitudes towards family planning.

Expressed in production terms, the Moroccan economy has succeeded relatively well. The average annual growth rate in gross domestic product (GDP) during 1973-77 has been 6 per cent. The economy is principally based on agriculture and on the export of phosphate rock. Revenues from phosphates seem to have provided much of the domestic capital needed for investments in other sectors. Seemingly, the future world demand for high quality phosphate rock, of which Morocco has 60% of the world's known reserves, will assure a comfortable supplier position for Morocco.

While the \$525 per capita income in Morocco is higher than in many other developing countries, serious economic and regional disparities persist. These contribute to the pressures driving people from rural areas to the urban slums. The move to the cities increases the costs of social services and raises the food bill, making Morocco increasingly dependent on imported foodstuffs -- 19 per cent of total import costs in 1977, about equal to the \$500 million of foreign exchange earned from phosphate exports.

The wealth represented in the aggregate GNP figure is disproportionately held by a social, political, and technocratic elite. Ten per cent of all landowners hold 50 per cent of the 8 million hectares of arable land and for the most part it is the richest and most productive land in the country. Ownership of large industrial and business enterprises is shared among a relatively few well-to-do businessmen and state-owned corporations. While there are many salaried wage earners, they do not constitute a large middle class, at least not in western terms, nor are their earnings sufficient to ensure more than a bare existence in the high-cost urban centers where they are employed. Long-run prospects for Morocco's economic development are good. ~~However, achievement of development goals has been impeded by (1) trained manpower limitations and a high birthrate; (2) periodic droughts requiring substantial food imports; (3) inflation of 11⁻¹³ per cent annually; (4) declining phosphate and citrus prices.~~

Employment

The Five-Year Plan (1973-77) took the population expansion into serious consideration. Jobs, schools and houses are already in short supply, and planners are anxious that these shortages should not get worse. A substantial portion of the population remains extremely poor and malnourished. An estimated 40 per cent of children under five years of age suffer from second and third degree malnutrition. Literacy is less than 20 per cent. Migration to the major cities has overtaxed existing services and facilities. The population growth rate remains high.

Unemployment has reached critical proportions. The rate of unemployment among the estimated 5 million labor force is officially expected to be as high as 11 per cent this year, unofficially 25-30 per cent. The International Labor Organization predicts that the labor force will continue to grow at 3 per cent a year between 1975 and 1980, then at 3.29 per cent a year until 1985 when it would total 6.5 million. Morocco will be hard pressed to create jobs to match this increase. There is a debate, however, about whether job creation and labor intensive technology should be the over-riding concern of the administration, or whether economic growth per se or other considerations should take precedence.

No panacea is at hand. The problem is extremely complex, and the mere provision of jobs is not in itself a solution. A particular difficulty is the 60 per cent of the population which is rural. Lack of work during the agricultural off-season, or simply the search for novelty, draws them to the towns where they add to the numbers of unskilled and unemployed workers already there. As soon as housing complexes are built on the outskirts of the towns to accommodate the shanty town dwellers, the shanty towns are filled with new immigrants. To halt migration the government is building more schools, hospitals, recreation centers and other amenities in rural areas.

Unemployment is most prevalent among the unskilled workers. A serious program of basic vocational training/^{might} considerably alleviate the unemployment problem and help meet existing demand for skilled and semi-skilled workers. Large numbers of Moroccans work in Europe and the Middle East. Emigration has two distinct advantages for Morocco. It brings in valuable remittances — an important element in covering the trade deficit — and it allows Moroccans to learn trades

which they can repatriate. However, the recession in Europe has reduced job opportunities for Moroccan workers.

Food Production and Exports

Morocco's agricultural sector contributes over 40 per cent of all exports, about 30 per cent of the gross domestic product, and is a source of livelihood for more than half the labor force. However, per capita income in the rural areas probably does not exceed \$200 per year. The harsh realities of economic and social underdevelopment are borne heavily by rural dwellers who lack adequate health care, educational opportunities and access to the modern technology required to increase farm production. Current and prospective Five-Year Plans place increased emphasis on addressing these problems.

Progress in increasing agriculture production has been slow. Cereals account for about one-third of total agricultural production and cover about 80 per cent of cultivated land, chiefly in rainfed areas where annual variations in rainfall exercise a determining, and unpredictable influence on the size of harvests .

The immediate aim is to achieve self-sufficiency in food supplies. In spite of its resources, Morocco is deficient in cereals, sugar, vegetable oils and milk — all important parts of the average Moroccan diet. Food is a major item on the import bill. In 1977 it accounted for 19 per cent of total import costs.

Modern agriculture, practiced in areas of higher rainfall or on irrigated land, utilizes only about 15 per cent of the country's arable land but produces over 35 per cent of commercial outputs. Much of the rural population, however, live in the dryland areas where traditional, inefficient agriculture is practiced.

In spite of the relative importance of the agricultural sector, overall output has not increased fast enough to keep pace with expanded internal demand created mainly by the growing population. Bread wheat imports have steadily increased from around 200,000 metric tons per year in the late 1950s to well over 1 million metric tons in each of the last three years, but domestic production is little better than it was 10 years ago. Morocco is thus each year more dependent on imported food -- including over \$20 million per year of wheat and other food items under P/L 480 sales and grants as well as meat, vegetable oil, dairy products and sugar through commercial channels. In 1976, the GOM spent \$414 million on food imports, or an amount roughly equal to export earnings from phosphate (\$497 million in 1976). In addition, the GOM allocates over \$100 million -- 5% of the annual budget in 1978 -- on price subsidies of basic foodstuffs.

II. MOROCCAN RESPONSES TO THE POPULATION PROBLEM

A. Government Policies and Statements

Royal Decrees and family planning programs notwithstanding, Morocco cannot be said to have an effective population policy as of this writing. Nor can it be said that Morocco's leaders are well informed or particularly concerned by the country's rapid population growth. Many are, of course, but many more — including apparently ^{some at the highest levels} ~~the Prime Ministers~~ — are not. The growth in numbers is seen as a potential strength, if only some way can be found to educate Morocco's youth. Demographic realism is lacking. Too often, rhetoric and well-intentioned idealism substitute for dispassionate analyses of resources, trends, and prospects. On balance, it would seem that some progress has been made in recent years in terms of improved understanding of the nature of the problem and in terms of provision of government family planning services, but advancement is slow.

The King, who is both the political and religious leader of the country, has thus far avoided public statements in support of family planning. However, in 1966 by Royal Decree a High Commission on Population was established to elaborate and coordinate the implementation of the government's policy on population growth. Twelve ministries were to meet quarterly to conduct the necessary business. To our knowledge this Commission has only met three times in 11 years. Nevertheless, King Hassan II was among the heads of state who signed the UN Declaration on Population in 1968. Shortly thereafter, the Government of Morocco launched a national family planning program aimed at limiting the rate of population growth. In "Le Défi", memoirs of King Hassan II published in 1976, mention is made of the demographic problem facing the nation, but after discussing one of its consequences — the plight of the small farmer — no further mention is made. Despite the existence of a stated

official policy supported by a national program, public policy statements relating to population and family planning are rare. International family planning news is sometimes carried in the country's newspapers and journals, and in the last 6-9 months there has been a spurt of articles drawn from the international press services. Family planning efforts of the GCM are almost never mentioned in the press.

Nevertheless, it appears that there has been a change; the tone of most recent articles in the Moroccan press has been positive. In a speech delivered in April 1977 the Minister of Labor spoke of population/family planning matters noting that rapid population growth is one of the primary reasons for high employment problems in Morocco. Several other ministers have made public statements supporting the need for action. Many officials recognize the demographic problem and speak privately of the urgent need to do something, but their words only occasionally find their way into print or radio/TV broadcasts. Thus the public is poorly informed as to measures the government is taking, having no readily available means of information.

Positive statements by the GCM and particularly by the King or Prime Minister in support of population/family planning programs would tend to legitimize them, not only in the minds of the common folk but, more importantly, among the GCM's own decision-makers who are often uncertain as to the priority to be given family planning actions.

In contrast to the studied silence of the GCM, the private Moroccan Family Planning Association (AMPF) sponsors radio and TV shows aimed at motivating and informing listeners through the extensive "radio-diffusion-télévision Marocaine" system.

In December 1977, a series of animated cartoons and panel shows prepared by AMPF was carried on Moroccan TV. This provoked an article in L'Opinion on December 26 protesting the approach taken but not — if the reader reads far enough — the concept or need for family planning.

While in theory services and information can be provided independently by government and by private entities such as the AMPF, effectiveness requires close collaboration between the service providers (the GOM) and the "educators" (the AMPF).

While Morocco's leaders have for the most part not given public support for population planning, the country's ¹⁹⁷²⁻⁷⁷ Five Year Plan specifically mentions a demographic goal to be achieved through family planning. *The Plan*

~~The Moroccan Five Year Economic and Social Development Plan for 1972-77~~ ^{called for} summarized the following action modalities:

- "The mobilization of the productive capacity of the country to ensure maximum growth rates;
- The equitable distribution of the economic growth benefits in terms of true social justice."

It was stated, however, that priority would be placed on those activities contributing to economic growth. Within each sector specific and often competing goals were defined. The stated demographic goal was "To reduce the crude birth rate from 49 to 43 per 1,000 population by December, 1977." To achieve this goal, a total of 391,390 new family planning acceptors were targeted over the 5 year period. The emphasis in official government programs was put on creation of demand for family planning services through education and information as well as expanded integrated health services. Moroccan planners have accepted the doubling of the population within 25 years as a given. In their analysis future reductions in fertility could not be expected to have serious positive impact on the

economy for 20 years. Thus, the Moroccan planners have not accepted a dynamic governmental role in accelerating declines in fertility as a means of enhancing national economic growth.

B. Indirect Population Effects of Government Programs

While GCM planners are well aware of the rapidly growing numbers of people whom their programs are intended to benefit, with the exception of policies aimed at stemming the exodus of rural migrants to the large cities there is little evidence to suggest that GCM planners are seriously considering policies or programs — other than family planning — which might influence the rates of population growth. Nevertheless, government programs will influence fertility, both positively and negatively regardless of their original intent. Increased investment in education is likely to result in ~~increased~~ ^{increased} acceptance of family planning. Expanded basic education (literacy) and even home management skills directed at older girls and married women are likely to reduce fertility. Programs of the Ministries of Labor, Youth and Sports, and Social Welfare which enhance self-actuation and provide job skills training for women are also likely to influence fertility in a downward direction. GCM efforts to attract foreign businesses and expand local productive capacities — many of which could be expected to employ women — may also have a positive demographic effect. The effect of the Saharan conflict on fertility is more difficult to predict since, typically, armed conflict results in a temporary fertility decline followed by an epidemic of new births — far more than required to replace casualties of war. Furthermore, the Saharan conflict has already resulted in budget cuts and reduced resources available for social sector programs.

Ironically the GCM's focus on capital intensive heavy industry (Nador steel complex, fertilizer plants, etc.) is likely to have an undesirable impact on fertility and on the availability of new jobs (Nador: \$2 billion to employ 8,000 persons). Labor intensive capital investments which expand employment opportunities and reduce poverty and ignorance are seemingly more likely to reduce fertility and benefit the common man.

C. Governmental Operations and Population/Family Planning

As noted earlier the Moroccan bureaucracy is highly structured and its operation often cumbersome. Highly centralized decision-making within Ministries discourages lateral communication among working level personnel within a single ministry and practically prohibits dialogues between ministries. Seemingly high level commissions (for example, the High Commission on Population and the Interministerial Commission on Food and Nutrition) are created to stimulate inter-governmental exchange and priority program coordination. Since the underlying governmental bottlenecks are not addressed, i.e., appropriate delegation of authority, open exchange of information, clearly defined priorities, etc., high level commissions suffer from competing priorities, technical ignorance, and a general reluctance to either assume or share responsibility with other ministries. Under these circumstances, coordination and collaboration among ministries is difficult.

Such problems pervade the working of all ministries. Modern program budgeting and cost accounting are virtually unknown concepts. There are three budget categories — the development budget which is almost exclusively used for major equipment purchases and construction; the personnel budget which covers salaries and allowances; and the

annual operational budget which covers minor equipment and the materials and supplies necessary for annual operations. At the center (Rabat) fiscal accounting and administrative management are services separate from technical operations. Technical managers responsible for national level programs have no idea of real program costs and little understanding of program results in terms of beneficiaries and overall development goals.

Ministry of Health - organization and Infrastructure
The Ministry of Health is structured like the other ministries.

The provision of family planning service is accepted as one of its many priority preventive health responsibilities. Family planning is one of 5 services (the others are statistics, health education, MCH/nutrition, and school health) in the Division of Population under the Bureau for Technical Services which includes most of the remaining specialized health activities. Family planning as a preventive health service is fully integrated within the health activities of each province. Family planning has been, and to a great extent still is, viewed one health priority among many with little special emphasis.

In terms of budgetary allocations, curative services, medical education and hospital construction receive the lion's share of resources. Manpower and operational funds for family planning compete for the limited resources allocated to preventive services including services for MCH/nutrition, school health, malaria, TB and leprosy control and health center and dispensary construction. Budgetary allocations for family planning are deceptively low, since they are intended to cover only direct costs of construction of family planning referral centers and the direct IB&C efforts and services provided by the Family Planning Service in Rabat. Personnel, facilities, transportation, and other major costs for activities in the provinces are "hidden" in the overall MCH budget, and are not for the most part attributed to family planning.

To know actual expenditures for family planning or any of these services would require an objective analysis of provincial budgets and a detailed time and motion study.

Family planning is, in principle, accorded the same priority as other health services. There are no special incentives provided for either workers or clients. Family planning services are — to some degree or other — incorporated into the work of nearly all MOH facilities. In January 1978, there are a total of 1,010 government hospitals, health centers, and dispensaries in the country, staffed by 700 physicians and 9,000 paramedicals. In addition, there are 11 operating family planning Referral Centers located in provincial centers. These centers offer, in principle, full-time family planning services, provided by a physician and a staff of at least 4 paramedicals. Services are provided without charge in all MOH facilities.

For a more complete description of the public health system in Morocco, the reader is referred to the Morocco Synthesis prepared by the Office of International Health, U.S. Department of Health, Education, and Welfare, February 1977.

MCH Family Planning Program

The MOH program in family planning is implemented in two ways — clinical family planning services and supporting motivational counselling services are offered in rural and urban health centers, maternities and the new Family Planning Referral Centers. More general information, motivational counselling and client follow-up for family planning are provided by multi-purpose personnel as one of their permanent responsibilities. In several provinces recently selected nurses have been given added family planning responsibility in gynecological screening, IUD insertion and orals distribution. In El Kelaa province mobile MCH/FP services are offered in rural centers on souk days. Similar

mobile services are under consideration in Meknes and other provinces 17
as vehicles become available.

Training in family planning and demography is presently included in the country's two medical schools and in all paramedical training institutions. It is also included in the refresher training courses through which all paramedical personnel regularly pass.

There is a general shortage of both physicians and paramedicals; thus, facilities are often severely understaffed. In the new Rabat 5-story maternity hospital only two of the five floors are in use due to a shortage of personnel and equipment. Under-staffing sometimes results in serious program consequences as happened in the Marrakech Family Planning Referral Center, when the temporary lack of a full-time physician caused new acceptances to plummet from a high of 600 in April 1977 to almost zero in August 1977 before the assignment of a full time replacement. Happily, the situation in other Referral Centers has been better, with the number of new and repeat clients increasing rapidly. Still, personnel shortages — particularly of OS-GTMs of which there are only about 20 Moroccan nationals throughout the country — are a critical constraint to improved family planning clinical services.

Contraceptive services currently offered include orals, IUDs and condoms. Orals account for about 8 out of 10 new acceptors. IUDs, after a period of low acceptance are now making a significant comeback, with Copper 7s playing an important role. Voluntary sterilization and abortion services are not officially a part of the MOH program (and no statistics are collected on them), but are nonetheless available at many service facilities. Injectables are not yet generally available in the MOH program, though they will be offered as soon as the U.S. FDA approves the method for general use in the U.S. In small-scale

experiments with DMPA in Rabat, the method has proven to be very popular. It's proven acceptability (both here and in large-scale trials and programs elsewhere), the simplicity of administration, and the very high method reliability make this a most attractive potential offering.

MOH Pilot Programs

The most important of MOH pilot programs at present is the Marrakech household distribution project, termed "Visites à Domicile de Motivation Systématique". This project aims at making contraceptive information and services available directly in the homes of Marrakech's 1.2 million people over the 30-month life-of-project period. (~~Summary~~

~~description: Marrakech Household Distribution Project in Morocco~~

Nurses carry orals and condoms to the home, and offer them to eligible couples following the administration of a structured questionnaire.

Workers visit an average of 12 homes per day, working afternoons and Saturdays after completing their regular MOH duties in the mornings.

In Phase I, which covers Marrakech city, 80 nurses are involved in visiting all homes in their assigned sectors.

Initial results of the project have been most satisfactory: acceptance is higher than expected (about 61% of all women 15-44 contacted), coverage is progressing at about the designed speed (12 homes per day per worker), and there have been no serious political or other repercussions. The support of the Governor and the Pasha, and written approvals from the Ministry of Health in Rabat have smoothed the way. Although it is very early, the MOH is already talking of expansion of the project to other provinces in the Kingdom. Toward this end, the MOH is producing a filmed record of the Marrakech project which can be used to record progress and problems, ~~xxx~~ as a training device for personnel in other provinces, and for possible publicity purposes.

The importance of this project derives from its taking — for the first time — contraception out of the clinic and directly into the home. The project builds on an already extensive MOH network of personnel and fixed facilities, and was designed to be readily expandable throughout the MOH country-wide structure. A second important element of the project is the distribution of orals by paramedicals, whereas the MOH practice has been to require physician screening for pill prescription.* The Marrakech project should demonstrate the efficacy of using medically supervised paramedicals for orals distribution and prescription. A revised policy along these lines would permit utilization of the 900 dispensaries staffed by nurses and assistant nurses for the purpose of pill prescription.

Other pilot innovative service and informational efforts are undertaken largely on the initiative of the local médecin-chef and his staff. In the province of Khouribga, an active outreach program has been conducted using the Family Planning Referral Center as the home base. Films and motivation teams have been taken to the phosphate plants in the province and to other organized businesses. In neighboring El Kala and other provinces, the provincial Médecins-Chefs have initiated various service and outreach activities which take advantage of local resources and respond to local conditions. Vehicles to support mobile activities could conceivably be provided by the UNFPA.

Information, Education, and Communication
The present MOH program is seriously limited by the lack of a well-defined and executed information, education and communication plan. There is at present a noticeable absence of good family planning and population materials: pamphlets, handouts, posters, calendars, informational bulletins, journals, films, slides, etc.

* pills are, however, available in pharmacies without prescription

Although the MOH requested an IE&C specialist consultant (Dr. Botros) from the UNFPA, only fragments of the IE&C plan he developed have been started, most notably a documentary film which is nearing completion. The film (in fact, four films which can be run together or can stand independently) will be reproduced in 50 copies for wide distribution in Morocco.

One important limitation on the MOH's ability to develop and implement a comprehensive IE&C program is the lack of trained and qualified information specialists. Sponsorship for the training of such personnel would seem a good investment by either the UNFPA or USAID.

Thus, for the most part, motivation activities take the form of client counselling in hospitals, health centers, and dispensaries. While there is no organized post-partum motivation program, in practice females delivering in hospital (82,561 in 1976 or about 10% of all births in Morocco) generally receive contraceptive counselling from the attending physician or paramedical personnel.

Other Governmental Inputs

Several other Moroccan ministries have recognized the need for improved demographic information and family planning. Material on population and family life education developed jointly by the MOH and the Ministry of Education are provided in Morocco's public school system, beginning at the eighth grade level (age 15). Unfortunately, as the dropout rate after grade three is very high many children leave the school system never having been exposed to any POP/FP concepts.

While there is understandable opposition to including family-life education at the elementary school level, it would be possible and useful to introduce population and ecology concepts, including the basic economics of family life in Morocco.

The Ministry of Youth and Sports is responsible for "Promotion Féminine" and an extensive "Foyers Féminins" program which reaches 45,000 young girls aged 10 to 20 in 368 training centers throughout the country. In cooperation with the UNFPA, the private family planning association (AMPF) and the MOH, family planning information is included in the curriculum of the Foyer program. In some instances, outreach programs which use the Foyer Féminin centers as a base distribute contraceptives. The Women's Service (Promotion Féminine) has conducted family planning training sessions at national, regional and provincial levels in 1976-77 financed by the UNFPA. These sessions involved 3,903 participants in 1976, 2,212 in 1977 and plans^{are} to reach an estimated 3,960 in 1978.

The Ministry of Social Affairs and Handicrafts has a program for 60,000 young girls in 257 Ouvroir centers throughout the country which provide handicraft, basic literacy and house economics training for disadvantaged young girls, much as do the Foyers Féminins. They do not, at present, include family planning training but could easily build it in. The Ministry of Social Affairs and Handicrafts is also considering F.P. informational program for the 125,000 mothers attending its 250 food distribution centers throughout the country. Discussions with the Ministry of Social Affairs and Handicrafts are continuing and they appear promising.

The Ministry of Interior is only peripherally involved in population/family planning activities at the local and provincial levels. However, the support of the caïds, pashas and governors for local initiatives in family planning motivational efforts and rural services is an important and necessary aspect of expanded activity. The Ministry of Information works closely with the MOH and the private Association *AMPF* ~~Marocaine de Planification Familiale~~ to develop and air panel programs and spot announcements on the Moroccan population problem and available service centers.

These activities represent the substance of the real commitment of the Moroccan Government to population/family planning at the end of 1977. They are at the same time encouraging and disappointing, as they are certainly moves in the right direction, but are woefully less than what is necessary to attain a significant impact on current demographic trends.

Other ministries remain largely uninvolved in population matters, though many have considerable potential for moving forward in this area. The Ministries of Information, Religion, Interior, Agriculture, and Defense are examples where more coordinated population/family planning actions could profitably be undertaken. In theory the High Commission on Population should serve as the stimulus and coordinator of activities in these ministries, but the Commission does not function and no other ^{activating} organization yet exists to fill the vacuum. There is talk of ~~activating~~ the provincial-level chapters of the High Commission, but to date there has been little effective action.

D. Non-Governmental Population and Family Planning Efforts

1. AMPF

The private Association Marocaine de Planification Familiale (AMPF), with headquarters in Rabat, conducts virtually the only family planning INSC effort in the country. In addition the AMPF operates through 4 affiliate chapters 11 clinics and several small-scale field programs. With an annual budget of \$142,900 in 1976, the AMPF recruited 7,479 new acceptors and served 32,229 continuing acceptors. New acceptors represented a 24% increase over acceptors in 1975.

The AMPF is a powerful lobby for population/family planning. Working closely with local government officials and the MOH, the Association has sought to promote governmental support for more dynamic programs in the communities. Its mass media information effort is the product of careful negotiation with the Ministry of Information and MOH officials. An innovation tried in Rabat and Casablanca involves using women attendants in public baths to motivate and inform women of family planning possibilities. But the AMPF is not without its troubles: coordination with the government program, internal problems of membership and leadership, and squabbles with its main source of financial support, the IPPF in London. Still, the level of activity and enthusiasm with limited professional staff -- and new ideas for still further activities -- is impressive. The AMPF seeks to maintain independence while developing activities supportive of the much larger government program. General information, education and communication activities, including information packages aimed at high-level government officials, would seem to be ideal complements to the GOM program.

2. Private Physicians and Pharmacies

In 1977 there were a total of 582 private sector physicians and 437 registered pharmacies in Morocco with the greatest percentage in Rabat, Casablanca, and other urban areas. Private physicians interested in family planning lack equipment, supplies, and, in some cases, the required training. Thus far, the government has done little to involve private physicians in family planning, although they are as numerous as GOM physicians and are in contact with a different segment of the population. As private health personnel, heavily concentrated in urban areas, they might be enlisted to serve the growing number of urban poor. The MOH could then concentrate a greater share of its resources in the less-well-served rural areas of the country. The GOM could supply family planning information, equipment, supplies and training to private physicians, and perhaps could work out an equitable system of reimbursement for family planning rendered in the private sector. Such programs have been carried out elsewhere with considerable success, and would seem to offer the MOH a relatively inexpensive way of greatly enhancing its urban family planning services.

While the number of family planning clients served by private physicians is unknown, a recent USAID estimate (Annex 3) suggests that as much as 170,000 women-years of protection may be provided through sales of oral contraceptives in registered pharmacies. An additional 30 to 40 thousand couples are served by the private family planning association. Thus, considerably more Moroccans receive contraceptive services through the private sector than through government programs, perhaps two or three times as many ^{*}.

* Interestingly in Marrakech city the opposite appears to be true, with about twice as many women claiming public as compared to private sources for their oral contraceptives; however, these figures do not take account of private sector sales to non-married women, which are believed to be substantial

Eight to 10 brands of oral contraceptives are generally available without prescription at a cost of \$1 to \$1.50 equivalent. Condoms are also available, but are not popular. Surprisingly, pharmacies located in rural or in mixed urban-rural areas report higher contraceptive sales than those in urban locations, probably due to the fact that pharmacies are relatively fewer outside the cities and thus have a much larger clientele. While orals are increasingly popular, the current pharmacy price is beyond the reach of many needy couples. In informal discussions, the MOH has reacted positively to the possibility of subsidizing the distribution commercial/system to bring the price of orals within range of couples who might choose to obtain their resupply at a pharmacy. USAID plans follow-up discussions on this key opportunity.

III. IMPLICATIONS FOR U.S. PROGRAMS

Analysis of Opportunities and Needs

While Morocco manifests outwardly the signs of a moderately well-to-do LDC, it has serious social and economic problems. The continued accrual of too many people too fast can only serve to exacerbate an already formidable development problem.

Sections I and II above have described the arena and the key players. Also identified were actions which can be taken by the Moroccan Government with relatively little political risk, and with potential for significant intermediate and long-term impact on fertility and the demographic structure of the country. The directions and relative priorities for the economic development of Morocco are now being debated and determined for the 1978-82 Five Year Development Plan which Government officials assert will address questions of social and economic equity, emphasize economic decentralization, and will accelerate improvements in rainfed agriculture to a greater degree than previous plans.

Trade-offs between long-term social investments such as primary schools and preventive health facilities and investments with a more immediate pay off will be a key issue. The Plan will have to reconcile competing national and regional social and economic goals in defining an effectively balanced development investment strategy. Rapid population growth is one of the primary phenomena inhibiting the development of adequate health, social, and economic systems necessary to improve the well-being of the Moroccan people. The potential for doubling or even tripling the population in the next 50 years is inherent in Morocco's youthful age structure, wherein some 46% of all Moroccans are less than 15 years of age. Barring natural and man-made disasters on a catastrophic scale, this potential is inexorable -- a factor of persons already alive today who will go on to reproduce themselves 1 $\frac{1}{2}$ years to come.

A conscious and calculated investment strategy to slow population growth and reduce problems of rapid urbanization while addressing existing unmet demand for social services and family planning is needed.

An effective Moroccan population program goal would seek changes in the total environment of Morocco which would foster a substantial and progressive decline in the size of completed families.

This decline could be measured by:

- (1) substantial and sustained reductions in age-specific marital fertility rates, particularly in the lower age groups;
- (2) substantial and sustained increase in the percentage of fertile couples continuing the practice of birth control;
- (3) significantly increased GOM allocations and expenditures in the population sector.

We believe that the Government of Morocco need not passively accept rapid population growth as a developmental given, to be reduced only when (and if) the fruits of economic and social development trickle down to the poor majority. Even now the debate over development priorities and strategies indicates the emergence of a growing body of concerned and informed GOM officials and private citizens. In fact various policies, laws and programs will directly or indirectly reduce family sizes; several of these were described in sections I and II. While traditional patterns of family formation and economic life persist to a great extent in the rural areas, these patterns are changing, in part due to population pressures which force more and more rural people off their land.

Thus even in villages traditional thought and behavior co-exist with modern practices. Morocco is already a country in rapid transition and the modernizing influences, both the good and the not so good, are here to stay.

In a document prepared for this strategy statement (see Appendix ~~4~~), Professor Robert Fernea (Department of Anthropology, University of Texas at Austin) has concluded that:

(1) there are no significant cultural or religious constraints to family planning practice in Morocco;

(2) the rapidly changing nature of particularly urban but also rural life in Morocco has created a growing demand for contraceptive services; and

(3) this demand is not always clearly seen either by high Moroccan government officials or by foreigners including Americans in Morocco. Fernea argues that the basic needs (health care, shelter, clothing, education, food, employment) are much the same for the poor as for the relatively well-off, and thus a demand for contraception already exists. The self-image of the Moroccan bureaucrat as wiser, more rational and by definition different than the poor and disadvantaged members of the community makes it difficult for him to believe that the poor may be governed by many of the same influences which govern the fertility behavior of the rich, i.e., that the poorer majority is ready — right now — to accept and use family planning services.

Evidence available to us suggests that in fact there exists a substantial demand for services. This demand can be most clearly seen by:

(1) substantial sales of oral contraceptives in pharmacies;

(2) demand for contraception among both urban and rural women delivering in provincial hospitals;

(3) discussions with health workers serving urban and in rural areas, together with published reports such as one recent article describing a remote village where 60% of the eligible women claimed to be practicing birth control; and

(4) service statistics and research evidence. *

However, one must resist the urge to generalize too much about the meaning or extent of the existing demand, since necessary anthropological and other social data are unavailable.

We conclude that traditional social and cultural factors remain significant but weakening constraints on the reduction of fertility in Morocco.

Bureaucratic constraints in Morocco stem from two primary sources: the absence of a clearly defined national priority for population programs, and inefficient, compartmentalized, ineptly administered, and manpower-poor public institutions — the caricature of Myrdal's Soft State.

Political constraints, we believe, stem primarily from (1) deleterious effects of continued rapid population growth in Morocco; (2) a possible misperception of how simple or difficult it might be to decelerate population growth given the tremendous built-in momentum inherent in Morocco's age structure; and (3) fear that strong overt government family planning and related programs might precipitate an undesirable or even dangerous political backlash, fueled by the opposition parties.

* of the first 8,428 women 15-44 interviewed in the Marrakech VIMS project, 48% claimed habitual use of some contraceptive method; 34% claimed use of oral contraceptives. These were urban, married women.

In our considered view, bureaucratic and political constraints are the most serious obstacles to the promulgation of truly effective population and family planning programs by the government of Morocco.

In the absence of a Moroccan demographic goal and reliable data on vital rates and numbers of contracepting couples, it is difficult to quantify the goal which U.S. population assistance is expected to help attain. Nevertheless, USAID believes the tentative figures cited below illustrate the magnitude of change which it hopes to foster.

According to the most recent USAID estimate a total of about 350,000 couples in Morocco are using some modern contraceptive method. Of these, about 150,000 or 43% are served by the Ministry of Health, and 200,000 by the private sector. For planning purposes, we suggest a 1982 goal of 850,000 contracepting couples, representing about 18% of all females 15-49 in 1982, as compared to about 8% of all females 15-49 who are believed to be practicing a modern contraceptive method in 1977. The 850,000 figure would comprise a 100% increase in contraceptive prevalence in the private sector (from an estimated 200,000 to 400,000 couples) and a three-fold increase in contraceptive prevalence in the public sector (from an estimated 150,000 to 450,000 contracepting couples). This goal can be attained primarily by meeting existing contraceptive demand. Data obtained from the 1978 National Fertility and Family Planning Survey and the Marrakech household distribution project will be helpful in determining whether the goal of 850,000 contracepting couples by 1982 is in fact a realistic one.

We believe that U.S. assistance options available to the Country Team fall into two basic categories:

(1) those which improve the lives of and increase the options available to the the population in a general fashion; and

(2) those which provide immediate satisfaction to demands for contraceptive information and services.

In the first category it is our intention to strengthen and expand the several planned and ongoing projects which respond to Basic Human Needs. These include:

- Job Training for Women
- Women in Development
- Dryland Farming
- Nutrition Planning

Our dryland farming project is being designed to improve the incomes of the smaller farmers in non-irrigated areas with less than 300 mm of rainfall/year. If successfully implemented one could reason that improved agricultural techniques improve production which increases disposable income and raises personal aspirations and options for the farmer and his family, being in turn supportive of family planning acceptance and practice.

More directly impacting on family fertility are projects increasing women's educational status and their active participation in the labor force. In 1979 USAID plans to begin a Women's Job Training (project 0147) with Ministry of Labor collaboration. This pilot project will provide job training and placement opportunities for 600 young women over a 36-month period. With the success of the pilot project, approximately 1,000 women per year will be similarly trained thereafter.

Multilateral and Bilateral Assistance to Morocco for Population and Family Planning 1/

<u>Donor</u>	<u>Total Value</u>	<u>Assistance Components</u>
UNFPA	\$3million grant	Family planning regional seminar Motivational films IZSG consultant (6 months) Materials and equipment for family planning Reference Centers Materials and local finance for family planning educational activities in Ministry of Youth and Sports Vehicles

IPPP \$.15million grant 2/ Primarily local costs of Association Marocaine de Planification Familiale (AMPF) with approximately 10% for commodities

Pop. Council Resident advisor provided from 1975-1976
Assistance for National KAP Study

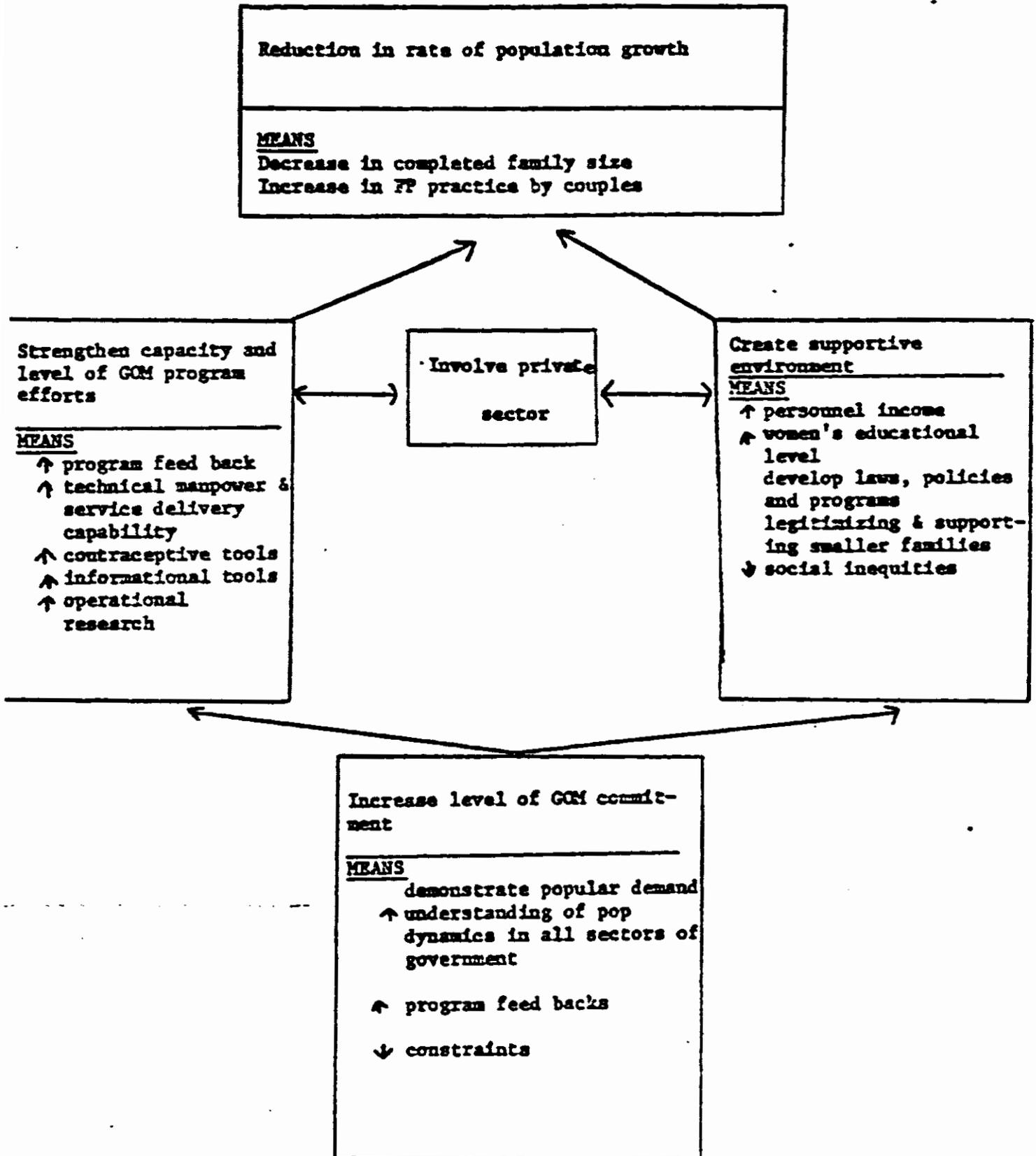
USAID Construction costs . National FP Center
. 13 FP Reference Centers
FP commodities
Long- and short-term training
Clinical FP equipment

- 1/ There is occasional assistance from other donors in specific health fields which indirectly supports family planning.
- 2/ IPPP grants to the AMPF activities were \$132,000 approximately in 1976, \$148,800 in 1977 and 181,700 projected in 1978.

Under another project (0139) AID will be working with the Ministry of Youth and Sports to improve the skills training included in the Foyers Féminins. If these projects are successful in increasing the participation of women in skilled vocations we believe this participation will tend to delay marriage and increase demand for and use of family planning to achieve desired family size.

We believe, however, that a continuing analysis of the demographic impact of U.S. projects and activities in Morocco will help identify other relationships and opportunities to integrate our efforts to ensure that Basic Human Needs in Morocco are increasingly met and are consistent with demographic goals. The USAID Mission plans a comprehensive multisectoral review (DAP) of its overall assistance strategy over the summer and fall of 1978. In developing a strategy to meet Basic Human Needs in Morocco the long-term demographic implications of each program and sectoral element will be analyzed.

The Country Team has concluded that the U.S. population assistance strategy must direct our modest U.S. manpower resources and our not-so-modest financial and technical resources toward actions which will have a maximum impact on the availability of services and on the level and effectiveness of GCM commitments in the population field.

Hierarchy of goals and means for reducing the rate of population growth inMorocco

An increased level of government commitment can be expected:

1. When existing demand for family planning information and services is clearly demonstrated;
2. When there are minimal or no political repercussions to new pilot scale innovative service programs;
3. When GOM decision-makers better understand the social, economic and political consequences of not attempting to reduce the rate of population growth;
4. When the expected costs and benefits of investments in population family planning compare favorably with other possible investments.

Underlying our strategy are the following assumptions:

1. Many Moroccan couples are already highly motivated to accept family planning. However, they lack access to information about effective methods and are unable to obtain services easily.
2. In addition to the present rather extensive health services infrastructure, the private commercial sector and the client service systems of other ministries could be mobilized to supplement and complement existing health outreach efforts.

3. The health services infrastructure will continue to expand ^{reach} its family planning and information services to the majority of the population.

4. Client satisfaction from conveniently available and quality services will generate increased demand for these services.

5. Fiscal resources are not a critical limiting factor since various donors in addition to the U.S. stand ready to assist a committed GOM.

Thus the U.S. assistance is aimed at creating conditions for a higher level commitment.

Among our planned activities perhaps the most important in assisting this exchange process are the Marrakech household distribution project and the National Fertility and Family Planning Survey. Already initial data from Marrakech indicate considerably higher use of family planning from both private sector and GOM service outlets than had been expected. During the ^{first round of visits} ~~initial~~ acceptance of orals by persons not now using contraceptives was also higher than anticipated. The task now is to determine the extent to which these results hold valid in rural areas. The National Fertility Survey will help to understand current fertility behavior and family planning practice. To the maximum extent possible, conclusions and data from these two studies should be utilized for the formulation and development of improved ways for providing desired services.

A successful experience in household contraceptive delivery as measured by continuing use at new higher levels should help convince the GOM that demand exists. Already the increased popularity of the FP Referral Centers in the provinces attests to a demand in other provinces for quality services.

Regular feedback is built into the VDMS project through data runs and evaluations at the end of each phase. This example will help to generate increased attention to the analysis and tabulation of service statistics.

We are convinced that family planning program success will be a strong element in increased GOM commitment. The adage success brings more success is consistent with Moroccan moves. To this end we will continue to provide generous support in contraceptives, U.S. short- and long-term training, equipment for expanded family planning clinical services and the best available U.S. consultants to respond to specific requests.

the
Although/key to improved services on a national level lies in a stronger GOM commitment, training in population dynamics as well as contraceptive techniques can contribute to a stronger commitment and understanding of the need for official action to reduce the growth rate.

There is much to be done in population information education and communications and while the U.S. has considerable expertise, the UNFPA and the AMPP are properly equipped and prepared to assist in developing informational materials and mass media packages. An appropriate U.S. role in IE&C would be to share the results of our now varied experiences around the world. We plan to prepare materials adapting this experience to the Moroccan setting for use in our continuing development dialogue with the GOM.

Since the MOH has expressed some interest in commercial distribution of contraceptives, continuing discussions on ways and means would seem profitable. Of lesser direct priority are efforts to change private health and government employee insurance regulations to permit reimbursement for family planning services rendered and supplies purchased.

An analysis of actuarial benefits accruing from family planning use could be undertaken drawing on comparable international statistics.

An effective national program must involve non-health delivery networks. The MOH has worked closely with the Ministry of Youth and Sports. We believe the U.S. through its contacts in other programs can help to identify systems which can complement the health effort in family planning or reach now underserved groups.

In summary our strategy in the medium term is to accentuate the positive aspects of population/family planning strengthening the current national program as a means to increase the level of GOM commitment. This action strategy addressing the key pre-conditions to a fuller commitment is flexible and consistent with U.S. interests in Morocco.

Table 1 Current Data ^{1/}

1. Total Population (1977 estimate)	18.3 million
2. Crude birth rate	48 per 1,000
3. Crude death rate	16 per 1,000
4. Rate of natural increase	3.2% per annum
5. Years to double population	22
6. Percent total population under age 15	46
7. Rate of growth of urban population	5.3% per annum
8. Years to double urban population	13
9. Years to reach 60% urban/40% rural	28
10. Total females 15-49 years of age	4 million
11. Married females 15-49	2.8 million
12. Estimated number of females at risk of pregnancy	1.8 million ^{2/}
13. Estimated number of contracepting couples	400,000 served by private sector
	150,000 served by public sector
	550,000 overall
14. Contracepting couples as % females at risk (13 as % of 12)	22.2% private sector
	8.3% public sector
	30.6% overall
15. Number of persons per physician	13,874
	per public physician 33,457
	per private physician 31,443
	per paramedic 2,002
	per hospital 233,766
	per hospital bed 841
	per health center 92,783
	per dispensary 24,357

^{1/} all figures should be read with caution; see Annex 3 on limitations of available data

^{2/} see Annex B, page 6

16. Infant mortality rate	130 per 1,000 live births
17. Life expectancy at birth	53 years
18. Total cultivated land (hectares)	7,469 million
19. Persons per hectare of cultivated land	2.45
20. Unemployment rate	11% official, 25% unofficial
22. Total GNP 1976 (US\$)	8,600 million
23. GNP per capita (US\$)	525
24. Average GNP growth (1971-76)	6.3%
25. External debt-servicing costs, 1974 (US\$)	126 million
26. Projected external debt-servicing costs, 1980	465 million
27. Agriculture exports as % total GNP	3.9%
28. Phosphate exports as % total GNP	5%
29. Food subsidies and imports as % total GNP	4.3%

GOM Family Planning Targets and Performance

1973-1977

Year	1973	1974	1975	1976	1977 2/	All Years
New acceptor TARGET	70,220	64,570 (- 8.0)	74,300 (15.1)	84,770 (14.1)	97,530 (15.1)	391,350
ACTUAL	37,030	55,396 (49.6)	72,179 (30.3)	77,913 (7.9)	100,242 (28.7)	342,760
Pills	27,327	46,219	59,774	63,708	83,282 (30.7)	280,310
IUDs	5,156	6,324	7,481	6,158	8,688 (41.1)	33,007
Condoms	4,547	2,853	4,924	8,067	8,272 (2.8)	28,643
Actual as % of target	52.7	85.8	97.1	91.9	102.8	87.6

1/ This table represents virtually the only data available from which to analyze the GOM family planning program. Client profiles, continuation data, method switching, and inputs data (man-hours, comprehensive cost-estimates) are unavailable. The most recent estimates on IUD and oralis continuation rates come from a 1972-73 survey, and may not be reliable.

2/ Projected 12-month figures based on actual acceptance in first six months of 1977

Annex 2

Limitations of Demographic Data and Sources

Morocco, like many LDCs, lacks good demographic data. Estimates of the total population in 1977 derive principally from the national census of 1971 which yielded an overall figure of 15,267,350 people, up from 11,626,470 enumerated in the 1960 census. CERED, the Ministry of Plan's demographic arm, has prepared population projections to the year 2000, basing its work on population growth during the 1960-71 intercensal period and on fertility/mortality estimates derived from its own surveys in 1972-73. CERED's estimate of the 1977 total population is 18,247,000 (as compared with the U.N. estimate of 18.3 million and the U.S. Census Bureau's estimate of 18.5 million). The table below presents CERED's projections for the period 1977-1982, the last five years of which represent the new 5-year plan period:

<u>Year</u>	<u>Urban Population (% urban)</u>		<u>Rural Population (% rural)</u>		<u>Total</u>
1977	7,200,000	(39.5%)	11,047,000	(60.5%)	18,247,000
1978	7,572,800	(40.3%)	11,232,200	(59.7%)	18,805,000
1979	7,965,200	(41.1%)	11,414,800	(58.9%)	19,380,000
1980	8,378,700	(42.0%)	11,594,300	(58.0%)	19,973,000
1981	8,811,600	(42.8%)	11,771,400	(57.2%)	20,583,000
1982	9,269,600	(43.7%)	11,942,400	(56.3%)	21,212,000

It can thus be seen that, according to CERED's projection, the total population will increase by 2.4 million persons during the 1978-82 plan period, and rural-urban migration will continue the long-established trend of movement toward the cities so that by 1982 44% of the total population will reside in urban areas. Their projections for the year 2002 range from

35 to 38 million total population, or a doubling in about 24 years. CERED's Projections are, as are all such prognostications, subject to interpretation and to considerable error, as the input data are of uncertain quality and the assumptions are tenuous. Yet, in spite of their many limitations, they seem useful for education and for planning purposes.

The Ministry of Interior operates a vital registration system throughout the country, recording births, deaths, migration, and other data pertinent to their internal interests. Birth certificates and vaccination certificates are required for school enrollment. Government services are normally only available to those with valid identification cards issued only after vital data has been collected. Thus registration in urban areas approaches 100%, while in rural areas vital demographic events are admittedly under-recorded.

The Ministry of Health also attempts to record vital health data through its outreach service (SIAAP) which covers about 60% of the country. First-hand observation of this system suggests that the data are unreliable for serious demographic analysis.

The National Fertility and Family Planning Survey planned for 1978 is intended to estimate with acceptable accuracy national fertility levels for rural and urban groupings. It will also yield useful estimates of age-specific fertility and of overall fertility for Marrakech province where a major Family Planning pilot program is now underway. Finally, it will provide valuable data on contraceptive knowledge, attitudes, and practices which will be used for program analysis and planning.

The Marrakech household distribution project (Visites à Domicile de Motivation Systématique) includes a research component yielding data on contraceptive prevalence, family size, and other demographic variables. The first computer tabulations of VIMS data have been run. For example, interview data from the first 5,078 women aged 15-44 in Marrakech city in October 1977 yielded the following (crude) tabulations:

93.6% have regular periods

9.9% claimed to be pregnant at time of interview

2.4% ^{have} not been pregnant within last 3 years

23.7% were breast-feeding

68.1% do not want any more children

23.4% want 1-2 more children

67.7% have more than 2 children already

47.5% claim to use some contraceptive method of which

- . 47% use pills from government program
- . 22% use pills from private source
- . 7% use IUS
- . 1-2% use condoms
- . 1-2% use withdrawal
- . 21% use some other method, including sterilization

58% accepted orals from worker (or 68% of those eligible for pills)

These data will continue to be generated for the 30-month duration of the pilot program and will become increasingly interesting as the program moves out of Marrakech city and into the surrounding rural areas.

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The National Fertility and Family Planning Survey planned for 1978 will do much to fill in the critical data gap which presently exists, helping program administrators to better understand the parameters of the ongoing program, and to better identify its shortcomings.

USAID, in cooperation with the MOH and the International Fertility Research Program (IFRP - North Carolina), plans to sponsor a Maternity Record Study in several large-city hospitals beginning in 1978. This study will yield useful data on events surrounding childbirth and will assist the MOH to better understand the context in which family planning takes place in Morocco.

In sum, while current data are unreliable and generally inadequate for demographic analysis, several efforts now underway and planned for the near future promise to afford a more clear and detailed portrait of Morocco's demographic situation within the period of the next five-year plan.

Social and Cultural Factors of Significance in Morocco in Regard to Family Planning Programs and Policies

Robert Fernea 1/

Introduction

The comments which follow are intended to be suggestive and are based on a number of assumptions and observations which would need further research to be more firmly established. I have drawn upon my own experience in Morocco in 1971-72, the work of other scholars, and the past two weeks of conversations and observations. While I hope what I have to say may be of some use to the AID mission, I trust that the tentative nature of these remarks will be taken into account in determining the weight which should be given to them. I feel quite confident about what I have to say but I also would want to do more research on the topics I will raise before representing my analysis as the end product of a serious anthropological inquiry.

The basic theme which will be developed in this statement is that there exists a fundamental distinction between idea and practice with respect to contraception in Morocco today, that this distinction is a product of both traditional attitudes and contemporary social and economic change and that the result of this distinction is reflected in public policy concerning family planning. I will argue that the discontinuity between idea and practice not only affects the thinking of Moroccan officials but also that of Americans in Morocco and must thus be taken into account in the planning of AID programs.

For the most part the cultural attitudes which I will discuss will be those reported by educated Moroccan officials to be typical of uneducated Moroccans; when there is direct evidence concerning what the uneducated Moroccan actually thinks, mention will be made of this fact. This is not to imply that the Moroccan officials are always mistaken; I merely want to emphasize that I am concerned with their cultural perspective and outlook. There is good reason for this apart from the fact that these were practically the only people interviewed: they are policy makers and it is their view of the problem which underlies the programs and policies they can develop.

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Islam and Politics

A repeated theme in our discussions was of factors which affect the willingness of Moroccans to consider and accept family planning services. The notion of religious opposition was several times raised by the Moroccan officials and then dismissed as lacking real significance. However, from a number of remarks it became clear that it is "enlightened" Islamic opinion which is not opposed to contraception and "fanatic" views which stand in opposition. Thus the Secretary General of the Ministry of Health eloquently developed the idea that modern contraception is the evolutionary outgrowth of a development begun by the Prophet when he revealed that infanticide was sinful (a common practice of his time) and accepted the then contemporary methods of contraception (premature withdrawal or "Azl" being one of these). When religious opposition was discussed, "killing" was associated with contraception; the idea that a living fetus is murdered would make the practice of birth control as unacceptable as abortion is formally considered to be. ^{2/}

Indeed, one high official suggested that the term "family planning" should be abandoned because of its negative associations and that a long-term and careful planned program of instruction and education would be necessary before the practice of birth control might become acceptable to the illiterate. Yet in this instance as well as most other interviews with Moroccan officials, religious opposition was dismissed as being of minor significance or the product of fanatic views. What must be left unanswered is what groups are considered by the intelligentsia to have such unenlightened views? Is it the Islamic Brotherhoods? Only the more radical of such groups? In any case, the typical reaction was that religious attitudes are of much less importance than "la politique".

Political considerations offered included two general categories. The first was that contraception and family planning are the plot of Western capitalism to avoid its responsibilities to the Third World and to maintain an exploitative relationship with developing countries. This political problem was frequently raised but (perhaps in part for our benefit) treated as an absurdity which was becoming (or indeed has already become) outdated. Instead, the newer perspective, it was said, involves a view of the real Morocco in which resources and demography have replaced such ideological nonsense.

Little or no attention was given to the problems with Algeria. The idea that Morocco must keep its population on a level with that of its unfriendly neighbor was only once mentioned as a part of the consideration of "équilibre" which should in general govern family planning.

2/ This interpretation is obviously not consistent with the medical facts of modern contraception, but may nonetheless be an effective argument when used among illiterate groups.

Much more emphasis was given to the political implications of family planning as a government program. The fact that it is the government which encourages such practices would automatically result in their rejection by the masses, who are in any case suspicious of the government and bored by official information on TV and radio. This is perhaps the most important political issue and one senior official spent a long time developing and elaborating the complexity of the problem, coming to the conclusion that there was little the GOM had yet done or could itself do to remove the taint from its own efforts to inform and instruct. However, information and instruction was seen to be the only way in which family planning could be introduced to the masses. Thus he seemed to say that the GOM was at checkmate and that new communications approaches would have to be developed — perhaps by American specialists — which might more effectively solve this problem. (He mentioned traditional figures among the illiterate who might do this job — the scrub lady in the public bath, the preachers of the suqs — but didn't develop such ideas seriously. They would be marvelously effective, he indicated, yet there apparently is no way to use them and the possibility was cause for amusement).

Several officials stressed the fact that the poor have children for reasons of social security; children care for elderly parents and add to the family income in their youth. A political implication of family planning is then that it undermines the security of the poor.

Another political implication (French politique being used more as the term "social" is used in English) has to do with male control of female sexuality. Two officials mentioned resistance stemming from the concern of Moroccan men that their wives would engage in illicit sexual activity were there to be no fear of resultant pregnancy.

When our group raised the question of the possibility of women attributing real or imagined illness or aches and pains to taking the pill or to the IUD it was also agreed that this was a problem. However, this view was not first mentioned by the Moroccan officials, most of whom did not get beyond the problems of introducing family planning. That is to say, it was not generally the case that officials talked about what happened after contraception was begun; most Rabat officials discussed the problems of introducing idea in the first place.

Above, I have tried to briefly review some of the more common reactions of Rabat officials to family planning. None of them talked of their own feelings about the subject nor of the attitudes of their intellectual friends. Rather, the attitudes of "other" Moroccans — the poor and illiterate most generally — were the object of concern. In a most important way this pattern of thought fits well into the mahzen/ bled opposition which many French scholars have described: the sophisticated Arab urbanite and the unlettered rural tribesman.

Thus, "we" understand the problem but "they" do not. "We" see how contraception is within the Islamic tradition; "they" may think that it is anti-Islamic. The almost total failure to explore any point of commonality between this "we" and "they" is part of a rather venerable conceptualization. "We" can accept contraception and even find a way to place it in the Islamic tradition but "they" are innocent victims of ignorance and fanaticism for whom contraception must be unacceptable. Therefore in this case (as well as many others) "we" must provide enlightenment and education to overcome the backward bias (which includes urban poor), but the task is very difficult because "they" distrust us and resist the knowledge and instruction "we" would like to provide.

Other Views

To turn for a moment to what the "they" may actually think, we have a suggestive paper by Donna Lee Bowen based on the investigation of two Berber villages, one of which was at a considerable distance from a market town, the other much closer. Without going into detail, Bowen found that the women of the more isolated village were totally ignorant of modern contraception, regarded pregnancy after marriage as a biological given which was God's will and His responsibility. May it not be said that such a position is perhaps the only logical possibility if there is no knowledge of contraceptive means? What other opinion can one imagine? In the village where, thanks to proximity to market and greater contact with the outside world, contraceptive knowledge was shared by some of the women there were instances of women going to great lengths (with the help of their husbands) to secure the pill. God's will was no less important but on the other hand apparently no fundamental obstacle to spacing childbirth once the possibility was known and the means within reach. This is not to say that everyone took such steps, only that some did and others did not.

We know that a high percentage of women in Marrakech have accepted the opportunity to use contraceptives offered in the experimental house-to-house approach being developed there. We also know that a similar project in El Kelaa rural area has also met with a positive response from many women. Rabat officials outside the MCH were largely ignorant of these projects and the suggestion that the response of women in Marrakech, El Kelaa and elsewhere suggested an existing demand for contraceptives met with largely blank responses. Such information does not fit the pattern of makhzen thought. The conception of contraception is a problematic according to which the enlightened must struggle to inform and instruct the unenlightened. The notion that self interest and the pragmatic concerns of everyday life may already form ample motivation for many unlettered Moroccans does not fit this pattern of thought.

I hope the point I am trying to make is clear. For the Rabat intellectual the idea of contraception or family planning (I lump these terms here) is by its very nature unacceptable to the uneducated. That is the problem so far as they are concerned. To be told that perhaps there isn't such a problem, to suggest that many "others" are already ready to contracept disturbs a very basic pattern of thought which is exhibited in other ways in many other areas of policy development. This is a hierarchical country in which the achievement of a French education places one in a position which by its very nature must be defined in terms of differences from those who lack such a transforming experience. If "we" can accept family planning then almost by definition "they" cannot.

It is, however, very true that the poor and the almost poor who are not part of the Francophone elite and who practice or who are perhaps ready to practice contraception lack a normative basis for doing so. In effect, they have nothing to say to officialdom. It is a situation of cultural dissonance in which much of what the officials in Rabat say about attitudes toward contraception may be in some way and in some places true but people, for very pragmatic reasons having to do with living space, needs to educate their children, health, fatigue, and perhaps dozens of other fragmentary considerations do not do what such ideas suggest but instead decide not to have more children or so many children, or so frequently children. It is a situation common to us all in which our formal values and ideals tell us to behave one way yet we in fact choose to behave another. In a country which because of economic and social factors is changing as rapidly as Morocco there is simply no way in which cultural ideas and ideals can in an orderly way keep up with the decisions people make in the course of everyday life. This is the price of social change. We find reasons after we make decisions. We make decisions because of pragmatic and existential factors. This is a view of social process very alien from the dialectical thought patterns of Francophone Moroccan officials-qua-intellectuals. For them, the problem is and must be intellectual and the problem is how to change minds, not practices.

Service and Institutions

In the middle of this situation is the MOH family planning service and the other private sources of contraception. I shall only speak about the public sector because, in an important sense, the private sector can and does largely take care of itself.

Among the doctors and other higher officials of the MOH with whom we talked, the definition of contraceptive service as a medical act was very important. The careful assignment of this to the world of medicine helps them deal with the fundamentally polluting nature of female genitalia.

How different from the look of unconscious distaste which passed over the faces of the male doctors when discussing the "medical act" was the expression of enthusiasm and happy interest on the faces of the few women engaged in inserting IUDs. It is a tough problem for men. The introduction of paramedics as dispensers of contraceptives is clearly a great relief. Turning the problem into a question of numbers rather than vulva and uteruses places men in an appropriate position.

Thus, I am not surprised at the success of the Marrakech program. It very much reminds me of the house-to-house DDT anti-malaria campaigns I witnessed in Iraq in the 1950's. This is why I have suggested local numerical goals: quotas of pill cycles distributed and IUDs inserted. Of course, this may never be accepted by Rabat officials, as the logical gap between this suggestion and their thinking (clear from what has been said above, I hope) makes the idea quite literally inconceivable. But some of the MDR officials are ready for the idea. That the médecin-chef can turnover his responsibility for a "medical act" does not surprise me. That the digitalization and quantification of contraception can be continued will probably depend on the attitudes not of medical personnel but of Rabat officials who are so far behind the day-to-day reality in their thinking.

May I conclude by moving for a moment beyond my own province into the question of tactics. I would strongly suggest that it is not the "demographic problem" or the relation between population and development or any other part of the "big picture" or "national interest" which AID communication with Rabat officials needs to stress. Rather it is empirical data drawn from local experience — of which the Marrakech and El Kelaa projects will be outstanding sources — which must be analyzed and conveyed to them. It is not the thinking of the poor and uneducated which needs to be changed. Such thinking will change and is changing but even more important, it is their practice which has changed because the conditions of their lives have changed. Rather, it is the thinking of the elite which needs to be reformed by infection with fact. The King is the one person in Morocco who could significantly reduce cultural dissonance in this area; in fact, it would seem, His Majesty's behavior reflects the current contradictions and misunderstandings. The right kind of data from Morocco and supplied by AID and the Embassy might change this situation.

Distribution:

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Décret Royal n° 190-66 du 10 Jomada II 1385 (25 Août 1966) portant création d'une commission supérieure et de commissions locales de la population.

LOUANGS A DIEU SEUL !

Nous, AMIR AL MOUSTAKH, Roi du Maroc

Vu le décret Royal n° 136-65 du 7 Safar 1385 (7 Juin 1965) proclamant l'état d'exception,

DECRETONS :

ARTICLE PREMIER.- En vue d'élaborer et de coordonner la politique adoptée par le Gouvernement dans le domaine de la croissance démographique, de veiller à sa mise en oeuvre et d'en contrôler l'exécution, sont instituées :

Sur le plan national, une commission supérieure de la population dont le siège est à Rabat ;

Sur le plan local, des commissions préfectorales ou provinciales de la population.

COMMISSION SUPERIEURE.

ART. 2.- La commission supérieure de la population comprend :

- Le ministre de la santé publique, président ;
- Le ministre de la justice ou son représentant ;
- Le ministre des affaires étrangères ou son représentant ;
- Le ministre du développement chargé de la Production nationale et du plan ou son représentant ;
- Le ministre de l'intérieur, ou son représentant ;
- Le ministre de l'éducation nationale, des beaux-arts, de la jeunesse et des sports ou son représentant ;
- Le Ministre des finances ou son représentant ;
- Le ministre de l'agriculture et de la réforme agraire ou son représentant ;
- Le ministre chargé de l'artisanat et de l'industrie ou son représentant ;
- Le ministre chargé des affaires indiennes ou son représentant ;
- Le ministre du travail et des affaires sociales ou son représentant ;
- Le ministre de l'information ou son représentant ;

La Commission supérieure de la population pourra s'adjointre, à titre consultatif, toute personne ou tout représentant d'un organisme dont l'avis pourrait lui être utile.

Le secrétariat de la commission est assuré par le ministère de la santé publique.

ART. 3.- La commission supérieure de la population se réunit au moins une fois tous les trois mois sur convocation de son président.

Ses décisions sont prises à la majorité des voix des membres présents. En cas de partage égal, la voix du président est prépondérante.

Décret Royal n° 180-66 du 10 Jomada I 1386 (26 Août 1966) portant création d'une commission supérieure et de commissions locales de la population.

LOUANGE A DIEU SEUL !

Nous, Amir Al Mounir, Roi du Maroc

Vu le décret Royal n° 136-65 du 7 Safar 1385 (7 Juin 1965) proclamant l'état d'exception,

DECRETONS :

ARTICLE PREMIER. - En vue d'élaborer et de coordonner la politique adoptée par le Gouvernement dans le domaine de la croissance démographique, de veiller à sa mise en oeuvre et d'en contrôler l'exécution, sont constituées :

Sur le plan national, une commission supérieure de la population dont le siège est à Rabat ;

Sur le plan local, des commissions préfectorales ou provinciales de la population.

COMMISSION SUPERIEURE.

ART. 2. - La commission supérieure de la population comprend :

- Le ministre de la santé publique, président ;
- Le ministre de la justice ou son représentant ;
- Le ministre des affaires étrangères ou son représentant ;
- Le ministre du développement chargé de la Promotion nationale et du plan ou son représentant ;
- Le ministre de l'intérieur, ou son représentant ;
- Le ministre de l'éducation nationale, des beaux-arts, de la jeunesse et des sports ou son représentant ;
- Le ministre des finances ou son représentant ;
- Le ministre de l'agriculture et de la réforme agraire ou son représentant ;
- Le ministre chargé de l'économie et de l'énergie ou son représentant ;
- Le ministre chargé des affaires islamiques ou son représentant ;
- Le ministre du travail et des affaires sociales ou son représentant ;
- Le ministre de l'information ou son représentant ;

La Commission supérieure de la population pourra d'adopter, à titre consultatif, toute personne ou tout représentant d'un organisme dont l'avis pourrait lui être utile.

Le secrétariat de la commission est assuré par le ministre de la santé publique.

ART. 3. - La commission supérieure de la population se réunit au moins une fois tous les trois mois sur convocation de son président.

Ses décisions sont prises à la majorité des voix des membres présents. En cas de partage égal, la voix du président est prépondérante.

Un rapport d'ensemble de ses travaux et des travaux des commissions locales est adressé annuellement au Premier Ministre.

Les débats et décisions de la commission supérieure font l'objet de procès verbaux approuvés en séance et signés par le président, une copie en est transmise à chacun des membres de la commission.

ART. 4.- Pour l'accomplissement de sa mission, la commission supérieure de la population peut :

- Entreprendre et poursuivre toutes recherches, enquêtes et études ;
- Se faire communiquer tous documents et rapports des administrations intéressées ;
- Réunir et diffuser la documentation technique et scientifique nécessaire ;
- Convoquer en sessions particulières les représentants des commissions locales.

COMMISSIONS LOCALES .

ART. 5.- (modifié D.R. du 22 Ciroual 1985 - 2 Janvier 1987).

Les commissions locales sont établies au siège de la Préfecture ou de la Province. Elles comprennent :

- Le Gouverneur ou son représentant, président ;
- Un représentant du Ministère du développement chargé de la projection nationale et du plan ;
- Le délégué provincial ou préfectoral de l'éducation nationale ;
- Un représentant du ministre de l'agriculture et de la réforme agraire ;
- L'inspecteur provincial ou préfectoral du travail ;
- Le délégué du ministre de l'information.
- Un représentant de l'assemblée provinciale ou préfectorale ;
- Le médecin chef de la Province ou de la Préfecture médicale ou son représentant qui doit être nécessairement médecin.

ART. 6.- Les commissions locales de rattachement sont à la diligence de leurs présidents, sont à la demande de la commission supérieure sont elles exécutent les instructions.

Leurs attributions et les règles de leur fonctionnement sont déterminées par arrêtés du ministre de la santé publique.

ART. 7.- Les ministres mentionnés à l'article 2 du présent décret Royal sont chargés, chacun en ce qui le concerne, de l'exécution du présent décret royal qui sera publié au Bulletin Officiel.

Fait à Kabon, le 10 Jourda 1 1986 (25 Août 1986)

EL BACHA BEN KHAYED.

IMPORTANT NOTE:

Subsequent to the preparation of this paper in August 1977, we have obtained what we consider to be a more reliable estimate of total sales of oral contraceptives in Morocco's pharmacies in calendar year 1977. This new estimate is:

<u>Pharmaceutical firm</u>	<u>Sales in 1977</u>
Schering	900,000 mc
Organon	1,300,000 mc
All others	200,000 mc
	<hr/>
Total	2,200,000 mc

Sales of 2.2 million mc of oral contraceptives would provide about 170,000 woman-years of protection ($2.2 \times 10^6 \div 13$ cycles per year per woman), which is not the same as 170,000 users but seems close enough for our purposes.

SURVEY OF PRIVATE SECTOR (PHARMACIES)
SALES OF CONDOMS AND ORAL CONTRACEPTIVES
IN MOROCCO

Introduction and Purpose

Information compiled by the Ministry of Public Health is available on contraceptive practices, i.e., estimated numbers of users of orals, condoms and IUD's; continuation rates; first-time users; etc. These estimates are for the public sector only, i.e., for clients of the GCI's national family planning program. In the public sector in 1977 there are about 100,000 women currently using oral contraceptives; current use of the condom is estimated at about 10,000 couples. However, data for the private sector are lacking. It has been estimated that contraceptive activity in the two sectors is roughly equal, though to our knowledge there has been no recent systematic investigation of the private sector. Therefore, a small informal survey of pharmacies (the only authorized commercial outlet for condoms and orals) was conducted to gain a fuller understanding of contraceptive practices in Morocco.

Method

A Moroccan employee of USAID collected the information presented in this paper from pharmacists and pharmacy clerks by posing himself as a prospective, first-time customer for orals for his wife or condoms for himself. In each case he actually purchased a cycle of pills or a box of condoms. During the course of the highly informal conversations with pharmacy employees, he asked about the relative merits of one contraceptive method over another, the volume of sales and, as discreetly as possible, the age, sex, marital status and number of children of the customers purchasing contraceptives in that pharmacy. Also, he asked about side effects of orals.

Sample

The survey was initially carried out in the Prefecture of Rabat-Salé, then extended to the Prefecture of Casablanca, and eventually to three provinces containing a mainly rural population (Kenitra, Meknes, Fes-Meknes and El-Haouz). The population in the areas surveyed is estimated at 3.3 million for mid-1977, representing about 21% of Morocco's total population of 16 million. The number of registered pharmacies in these areas totalled 262. Of these, 163 pharmacies were visited. There are 437 pharmacies in the country, 219 of them in the two prefectures of Rabat-Salé and Casablanca. In Rabat-Salé, 30 out of 57 pharmacies were surveyed (12 for condoms and 17 for orals). In Casablanca, 32 (for both condoms and orals) out of 162 were surveyed. The other areas surveyed are hard to classify strictly as rural, but even for the larger towns, it can be said that they are basically serving a rural population. For those areas, 36 (for both condoms and orals) out of 63 pharmacies were surveyed.

Results

France supplies 60% of the condoms sold in Morocco's pharmacies, with Italy, Japan and Great Britain supplying most of the remainder.¹ The market price per condom ranges from 0.85 Dirham to 1.00 Dirham (\$0.19 to \$0.22)

¹ Estimated from official GCI report figures.

depending on brand and quantity purchased.

There are nine brands of oral contraceptives available: three packaged in Morocco and two each imported from France, Holland and Germany. The price per cycle ranges from DR 4.00 to DR 6.00 (\$0.80 - \$1.40). Four brands are the most popular: two of the three locally-packaged orals and the two German brands. The locally-packaged orals are slightly less expensive. The prices of both condoms and orals are fixed by government regulations with an estimated markup by the pharmacies of 35 percent. The volume of monthly sales, as reported to the investigator, must be viewed with a great deal of caution because the investigator was presenting himself as a potential customer; thus, the profit motive may have resulted in reported sales being somewhat on the high side. Several pharmacists reported that the orals available free of charge at the MEPI outlets produce more side effects than orals commercially available. However, in general the pharmacists and clerks in the pharmacies were well informed on the use of orals. They suggested different brands for different people, i.e., one brand for young first-time users, another for older first-time users, another for women with several children, etc. In addition, some of the pharmacists in Rabat and Casablanca were familiar with several other methods of birth control available in the two cities and kindly referred the surveyor to persons and/or facilities where these were available.

In both cities the subject of the use of the pill was openly discussed by the pharmacists and their staff. Often, waiting customers added their thoughts. This was not generally true in the rural areas. In fact, the orals were often pre-wrapped so that customers could obtain them without overt identification. Price seemed somewhat less important as a factor in the decision to purchase orals in the cities than in the rural regions where both pharmacists and customers referred to their expense.

The reported customers for condoms were men in their 20's or early 30's. Condoms were reported to be used primarily for sex with prostitutes. Orals were reportedly purchased mainly by women 17-35. Pharmacists reported that their customers consisted mainly of women with four to five children, divorced and separated women, prostitutes, and single women.

In the rural areas, the weekly market day (souk) was a very busy day for sales of orals in comparison to the other days of the week. This pattern was also true for condoms although their total monthly sales were not significant (see Table 2). Both orals and condoms were in ample supply in all pharmacies visited.

Tables 1 and 2 (pp. 3-4) present data gathered in the survey.

<u>Location</u>	<u>Approx. Population</u> (1966-67)	<u>OF DS</u> <u>No. Registered Pharmacians</u>	<u>Pharmacies</u> <u>Surveys</u>	<u>#</u>	<u>Average Monthly Sales</u> <u>Rs.</u>
<u>Urban</u>					
Bombay-City	793	57	27	(47)	505
Cochin	2,145	152	33	(33)	615
<u>Total</u>		<u>2,502</u>			
<u>Urban/Rural mixed</u>					
Kanpur	168	11	7	(64)	207
Madras	315	12	10	(83)	2,210
Travankur	94	2	2	(100)	2,100
Old Madras	69	4	2	(50)	1,500
<u>Total</u>		<u>466</u>			
<u>Rural</u>					
Old Madras	5	1	1	(100)	1,500
Old Madras	25	1	1	(100)	1,500
Old Madras	35	2	2	(100)	1,475
Amra	37	1	1	(100)	500
Madras	17	1	1	(100)	450
Kanpur	50	1	1	(100)	2,500
Madras	5	1	1	(100)	500
Madras City	10	1	1	(100)	2,100
Old Madras	64	2	2	(100)	1,450
Madras	23	1	1	(100)	500
Old Madras	21	1	1	(100)	1,500
<u>Total</u>		<u>387</u>			
<u>GRAND TOTAL</u>	<u>3,892</u>	<u>332</u>	<u>17</u>		

Table 3

Monthly sales

Region	Population (1969 '8)	No. Members of the Municipalities	Male Adults (15+)	% of Total	Total
<u>Urban</u>					
Doukkali	192	27	12	(22)	219
Casablanca	2,114	152	50	(24)	226
<u>Total</u>	<u>2,306</u>				
<u>Urban/Town</u>					
Kasitra	168	11	7	(64)	160
Melmas	315	12	9	(29)	324
Mohridda	54	3	3	(100)	153
Dari Mallal	69	4	2	(29)	270
<u>Total</u>	<u>606</u>				
<u>Rural</u>					
Sidi Zaida	5	1	1	(100)	100
Sidi Slimane	25	1	1	(100)	100
Sidi Zaouan	34	2	2	(100)	270
Amara	27	1	1	(100)	90
Eljeb	17	1	1	(100)	100
Fennich	33	1	1	(100)	300
Melme	6	1	1	(100)	60
Moula Madla	10	1	1	(100)	100
Card Zem	44	2	2	(100)	100
Bozjard	23	1	1	(100)	90
Elah Ben Saïch	24	1	1	(100)	100
<u>Total</u>	<u>252</u>				
<u>GRAND TOTAL</u>	<u>3,160</u>	<u>252</u>	<u>87</u>		

Table 2

Discussion

The population of the cities, towns and villages surveyed is estimated to total 2,622,000. However, it is difficult to estimate the number of people a pharmacy in the rural areas actually serves. The author does not know the mobility of the rural population, i.e., their frequency of visits to the towns and villages with pharmacies, or even the direction they go when they do go to town. Since the cost is half once a week on their approximate visitation, it is assumed that they do not often frequent the pharmacies in the larger towns that are somewhat distant from them.

Therefore, the population was arbitrarily defined as those people living in the administrative zone containing the pharmacy or pharmacies. A somewhat unexpected finding was that rural pharmacies and those serving mixed urban/rural populations reported higher monthly sales of pills than did their urban counterparts (Table 3).

Average Reported Sales of Pills by Rural Urban Settings

	Total Registered Pharmacies	Pharmacies Surveyed (%)	Average Monthly Sales per Pharmacy
Cities	119	55 (46%)	1,111
Urban/Rural Mixed	30	23 (77%)	1,300
Rural	12	11 (100%)	1,515

in areas surveyed

Table 3

It is felt that this may in part reflect the relatively larger populations served by rural and mixed urban/rural pharmacies, since there are no purely inner pharmacies in these areas.

In order to obtain an estimate of the percentage of semi-sterile or proprietary pills are now using oral contraceptives in Mexico, so far it was necessary to obtain a rough estimate of the number of semi-sterile. For this purpose, the following approximation was used:

Registered Women 15-49 U.S.

State of Wisconsin - November, 1971

Total population	12,000,000
Females, 15-49	4,000,000
Married females, 15-49	2,970,000
Married females assumed fecund ^{1/}	2,350,000
Single, engaged, divorced, widowed females 15-49	1,650,000
Females 15-49 currently pregnant or up to 3 months post-partum	100,000
Estimated total females 15-49 currently exposed to risk of pregnancy ^{2/}	<u>1,002,000</u>

^{1/} applying Segal's estimates of fecundity by age

^{2/} estimated as married women assumed fecund, plus 1/2 for divorcee husbands; plus 1/2 for husbands about plus 1/2 for single, engaged, divorced, widowed women with a suitable program or up to 3 months post-partum.

Table 4

In order to estimate the total number of cycles and thus the reported sales by each of the 56 pharmaceutical manufacturers, it was assumed that women do 600 cycles per month. This number was applied to the total number of registered pharmacies in November 1971.

600 x 2,407 pharmacies = 1,444,200 cycles

This figure was then multiplied by 12 months to obtain a total yearly figure of 17,330,400 cycles which, when divided by 10 (the number of cycles of pills required by one woman for one year), yields an estimated 1,733,040,000 pills of progestin then private sector sales.

Admittedly, it cannot be claimed that the 65 physicians surveyed are necessarily representative of all physicians in the area. But the choice of techniques employed in our selection needs, in consulting, to determine the volume of reported sales of pills. This is due to the fact that unless physicians which were over-represented in our survey, the volume of sales sales (due to substantial sales in private practice) would be.

If one takes the figure of 375,954 woman-years of protection and divides by the estimated number of women at risk (N = 1,622,100 ...Table 6), and arrives at the very rough estimate of 23% of woman-years protected through private sector sales of oral contraceptives.

The estimated 103,000 current users of pills under public care in 1969 adds an additional 5.5% of woman-years, or a combined figure of 28.5% of all woman-years of pregnancy sustains using oral contraceptives in 1969. This represents about 12% of all women 15-49 in 1969.

In recognizing the severe limitations of this type of "generalization" and do not wish to suggest that these "findings" are in any way definitive. I believe, however, that this highly national survey does provide evidence to suggest that oral contraception may be considerably more widespread in practice in 1969 than is generally assumed and reported in the literature.

With respect to condom use, we note that the condom appears to be still more popular in urban areas than in rural areas or in mixed urban-rural areas. In part this may be due to the cost factor and to the reported ease of purchase for illicit relations (the latter are assumed more frequent in urban areas). Yet there are undoubtedly other availability and socio-psychological factors depending upon the generally low level of condom use in the country.

A Rough Estimation of the Relationship Between Family Planning
Acceptance and Births Averted in Mexico

Methodology

It was hypothesized that: (1) in the absence of contraception, Mexican women having the same characteristics as FP program acceptors would, on the average, become pregnant in an average time of 6-9 months (this corresponds well with Metzke's estimate of 0.2 per month fecundability among females aged 20-35); and (2) that the mean live birth interval for these women is on the order of 27 months.

Thus in a period of 36 months these women would be expected to have pregnancies leading to 2 live births on the average.

The 1972-73 followup survey of FP acceptors in Mexico found a pregnancy rate of 63% among pill acceptors and 58% among IUD acceptors 36 months following first acceptance.

Assuming that in a 36-month period 1000 such women would have pregnancies leading to the birth of 2000 live children in the absence of all contraception, and that 1000 pill acceptors would have 630 pregnancies resulting in 550 live births; and that 1000 IUD acceptors would have 580 pregnancies (resulting in 290 live births). Then one can estimate the number of births averted over time by pill and IUD acceptor as follows:

<u>Method</u>	<u>Month following Acceptance</u>	<u>Pregnancies Averted</u>	<u>Live Births Averted</u>	<u>Live Births Averted per 1000 acceptors</u>
Orals	6	.22033	.20093	201
	12	.45567	.40187	402
	18	.69500	.60280	603
	24	.91833	.80373	804
	30	1.24167	1.00467	1005
	36	1.37000	1.20560	1206

- 1/ While Metzke estimates that 14% of all pregnancies result in fetal wastage, including stillbirths, the factor used here for fetal wastage was 12% on the theory that the pregnancy figures used were those reported to interviewers; it is hypothesized that these tended to be: (a) further advanced and thus less subject to spontaneous abortion; and (b) an under-estimate of actual pregnancies, i.e., a great deal of fetal wastage would have been already accounted for due to underreporting of "pregnancies".
- 2/ Assuming a linear relationship over time -- an obviously imprecise approximation

<u>Month</u>	<u>Month following</u> <u>Assistance</u>	<u>Pregnancies</u> <u>Averted</u>	<u>Live Births</u> <u>Averted</u>	<u>Live Births</u> <u>1977</u>
	3	.27835	.24493	365
	12	.58857	.48867	461
	18	.82800	.70469	708
	24	1.11533	.97973	995
	30	1.39167	1.22467	1285
	36	1.67800	1.46960	1470

Applying these figures to estimated numbers of contraceptive users in 1977, one arrives at the following:

<u>Method</u>	<u>Users (000s)</u>	<u>Births Averted After</u>		
		<u>12 mos</u>	<u>24 mos</u>	<u>36 mos</u>
Coinc	480	193	306	370
IUDs	35	17	24	31
Diaphragm	15	10	20	25
All others ^{2/}	100	33	75	95
	630	253	426	521

630,000 users = 103 all women 15-49
= 35% all women assumed to be at risk

Carrying the analysis further while recognizing the extreme limitations of the method, if one assumes that the CDR would be on the order of 35 per 1,000 in the absence of all contraception, and that the population base is 10 million, one would expect 350,000 live births during the year ($.035 \times 10 \times 10^6$). While there is presently no way of knowing the true number of live births in Morocco this year, if we take the 12-month figure of births averted (253,000) and subtract this from the 350,000 "no contraception" figure, this would result in 97,000 live births. The resultant figure of 97,000 live births corresponds to a crude birth rate of 9.7 (97,000/10,000,000). If the crude death rate were 10 per 1,000 (10×10^6),

observed, this would imply a rate of natural decrease (births minus deaths) of 2.3% per year.

It is important to understand that all figures used hereafter are "best". The methodology itself is "soft". The opportunities for error are thus numerous, and their magnitudes may be great.

^{2/} condoms, spermicides, withdrawal, rhythm, folk methods, etc -- a rough guess

Still, a CBR of 41 is conceivable, in Morocco in 1977, due primarily to the greatly increased use of oral contraceptives in the private sector, as well as to increased GOM family planning efforts. In addition, a significant effect may be attributed to the use of terminal methods and to pregnancy termination, both of which are not openly discussed by the GOM but are widely practiced, and in the case of VSC, becoming increasingly popular.

The results of the nationwide 1978 Fertility and Family Planning Survey will be most interesting as they will offer a relatively "hard" means of verifying the relationships we have attempted to analyze in this paper.

Drafted: PUG: ~~Wattayfara~~/da
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