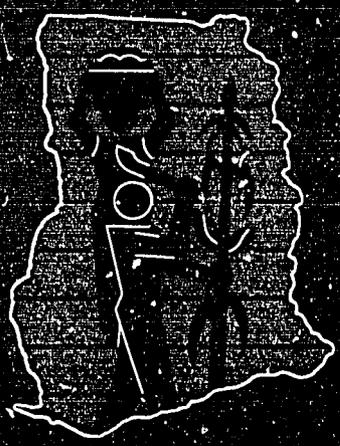
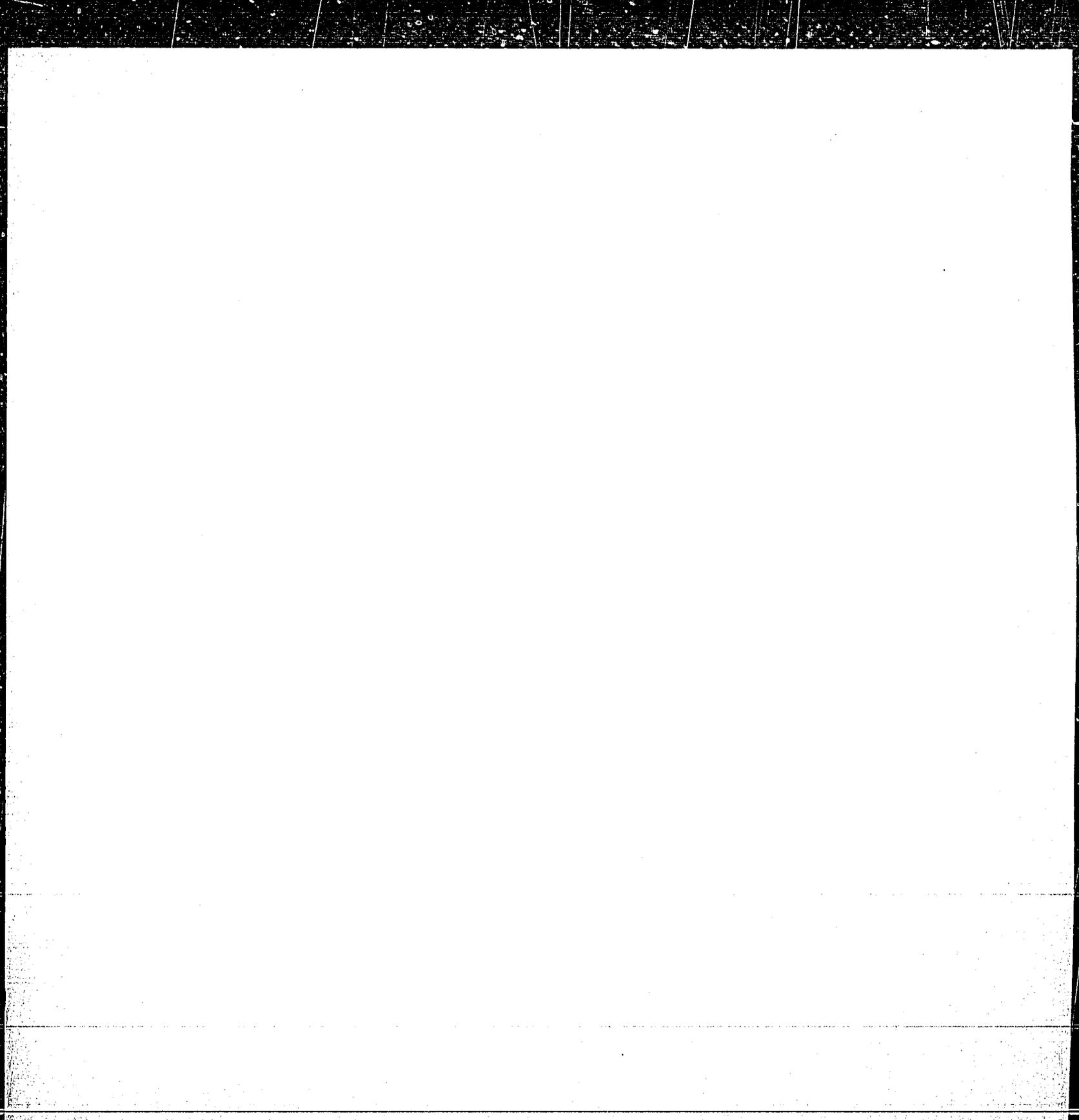


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# POPULATION AND FOOD IN GHANA

By J.A. DADSON



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## INTRODUCTION

For some time now, Ghana has faced increasing difficulty in feeding its growing population. During the period 1971-1973 the country was virtually self-sufficient in the production of maize, cocoyam, cassava, and plantain. In 1981-1983, the demand for all these crops except cassava exceeded production. From 1969 to 1983, annual total agricultural production declined by almost 1 per cent while per capita production declined almost 4 per cent. Food supply per person dropped almost 30 per cent. Unless substantial increases in agricultural production are achieved quickly, food shortages may become more persistent, reduced food intake and malnutrition more widespread, and the need for food imports and food aid more pressing.

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## POPULATION GROWTH AND FOOD

This poor performance can be attributed in part to external economic conditions, physical phenomena (such as the drought and bush fires of 1982-1983), and deficient agricultural policies. However, there is growing awareness that rapid population growth is a powerful brake on economic development in general and agricultural growth in particular.

Since 1948, the population of Ghana has more than trebled—from a little over 4.1 million to 13.2 million in 1987, with a current annual growth rate of 2.6 per cent. Some of the consequences of this high rate of population growth can be clearly seen in the reduced efficiency of traditional cultivation systems, soil degradation through deforestation and erosion, massive rural-urban migration and emigration, and joblessness. Unfortunately domestic planners have not adequately assessed and corrected



**By 1983 demand for maize exceeded domestic production. Unless improved agriculture and family planning programmes are implemented soon, shortages may become more persistent and malnutrition more widespread.**

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the structural problems arising from massive increases and shifts in population.

There has been a general awareness of the importance of population in development for some time. In 1969 Ghana adopted a population policy with the main objective of moderating rapid population growth. However, due to inadequate appreciation of demographic trends and determinants, their consequences persist. The situation is made worse by the absence of reliable data.

Awareness of the effect of population shifts to urban areas on agricultural productivity and rural poverty is incidental, and knowledge of population policy options appropriate to local socio-cultural settings is limited. Consequently, there is insufficient consideration of demographic changes in the planning process.

### OTHER PROBLEMS

In addition to population growth, food shortages can be further attributed to the low priority given to food production; inadequate support for the agricultural sector; an emphasis on capital-intensive agriculture and industry to the neglect of the larger traditional farming sector; the failure to appreciate the roles and needs of women in agriculture; the persistence of low agricultural technology; a lack of pricing and marketing incentives for farmers in the past; and, until recently, insufficient research and financial support for the small farmer. The result for the agricultural sector has been very limited growth in capital formation, employment, productivity, and incomes.

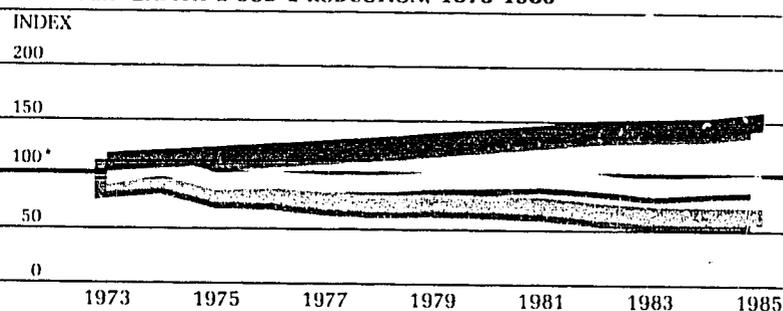


PIP-GHANA

Inadequate support for the agricultural sector, and an emphasis on capital-intensive agriculture and industry to the neglect of traditional farming, are among the reasons for that sector's limited growth.

CHART 1

#### INDICES OF POPULATION, TOTAL FOOD PRODUCTION, AND PER CAPITA FOOD PRODUCTION, 1973-1985



■ POPULATION  
 ● TOTAL FOOD PRODUCTION  
 ▨ PER CAPITA FOOD PRODUCTION

\*Changes relative to 1969-1971 averages for population and food production, expressed as 100.

SOURCE: Ministry of Agriculture

**TABLE 1**  
**SELECTED DATA ON POPULATION AND FOOD, GHANA**

	YEAR	DESCRIPTION
1. Population	1987	13.2 million
2. Population growth	1970-1984	2.6 per cent/year
3. Agricultural population	1984	55 per cent of total
4. Agricultural population growth rate	1965-1980	1.9 per cent
5. Agriculture as a per cent of GDP	1985	41 per cent
6. Growth of agricultural production (total)	1970-1984	-0.9 per cent/year
7. Growth of agricultural production (per capita)	1970-1984	-3.9 per cent/year
8. Industry growth rate	1980-1985	-5.5 per cent/year
9. Food imports (cereals)	1974-1975	177 million tonnes
	1984-1985	292 million tonnes
10. Food aid (cereals)	1974-1975	33 million tonnes
	1984-1985	94 million tonnes
11. Food supply	1969-1971	2,231 calories per capita/day
	1981-1983	1,623 calories per capita/day

SOURCES: World Bank, *Annual Reports*, various years. FAO, *African Agriculture: the Next 25 Years*, 1986.  
Government of Ghana, *1984 Population Census of Ghana, Preliminary Report*, 1984.

## CONSEQUENCES

If the rapid increase in population and the numerous problems which beset agriculture continue, it will be difficult to reverse the long decline in per capita food production. Chart 1 shows trends in population, total food production, and per capita food production since 1973: it depicts an ever-widening gap between population growth and food production and a steady decline in food production per person. Diminishing food production means increasing malnutrition and declining productivity, particularly in rural areas. If the trends continue, demand for food imports and food aid will increase, especially in urban areas.

(See Table 1.)

Assuming that increases in the demand for food match the rate of population growth, Ghana's current population growth rate of 2.6 per cent per year will lead to a substantial increase in the demand for food. Can production and income rise fast enough to meet the additional food requirements? If the current rate of population growth continues, the per capita gross domestic product (GDP) may increase by only about 1 per cent a year through 2015, not enough to pay for the additional food requirements. There will be a relative decline in purchasing power in relation to the increase in the demand for food, which spells increasing

hardship and misery, especially in the case of continued high fertility.

The solution lies in part with the implementation of well-designed agricultural policies, such that the rate of growth in food production will match or exceed the rate of population growth. On the basis of past trends, however, the required rate of agricultural growth, i.e. more than 2.6 per cent, will be difficult to achieve and maintain. Few developing countries have ever achieved such a high rate of agricultural growth on a sustained basis. Thus, the need for food deficits to be made up through food imports and food aid may well become serious in the future.

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## RURAL UNEMPLOYMENT

Rural unemployment and underemployment are also likely to rise as a result of rapid population growth. Agriculture currently employs 55 per cent of the total labour force, which is growing at 1.9 per cent or more annually. Thus, the absolute number of people to be absorbed as agricultural workers will double in the next two or three decades. There is much underemployment in the sector already, and unemployment is high—probably over 10 per cent. It is unlikely that jobs will expand fast enough in either agriculture or industry (which has declined even more than agriculture) to absorb more than half the projected rural labour force. The rural standard of living will decline, and the able-bodied will migrate to the towns and cities to swell the pool of urban unemployed, leaving behind women, children, and the ageing to farm at reduced levels of productivity.



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Women in Ghana constitute about 50 per cent of the agricultural labour force. In addition, they do almost all the food processing, marketing, and domestic chores.

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## WOMEN, HIGH FERTILITY, AND AGRICULTURE

Women play crucial roles in food production and population growth. The relationship between these roles, however, has not been adequately recognized. Women are the principal cultivators of food crops. They constitute about 50 per cent of the agricultural labour force and are responsible for the major proportion of farm work—planting, weeding, harvesting, carrying food home, and caring for small animals. Women do almost all the food processing, preservation, storage, and marketing. Their work increases when men leave the villages. Women also do all of the domestic chores—preparing food, fetching water, collecting firewood, and caring for little ones—sometimes with the help of older children.

Since women divide their time between reproduction and food production, what are the effects of one upon the other? How does childbearing affect food production and how does agricultural work affect childbearing and family size?

Large families are traditionally desired by both men and women for cultural, economic, and social reasons. Having children is proof of male virility and female fertility. Children add to the farm labour force and are a source of security for parents in their old age. However, today certain changes are turning the expected benefits into burdens. Land is becoming scarce in certain areas of Ghana and therefore families can no longer easily obtain new land to cultivate. More children are surviving to maturity, and thus the same-sized land holdings must support increased numbers of people. Increased educational opportunities mean children are less available to help with farm work and more cash is needed for their clothes, shoes,

and books. And finally, the number of children dependent upon one adult (child dependency) has increased, placing a heavier burden upon women who produce food and care for children. The burden is especially great in polygynous households where the mother tends to bear the greater responsibility for her children.

Although death rates are declining due to improvements in health in Ghana, levels of illness during pregnancy and death during childbirth are still quite high, as are infant and child mortality rates. High fertility increases the risk of maternal illness and maternal and infant death. Maternal illness in turn reduces agricultural productivity.

Short intervals between pregnancies are correlated with high rates of miscarriage, reduced maternal health, and increased infant mortality. Miscarriages and infant deaths often induce couples to have more children in order to attain desired family size, thereby depleting the time and energy of women for agricultural work. Shorter birth intervals also reduce the duration of breastfeeding, and lead to poorer nourishment and care for surviving children. Finally, in spite of the general desire for large families, some unwanted pregnancies do occur; in dealing with such pregnancies in the face of inadequate facilities for maternal-child health, rural women may use unsafe methods which can seriously affect their health and thereby reduce productivity.

High fertility, therefore, leads to a decline in female labour, contributes to high death rates among children, and increases poor nutrition even among those who do survive, finally resulting in a weakened labour force in the future.

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## PRESSURE ON LAND AND DEFORESTATION

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With rapid population growth, the prevailing traditional system of bush fallow will come under even more pressure. The period when the land lies fallow will shorten; there will be over-cultivation, and, in the absence of modern fertilizers, the soil will deteriorate. Deforestation will accelerate with rising demand for land and fuel wood. Erosion, silting of rivers, and other environmental damage will result and the land's capacity to produce food will decline even further.

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## POLICY IMPLICATIONS

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The preceding discussion, highlighting the complex relationship between rapid population growth and declining food supply, suggests that the problem of food shortage should be addressed comprehensively through population policies integrated with agricultural and rural development policies.

There is potential for improvement in the agricultural sector. For nearly every major crop there is a substantial gap between current yields from traditional farming methods and potential yields given moderate improvements in farm practices. (See Chart 2.) But the reserve potential can be captured only if there is a clear shift in favour of small-scale farmers, with supportive policies in pricing, marketing, transport, infrastructure, technology, land-use planning, and research. Such a grass-roots approach should lead to gradual but sustainable growth in agricultural employment and productivity as well as improved nutrition.

A note of caution is necessary. Some studies from the U.N. Food and Agriculture Organization (FAO) indicate that even with

improved agricultural practices, other things being equal, the capacity of the land to support the population in Ghana could be exceeded around the year 2000. Urgent action is therefore needed in the area of population policy as well as in agriculture.

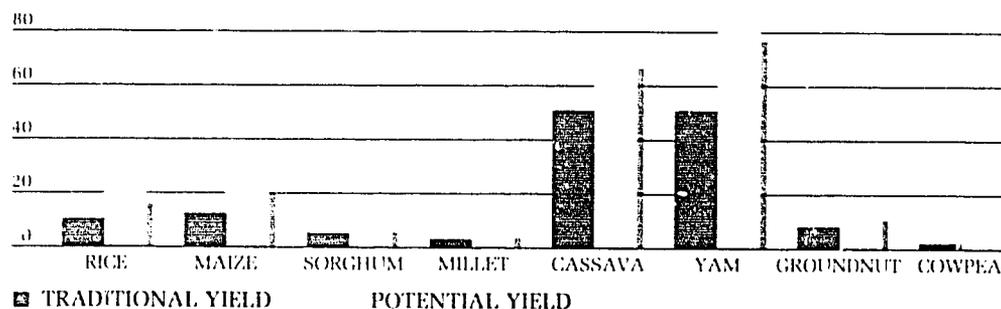
The basic question is this: How are we to reduce population growth? Policies and measures to address the problem should include:

- the promotion of reduced population growth;
- public education about the effects of high fertility on national productivity and wealth as well as on individual health and well-being;
- the provision of means to limit fertility including the expansion of family planning information and education;
- improved delivery of family planning services both at clinics and through outreach programmes;
- measures which indirectly affect family size including expanded efforts to reduce infant and child mortality; the expansion and improvement of basic education for girls; and expanded facilities for skills-training for women, coupled with improved employment and income-generating opportunities for women.

The administrative capabilities required to launch and implement effective and integrated population programmes are considerable. But the burden can and should be shared among relevant governmental and non-governmental agencies such as the Ministry of Health, the Ministry of Agriculture, and the Ministry of Education, as well as local government units, community organizations, and local organizations of women and youth.

CHART 2

POTENTIAL YIELDS OF MAJOR FOOD CROPS IN GHANA  
(IN HUNDREDS OF KILOGRAMMES PER HECTARE)



Finally, it is necessary to design an integrated rural development plan which incorporates:

- measures which affect human fertility and periodic studies of their efficacy;
- measures to absorb the expanding rural labour force into productive employment, food production, and income-generating activities; and
- measures to incorporate projections of future population growth and food supply into the planning process.



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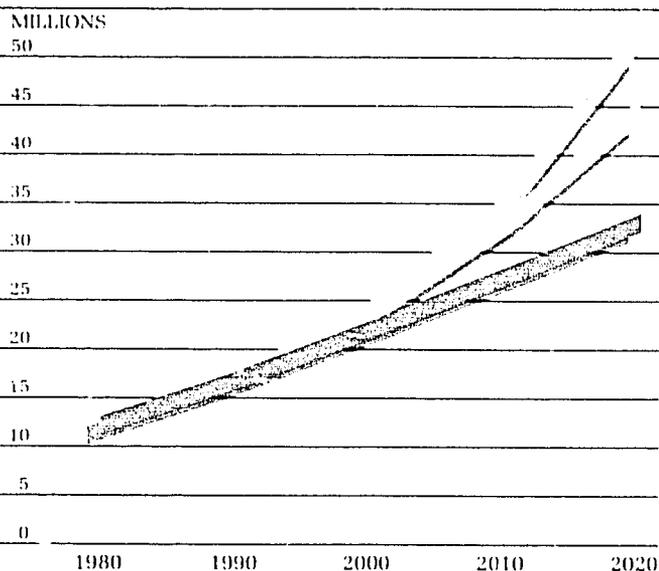
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CONCLUSION

The growing imbalance between population and food production is a matter of great concern. The problem requires action on both fronts: measures to reduce population growth must be linked with measures to raise agricultural productivity and expand income-generating opportunities. Sound, integrated efforts today will ease Ghana's difficulties tomorrow. Otherwise, those difficulties—accompanied by poverty and misery—will grow.

**CHART 3**

**GHANA'S POPULATION UNDER DIFFERENT FERTILITY ASSUMPTIONS, 1980-2020**



- CASE 1 = 2.8 children per family in 2020.
- CASE 2 = 4.8 children per family in 2020.
- CASE 3 = constant fertility (6.7 children per family) to 2020.

SOURCE: *Rapid Population Growth in Sub-Saharan Africa*, Faruque, R., and Gulhati, R., World Bank, 1983. Chart reprinted from *Population Growth and Development in Ghana*, by George Bennet (PIP Ghana, Legon, 1987).

## **POPULATION TRENDS AND PROJECTIONS IN GHANA**

As in much of Africa, Ghana's rapid population growth is the result of a sharp decline in mortality in a relatively short period without an accompanying fall in the birth rate. The introduction of modern health care and family health education programmes has reduced deaths and helped children to survive. However, these important changes have occurred at the same time that attitudes continue to promote large families and the cultural, social, and economic factors underlying those attitudes have remained largely unchanged.

Ghana's population is characterized by a high growth rate and a disproportionately large number of young people which implies continuing rapid growth in the coming decades. If women continued to have the average of six or seven children they had in the early part of this decade, according to projections made in 1983, the population would reach 52 million in 2020. If, however, fertility declined to, say, about five children per woman, the population would be 44 million in 2020; if it declined to just under three children, the population would be 32 million. (See Chart 3.)

Thus, even under the lowest fertility assumption, the population will more than double by 2020 from its current figure of about 13.2 million. In fact, high fertility rates will persist for some time because of the large number of couples in their childbearing years. In addition, despite improvements in health, infant and child mortality in Ghana remain relatively high and the desire for large families persists.

