

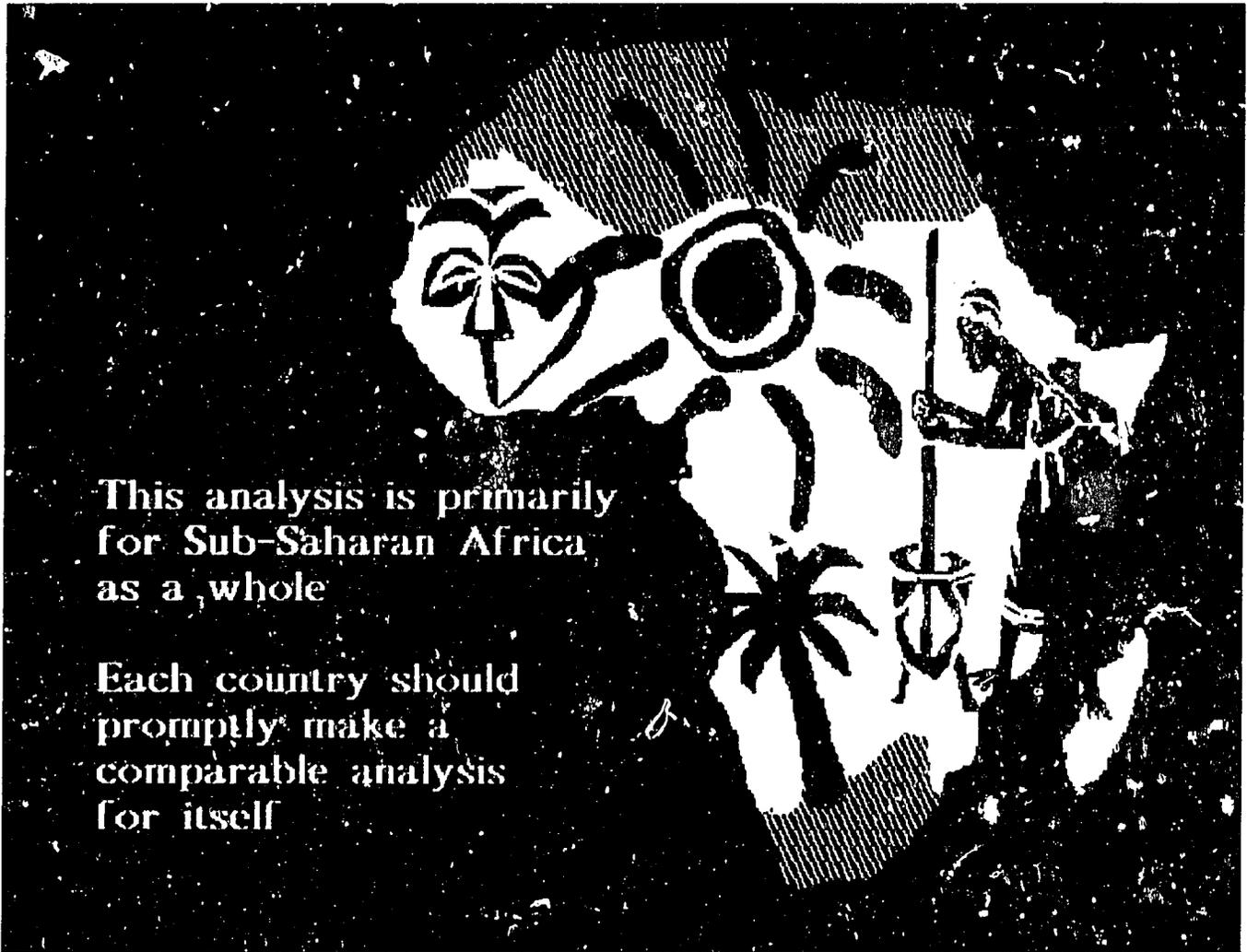
**A Global Population
Policy to Advance
Human Development
in the 21st Century**

Sub-Saharan Africa

Funded by
The U.S. Agency for International Development
Under the OPTIONS II Project

May 1992

THE FUTURES GROUP



This analysis is primarily
for Sub-Saharan Africa
as a whole

Each country should
promptly make a
comparable analysis
for itself

This analysis is made for Sub-Saharan AFRICA (SSA). It is not directly applicable to any individual country. However, it provides a model which can be used by each country to make its own analysis. It is highly important that each country do so as soon as possible since time is of the essence and delay can be costly.



Sub-Saharan Africa

- I. Present Situation and Future Projections
- II. Economic and Social Gains of Slowing Population Growth Rates
- III. Actions to Achieve the Desired Population Growth Rates:
 - Toward a Stronger Program
 - The Action Program
 - People's Participation
- IV. Conclusion

The analysis is presented in four major sections, as listed above.



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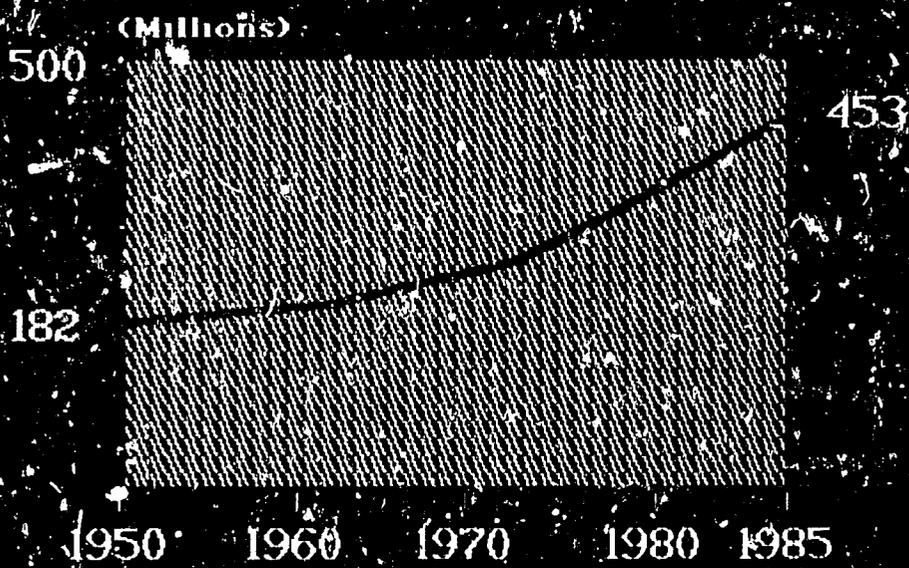
The present demographic situation and future projections are particular to Africa. It is important to recognize that for all but a few SSA countries there are both a very high Total Fertility Rate (the number of children the average woman will have during her lifetime) and a very high natural population growth rate.

It is essential to understand the powerful, built-in Momentum of Population Growth and the ensuing dangerous numbers that will quickly be reached unless specific action is taken to reduce the high levels of fertility in most countries.



Sub-Saharan Africa

Historic Population Growth

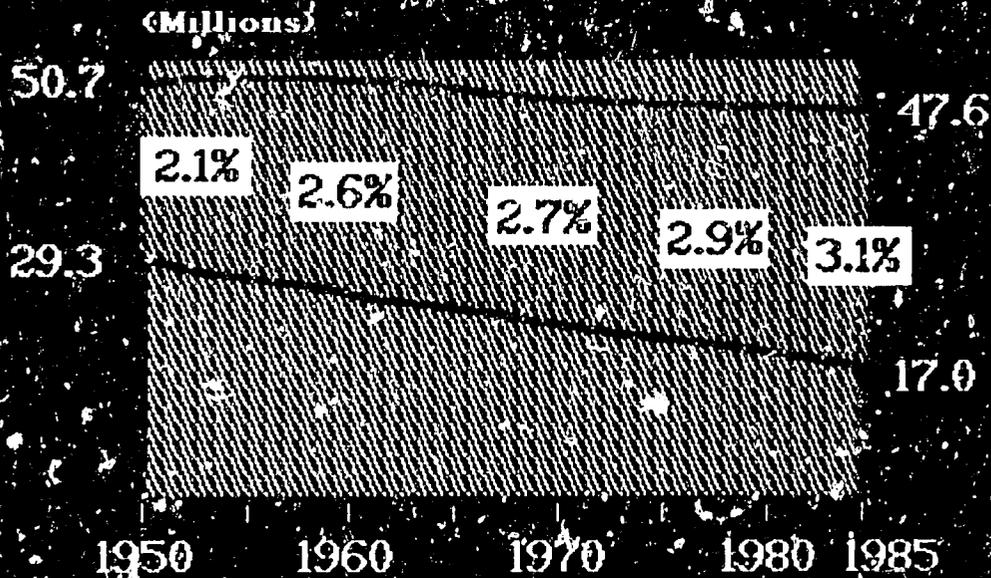


In the first half of this century SSA had a comparatively slow population growth rate and there appeared to be a great deal of open land. In the past three decades, however, the growth rate has increased greatly and the population has more than doubled in the last 25 years.

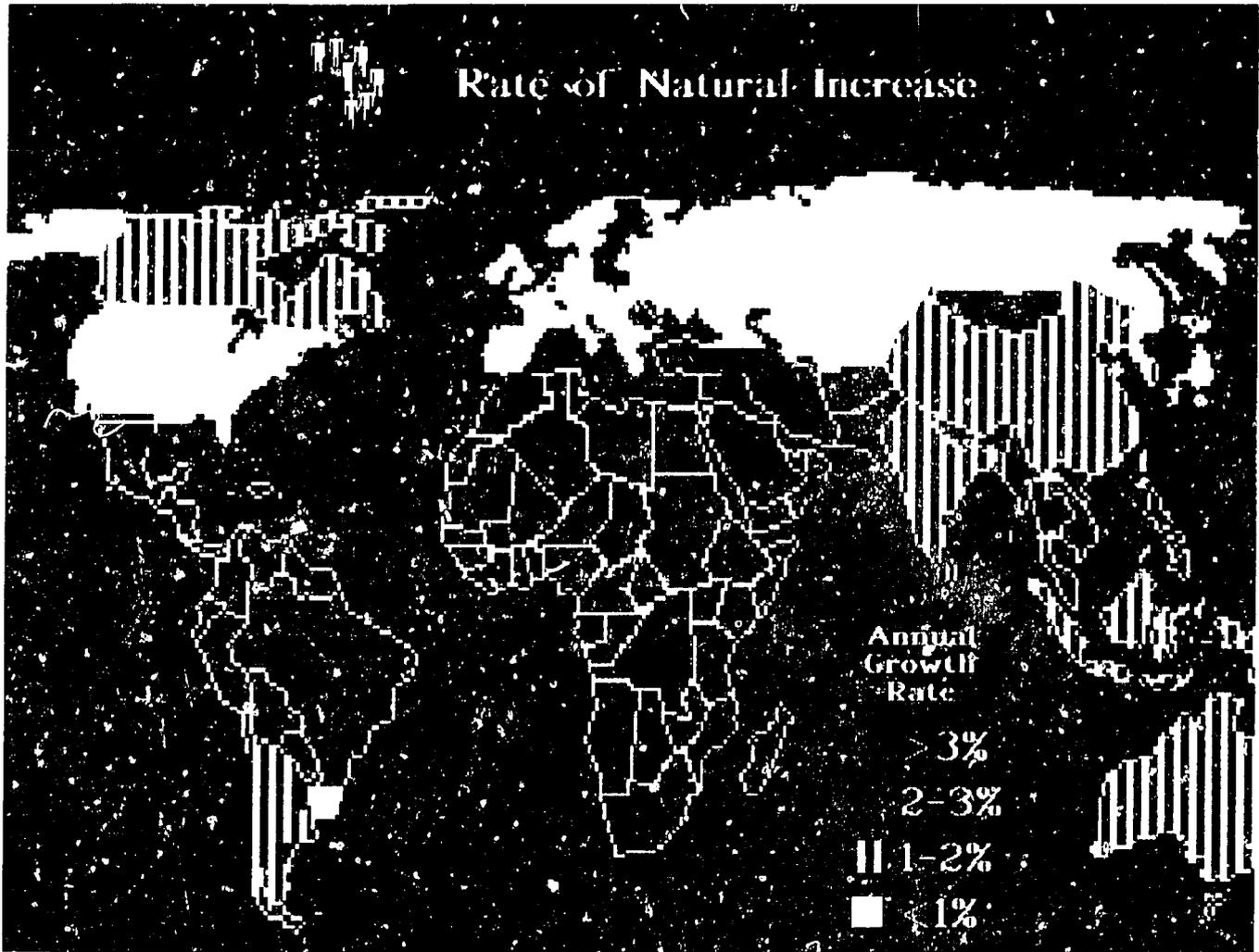


Sub-Saharan Africa

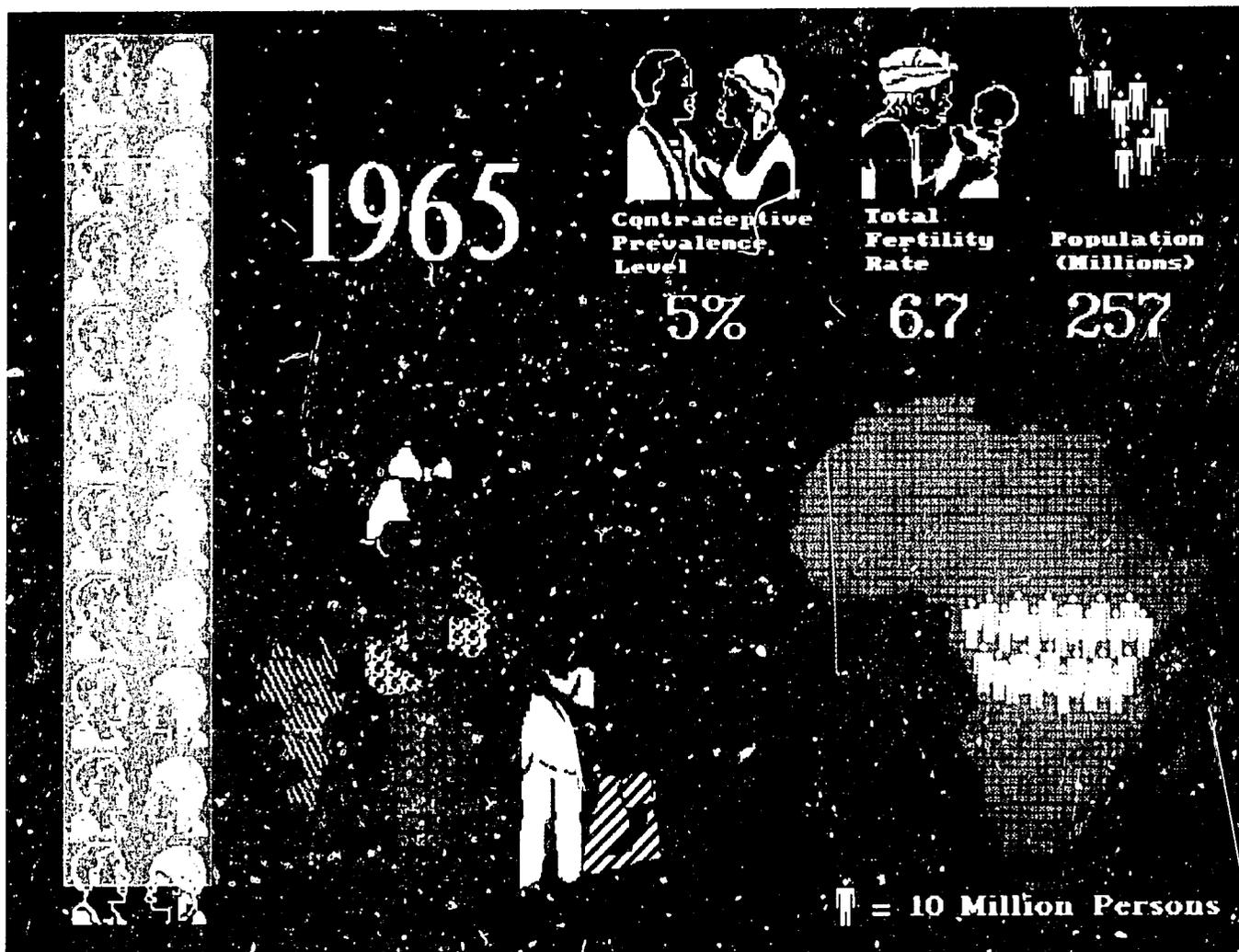
Rate of Natural Increase



The reason for this recent rapid increase in population is quite simple. The Natural Birth Rate (the top line) has reduced slightly, but the Death Rate (the lower line) has decreased a great deal more. As a result, the difference between the birth rate and the death rate--which is the Rate of Natural Increase--has become continually larger. It is now 3.1% per year for the Region and close to that for nearly all countries. A population growing at 3% year will double in just 23 years.



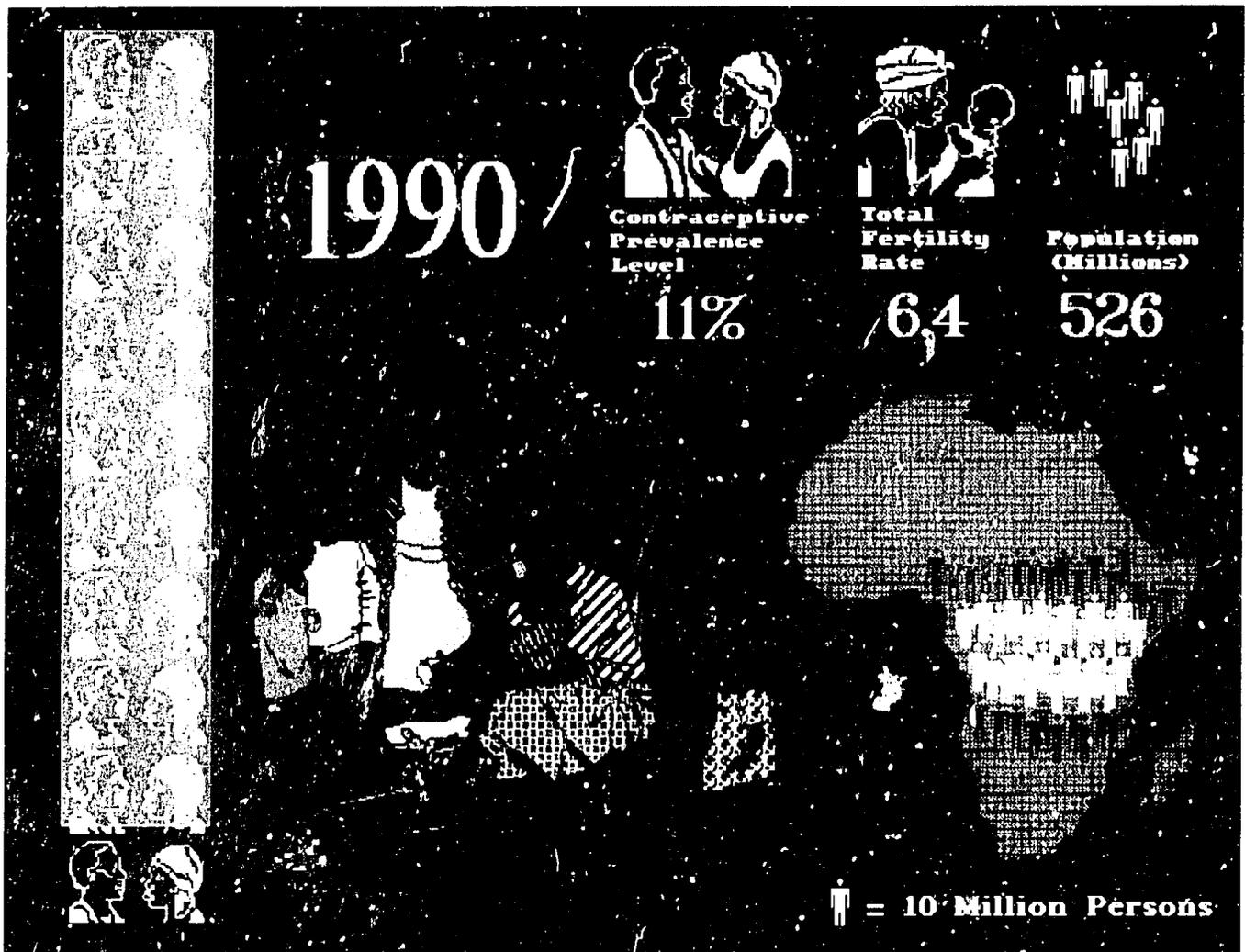
This worldwide map of countries, shaded according to their own rates of natural increase, plainly shows the high level most African countries maintain.



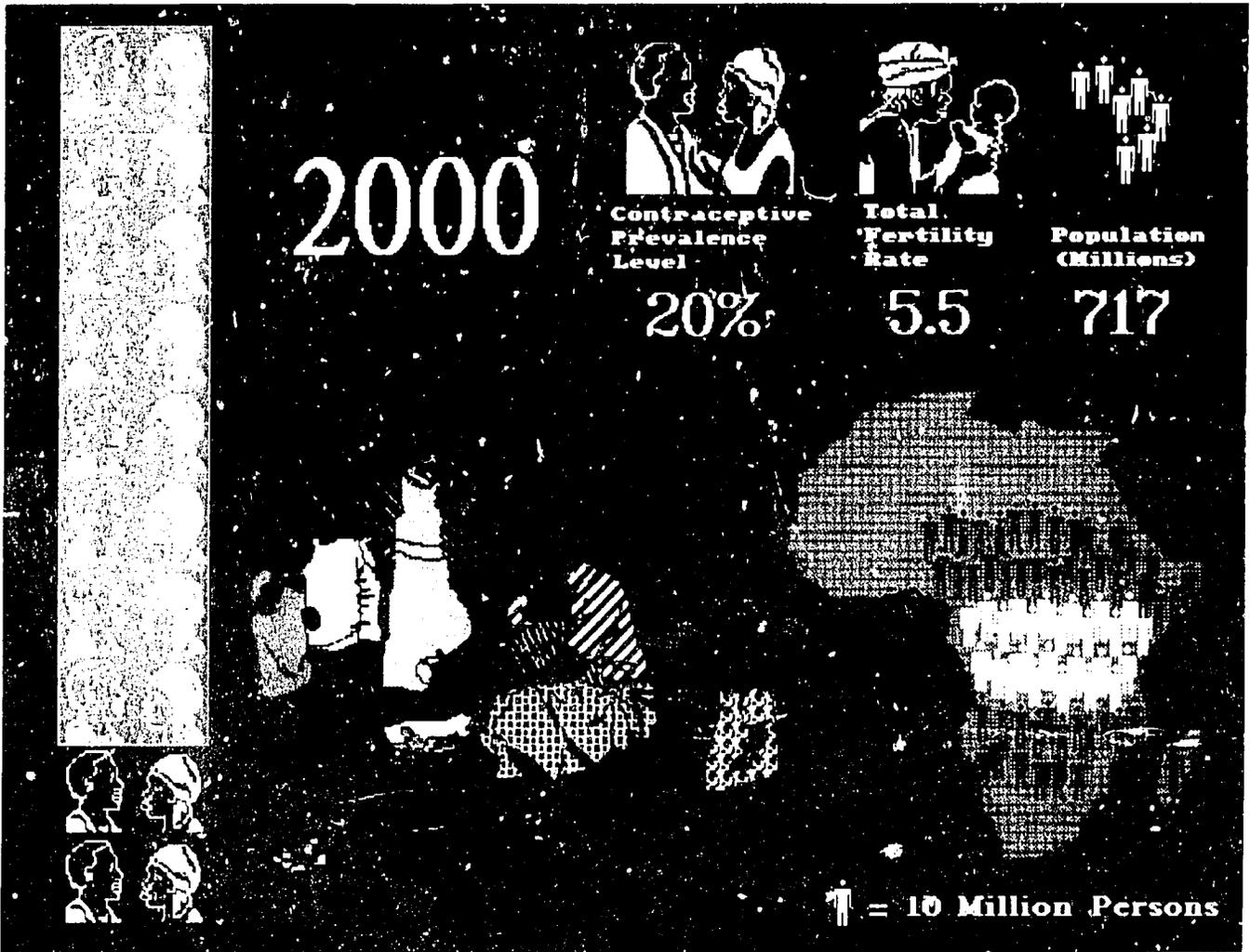
In order to consider population growth and other factors it is necessary to have a base year from which to begin the analysis. 1965 was the beginning date for many countries' efforts to slow population growth and is a good base year.

- * In 1965 in SSA less than one couple out of 10 practiced family planning--a Contraceptive Prevalence Level of 5%.
- * As might be expected, the average number of children born to women in SSA during their reproductive lives was nearly 7--a Total Fertility Rate of 6.7.
- * The population was 257 million.

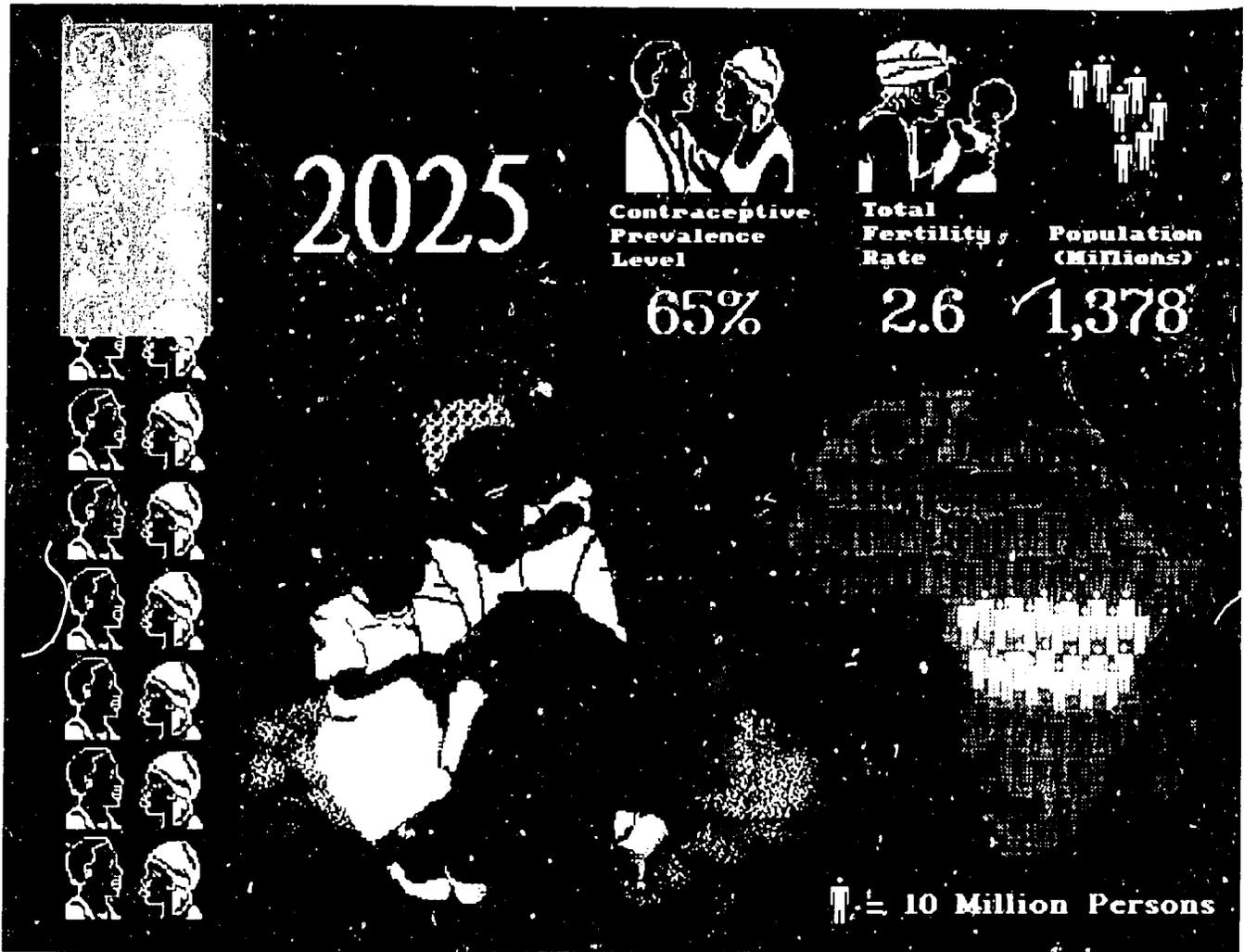
Note the little girl in the striped dress.



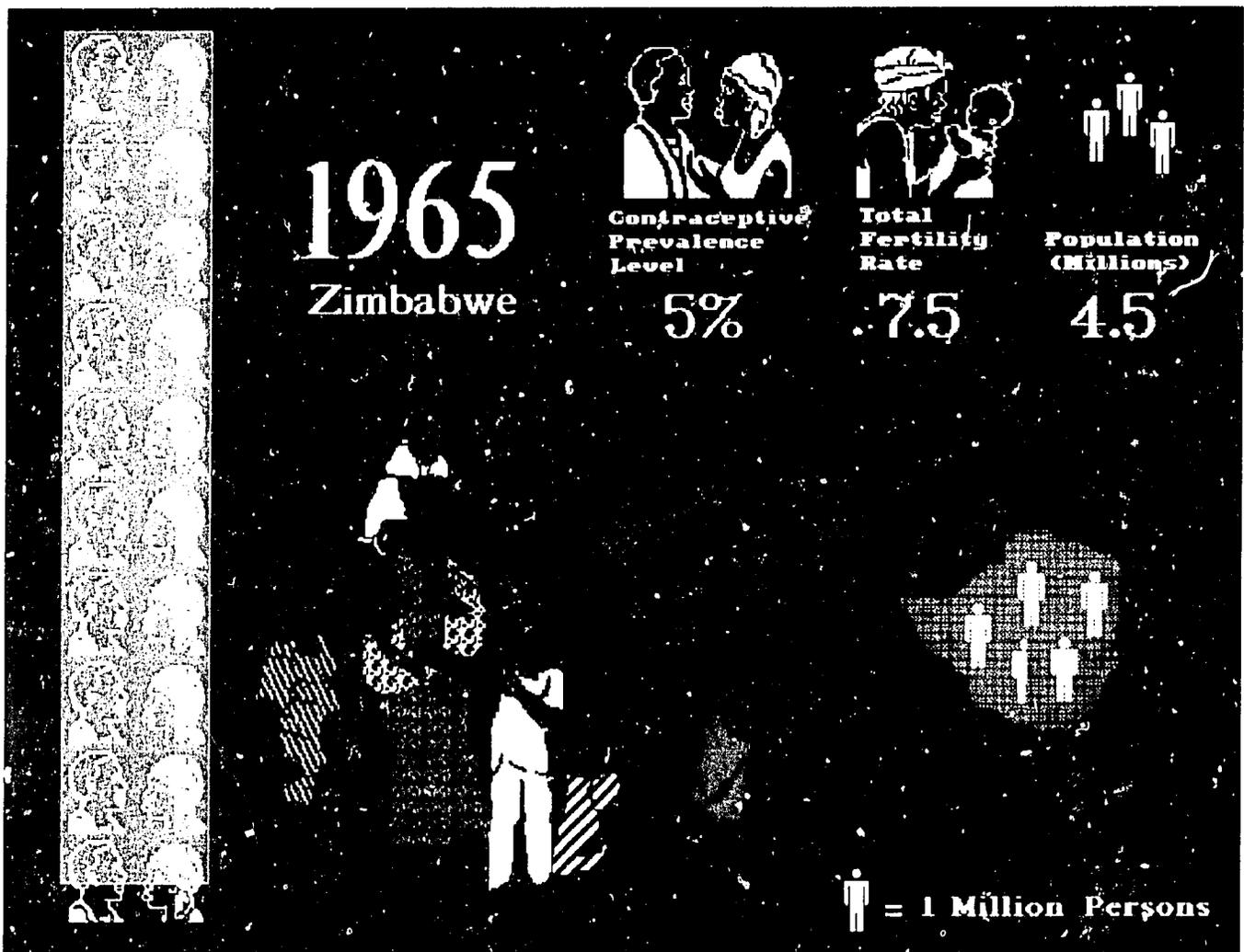
- * By 1990 slightly more than one couple out 10 (a Prevalence Level of 11% was practicing family planning).
- * The little girl we saw in the striped dress has now become a mother with a little more than 6 children--a Total Fertility Rate of 6.4.
- * The population has grown to 526 million



* If the World Bank Prevalence Level and Total Fertility Rate were continued to 2000, the Population would grow to 717 million.



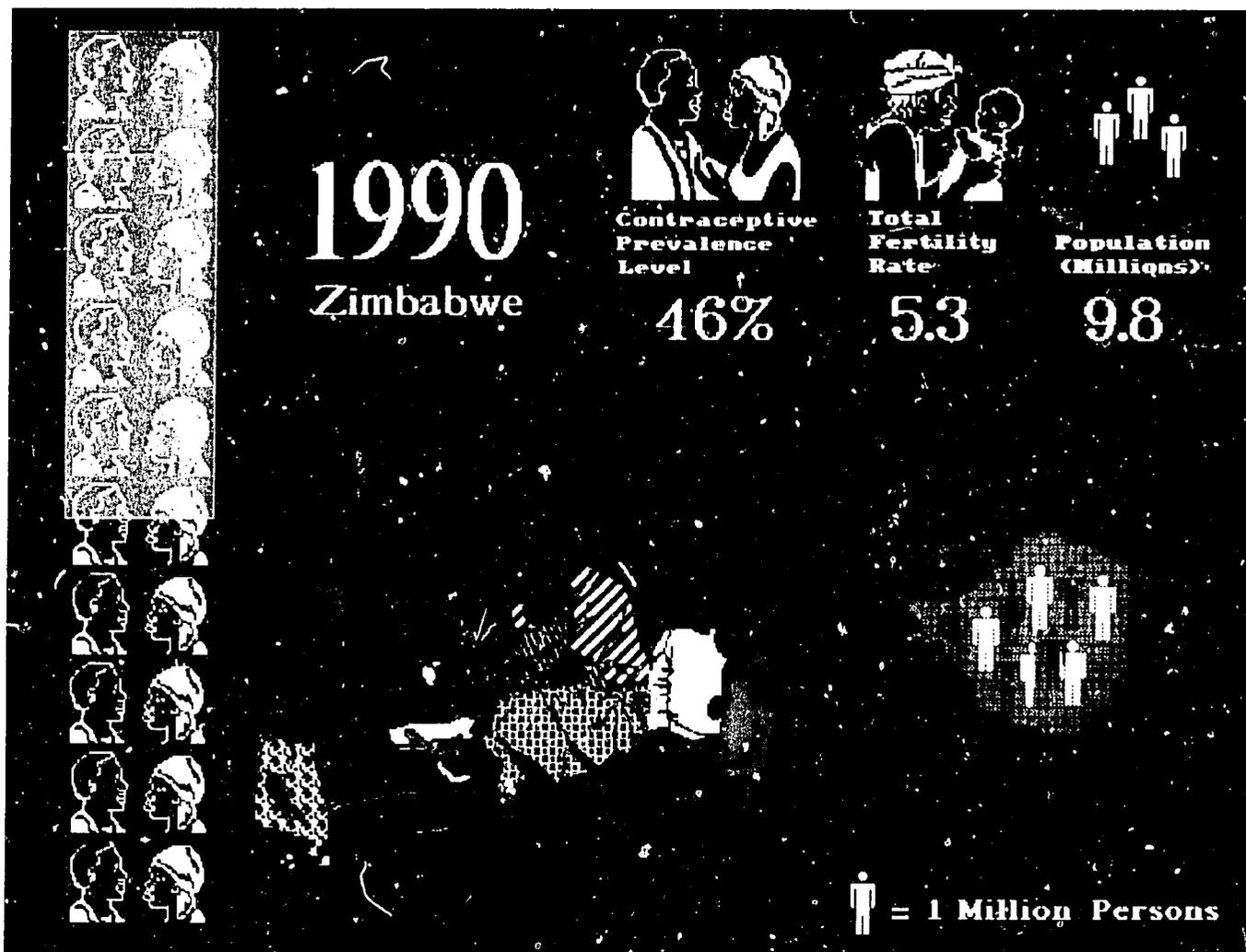
* If the World Bank projected Prevalence Level and Total Fertility Rate were continued only 25 more years to 2025, the Population would be 1,378 million.



These factors, which create a very high rate of population growth, to enormous numbers, are not inevitable. They can be changed. Zimbabwe has in fact done this, with great social, economic, and financial benefits. Other countries are capable of following Zimbabwe's example:

- * In 1965 Zimbabwe had the 0.05 Prevalence Level typical of SSA.
- * It also had the 7.5 Total Fertility Rate typical of SSA.
- * The population was 4.5 million.

Note the little girl in the striped dress.



Since 1965 Zimbabwe has carried out a major Family Planning Program and contraceptives are widely available.

- * By 1990 in Zimbabwe nearly 5 couples out of 10 were practicing Family Planning, a Prevalence Level of 46%.
- * The little girl in the striped dress is now a mother with the average number of children borne to a woman of Zimbabwe: a little over 5--a Total Fertility Rate of 5.3
- * The population has grown to 9.8 million.



Based on information developed in DHS studies, the increase in family planning and the reduction in Total Fertility with the greatly reduced 1990 population has provided Zimbabwe with substantial social, economic and financial gains.

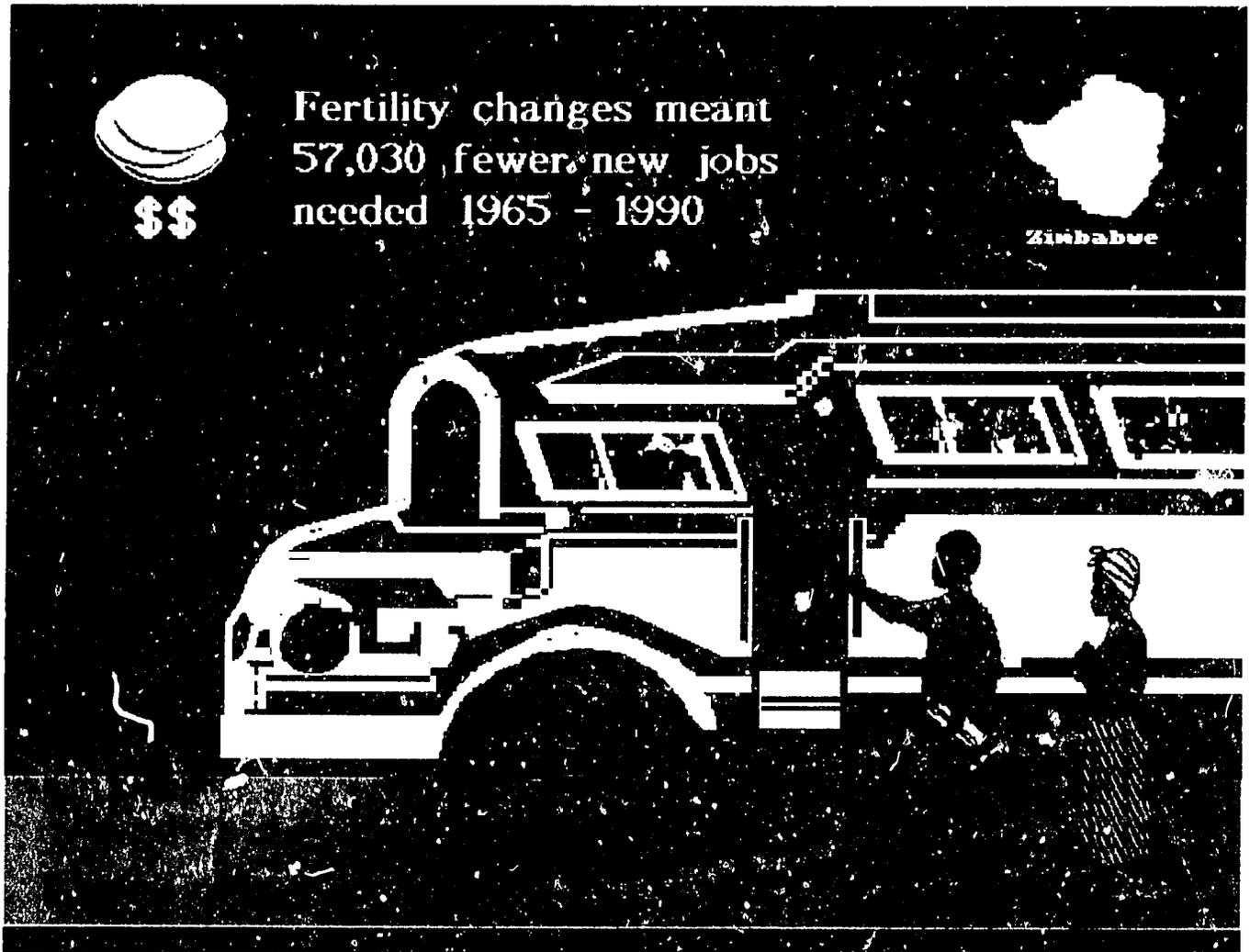
- * 20% fewer immunizations were required than if the high Total Fertility Rate had continued.
- * This was 11.38 fewer.
- * At an average cost of \$16 to fully immunize a child, the saving was \$22,751,732.



As a result of the family planning program and the efforts of individual couples to reduce births, 1.3 million fewer student years of primary school education were required between 1965 and 1990 than would have been the case if the high fertility of 1965 had been continued.

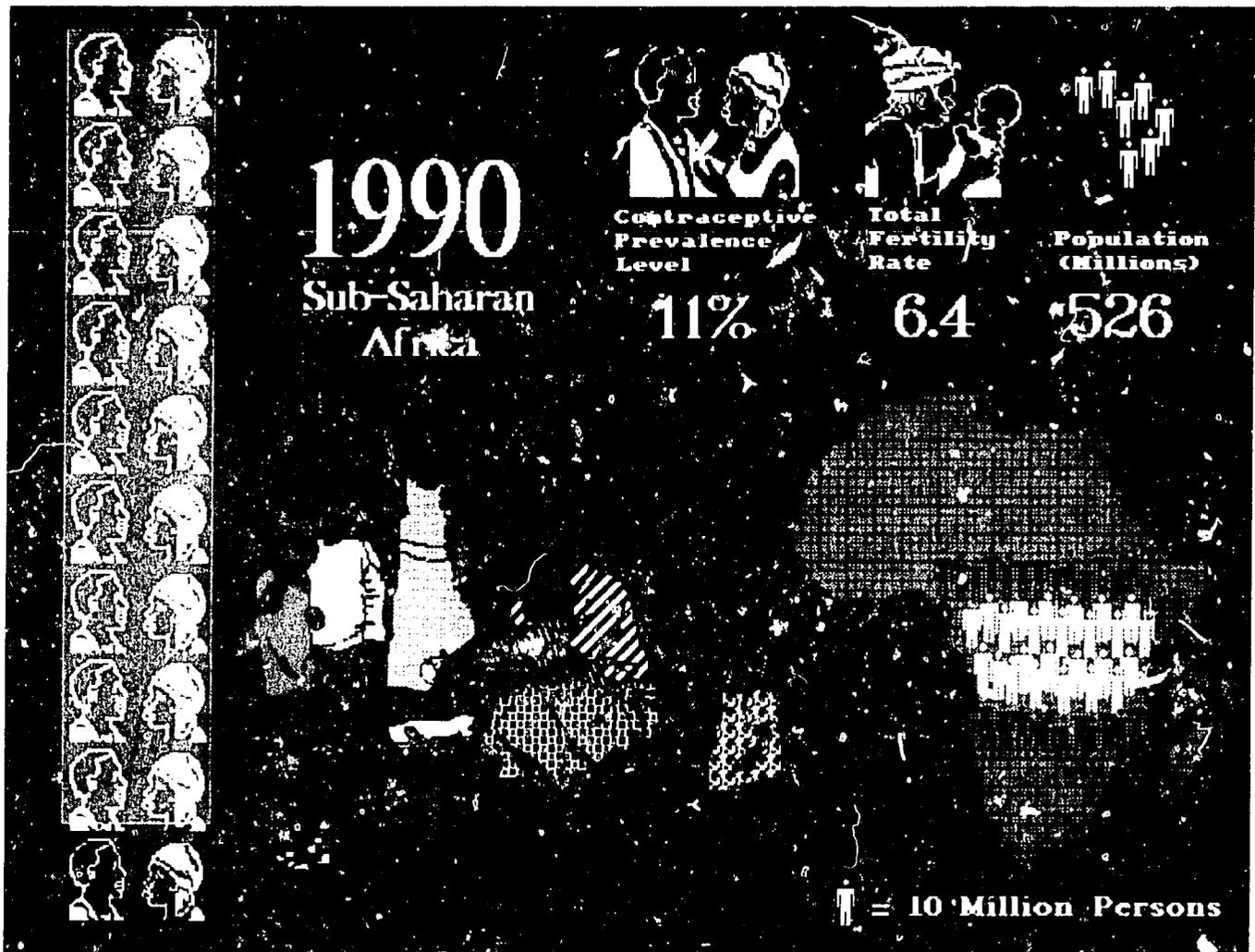
At an average cost of \$110 per year of primary school education, the savings to the Government and people of Zimbabwe was \$164,998,560.

Calculations in other countries have found that the savings in school costs compared to the costs of family planning programs was in the order of 7 or 9 to 1.

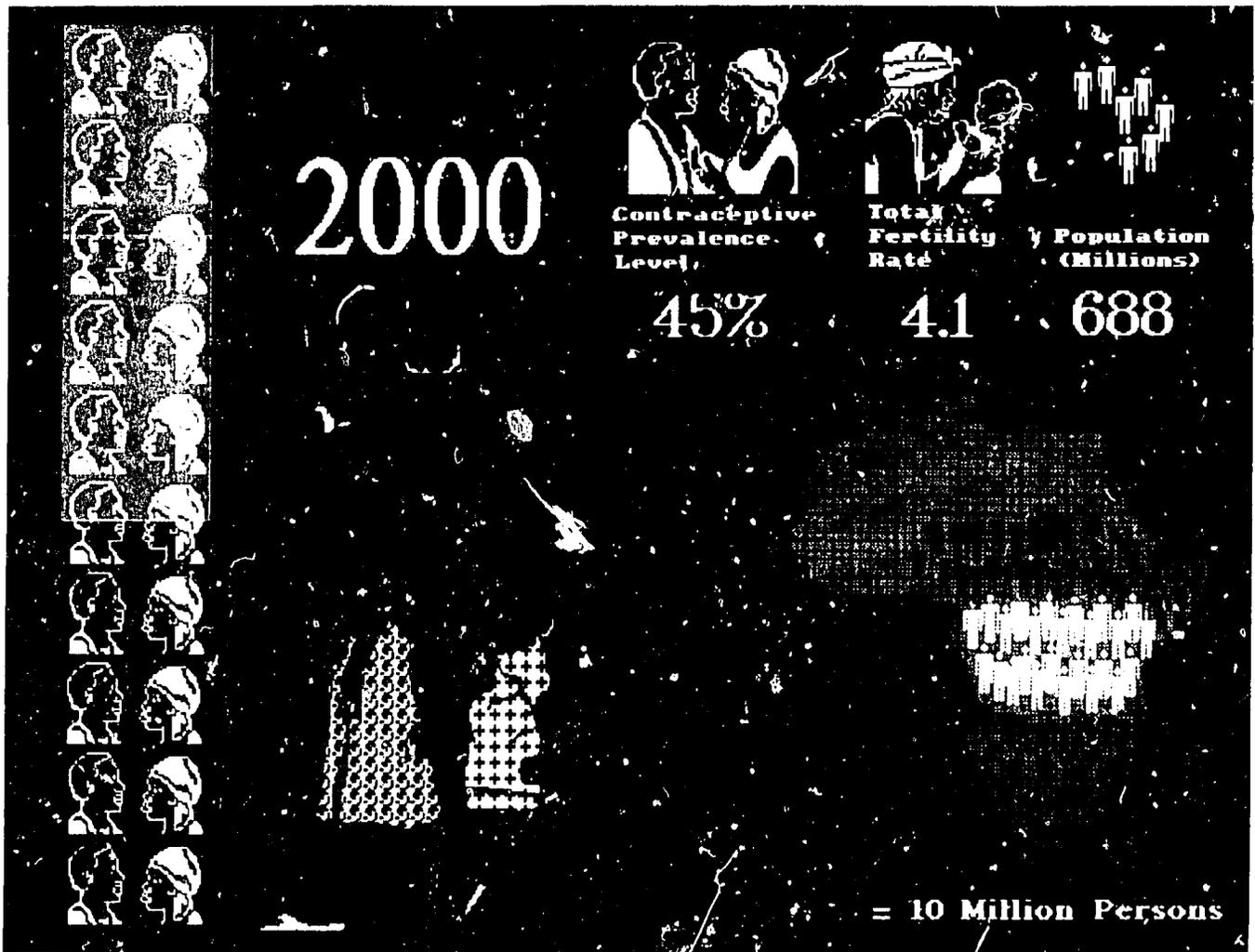


Perhaps the heaviest burden and gravest danger of high fertility is the fact that in most developing countries it produces and sends into the labor market each year many more young people looking for jobs than there are jobs to be found. So each year the number of young people unemployed or underemployed in the informal market increases.

In Zimbabwe the reduction in fertility rates and in births reduced the number of young people who would have been entering the job market by 57,030.

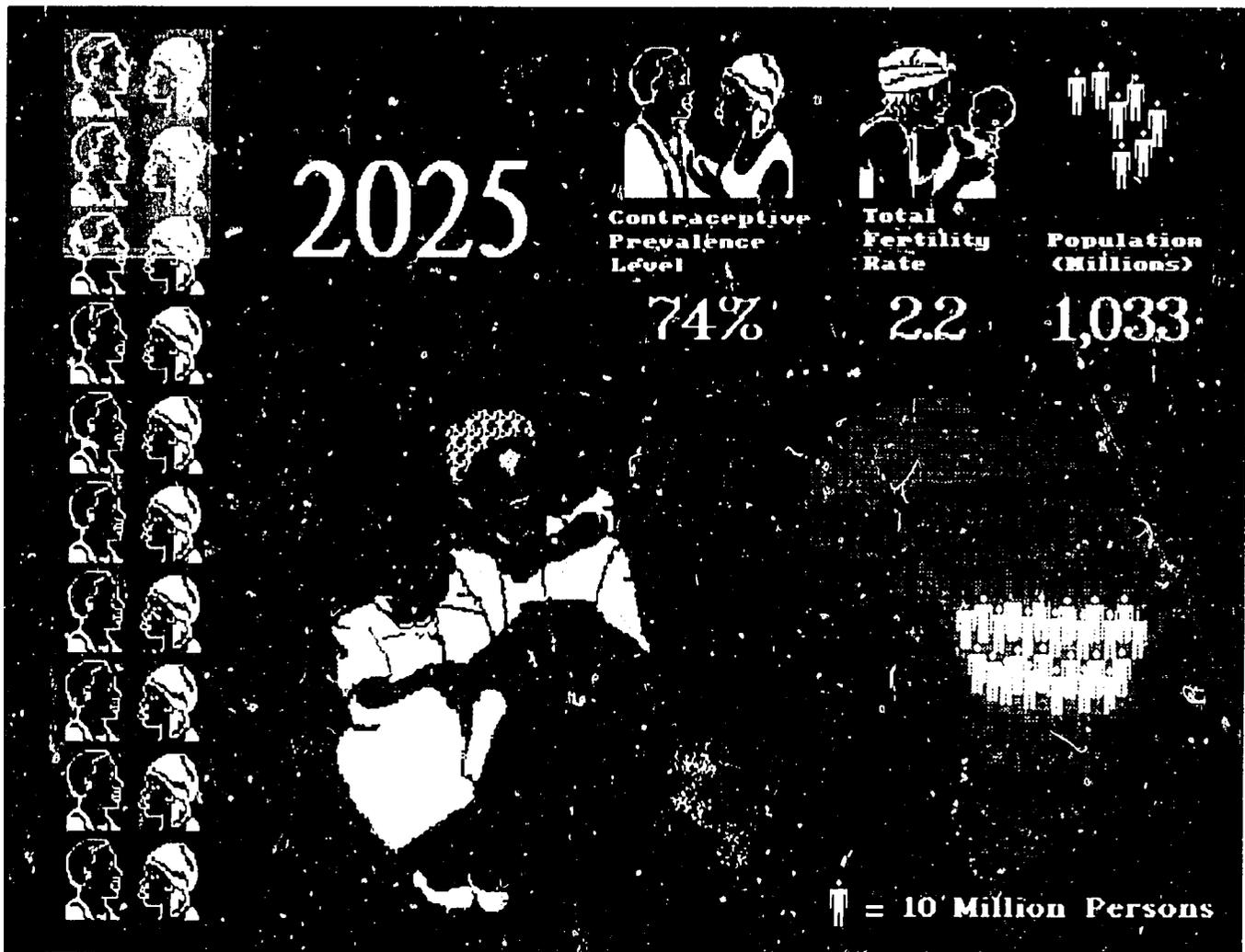


This picture returns us to all of SSA in 1990, as we have seen before. One couple out of 10 practicing family planning, 6-plus children for the average family (a Total Fertility Rate of 6.4) and a population of 526 million.



The time has come for most SSA countries to do what all countries must do at some time: to consider at what point its continued population growth must stop in order to have a standard of living and quality of life appropriate for the people of the country.

An appropriate level for many countries would be to reach a Prevalence Level of 45 by 2000, the level Zimbabwe has shown can be reached.. For many countries that would produce a 4-child family average (TFR 4) and a total population of 688 million.



If countries should decide to take a further step to reach a replacement level of fertility, approximately a 2-child family, another 25 years later in 2025 would be an appropriate and possible year for many SSA countries to reach: a Prevalence Level of 74%, seven out of every ten couples practicing family planning, and a 2-child family average -- a Total Fertility Rate of 2.2.

If this can be accomplished, it would bring the population level to 1.033 billion, instead of 1.378 billion.

Difference in Population Growth:



**Total
Fertility
Rate**



**Population
(Millions)**

# of Children	2000	2025
High Fertility	717	1,378
Low Fertility	688	1,033
Difference	29	345

A general program in SSA to reach a Prevalence Level of 45% by 2000 would make a difference in total population by that year of 29 million.

Attaining the 2-child family average by 2025 would make a difference in that year's population of 345 million.



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The objective of increasing family planning, reducing fertility levels, and holding population growth to considerably smaller increases is not just for demographic reasons, but also for the enormous social and economic costs that will be avoided and benefits that will accrue.



Population Factors and Environment

The relationship between Population, Consumption, and Environmental Damage can be expressed in a simple equation:

$$\begin{aligned} &\text{Environmental Damage} \\ &= \\ &\quad \text{Population} \\ &\quad \times \\ &\quad \text{Consumption} \\ &\quad \times \\ &\quad \text{Environmental Damage per unit of Consumption} \end{aligned}$$

$$Ed = P \times C \times D$$

The most fundamental damages that will be avoided and benefits that will be gained are in all the sectors of the environment.

It is essential to understand the INTEGRAL relationship among Population, Use or Consumption per person, and the Environmental Damage per Unit of Consumption (a factor for which the harmful or beneficial nature of the Technology used can be substituted).

The important thing is that the Effect or Damage on the Environment is the Product of multiplying these three factors. The equation $Ed = P \times C \times D$ should be memorized. It will be the most used equation of this decade, and probably later (The equation is also sometimes stated as $I = P \times A \times T$ where P stands for Population factors, A is Affluence, representing use or consumption per capita, and T is the Technology used, good or bad. I is the impact on the environment of these three factors multiplied together.)



Population Factors and Effects

Rapid Growth
Density on Arable Land
Urbanization

Destroy Forests
Reduce Bio-Diversity
Deplete, Erode and Desertify Land
Pollute Air and Water
Overrun Park Lands and Wildlife Reserves
Create Massive Waste

Population factors, individually or collectively, are the acting agent, multiplying their use per capita and multiplying the kind of technology used that affects the environment for good or bad.



Population Factors and Effects

Rapid Growth
Density on Arable Land
Urbanization

In industrialized countries damage is caused primarily by high consumption.

In developing countries damage is caused primarily by rapidly growing populations, inefficient use of resources and lack of education.

In industrialized countries with fairly slow population growth but with considerable affluence, there are generally high rates of use or consumption per capita and the damage to the environment is caused primarily by the high consumption.

In developing countries with rapidly growing populations, little affluence, and considerable poverty, the use or consumption per capita is likely to be rather low and the magnitude of the damage to the environment will be primarily the product of population factors with inefficient use of resources and general lack of education.



When systems are pushed beyond their resiliency thresholds, results include:

Forest changing to wasteland

Desertification

Depleted aquifers

Dead rivers and lakes

Extinct species of flora & fauna

Under the circumstances we have just seen, when ecological systems are pressed beyond their resiliency and capacity for recovery, they are destroyed in several ways.



SYSTEM

RECOVERY TIME

Grasslands

One year

Fish Stocks

Five years

Forests

Twenty years

Topsoils

Hundreds of years

Aquifers

One to Thousands
of years

When they are pushed beyond their period of natural resiliency they fall into a static or unusable period with very long recovery times.

Destruction of Forests in Uganda



= 2000 sq. km.
of trees

1900

1930

1960

1985

1900



1930



1960



1985



SSA leads the world in the annual destruction of forests and woodlands for firewood and for adding to the densely populated arable land.

The destruction of forests in Uganda is typical of many other countries in SSA:

- * 1900--31,000 square kilometers of trees.
- * 1930--23,000 remaining.
- * 1960--11,000 remaining.
- * 1985--6,000 remaining.



Biological Limits to Population Growth



Great world-wide environmental phenomena
are enlarged by population growth:

- Loss of bio-diversity
- Acid rain
- Destruction of the ozone layer
- Climate change
- Disposal of toxic & non-toxic waste

Are there others still unknown?

The most serious effects of population growth on the environment are those which affect the whole global ecology and have become visible only in very recent years.

The almost frightening aspect of these great world-wide phenomena is that they have been discovered one after another only in the last decade or two.

The obvious and daunting question is: Are there others still unknown?



Population and Food in Sub-Saharan Africa



Several Decades of "Harvest Deficit"



In 1990 SSA produced about 90 million tons
of food
- Imported 10 million



SSA should have an increase of 50% in food
consumption per capita in early next century



The production shortfall is likely to be
100 million tons.

SSA has already suffered several decades of "Harvest Deficit" during which their food production per hectare has decreased.

The fact that total food production may have increased gives an unreal cause for optimism because the increase in production may come from the addition of marginal land gained by the destruction of forests or cultivating hillsides.

The tragic fact is that presently SSA does not provide its own food requirements and the prospect for the future, with high fertility continued, is bleak.



Population and Poverty



About one billion people live in "absolute poverty"

- 185 million out of some 500 million in SSA
- That number may rise by 100 million in this decade

This condition contributes to the physical and intellectual impairment of children. They receive too little protein and calories for the full development of their brains.

Population factors alone do not produce poverty. However, rapid population growth, great density (particularly in relation to agricultural land), burdensome age structure, and other factors maintain poverty and make it more difficult to escape.

Children in poverty suffer most, with poor nutrition, lack of clean water, and many other conditions affected by population factors. Perhaps saddest of all is that these conditions impair their bodily and mental growth.



Population and Poverty



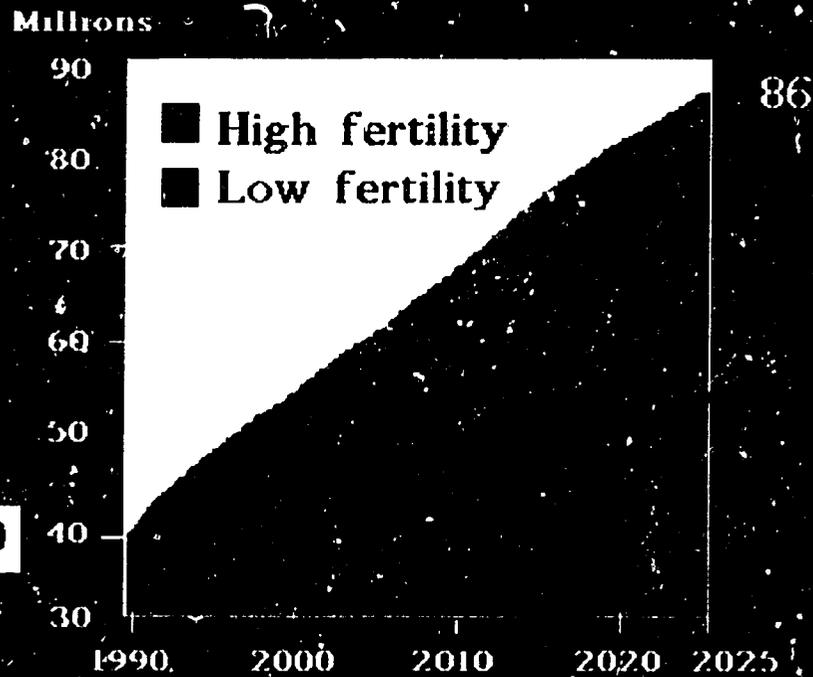
SSA countries will double and triple their children of primary school age in the next decade or two. This will lead to a further reduction of already poor education and a growing proportion of uneducated youth.

In sum: Population Growth in most Sub-Saharan African countries will slow development.

With high fertility continued, the burden of young children will diminish the already inadequate educational system and produce an increasingly large population of untrained youth.



Primary School Children High vs. Low Fertility



Assuming the same enrollment rates from 1990 to 2025, the difference in the numbers of primary school-age children for whom schools would be required under continued high fertility and the achievement of lower projections would be enormous.

With high fertility continued, the 40 million such children of 1990 would grow to 86 million by 2025.

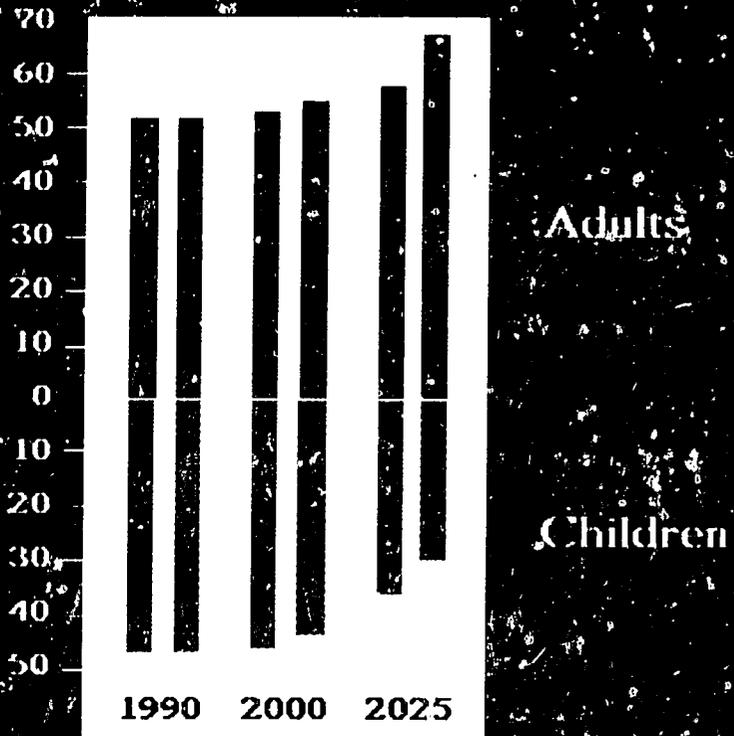
With the attainment of the 2-child average by 2025, the number requiring schools would be only 55 million, a difference and savings of 31 million in that year.

The savings in costs over the 1990-2025 period would be enormous, many times more the costs of the necessary family planning program.

Adults of Working Ages and Child Dependents



High fertility
Low fertility



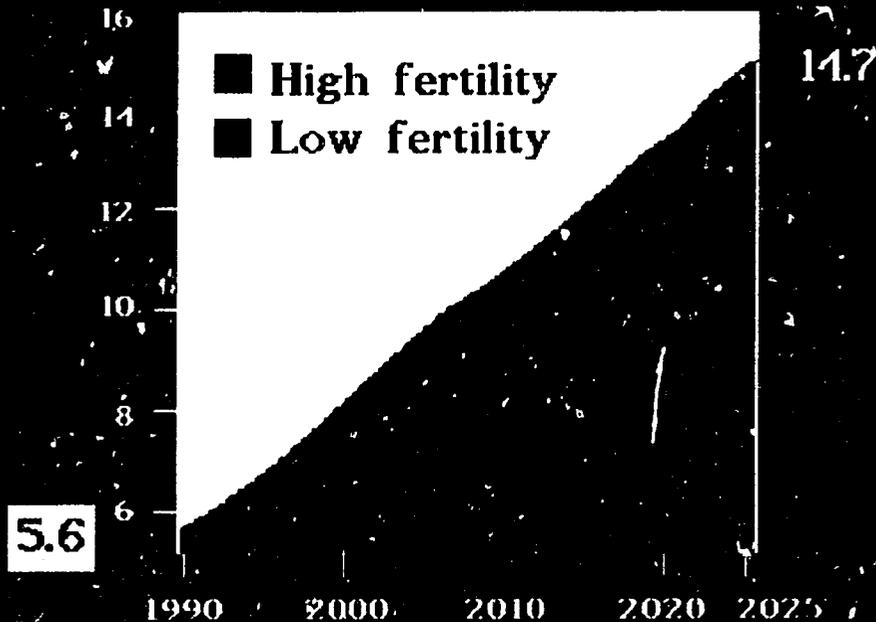
The difference between the two rates of population growth in terms of the ratio of child dependents to adults of working age would be substantial.

- * For example, by 2025, with high fertility continued, for every 100 working-age adults there would be 64 child dependents.
- * With the 2-child average reached by 2025, for every 100 working-age adults there would be only 45 child dependents.



New Job Entries High vs. Low Fertility

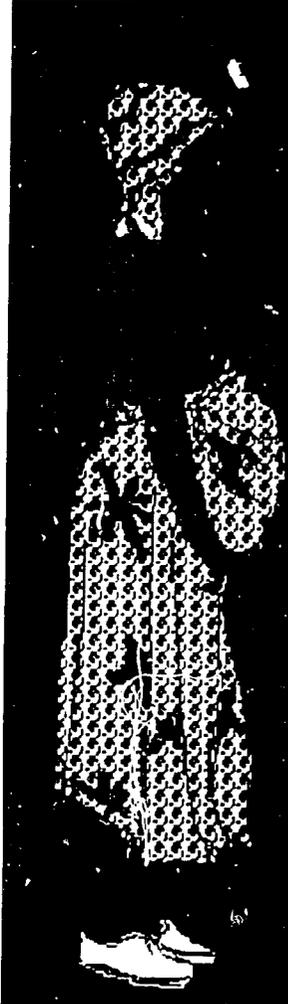
Millions



The most fundamental and difficult task of most developing countries is to find real jobs for young people growing up into the job market. The inability to do this will increase over the years as larger cohorts of young people grow into the job market each year. For the vast numbers left to unemployment or underemployment this is and will be personal tragedies. It is now posing serious social and economic threats for many countries and, if present high fertility continues, will get much worse.

In SSA as a whole, the new job entries in 1990 were about 5.6 million. With high fertility continued and assuming the same economic activity rates, this number will increase every year to 14.7 million by 2025.

With a decrease in fertility to the 2-child average by 2025, the new entrants will increase for those children already born to about 9 million a year by 2003 and thereafter will level off, rising slowly to 10.5 million by 2025 -- some 4 million fewer for whom jobs will have to be found.



Population and the Status of Women and Families

High population growth rates are
produced by births :

- too early (under 18 years)
- too soon (under 2 years)
- too late (after 35 years)
- too many

**Such births endanger the
health and lives of mothers
and children**

The conditions associated with high birth rates are all dangerous to the health and lives of mothers and children.



Population and the Status of Women and Families

- The first benefit of Family Planning is better health and better education for children.
- It also reduces the high percentage of malnourished women
- It makes it possible for many women to work outside the home in building their countries

Family Planning is an important way by which women can improve their status in society and contribute to its progress.

Substantial increases in family planning not only benefit the country in the long run by reducing fertility and population growth, but are also of immediate benefit to the health and welfare of mothers and children.

The improvement in maternal and child health generally improves the status of women and makes it possible for them to contribute in a larger way to the progress of the country.

Conclusion



World Commission on Environment: "In many parts of the World, the population is growing at rates that cannot be sustained by available resources".

The conclusion of many careful and qualified observers is that in much of the world sustainable development is and will be impossible with the present rates of population growth continued.

The statement of the World Commission on the Environment is supported by many such statements made by people with broad experience and judgement.

Conclusion

The change to creating a sustainable world, if possible at all, " will require transitions in many fields varying from technology to social and economic organization and ideology..."



Conclusion



We must begin now
to identify and
introduce the needed
changes—especially
reducing population
growth.



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The actions necessary to achieve the desired population growth rates are well recognized and are being applied in a number of countries. They fall into several categories which can be explored.



Population Momentum

Typical Population Pyramid for Age Distribution



75+
70-74
65-69
60-64
55-59
50-54
45-49
40-44
35-39
30-34
25-29
20-24
15-19
10-14
5-9
0-4

**Industrialized
Country**

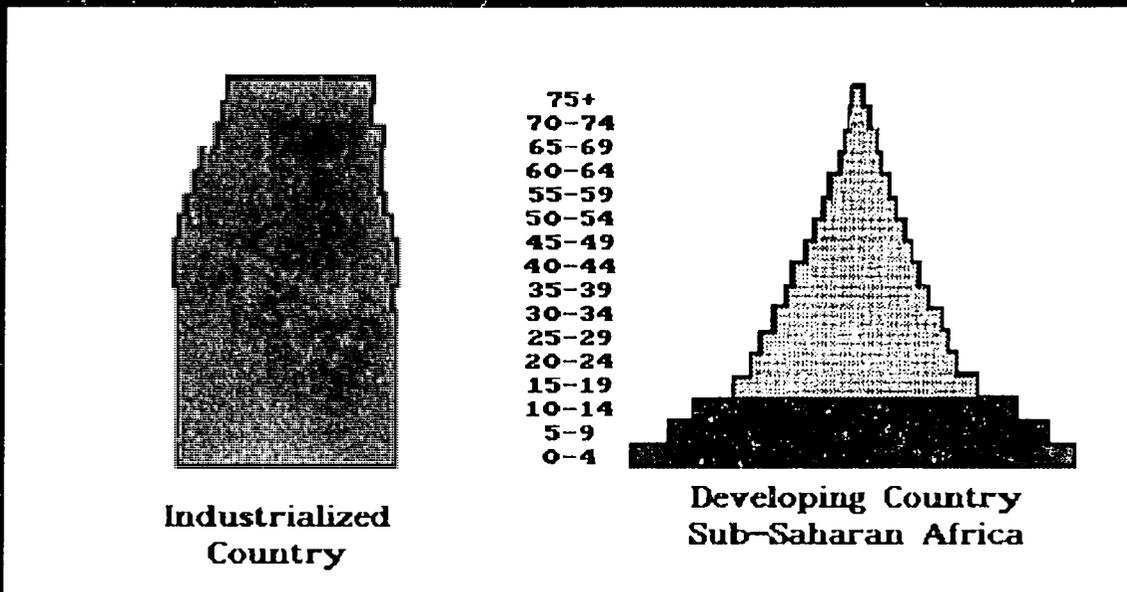
It is important to carefully consider the population age profile of the typical industrialized country and of the typical developing country.

Every industrialized country has a population profile like this.



Population Momentum

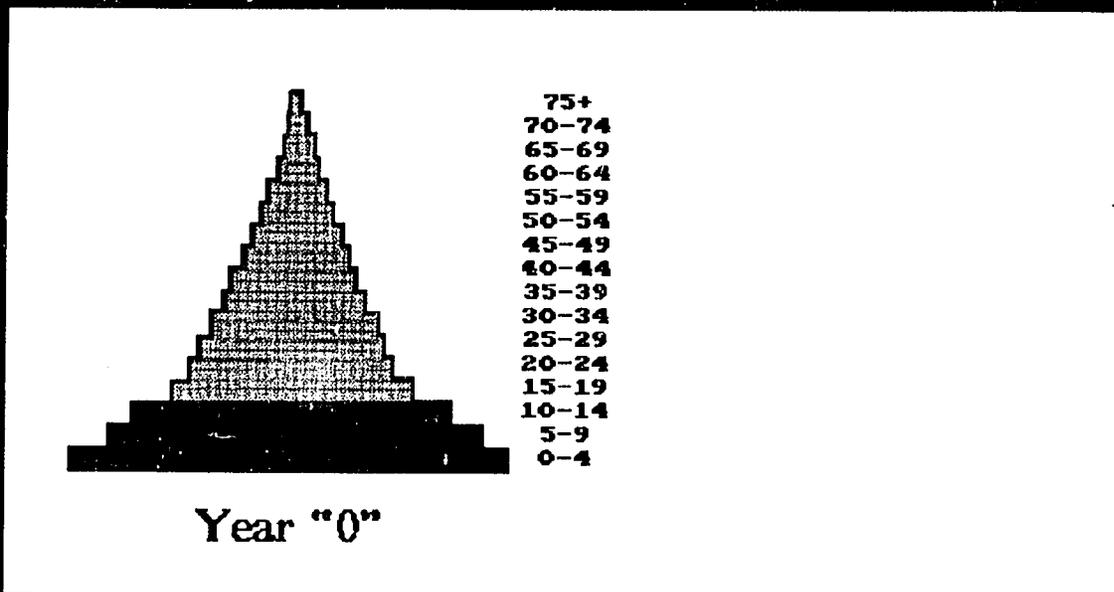
Typical Population Pyramid for Age Distribution



Every SSA country has a population profile very close to this.

The lesson is clear. It is important for developing countries to reduce this broad base in their population pyramids.

Population Momentum



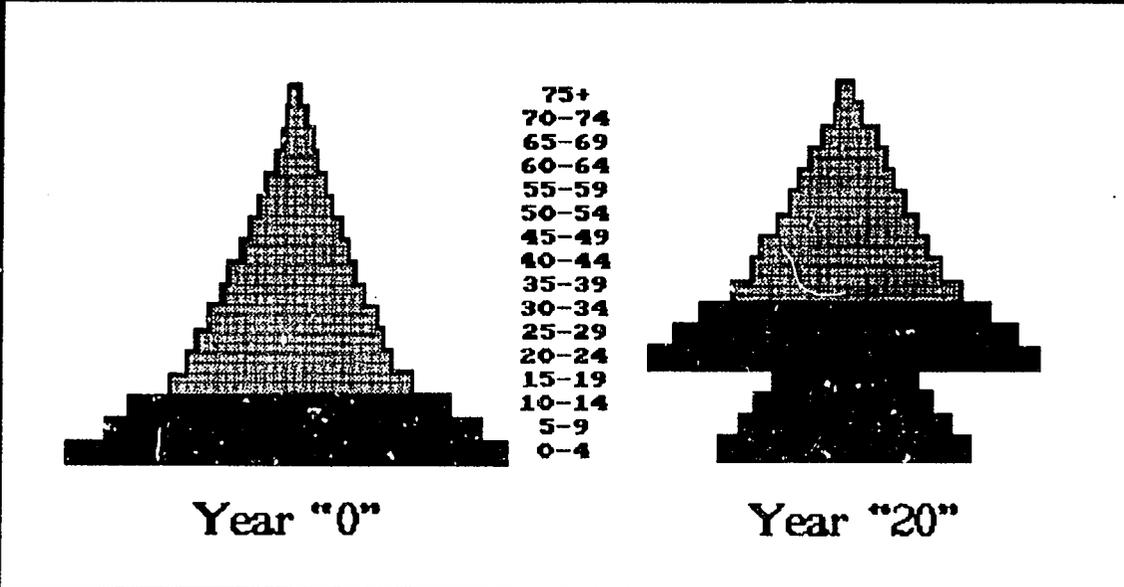
Momentum of Population Growth is an important phenomenon which must be understood.

This is an illustrative population pyramid typical of any developing country. The height of each bar represents 5 years of population growth: from birth through 4, from 5 through 9, etc. The length of each bar represents the number or percentage of the population of the country in that age group. The three lowest bars are children under 15 years of age.

Let us assume that by some miracle all these young people will have only two children per couple.



Population Momentum



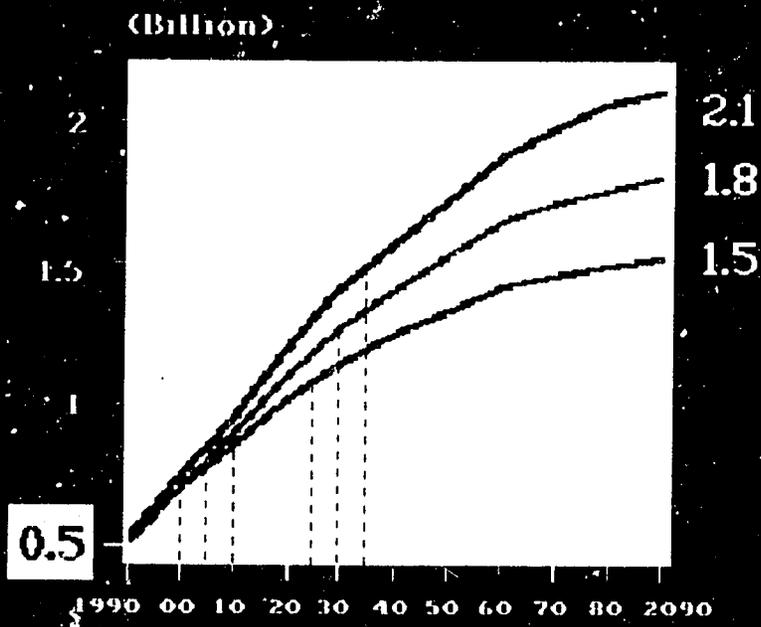
* Year 20. All of the young people are now of reproductive age, married, and having only 2 children, according to the assumption.

Nevertheless, the population will continue to grow because although each couple has only two children there are many more couples and every year more children are born than older people die and pass out of the pyramid.

* This will continue for many years until the children shown at the bottom of the pyramid replace their parents and population growth stops.



Effects of a Delay: 4 Child Family 2010 Replacement Level 2035



When a country decides to try to stabilize its population at some future date, it is important to start the process at once. A delay as short as five or ten years can make an enormous difference in the size of the population at the time stabilization is reached.

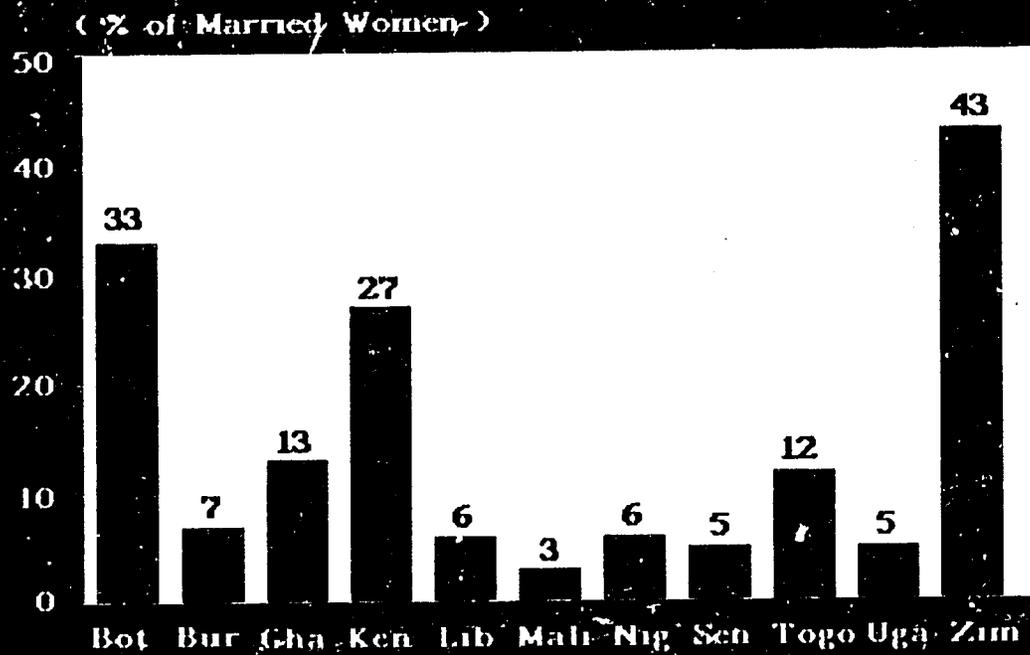
- * If all the countries of SSA decided to reach replacement level of fertility (a 2-child average) by 2025 and this was done, the population would continue to grow to about 1.5 billion.

If there was a delay of five years in starting the program and replacement level was not reached until 2030, the population would stabilize at about 1.8 billion.

- * If the delay for starting the program was 10 years and replacement level reached by 2035, the population would grow to about 2.1 billion.



Current Use of Family Planning



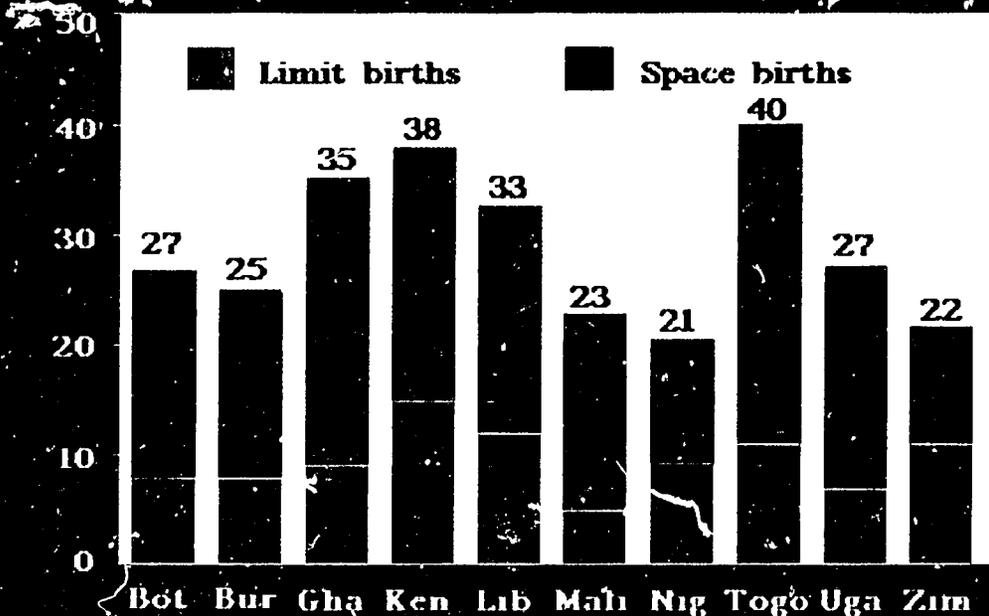
With the exceptions of Zimbabwe, Botswana, and Kenya, the current usage of family planning is quite low.

All Far Eastern countries and several in Latin America have higher usage rates.



Unmet Need for Family Planning

(% of Married Women)



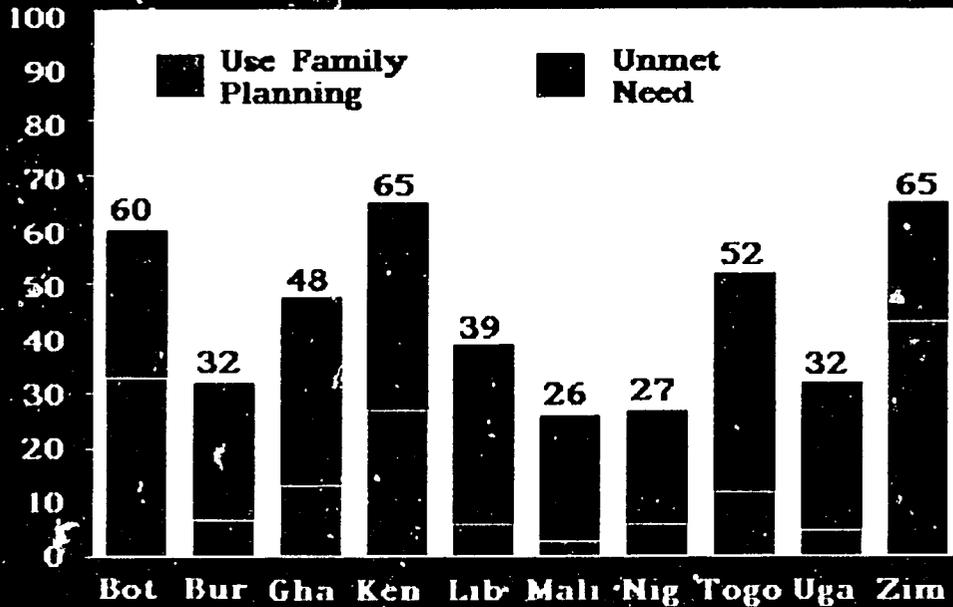
- * In many SSA countries there is a very substantial "Unmet Need" for family planning in the sense that many who say they do not want more children nevertheless do not use family planning.
- * Many more say they would like to defer, or space their next pregnancy, but do not use family planning.

These women would seem to be good prospects to undertake family planning if information and means were made readily available.



Family Planning and Unmet Need for Family Planning

(% of Married Women)



When the numbers of women who do not want additional children and those who would like to defer their next pregnancy are added to the numbers already practicing family planning, the numbers of potential users becomes quite large -- well on the way to a replacement level of fertility.



In 1990 there were approximately 13 million users of family planning to attain the Contraceptive Prevalence Level of 11% with a 6-child family average.



45%
Contraceptive
Prevalence
Level

**68 Million Users Needed
for 4 Child Family in 2000**



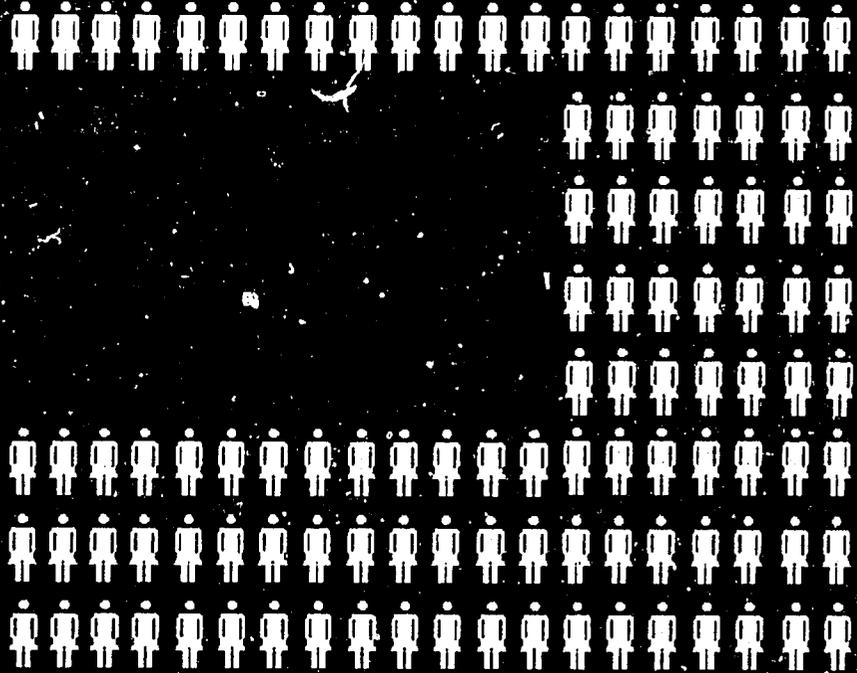
If a general program was undertaken by SSA countries to attain a Prevalence Level of 45% in 2000 and reduce the Total Fertility Rate to a 4-child family average, it would require 68 million users for all SSA by 2000.



74%

Contraceptive
Prevalence
Level

166 Million Users Needed
for 2 Child Family in 2025



If this effort to reduce average family size were continued until 2025 to attain a 2-child family average, it would be necessary to attain a Prevalence Level of 74%, with 166 million users in a population of over 1 billion.



1990 - 2025 Savings from Lower Fertility: Sub-Saharan Africa



**Labor Force
Entries :
14,034,825
(6%)**

Arising from a reduction in fertility from 1990 to 2025 there would be very large immediate and growing savings in various public expenditures.

- * Savings in immunizations would begin at once. Approximately 1,225,360,000 immunizations would be saved. The savings would be \$2,450,720,000, at an average cost of \$16 for each course of immunizations per one less child to be immunized than would be with high fertility continued.
- * The number of student years of primary education required would be reduced by 222,975,516. At an average cost of \$50 per student year the estimated savings would be some \$11,148,775,800.
- * The number of young people entering the labor force (assuming the continuation of present rates of activity) would be about 6% less than with high fertility continued: 14,034,825 fewer young people for whom to provide jobs.



The Action Program



FAMILY PLANNING ACTIONS

Countries without Population Programs

Countries with Programs Needing Expansion

Countries with Strong Programs Needing
Advancement



FAMILY PLANNING ACTIONS

Countries without Population Programs

- Ministries of Planning and Finance Act obtain public commitment
- Establish national population council or commission
- Draft national population and action program.
- Establish core program to meet existing demand
- Provide mass and personal IEC
- Assure adequate availability of contraceptives
- Organize training for staff at all levels



FAMILY PLANNING ACTIONS

Countries with Programs Needing Expansion

- Planning and Finance Ministries assess and strengthen commitment
- Strengthen existing institutions and NGOs
 - Ensure availability of contraceptives
- Establish or strengthen national population commissions: Expand and strengthen policies and programs
- Identify target groups for successful service
- Develop IEC programs using satisfied acceptors
- Provide training programs for greater client orientation



FAMILY PLANNING ACTIONS

Countries with Strong Programs Needing Advancement

- Strengthen existing institutions
- Identify different potential client groups and devise strategies for them
- Devise a multi-sectoral and multi-media motivational program
- Set family planning targets for different groups and regions
- Develop management information system for feedback and client's needs
- Organize sophisticated training for all staff



RECOGNITION AND PROGRAM ACTION AGAINST AIDS

- National population policies must be designed or revised to prevent AIDS
- Population programs must be used to prevent AIDS
- Program personnel must be trained to help prevent spread of AIDS
- Methods mix should be arranged to prevent AIDS
- MCH/FP services must be arranged to screen for and treat other STDs and educate clients and their partners
- Programs and IEC must be used to promote use of condoms



SUPPORTING ACTIONS

- Remove all financial and legal restrictions on supply of contraceptives and family planning supplies
- Support sex and reproductive rights of citizens, particularly girls
- Develop domestic production of contraceptives where practicable
- Monitor all elements of program and report to National Population Council and Head of State quarterly



People's Participation



AGENDA TO IMPROVE POPULATION PROGRAMS IN SUB-SAHARAN AFRICA



AGENDA TO IMPROVE POPULATION PROGRAMS IN SUB-SAHARAN AFRICA

- Origin and purpose of the Population Advisory Committee (PAC)
- Appreciation of support
- AGENDA process, an exercise in participation
- Beliefs; goals; process
- Experience: Two years, five countries, fifty communities
- Highlights of findings
- Character, requirements of AGENDA generated actions
- Limitations and further actions planned
- Role of GCA for AGENDA



Sub-Saharan Africa

- I. Present Situation and Future Projections
- II. Economic and Social Gains of Slowing Population Growth Rates
- III. Actions to Achieve the Desired Population Growth Rates:
 - Toward a Stronger Program
 - The Action Program
 - People's Participation

IV. Conclusion

Conclusion



Reducing population growth may not by itself solve major development problems.



It will facilitate development and provide time to deal with growth.



No country has achieved rapid economic development without reducing population growth rates.



Africa cannot be an exception.



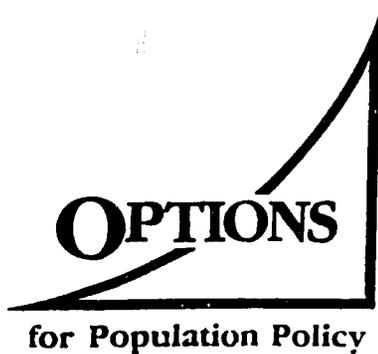


Actions Needed--Working Together

- Establish and strengthen population programs as outlined
- UNFPA and World Bank form donor-government consortium to assure availability of contraceptives
- Enlarge support for IPPF to strengthen NGOs
- Donors and governments support African Population Advisory Committee
- Support an African agency to organize DHS studies
- An African institution with World Bank organize a conference on AIDS and development for top policy makers

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