Children and Women in Ethiopia

A Situation Analysis

United Nations Children's Fund
The Children, Family and Youth
Service Organization
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Prepared by

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CHAPTER I THE OVERALL SETTING

Part 1. The History of Ethiopia

An Ancient Land

The first written records on the Horn of Africa date back more than 5,000 years. Egyptian hieroglyphic inscriptions indicate that the Pharaohs traded with the area as early as 3,000 years BC. It seems likely that this was the time when the two main ethnic components present in the country today—those speaking Semitic languages and those speaking Hamitic languages—began to settle and to develop a cultural identity.

One thousand years BC, Northern Ethiopia was strongly influenced by a migration across the Red Sea, when the people of North Yemen and Saba (now South Yemen) settled on the coast of Eritrea. In the Bible, the First Book of the Kings describes how the famous Sabaean ruler, the Queen of Sheba, travelled to Jerusalem to meet King Solomon. Ethiopian legend states that they had a son, Menelik, the first Ethiopian emperor in a line of 224 to follow.

Gradually the people of Saba moved into the highlands of Eritrea and established towns. By 100 AD, a powerful kingdom centred around the capital city of Axum and the Red Sea port of Adulis had developed. When the ancient Greeks, trading on the coast of Eritrea, first saw the brown Axumites, they simply called them "people with burnt faces"; in Greek: Ethiopians.

At its peak around 300-400 AD, the Axumite empire was described as one of the four kingdoms of the world. Like his contemporary; the Roman Emperor Constantine the Great, King Ezana converted to Christianity, thus establishing Ethiopia as one of the world's oldest Christian countries.

Islam appeared around 600 AD, during the lifetime of the Prophet. At the time of Mohammed's flight from Mecca, some of his more distinguished disciples were warmly received and took refuge in Axum.

Following the death of the Prophet, there began many years of fighting between Ethiopian Christians and Muslims, reaching a climax in the 16th century when diplomatic relations with Europe began to be established. The Muslim ruler of Harar, Ahmad ibn Ibrahim, supported by 200 Turkish musketeers using firearms for the first time in the history of Ethiopia, overran most of the country. Lebna Dengel, a Christian ruling over Lalibela, appealed for help from the Portuguese and, in 1543, Ahmad ibn Ibrahim was defeated. Though no longer a military threat, the Muslims remained in the country as a numerous minority, especially in the lowlands.

There followed two centuries of political stability after which the central power declined and the rule of emperors was replaced by the great feudal lords. The Church and the feudal aristocracy were the most important political institutions. Slavery was widely practiced, and the Ethiopian farmer, living on the edge of subsistence, did not own his land, but farmed the property of private landlords, the Crown, or the Orthodox Church, paying half or three quarters of the produce to his rulers.

In 1869, a private Italian company bought the seaport of Assab and resold it to the Italian government. The Italians advanced further inland, occupied Asmara and established the Italian colony of Eritrea. After several military clashes between Ethiopia and invading Italian armies, Ethiopia was recognized as an independent nation by the European powers.

The Twentieth Century

In 1928, the Empress Zauditu, who shared power with the appointed heir, Ras Tafari Mekonnen (later Haile Selassie I), signed a 20 year treaty of friendship with Italy. It lasted only seven years.

On the 3rd of October 1935, Mussolini's forces crossed the border between Italian-held Eritrea and imperial Ethiopia. Four days later, the League of Nations condemned the aggression and adopted sanctions against Italy, but none of them, including the recommended oil embargo, ever became effective. By the end of 1936, the Italian conquest had been recognised by most of the European countries and the occupation lasted until Ethiopia was liberated by joint Ethiopian and British forces in 1941.

During the 1960s and 70s, discontent with the reign ofthe Emperor Haile Selassie grew and reached a boiling point after the disclosure of the 1973/74 famine. By August 1973, over 10,000 people were estimated to have died of starvation in Wollo, although there were some 20,000-30,000 tons of grain stored in commercial warehouses around the country. In November 1974, the administration was assumed by a Military Council. A year after the revolution, socialism was declared state policy and an immense effort began to improve living conditions for the Ethiopian people. In February 1987, the people through a referendum, adopted a constitution which established the People's Democratic Republic of Ethiopia. Following nationwide elections, the Republic was declared in September 1987.

Ethiopia is the only country in Africa which safeguarded its independence throughout the era of the European "Scramble for Africa." With the exception of Eritrea, Ethiopia was never colonized, and there remains in the country a pride and a strong sense of freedom from foreign intervention.

While the external exploitation of colonialism has not played a major role in Ethiopian history, the "internal" exploitation of feudalism has been a central element, carried even into the twentieth century. Slavery was practiced in Ethiopia until 1936, although it had been abolished by legislation in 1931. Until the 1974 revolution, Ethiopians had for centuries subsisted under a harsh feudal system, with no say in their own affairs, only kept alive as taxpayers. The Government which came to power with the revolution inherited a country suffering from lack of food, water supplies, health facilities and schools, with an illiteracy rate of 93 per cent.

Part 2. Geography and Population

Geography

Ethiopia is a land of great physical diversity, with altitudes ranging from 116 meters below sea level, in the Danakil Depression, to 4,620 meters at the summit of Africa's fourth highest peak, Ras Dashen. In the north, there are approximately 25 mountains rising over 4,000 meters. The central Ethiopian highland plateau varies in height between 2,000 and 3,000 meters.

Desert areas occupy about one third of the total area, highlands and plateau another third, and intermediate land the remainder. A massive gash bisects the surface of the plateau from the Red Sea to the Kenyan border: this is the Ethiopian Rift Valley, part of the Great Rift Valley system that extends 6,000 kilometers from Syria to Mozambique.

Ethiopia lies between latitudes 3 and 18 north. Proximity to the Equator, combined with great altitudinal range, results in a climate varying from cold continental to temperate, subtropical and tropical. For example, the high plateaux have an average annual temperature of 16°C, whereas in the lowlands the average is 30°C.

Ethiopia has three seasons: The Belg Season (small rains) from February to May, the Kiremt Season with the Mehr rains (big rains) from June to September, and the Bega Season (dry period) from October to January. There are, however, variations in some areas. The southern and south-eastern regions, including most of the lowlands, have much shorter rainy seasons and sometimes no Belg rains at all.

Under normal conditions, due to the two rainy seasons, many regions are able to produce two harvests a year. At the turn of the century, 40 per cent of Ethiopia was under forest. Now the figure is only 4 per cent, because of the need for fuelwood and construction materials. Deforestation causes erosion, a problem of increasing severity for the agricultural economy of the nation.

People and Languages

Some 40 tribes and ethnic groups live in the country. The early inhabitants of Ethiopia were of Hamitic stock, related to the North African Berbers and the ancient Egyptians. Later followed Semitic immigrants from South Arabia. Although much intermixed, the present-day Ethiopians of the plateaux, the Amharas, are mainly descended from these Arabic tribes, while the Somali and Danakil nomads and the Oromo are mainly Hamitic in origin.

In 1984, the Government established the Institute of Nationalities to examine the special needs of the various ethnic groups of the country—and the special problems of administering a country of many nationalities—in preparation for drafting the Constitution of the People's Democratic Republic of Ethiopia. The new Constitution recognizes the country as a "melting-pot" of many nationalities, and there has been a re-shaping of the administrative regions of the country to more closely reflect the traditional boundaries of the nations that make up Ethiopia. Autonomy was instituted in five regions, including Eritrea and Tigrai.

ETHIOPIA...

Land of Many Faces

There are more than 80 langauges and 200 dialects in Ethipia, but Amharic, Tigrigna and Oromigna are the most widely spoken. The official language is Amharic, developed from the Orthodox Church language, Ge'ez, itself derived from the language of the Sabaean immigrants. The Ethiopians are the only people in Africa to have their own unique alphabet, consisting of 33 consonants each with seven different vowel combinations. English is Ethiopia's official second language. In an effort to reach as broad a range of the population as possible, the national radio system broadcasts in seven languages in various parts of the country.

Religion

The Orthodox Church of Ethiopia, founded around 350 AD, is one of the oldest established churches in the world. According to information released by the church authorities, 56.5 per cent of population are Orthodox Christians, concentrated on the plateaux and in the highlands. The unpublished data, however, varies. Other estimates suggest that the Muslims are in the majority, at 46-48 per cent, with the remaining 52-54 per cent distributed between Orthodox, Catholics, Jews and Animists. There are no state figures.

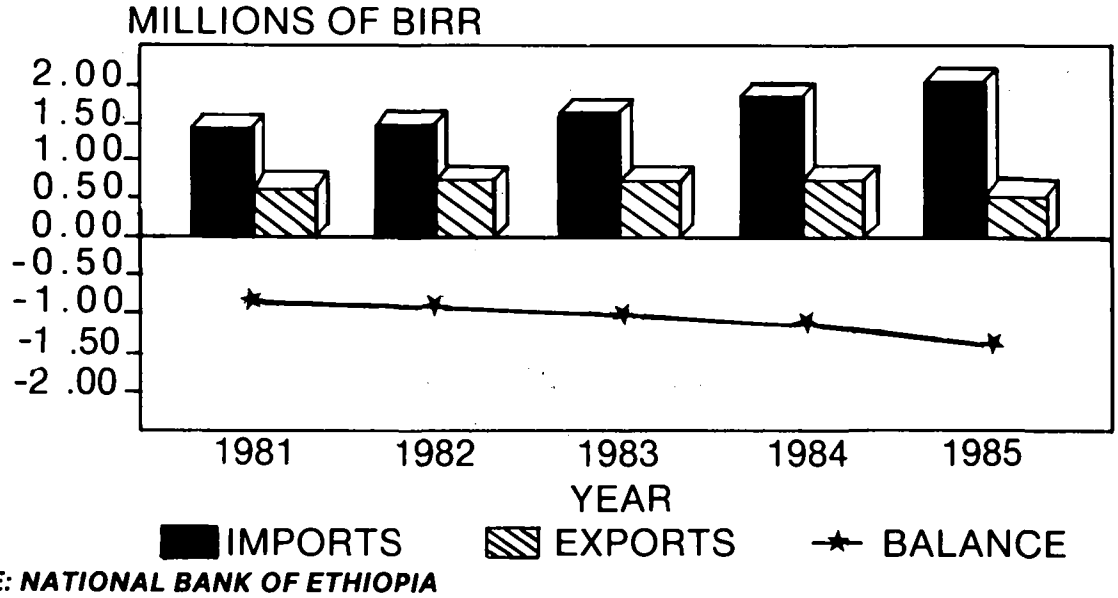
Part 3. Economic and Political Development

The Economy

This culturally rich and proud people is one of the poorest in the world. By 1985 (latest World Bank estimate), average income had fallen from US$ 140 to US$ 110 GNP per capita within three years. Even though production increased during the post revolutionary period, it did not exceed the rapid population growth, thus causing the drop in per capita GNP. This situation was inevitably aggravated by the 1984/85 drought.

Ethiopia's main foreign currency earnings come from coffee, which between 1979 and 1984 accounted for 64 per cent of the total exports. By 1985, however, the income from this important cash crop had declined by 26 per cent, mainly to a fall in world market prices, but also because of the drought. This adversely affected the payment balance. Figure 1 shows the deteriorating balance of payments situation over the period 1981-1985.

FIGURE 1 BALANCE OF PAYMENT SITUATION 1981-1985



SOURCE: NATIONAL BANK OF ETHIOPIA

The growing budget deficit and the deteriorating balance of payment caused an increase of external debt, which reached US$ 2.9 billion by the end of 1985, representing 60 per cent of the Gross National Product. When this is combined with the international shift towards non-concessional loans and donors' reluctance to contribute aid for development, Ethiopia's ability to use export earnings for financing the critical needs of the economy is severely limited. The external debt is, nevertheless, small compared with other African countries.

The economy is predominantly agricultural; 80 per cent of the Ethiopian labour force are farmers and 90 per cent of the country's population depend exclusively on agricultural production.

Despite the fact that only 0.5 per cent of all agricultural land is irrigated, the land is fertile. While 68 per cent can be classified as arable, only 8 per cent is under cultivation at any one time. As a result of drought and pests, however, as well as the lack of seeds, draught animals, farming tools and modern methods of cultivation, Ethiopia is not self-sufficient in food and has not been so in the past years.

Mineral deposits, in quantities sufficient to justify large scale exploitation, have not yet been discovered, but gold, platinum, iron, copper and potassium are extracted on small scale. The production of salt from the Ethiopian Salt Works on the Red Sea coast is expected to cover national consumption in a couple of years.

The agricultural sector plays a significant role in the export trade, with sales of coffee, cotton, oil seeds, live animals, hides and skins, accounting for most of Ethiopia's foreign exchange earnings. After the revolution, the state farms were expected to specialize in the production of cash crops and raw materials for the manufacturing sector.

Ninety-five per cent of the regularly cropped land is in the highlands, which have been degraded by overuse through the centuries. Cereals are the most important crop: teff, the main staple and ingredient of the national Ethiopian bread (Injerra), maize, sorghum, wheat and barley. Several varieties of beans and lentils are grown in lowland areas. The livestock population of Ethiopia is the largest in Africa, with 67 per cent of the total concentrated in the highlands.

The abundance of fish in the Red Sea is unexploited because there is a limited market for fish in Ethiopia. The 2,000 tons of fish caught annually are mainly exported to neighboring countries. The inland fisheries in the numerous lakes account for 3,500 tons per year, which is estimated to be only 13.5 per cent of the available production potential.

Industrial production remains limited, although much government attention is now being given to boosting production in textiles, consumer goods, cement, paper, plastics and tyres. The lack of foreign currency, however, makes it almost impossible for the country to meet basic industrial needs for raw materials and spare parts.

Over 90 per cent of the energy consumed in Ethiopia today is in the form of firewood, charcoal, crop residues and dung. There are some plants utilizing the country's water resources, but on a larger scale, fuel for industry and transport have to be imported. Ethiopia is, nevertheles, the most electrified country in Africa and the biggest utilizer of hydroelectric energy in the Sub-Saharan area.

There are some 4,057 kilometers of asphalt road in Ethiopia and a further 10,225 kilometers of gravel and dry-weather roads. The main road runs from the seaport of Assab to Addis Ababa. In addition, a 781 long kilometer railway links the capital with the Republic of Djibouti.

Approximately 88 per cent of the rural population is concentrated in the highlands. Of these, 75 per cent live more than 30 kilometers from an all-weather road. Accessibility is thus very limited and contact with social services extremely difficult.

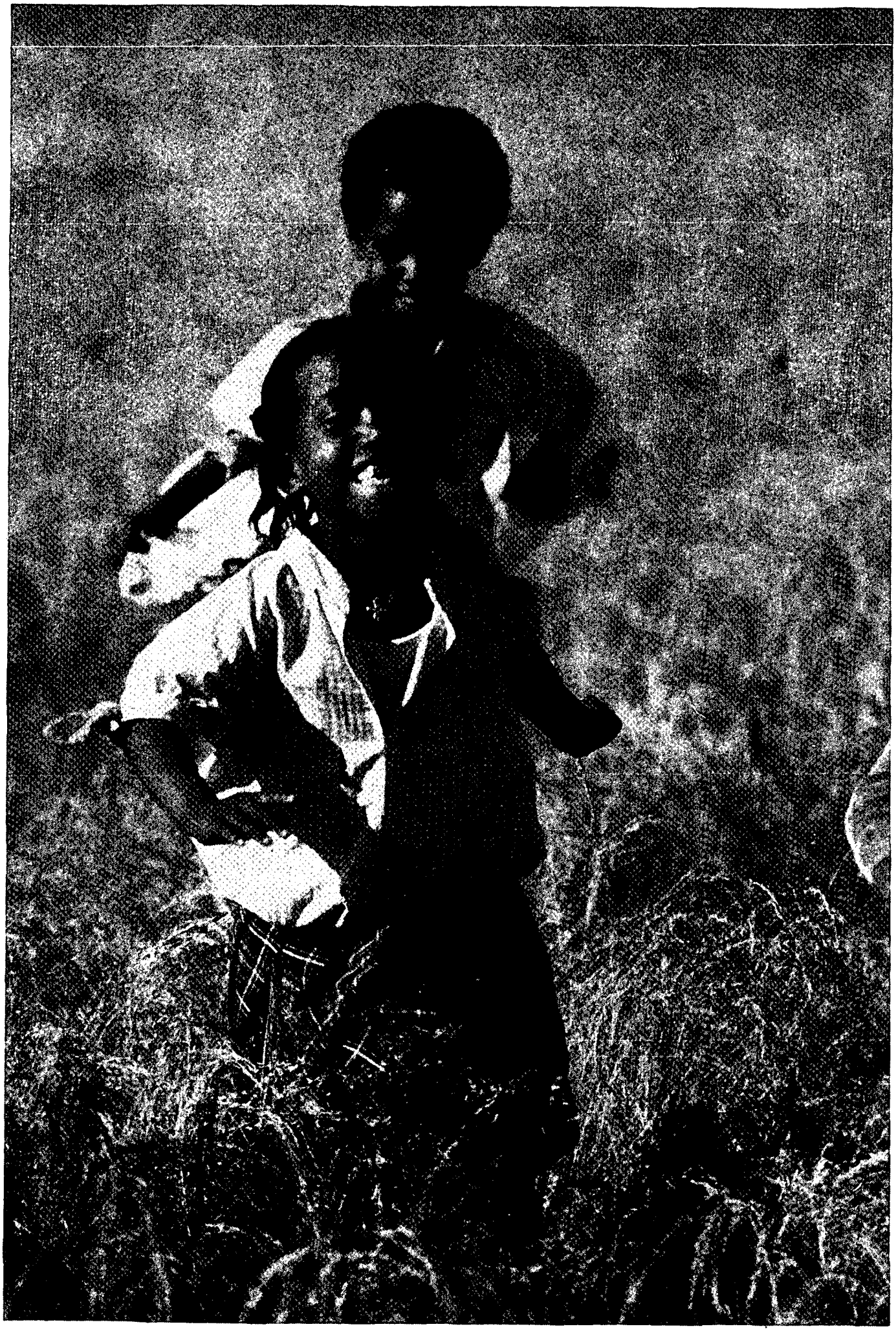
Political and Administrative Structures

The Constitution of September 1987 grants all the basic freedoms, privileges and an increased decentralization of power. Greater regional autonomy was instituted, through sub-parliaments to be formed in some regions. The Constitution also gives the right to all Ethiopians over 21 years of age to be elected to political and government posts.

In the new republic, the supreme organ of state is the Parliament (the National Shengo). It elects the President (who is also Commander in Chief of the Revolutionary Armed Forces), and establishes the Government and the Supreme Court. Deputies to the National Shengo are nominated by the Workers' Party, mass organizations and military units, and are elected by the Ethiopian people. The Workers Party of Ethiopia, with its Politburo of 11 members, is the architect of socialistic development, determing the guidelines for the country's future.

The five mass organizations and the eight professional associations play a major role in the political, educational and health motivation of the people. Twenty five million heads of families are members of Peasants' Associations (PA) and together with the Revolutionary Ethiopia Women's Association (REWA) and the Revolutionary Ethiopia Youth Association (REYA) they reach out to the larger part of the population. The 11 per cent of the people who live in towns are members of Urban Dwellers Associations called Kebeles, which each group 2,000 to 4,000 people. Kebele members elect councils that manage basic social services.

Contemporary Ethiopia has a centrally planned economy with a decentralized administration. The country is divided into 14 regions, 102 districts or Awrajas and 500 sub-provinces or Woredas. The city of Addis Ababa and the Assab Administration constitute additional separate administrative regions. The National Shengo, however, has announced a future subdivision of Ethiopia into 25 administrative zones and five autonomous regions.



CHAPTER II THE PROBLEM OF CHILD DEATHS

Part 1. Principles of the Analysis

The present document analyses the situation of children and women in Ethiopia, in particular, those factors which prevent the survival and development of Ethiopian children.

The starting point in this analysis, its first principle, is that the rate of infant mortality in Ethiopia at 155[a] and the rate of under-5 mortality at 261[b] (per thousand live births) are both too high. These represent the ultimate and most dramatic manifestation of the problems affecting women and children in Ethiopia. This principle automatically implies that progress or development must necessarily mean a reduction in the infant mortality rate (IMR), and that a constant or increasing IMR means lack of progress and lack of development.

A second principle is that child survival and child development should not be separated as issues. That is, those factors which cause high rates of child death are much the same as those which prevent many children from developing physically and intellectually into full participants in Ethiopian society. Moreover, the survival and development of children cannot be separated from the development of women. The "women's dimension" of child survival and development is an integral part of this analysis.

A third principle of this analysis is that high IMR and poor child development are the final result of a series of processes that operate at various levels of Ethiopian society. The problems of child survival and development, and the women's dimension of these problems, are complex and can only be described in the context of the country's poverty and underdevelopment. Poverty and underdevelopment, in turn, must be discussed in the context of the internal and international order.

Part 2. The Conceptual Approach

The analysis uses a conceptual framework, or casual model, that shows the probable causes of the deaths of young children and how the causative processes are interlinked. It has been developed in response to the prime question:

"WHY DO CHILDREN DIE?"

A corollary question is "What prevents good child development?" When we try to answer these questions, we could list a wide range of general and specific causes. Some Ethiopian children die, and many others do not grow and develop well, because of disease, malnutrition, famine, lack of clean water, poor sanitation, lack of child care, the poor education of their mothers, the low income of their families, poverty, etc.

It is easy to see that some of these causes are more *direct* than others. Diarrhoea is associated with approximately 46 per cent of the under-5 mortality in Ethiopia[1], killing some 261,000 children each year. Diarrhoea is a direct cause of child death, but is itself caused by other factors, such as the lack of potable water or poor sanitary facilities or practices. In Ethiopia, less than 10 per cent of the rural population have access to potable water, and less than 3 per cent have adequate sanitation facilities. But these intermediate factors, in turn, have their roots which lie more deeply embedded in the society itself. Attitudes and beliefs regarding child caretaking, the situation of women, and the economic realities of poverty and underdevelopment, all contribute to child death. For those children who survive, their growth and development will be hindered by the same factors.

Some of the basic causes of poor child survival and development in Ethiopia, such as the present roles and status of women in Ethiopian society and the lack of economic opportunities open to them, are rooted in the society's cultural heritage. Ethiopia's culture has developed over centuries, and change in cultural practices can be a slow process. Other causes of child death vary over time: food availability in much of Ethiopia varies over the course of the agricultural[2], and the prevalence of certain diseases such as respiratory infections varies over the seasons[3].

We may also note that deaths of children in Ethiopia are caused by processes that operate at different levels of society, from individual and household levels to national and international levels. An individual child may fall sick and die; a household may be located far from a source of good water; famine may strike a region or the nation; a low level of international assistance is an international problem. The *level of society* is thus important to consider when analysing child survival and development.

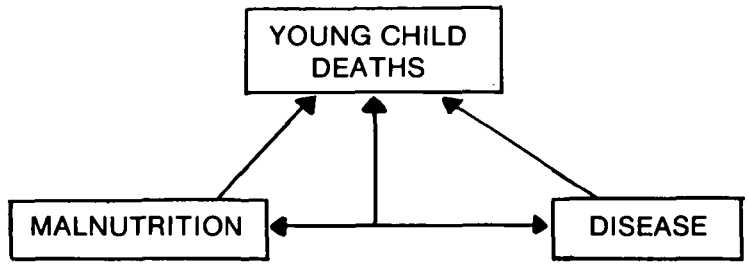
Immediate Causes of Young Child Death

The *immediate causes* of the deaths of young children in Ethiopia are primarily disease and malnutrition, and frequently a combination of the two. (The most important diseases among children in Ethiopia are diarrhoea diseases, acute respiratory tract infections and measles, as discussed in Chapter III, Part 3). Except in the instance of extreme famine and starvation, malnutrition is almost always a combined result of various diseases interacting with dietary inadequacies in a mutually reinforcing manner. Ethiopia exemplifies the extremes to which this combination of causes can lead.

A large number of children die in connection with birth or immediately afterwards (see Chapter III, Part 1). As much as half of the infant mortality in Ethiopia is perinatal or neonatal[4]. The immediate causes of this are primarily related to the condition of the mother before and during pregnancy, and to health hazards at delivery. A mother's poor condition can be attributed to diseases and malnutrition, and are thus the same type of immediate causes identified above.

Figure 2 shows the relationship between young child deaths and these immediate causes.

Figure 2 Immediate Causes of Young Child Deaths



It is, of course, possible that one or the other of these immediate causes can, by itself, cause child death:

- —for example, in cases of famine such as occurred in Ethiopia in 1973/74, 1983/85 and again in 1987/88, extreme protein-energy malnutrition alone (clinical forms of PEM) may sometimes cause child deaths
- —or some diseases, such as tetanus and respiratory tract infections (both of which are common in Ethiopia), can result in child deaths independently of nutritional status.

However, the most common cause of child deaths is undoubtedly the interacting combination of malnutrition and disease. Poor nutritional status increases the risk and severity of infectious disease, and certain diseases (for example hookworm) affect the utilization of nutrients or affect the child's appetite and intake of food. The most important—and deadly—example of the interaction of malnutrition and disease in Ethiopia is diarrhoeal disease, killing more than a quarter of a million Ethiopian children annually. The body of a child suffering from diarrhoea cannot fully absorb whatever nutrients he may be taking in, thereby increasing the risk of malnutrition. This is compounded by the practice of many mothers of ceasing to breastfeed a child during bouts of diarrhoea. The deteriorating nutritional status of the child increases the risk of recurring infection and recurring diarrhoea. Thus, while we can identify diarrhoeal diseases as being associated with nearly half of the under-5 mortality in Ethiopia, the poor nutritional status of the children is an important factor in those deaths. For the children who survive the repeated bouts of diarrhoea, their poor nutritional status is reflected in poor growth performance and impaired development.

When we are able to identify specifically which immediate causes have led to the death of an individual child or to a high child death rate in a community, we can identify specific interventions to save children. In Ethiopia, an important cause of death is diarrhoeal disease in combination with low energy intake and, based on this information, actions can be taken to reduce child death rates by promoting oral rehydration therapy and food supplementation.

Diseases preventable by child immunization (including measles, whooping cough, diphtheria and tuberculosis) account for 15 to 20 per cent of the young child deaths in Ethiopia[5], killing some 85,000

to 115,000 children annually. Based on this information, we can assure a substantial reduction in child mortality by an effective programme of Universal Child Immunization.

Actions at this immediate level have an immediate life-saving effect, but must often be repeated to have a sustained effect. If long-term improvements are to be secured, we must take our analysis a step deeper and ask why do children get diarrhoea, and why do they not get enough food? Why are preventable diseases rampant?

Intermediate Causes of Young Child Death

In Ethiopia, dietary inadequancies are caused by a general low supply of food[6], inappropriate weaning practices[7], or by too little time for the mother to prepare food or to feed children[8] (the work load of women in rural Ethiopia is discussed in Chapter IV, Part 4). Similarly, deaths from diarrhoeal diseases may result from any one or a combination of causes such as lack of health services (less than 43 per cent of the population have reasonable access to a health facility[9]), or poor water supplies and sanitary facilities, or poor food hygiene, or indequate child care (related to the mother's health and nutritional status and the heavy burdens placed on her in the household). We described causes at this level as *intermediate causes* of child death.

These causes are numerous and are also usually interrelated. To take a single example, firewood and, to a lesser extent, charcoal account for nearly 60 per cent of the domestic fuel requirements in rural Ethiopia[10], but both are scarce commodities. Lake of fuelwood limits the number of times per day that food can be prepared and the amount of water that can be boiled for safe drinking. It also makes it necessary, because in Ethiopia it is considered to be women's work, for women—even during pregnancy—to walk long distances and work hard to collect fuelwood.

Thus, a single element—the lack of fuelwood—has several implications: the frequency of feeding young children is limited, thereby limiting the child's nutrient intake; unboiled and unsafe water is consumed, thereby increasing the risk of infection; the average woman in rural Ethiopia spends at least two hours per day, every day, fetching wood[11], thereby reducing the time she has for caring for her children and for herself, and sacrificing time that could be used for more productive activities. (The issue is further complicated in that the use of the next most popular domestic fuel source, manure, means reducing the supply of natural fertilizer and, consequently, reduced crop production and food availability).

In order to facilitate the analysis at this intermediate level, we have grouped these intermediate causes into four clusters:

- **child caretaking**
- **availability of food**
- **availability of health requisites**
- **women's roles and status: women's well-being**

Two of these clusters, the *availability of food* and the *availability of health requisites* represent crucial commodities and services that are prerequisites for adequate dietary intake and the control of common diseases among children. However, it is clear from evidence in Ethiopia[12] and elsewhere that plentiful food of good quality and the availability of health services are not, in themselves, enough to ensure nutritional adequacy or proper health care in children. There has to be a process ensuring that these foods and health requisites (including health services, clean water and sanitation) are properly used to the benefit of children. In the analysis, this process is described as *child caretaking.* It is critical to child survival and development.

Child caretaking means actions at the household and individual levels such as child feeding practices and child rearing. But it also encompasses services at the community or national levels, such as education, social welfare and in some cases, institutional or community—based day—care services.

Women are central to this process. Although women are not the only child caretakers, their well-being is a key element. The well-being of women is, moreover, an end in itself. We, therefore, identify the fourth process as the *woman's well-being and her role and status* in the society. This requires examination of the sometimes conflicting roles of the Ethiopian woman as a producer of food and income for the family, and the reproducer and custodian of its children. A child's mother is the one most responsible for his survival and development. The educational and economic opportunities afforded to Ethiopian women are critical issues in this regard.

The intermediate causes of young child death reflect an equal distribution of income, uneven availability of services and the lack of opportunities for economically productive activities, particularly for women. In Chapter IV, we try to identify which causes and relationships are the most important, and which can be attacked with the resources available. Actions taken to address problems at this intermediate level may not necessarily show the same rapid impact as actions on the immediate causes of child death but they are necessary to remove the immediate causes in the long run

Basic Causes of Young Child Death

The reasons for the unavailability (and unequal distribution) of services, or commodities, or opportunities within the country—and even within households—must be considered as elements of poverty and underdevelopment. In Ethiopia's case, these were elements inherited from the feudal organization of pre-revolutionary society.

These are in turn exacerbated by the internal and the international order of society. Resources are unavailable for many Ethiopians and are even now being diminished through the adverse effects of high population growth, ecological degradation in parts of the country, and limits on the external assistance so necessary to promote development. This combination of poverty and underdevelopment, and the nature of the internal and international order are grouped in this analysis as the *basic causes* of young child death in Ethiopia.

Chapter V examines natural and man-made disasters such as poverty, ecological degradation, demographic pressure, and the lack of international assistance to the country as basic causes of the problems of child survival and development in Ethiopia.

Figure 3 illustrates the whole conceptual framework, or causal model, employed in the analysis. It shows the various levels of analysis, and also indicates some of the links and interactions among the various processes that lead to high infant mortality.

An important conclusion to be drawn from this analysis is that it is not until basic causes are attacked that a permanent improvement of the condition of children and women can be achieved. It will also demonstrate that much can be done on a short-term or medium-term basis with actions directed at the immediate and intermediate causes of young child deaths.

Part 3. Youth Child Deaths—the Magnitude of the Problem

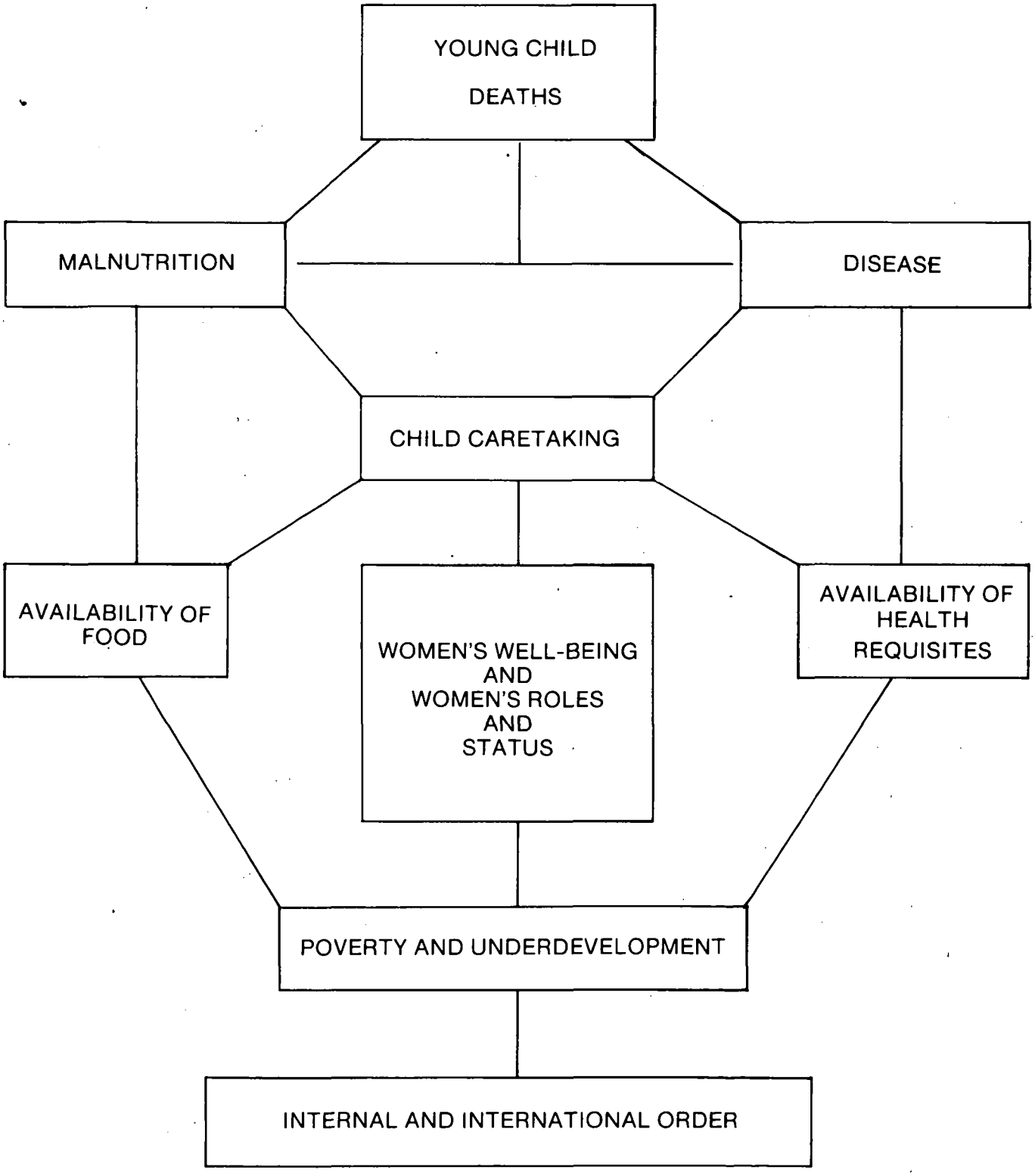
The total population of Ethiopia in 1988 was projected to be 47.2 million persons.[13] Of these, about 8.8[a] million are under the age of 5 and 1.95 million under 1 year of age.[14] The United Nations Population Division estimates that IMR in 1987 was 155[b] per 1,000 live births.[15] *This year some 336,500[c] infants will die in Ethiopia..*[16]

Of every 1,000 children born in Ethiopia, 261[d] will not reach the age of 5: 1 out of 4[e] Ethiopian children dies before his or her fifth birthday.[17] The under-5 mortality rate (deaths of children under 5 years of age per 1,000 live births) is the fifth highest of any country in the world. Of *all* deaths in Ethiopia, *more than half* are those of children under 5 yeras of age,[18] and more than half of those deaths are of children under 1 year of age.

These figures represent the situation of Ethiopia in the best of years, and indicate the magnitude of the country's "silent emergency." The "loud emergencies" of droughts and extreme crop failures that have struck the country in recent years, in 1973 and again in 1984 and 1988, have caused unknown numbers of deaths above and beyond the "normal" tragic rates of young child death.

CFYSO figures indicate: 7.9,[a] 139,[b] 271,050,[c] 172,[d] 6.[e]

Figure 3 Causes of Young Child Deaths



There is a trend of declining infant mortality in Ethiopia. The United Nations Population Division reports an IMR of 175 in 1960, 160 in 1970, 155 in 1980 and the present (1987) estimate of 155* infant deaths per 1,000 live births.[19] While this may seem to be a cause for optimism, it must be pointed out that many other countries in the region also have manifested declining infant mortality, and that the declines have been more dramatic. Table 1 compares the declines of IMR in selected states of southern and eastern Africa since 1960.

Table 1. Infant Mortality Rates in Selected States of Eastern and Southern Africa

Country	IMR in 1960	IMR in 1987	% Decline in IMR
Ethiopia	175	155	11%
Tanzania	146	107	27%
Zimbabwe	110	73	34%
Sudan	170	109	36%
Kenya	124	73	41%
Botswana	119	68	43%

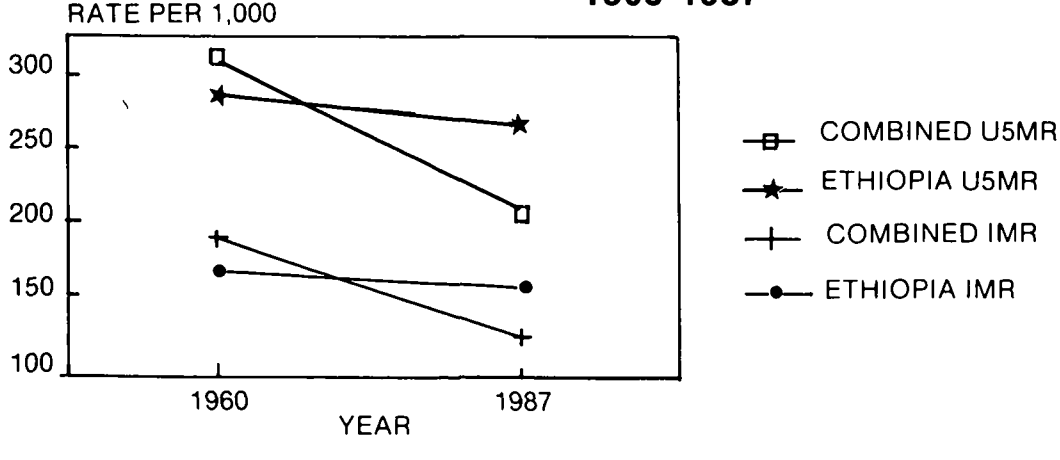
Source: The State of the World's Children, 1989

Infant (and child) death rates have fallen, but the rate of decline compares unfavourably with Ethiopia's neighbors, as well as with the countries globally categorized as "Very high U5MR" in the 1988 State of the World's Children Report. Figure 4 shows the comparative decline in infant and under-5 mortality rates in Ethiopia and among the Very high U5MR group.

There is variation in infant mortality rates among the regions of Ethiopia: some regions are relatively better off than others. Central Statistical Office figures for IMR for the period 1975-1980 show that the regions of Gondar, Wollega, Shoa and Sidamo generally had lower IMR than the national average. Arssi, Illubabor, Gojam and Wollo regions were somewhat higher than the national figure. Those worst off (as indicated by IMR) include Gamu Gofa, Keffa, Hararghe and Bale.

Two points should be emphasised in this regard. First, none of the regions of Ethiopia, even those at the more favourable end of the scale, can be said to have an IMR at an "acceptable" level. The lowest figure reported for the period in question (118 in Gondar Region[20]) is comparable to the levels of IMR in Benin and Burundi. Second, variation in IMR occurs not only among the regions, but within them as well. Areas can be found within the most favoured regions where children die at rates as high as those in parts of the worst-off regions.

FIG 4 COMPARATIVE HEALTH INDICATORS FOR VERY HIGH U5MR COUNTRIES 1960-1987



Source: Zewdie Wolde Gabriel, Assignment Children, (UNICEF), 55/56 (1981)

*CFYSO figure indicates 139.

A second way to disaggregate mortality rates is by age. In trying to identify the immediate causes of young child death this can be especially useful because the specific immediate causes of deaths are different for different age groups. While the causes of deaths of children older than 1 month are most frequently related to the environment, the causes of high perinatal and neonatal mortality rates are primarily the result of the poor health and nutritional status of the mother.

In Ethiopia, 261[a] of every 1,000 children born do not reach their fifth birthday. Of these, 155[b] will not have survived their first year. That is, nearly 60[c] per cent of the under-5 mortality in Ethiopia is infant mortality. Moreover, it is estimated that half of the infant mortality in Ethiopia is perinatal and neonatal. That is, of all Ethiopian children who do not survive their first year of life, half have not survived their first month. The immediate causes of this phenomenon are discussed in the next chapter.

CFYSO figures indicate 172,[a] 139,[b] 81.[c]

CHAPTER III IMMEDIATE CAUSES OF CHILD DEATHS

Part 1. The Condition of the Mother— an Immediate Cause of Perinatal and Neonatal Deaths

Ethiopia has an infant mortality rate among the highest in the world, and there is reason to believe that many infant deaths occur within the child's first month of life. Perinatal (referring to the period from 28 weeks of gestation through the first week after birth) and neonatal (referring to the period from 1 week to 1 month after birth) death is usually associaed with the health and nutritional status of the mother.

Maternal Mortality

Ethiopia also has a maternal mortality rate among the highest in the world, estimated to be 20* maternal deaths per 1,000 live births.[21] In Europe about a century ago, maternal mortality was about 10 per 1,000 deliveries. It is estimated that, in the Third World, the average is 4 maternal deaths per 1,000 live births.

Maternal mortality, is an issue because the survival of the mother is a goal in itself. It is also an issue because the survival of the mother during the time of delivery or immediately afterwards has numerous direct and indirect influences on the new born child as well as older children of the family.

Maternal mortality in Ethiopia may be traced most directly to infections (including post-partum sepsis), haemorrhage, obstructed labor and, to a minor extent, hypertensive disorders of pregnancy.

The practices of female circumcision and infibulation, to which the vast majority of Ethiopian girls are subjected at a young age, contribute heavily to the incidence of obstructed labour and haemorrhage during delivery, and are thus a major cause of maternal mortality in Ethiopia. The practice of *sunna,* which involves the removal of the hood or fold of skin over the clitoris, and excision, which entails removing the entire clitoris together with the inner labia minora, leaves a scarring which can break during delivery, causing haemorrhage. Infibulation entails the removal of the labia majora after an excision of the clitoris; the raw sides of the vulva are either stitched or pinned together and the thighs and legs are tied together to seal the organ, leaving a pea-sized hole for urination and menstrual flow. The birth canal is thus blocked and labour is obstructed.[22]

During delivery itself, unhygienic practices of untrained traditional birth attendants contribute to the high incidence of post-partum sepsis. The risk to the mother is increased by anaemia, malaria, iodine deficiency (goitre), generally poor nutritional status brought about by low caloric intake and a too-heavy workload, and infection. Risk is compounded by pregnancies at too young an age or by too many pregnancies too close together.

Maternal mortality is particularly high in the rural areas, where antenatal care is frequently not available and where deliveries take place without health supervision (it is estimated that only 10 to 15 per cent of all pregnant women have deliveries under medical care[23]). Maternal mortality seems to be far lower in urban centres, especially among women who receive antenatal care. A SIDA study on maternal health carried out in Addis Ababa in 1984 showed that maternal mortality for women who received antenatal care was 2.4 per 1,000 deliveries, and 6.4 per 1,000 for those who did not. Both figures are far below the national average[24].

The same study found that maternal mortality was highest among:

—women aged 15—19 years
—women aged 35—49 years
—single and divorced/separated women
—women having their first pregnancy and
—women having no antenatal care.

Women in the youngest age group are especially at risk because the mother may not have fully developed physically before conception. (A survey covering 12 regions of Ethiopia shows that only 6 per cent of women remain single by the time they are 20-24 years of age, and only 1 per cent of the time they are 25-29 years of age. The mean age of marriage for females is 16.9 years[25]).

CFYSO figure indicates 18.

That women in the older age group are especially at risk is partly attributable to high parity, that is, having gone through many pregnancies. Pregnancy and lactation impose nutritional stress on the mother. Having too many pregnancies too close together leads to the effect described as "maternal depletion," where the woman's general health and nutritional status progressively deteriorates as she is unable to replenish her bodily stores between pregnancies. The total fertility rate in Ethiopia is 6.2,[a] meaning that on average the Ethiopian woman bears 6[b] or 7[c] children over the course of her life.[26]

Perinatal and Neonatal Mortality

Perinatal and neonatal mortality rates were discussed in Chapter II, and the rates are undoubtedly very high. Causes of perinatal and neonatal death can be classified as "nutrition-related" and "disease-related," but it should be remembered that, as with infant mortality in general, there is an interaction between nutrition and disease.

Nutrition Related Causes of Perinatal and Neonatal Death

Low birth weight is probably the best indicator of foetal malnutrition and is one of the most important determinants of perinatal mortality. Neonatal illness in general is closely related to low birth weight, and low birth weight infants also tend to have higher mortality and malnutrition rates during the first years of life.

Low birth weight is usually defined as a birth weight below 2,500 grams, and it is estimated that about 13 per cent of children born in Ethiopia are born under that weight.[27] Average birth weights in Ethiopia are 10 per cent lower than those of babies born in most industrialized countries.

Low birth weight is directly related to gestational age (premature babies are likely to be of low birth weight) and to the retardation of intra-uterine growth. Prematurity can be caused by maternal factors such as congenital infection or a heavy physical workload. Many prematurities are difficult to foresee, and actual cases usually need to be taken care of by health professionals if the infant is to survive.

Foetal growth retardation manifested in full-term baby born under weight) is associated with intra-uterine infections and, particularly in the lowlands of Ethiopia, with malaria. Nutritional factors, however, especially anaemia and protein-energy malnutrition in the mother are considered to be the most important causes of low birth weight in babies in Ethiopia.

Weight gain during pregnancy is an indicator of a mother's nutritional status, and it is recommended that an average well-fed healthy woman should gain about 12 kg. in order to sustain optimal foetal growth. It is not uncommon for a woman in Ethiopia to gain only 6 to 7 kg. during pregnancy. Inadequate maternal nutrition in combination with hard physical work are major causes of faltering weight gain during pregnancy, and retardation in the growth of the foetus.

Continued heavy agricultural labour during pregnancy—particular during the third trimester—can reduce weight gain at term by almost one-third compared to the weight of mothers doing only light work. Lowest mean birth weights in Ethiopia are in the months of January, February and March, reflecting the reduced dietary intake (due to low food availability) in the pre-harvest months of October through December and the heavy workload of the harvest. If the foetus survives, the result is a child born with protein energy malnutrition.

In Ethiopia, poor weight gain in pregnant women is also caused in part by the tradition of voluntary nutritional deprivation, in order to have a "small" baby and avoid the dangers of obstructed labour.

Anaemia in the mother can also lead to low birth weight, and such a baby is likely to be born with low stores of iron. Low birth weight babies often have low stores of other essential nutrients such as Vitamin A. With the high endemicity of goitre in Ethiopia, particularly in the highlands, many mothers suffer from hyperthyroidism with the increased risks of abortion, stillbirth, birth complications and cretinism in the child. These "micronutrient deficiencies" will be discussed at length in Chapter III.

Disease Related Causes of Perinatal and Neonatal Death

The nutritional status of the mother (particularly her energy intake and expenditure and iron stores) is probably the most important determinant of adequate birth weight and the probability of an infant surviving the perinatal and neonatal periods. But there are also diseases that have great importance in this stage of the child's life in Ethiopia.

One is malaria, which is endemic in the lowland areas of the country. Malaria in the pregnant woman may cause intra-uterine death or prematurity, and can cause reduction of blood flow to the foetus resulting in retarded foetal growth.

Other infective diseases during pregnancy can have serious effects on the pregnant mother and the

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CFYSO figures indicate 7.5,[a] 7,[b] 8.[c]

outcome of the pregnancy. Incidents of acute diarrhoea and vomiting and typhoid occur in Ethiopia although data on the actual prevalence of these conditions is not available.

Such conditions are all related to the mother, but other disease factors are likely to affect the Ethiopian child at birth or shortly afterwards.

The most important is neonatal tetanus, which is preventable by tetanus toxoid immunization of the mother during pregnancy and can be reduced by hygienic practices during delivery. One recent study has estimated that 63 per cent of neonatal death in Ethiopia is due to tetanus.[28] Other medical causes of perinatal and neonatal death are birth injuries and respiratory infections.

Part 2. Malnutrition—an Immediate Cause of Young Child Deaths

Malnutrition as a Cause of Child Deaths

Malnutrition may be defined as a situation where there is inadequate intake and/or utilization of nutrients to fulfill the requirements a person needs to grow normally, to thrive and, ultimately, to survive. As discussed above, there is a physiological interaction between malnutrition and disease.

An adult can react to moderately reduced nutrient intake by reducing his energy expenditure: he may do less physical labour and so maintain a nutritional equilibrium. This option, however, is frequently not available in Ethiopian society. Men and women—even pregnant and lactating women with their increased nutritional requirements—must plant, weed, harvest and process their crops on schedule if they are to survive.

A child's nutritional requirements are higher per kilogram of body weight than the adult's. The child requires extra energy, protein and specific vitamins and minerals for normal physical and mental growth, including development of many of the immunities needed for survival. Protein energy malnutrition in a child manifests itself in increased risk and severity of infection and in inadequate growth, and micronutrient deficiencies result in specific disorders. In its extreme forms, protein energy malnutrition is a direct cause of child death.

Many types of foods provide the nutrients that a child requires. Breastmilk is unquestionably the best food for an infant in the first months of life, supplemented by other sources after 4 to 6 months. Most staples consumed in Ethiopia such as teff and sorghum contain useful quantities of protein, vitamins, and minerals as well as energy.

Children eating an amount of food adequate for their energy requirements will tend to satisfy their needs for most other nutrients, with the exception in much of Ethiopia of iodine and Vitamin A. Conversely, children with an inadequate overall intake of food will also most probably have a sub-optimal intake of protein and most vitamins and minerals. (See Chapter IV, Part 1, for discussion of child feeding practices in Ethiopia).

The types of nutritional disorders existing in Ethiopia do not differ greatly from those found in other developing countries in tropical and sub-tropical regions, but in general their prevalence is much higher (see below). Protein energy malnutrition is by far the most important nutritional problem in Ethiopia, with iodine deficiency disorders (IDD), Vitamin A deficiencies and nutritional anaemia occurring to a greater or lesser extent depending on geographical location, diet and other factors.

Protein Energy Malnutrition in Young Ethiopian Children

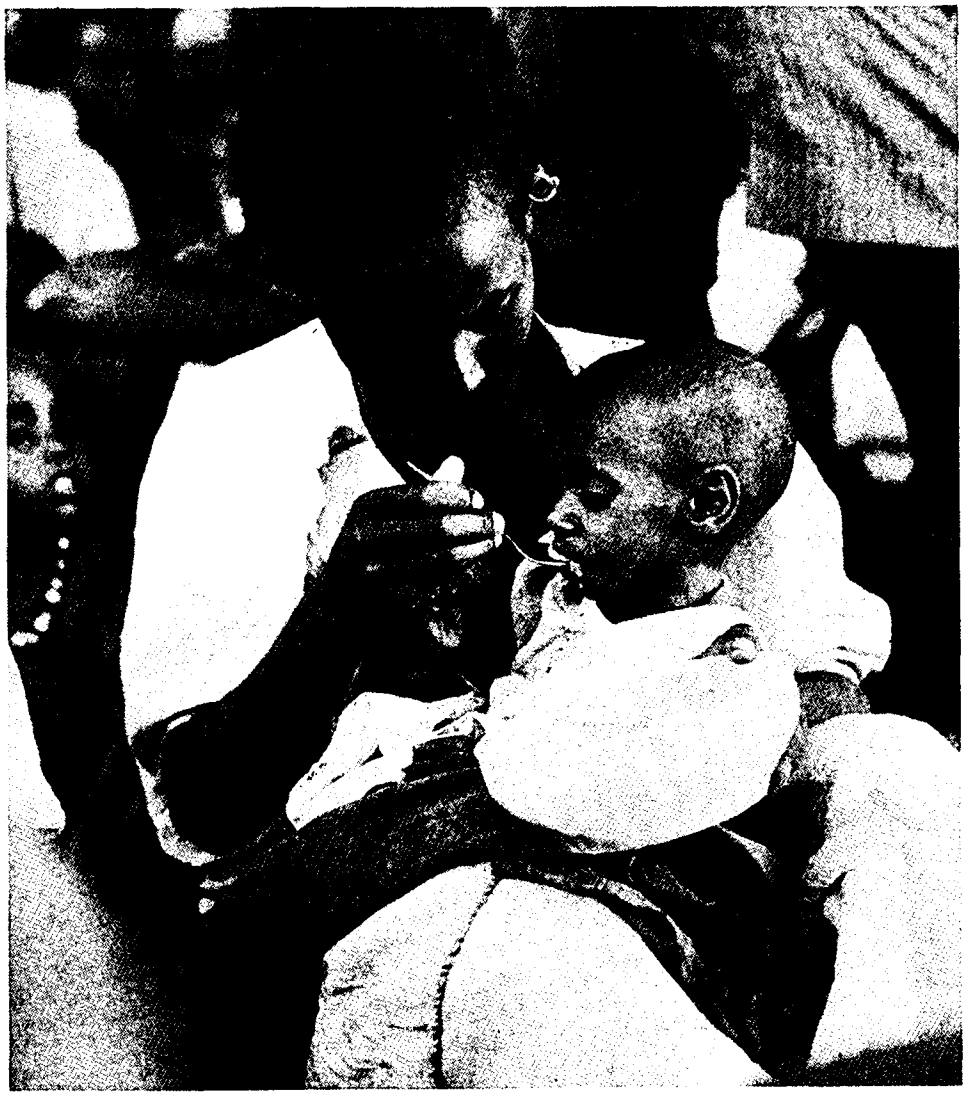
Adequate growth is one of the best overall indicators of the well-being of an individual child. The degree to which children in a community grow well is also increasingly considered to be an important indicator of the overall well-being of that community.

By this standard, Ethiopian children are not faring well. They may be undernourished in times of plenty, and malnourished to starvation in times of drought.

A survey undertaken by the Ethiopian Nutrition Institute between 1979 and 1981 indicated that, nationally, 7 per cent of Ethiopian children under the age of 5 were wasted (less than 80 per cent of the reference weight-for-height), 28 per cent of the children were stunted (less than 90 per cent of the reference height-for-age, indicating chronic malnutrition), and 45 per cent had low weight-for-age (less than 80 per cent of the reference, indicating poor growth performance).

Children in their second year of life had the highest prevalence of wasting (12 per cent) and low eight-for-age (54 per cent).

It is interesting to note that the areas of the country with relatively low levels of per capita food production are not necessarily those with the highest rates of malnutrition. The 1979-1981 ENI survey found rates of child malnutrition in Bale, Kaffa and Gojjam regions, which perennially produce food surpluses, to be



higher than the national average. Similarly, the baseline survey undertaken in connection with the Joint WHO/UNICEF Nutrition Support Programme in Sidama Awraja found rates of wasting (9.5 per cent), stunting (31.1 per cent) and low weight-for-age (50 per cent), all higher than the average national rates. Sidama is an area of adequate and stable food supply.

The 1979-1981 national survey and the 1985 JNSP survey in Sidama, both found rates of child malnutrition to be higher in rural areas than in urban centres.

The rates of malnutrition cited above reflect the situation in Ethiopia during "normal," non-drought times. The rates for mild-moderate malnutrition (as indicated by low weight-for-age) are *more than double* the rates occurring in Afghanistan, Sierra Leone, Somalia, Niger or Zaire over the period 1980-1986.[29]

In Ethiopia as a whole in the years leading up to 1983, between 5 and 10 per cent of rural children were wasted (rates varied according to geographical region). By late 1983, with the onset of the drought, this figure had increased to 15 to 20 per cent in parts of Wollo, northern Shoa and Hararghe. During 1984 the proportion of wasted children in these regions further increased to perhaps 30 per cent overall, with peaks of 40 or even 50 per cent in parts of the regions. The proportion of wasted children in Bale and southern Sidamo also increased during 1984, to around 30 per cent.[30]

Following large-scale relief operations in the affected regions, the proportion of wasted children dropped dramatically to between 5 and 10 per cent, with the proportions in some Woredas falling to as low as 1 or 2 per cent—an almost insignificant level of wasting. The majority of wasted children recovered, at least as far as the weight-for-height indicator is concerned. The effect of a period of acute food shortage on the physical and intellectual development of young children has not been quantified, but is believed to be substantial.

A significant proportion of moderately and severely malnourished children died during this period of acute food shortage, (and this probably contributed to the improved overall nutritional status of the survivors). According to one source, children in the second year of life were those most at risk of dying during the recent famine. Accurate estimates of the deaths due to malnutrition will never be available. The remoteness of many areas of the country, poor communications and the shortage of basic services that were contributory causes of the famine also prevented the collection of accurate data.

At the present time in those regions relatively unaffected by drought, it is estimated that about one third of rural children are chronically malnourished, and approximately one half are underweight.[31] The long term effects of the 1983-1985 drought on the prevalence of stunting and low weight-for-age are not known.

Micronutrient Deficiencies

Nutritional Anaemia

Iron deficiency anemia is among the major causes of low birth weights and young child death in parts of Ethiopia, and its causes are both nutrition and disease related.

Throughout much of Ethiopia, the most important staple is teff, a grain indigenous to the highlands of the country and one especially rich in iron. While the bio-availability of cereal-based iron is certainly lower than that of animal-based sources, it is relatively high in the "Injerra" (unleavened bread) prepared from teff because of fermentation that occurs in the preparation. It is generally considered that iron deficiency anaemia is lower in the teff growing areas than in those (such as Sidamo and Gamu Gofa) where other staples such as maize and kocho are preferred.

In the lowlands of Ethiopia, where approximately 25 per cent of the population lives, malaria is prevalent and a cause of anaemia. (It is notable that the lowlands also are not teff growing areas). In pregnant mothers malaria contributes to a generally poor state of health and to retardation of the growth of the foetus. The prevalence of hookworm in many of the same areas also contributes to high rates of anaemia. The Ministry of Health reported in 1982 that anaemia was the main cause of deaths recorded in hospital in Illubabor, (16.3 per cent of all hospital deaths) and was a significant cause of death in Gondar (6.9 per cent), Eritrea (3.4 per cent), Sidamo (2.7 per cent and Wollo (2.4 per cent).[32]

The extent of anaemia as a cause of child death has not been fully assessed in Ethiopia. It is evidently important in parts of the country, but its specific causes (both nutritional and disease related) and potential solutions need further investigation.

Vitamin A Deficiency

It has been estimated that 1.5 per cent of the children under 5 years of age in Ethiopia are blind due to acute Vitamin A deficiency.[33] Ethiopia has the largest number—some 125,000 blind children—of any country in Africa.

Vitamin A has long been known to be essential for the maintenance of epithelial tissues, most notably the eyes, and to play a role in the immunological system. In recent years, increased attention has been paid to this latter aspect following studies in Asia which showed that children with clinical signs of Vitamin A deficiency showed a greatly increased risk of dying.

In 1959, ia, a survey indicated that about 10 per cent of pregnant women in Ethiopia had a low vitamin A levels.[34] Analysis of per capita dietary intake in the country has also indicated that deficiency of Vitamin A is widespread. Dietary studies by Ruth Sedinus et al. In 1971 indicated grossly deficient intake of Vitamin A among young children.[35]

A national assessment of Vitamin A status in children less than 6 years of age was carried out in semi-urban centres between 1979 and 1981 by the Ethiopian Nutrition Institute. Results of the survey indicated that the prevalence of xeropthalmia was as follows:

Table 2. Rates of Xeropthalmia in Children Under 6 Years of Age in Semi-Urban Centres, by Agro-Ecological Zone

Agro-ecological zone of Ethiopia	Prevalence of xeropthalmia in children under 6
Grain cropping	6.6%
Cash cropping	2.0%
Enset cropping	1.0%
Pastural	6.9%
All Zones	5.5%

Source: Ethiopian Nutrition Institute

The rates of incidence were highest in the 5-6 age bracket, and the rates for boys was notably higher than for girls (suggesting dietary differences between the two). The report estimates that 16 per cent of the children from all zones are considered cases of hypovitaminosis A.[36]

From the evidence outlined above,and taking into account information from anecdotal and hospital reports, Vitamin A deficiency is a major health problem in Ethiopia. Sub-clinical Vitamin A deficiency is widespread and underlies children's poor resistance to a variety of infections. Deficient stores of Vitamin A (in the child's liver) will worsen several disease conditions, particularly measles. The onset of measles increases the body's demand for Vitamin A and greatly reduces its stores. If a child is marginally Vitamin A deficient, the risk of xeropthalmia associated with measles is greatly increased. If the child is severely deficient, the risk of death from measles is increased. (This is why measles, which is rarely fatal in the developed countries, is a deadly disease in countries such as Ethiopia). Given the gravity of the problem and the relative lack of information about its extent, it is imperative that a current national survey on Vitamin A deficiency be carried out.

Iodine Deficiency Disorders (IDD)

It has long been known that a dietary deficiency of iodine causes goitre—an enlargement of the thyroid gland. In areas with a high prevalence of goitre, a proportion of children are born cretins, with severe mental and growth retardation. Other children are born deaf.

It is increasingly recognized, however, that in areas where iodine intake is low, a far higher proportion of children suffer from less obvious physical and mental retardation. Iodine deficiency is also linked to a high incidence of spontaneous abortion, stillbirth and infant mortality.[37] A child born of a mother with iodine deficiency has a high risk of irreversible cretinism.

The various conditions resulting from an inadequate intake of iodine have been termed iodine deficiency disorders. Because of growing awareness of the public health significance of IDD, and the relatively simple and inexpensive control measures available, increased attention to planning for IDD control is being given in many African countries.[38]

Goitre has long been recognized in Ethiopia, and a considerable number of detailed studies carried out between 1950 and 1970 confirmed a high prevalence of goitre in various regions of the country. Between 1979 and 1981 a systematic study of goitre was carried out by the Ethiopian Nutrition Institute (ENI) involving inquiries at health faciliteis and a sample survey of over 19,000 household members and 35,000 school children. Most of the country was covered, excepting Eritrea and Tigrai, but the study concentrated on small urban centres. The study concluded that:

- Goitre was widespread over almost the entire country, with the highest prevalence in the highland areas over 2,000 metres (areas which also have the highest population density).
- 25 per cent of the Ethiopian population, about 10 million people, suffer from at least mild goitre (Grade IA, detectable by palpation). In some regions, the figure is above 50 per cent. Twelve per cent of the national study population had visible goitre.
- Low iodine intake, rather than dietary goitreogens (substances in food which inhibit the uptake of iodine by the thyroid gland) was the major cause of IDD.

In view of the fact that the study was mainly confined to small urban centres, the above estimates are considered to be conservative, and probably represent the lower limits for the overall prevalence of goitre in Ethiopia.

IDD is recognized by the Government as being a serious problem. A national task force with representation from the Ethiopian Nutrition Institute, the National Chemical Corporation and UNICEF was established in 1984 to develop a programme to control IDD. It is generally recognized that the most efficient form of reducing the prevalence of goitre in the long run is through the iodination of a commonly used food substance such as salt. In 1987, iodination equipment was being installed at the country's main salt production facility at Assab, but more immediate action such as the utilization of iodinated oil—either in capsules or by injection—in areas of high goitre endemicity could be effective in the short and medium term.

Part 3. Disease—an Immediate Cause of Young Child Deaths

Disease as a Cause of Child Deaths

Diseases—combined with malnutrition—are the most important immediate causes of child death in Ethiopia. Perinatal and neonatal deaths are often the result of the poor condition of the mother, while deaths of children older than one month of age are primarily the result of diseases and malnutrition in the children themselves.

There are at least three ways that disease can immediately affect child survival:
— Directly, as in cases of acute respiratory tract infections or diarrhoeal dehydration;
— Indirectly, by creating malnutrition, as for example in hookworm which leads to anaemia or in diarrhoea which reduces overall nutrient utilization;
— Indirectly, by reducing nutrient intake through loss of appetite (anorexia).

The Most Important Diseases Among Children in Ethiopia

Except in times of extreme famine, the general mortality and morbidity patterns in Ethiopia are not much different from that found in other countries of the region. Table 3 shows the leading causes for hospital deaths throughout the country, based on survey data from 1983/1984.

Table 3. Leading Causes for Hospital Deaths in Ethiopia, 1983/1984

Diagnosis	Percentage of all causes of hospital deaths
1. Tuberculosis, all forms	12.2
2. Pneumonia, all types	9.3
3. Gastro-enteritis and colitis	9.2
4. Malnutrition, all states	6.3
5. Liver cirrhosis and chronic hepatitis	4.3
6. Infectious hepatitis	2.3
7. Dysentery, all types	2.2
8. Anaemias	2.1
9. Tetanus	2.1
10. Intestinal obstructions	2.0
11. Malaria, all forms	2.0
12. Homicide and purposefully inflicted injury	2.0
13. Meningitis except meningoccocal infections	1.5
14. Fever of unknown origin	1.3
15. Hypertension without mention of heart	1.3

Source: Ministry of Health, Comprehensive Health Service Directory, 1976 E.C (1983/84 G.C)

Table 4 shows the leading causes of out-patient morbidity from survey data from the same period.

Table 4. Leading causes of Out-Patient Morbidity in Ethiopia, 1983/1984

Diagnosis	Percentage of all causes of out-patient morbidity
1. Dysenteries and gastro-enteritis	8.9
2. Helminthiasis (worms)	7.7
3. Eye diseases, including trachoma	5.3
4. Infections of skin and subcutaneous tissue	4.5
5. Acute upper respiratory infections	4.4
6. Gastritis and duodenitis	3.9
7. Pneumonia, all types	3.6
8. Arthritis and rheumatism	3.5
9. Venereal diseases	3.4
10. Malaria, all forms	3.4
11. All states of malnutrition and anaemias	2.9
12. Otitis media and other ear conditions	2.9
13. Bronchitis, all types	2.7
14. Diseases of tooth and gum, including caries	2.3
15. Tuberculosis, all forms	2.0

Source: Ministry of Health, Comprehensive Health Service Directory, 1976 E.C (1983/84 G.C)

Unfortunately, comprehensive survey data distinguished the immediate causes of deaths of young children, from those affecting the whole population, does not exist (many deaths, especially those of very young children, go unreported; in many reported deaths, the cause of death is not reliably known). It is generally considered, however, that diarrhoeal diseases, respiratory tract infections, measles, tetanus, whooping cough and other immunizable diseases, malnutrition, anaemia and malaria lead the list.

The prevalence of some of these diseases varies among regions of Ethiopia. Malaria is prevalent in the lowlands but not in the highlands. The incidence of respiratory tract infections may be slightly higher in the highlands than in the lowlands. Diarrhoeal diseases, on the other hand, are prevalent throughout Ethiopia but relatively more common in urban centres than in rural areas.

There is also variation in the disease prevalence over the course of the year. Malaria and diarrhoeal diseases are relatively more common during the rainy seasons, and respiratory tract infections more frequent during the cooler periods.

Immediate causes of child deaths vary with the age of the child in Ethiopia. Tetanus is commonly a fatal disease for newborn infants (accounting for an estimated 63 per cent of neonatal fatality[36]), while measles affects children over 6 months. Diarrhoeal diseases become most prevalent after 6 months of age, although they certainly occur among younger infants. Respiratory tract infections are an exception, being a constant problem among children under 5 irrespective of their age.

Table 5 sets forth a list of disease factors most closely associated with child deaths in Ethiopia, according to different age groups. It is based on a review of existing information about the country and relevant experiences from elsewhere. The listing implies their relative importance only in general terms. There is not sufficient data to grade them, and their relative importance is likely to vary according to season and geographical location.

Table 5. Age Specific Causes of Young Child Deaths in Ethiopia

0-4 weeks	—Prematurity and low birth weight —Neonatal tetanus —Complications of delivery, including birth trauma —Neonatal pneumonia and other respiratory diseases —Vertical transmission of sexually transmitted diseases —Other infections
1-6 months	—Diarrhoeal diseases —Pneumonia and other respiratory diseases —Anaemia —Malaria
6-12 months	—Diarroeal diseases —Measles, whooping cough and other immunizable diseases —Respiratory infections —Anaemia —Malaria
1-3 years	—Diarrhoeal diseases —Respiratory infections —Measles and other immunizable diseases —Malnutrition —Injuries/poisoning —Anaemia —Malaria
3-4 years	—Respiratory infections —Diarrhoeal diseases —Measles and other immunizable diseases —Injuries/poisoning —Malaria —Anaemia

It is important to note that the *fatality* of these main diseases is highest in the young age groups. A dramatic reduction in the number of young child deaths requires that control measures be adopted to cover the children below 1 and 2 years of age.

CHAPTER IV INTERMEDIATE CAUSES OF CHILD DEATHS

The present chapter discusses a series of processes that lead to the immediate causes of child health, described above as malnutrition and disease. For the purpose of this analysis, they are grouped together as *intermediate* causes of child death and include the following subjects:

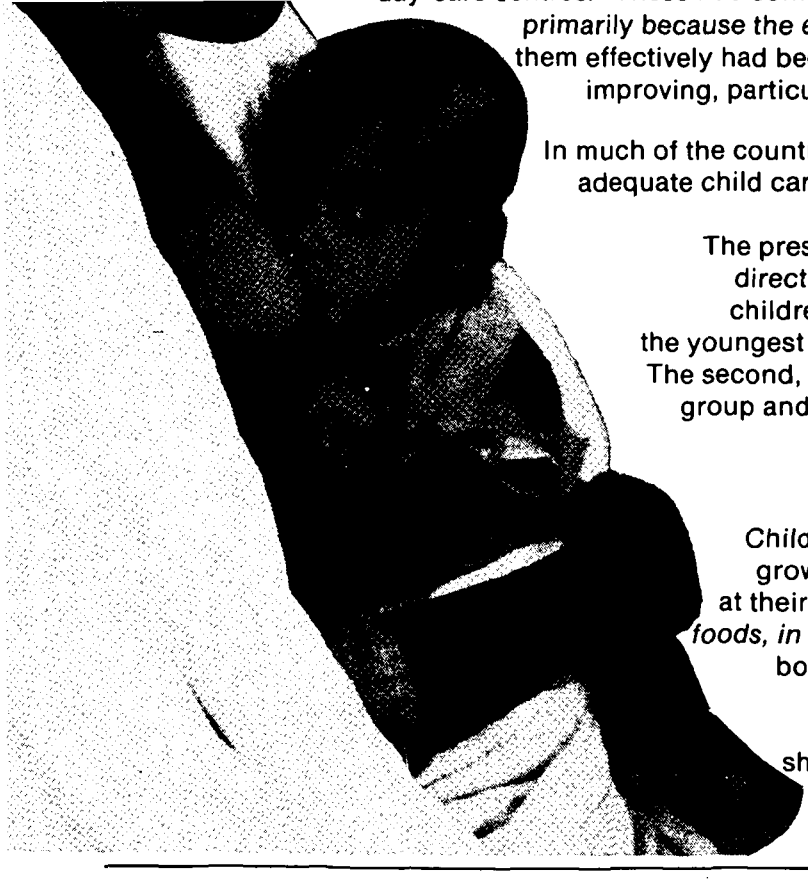
— Child Caretaking,
— Availability of Food,
— Availability of Health Requisites, and
— Women's Roles and Status: Women's Well-being.

The analysis will show that each of these directly affect the health and nutritional status of children, which in turn determines whether they survive or not. It will also show that the intermediate causes of child death are, to a large degree, interlinked.

Part 1. Child Caretaking—an Intermediate Factor in Young Child Deaths

To state that young children cannot care for themselves, by themselves, is to state the obvious. Young children cannot grow their own food, or cook, or fetch their own water. Very young children cannot feed themselves: they must be fed. The young child must have a caretaker—or a caretaker organization—to assure that his or her specific needs are met. Child care means safeguarding the survival and development of children, ensuring their physical, psychological and social growth. Traditionally in Ethiopia, child caretaking has been seen mainly as the responsibility of the woman, but with the demands made on her by her many other roles such as food producer, fuel-wood gatherer, water carrier, cook, etc., aspects of child caretaking are given lesser priority or delegated to others. Children may be left in the less effective care of young siblings, older relatives, or neighbors.

More recent times have seen attempts to develop pre-school patterns of child care through "day-care centres." These had sometimes been unsuccessful, especially in rural areas, primarily because the economic and human resources required to operate them effectively had been underestimated. This situation has recently been improving, particularly among the more successful rural co-operative or Peasants Associations.



In much of the country, however, the problem remains of how to provide adequate child care to ensure good nutritional status and good health in the children's earliest years.

The present section will concentrate on two areas that most directly affect these processes for different age groups of children. The first, child feeding, is critically important for the youngest children, and is normally a household level activity. The second, education is of concern for children of an older age group and is a responsibility that lies both with the family and with governmental institutions.

Child Feeding Practices[40]

Children have changing nutritional requirements as they grow, and adequate child feeding requires that children at their different development stages are given *appropriate foods, in adequate amounts, frequently enough* to meet their bodies needs. At the child's youngest age, this usually means breastfeeding on demand. When the child reaches the age of 4 to 6 months, other foods should be introduced to supplement (but not replace) breastmilk in order to meet the child's growing requirements for energy and other nutrients.

Breastfeeding and Weaning Practices in Ethiopia

The practice of breastfeeding babies is nearly universal in rural Ethiopia, and is frequently extended for a period of up to two years.

Breastfeeding is a tradition firmly rooted among the peasants and the urban poor, and the prohibitive costs of substitutes discourages bottlefeeding among these groups. There is some evidence, however, that fewer mothers among the urban elite breastfeed than do their counterparts in rural areas, and that the duration of breastfeeding among the urban well-to-do is generally of shorter duration.

Table 6 presents data from a 1980 survey of rates and duration of breastfeeding in three different socio-economic categories of Ethiopian mothers.

Table 6. Rates and Duration of Breastfeeding by Mothers of Three Socio-Economic Categories in Ethiopia

Socio-Economic Group	Percentage of Mothers who Breastfeed through 6 months	through 12 months	through 24 months
Rural	100.0	99.0	95.9
Urban Poor	91.8	85.5	78.6
Urban Elite	57.0	41.1	28.8

Source: Zewdie Wolde Gabriel, *Assignment Children,* (UNICEF), 55/56 (1981).

There are indications of a sex bias in the duration of breastfeeding among some cultural groups in Ethiopia, where boys are fed longer than girls on the grounds that they need more strength. This feeding bias against the girl may continue throughout her life, where she may be allowed to eat only after her brother (and later, her husband) has had his fill.

Before the initiation of breastfeeding, immediately after birth, the newborn infant often receives butter. (That the mother's colostrum is not given is especially unfortunate, because the colostrum has an extremely high concentration of antibodies. This natural protection of the newborn is lost in the traditional feeding practice in much of Ethiopia). A small amount of water is also given, either mixed with butter or alone. The traditional purpose of giving butter on the first day of the infant's life is to "open up the throat" and to "get rid of the dirty things in the stomach." After this is done breastfeeding can start, and the child generally takes breastmilk.

On the average, butter feeding continues up to 1 to 2 months of age, and in some areas goes on longer in combination with a liquid made from fenugreek (a leguminous plant—trigonella foenum-graecum). The giving of the liquid made from boiled fenugreek seeds from the age of a few days until the child can walk is a widespread practice, and in some areas it is the only supplemental food given until the child is put on adult food (which may be as late as two years of age). The energy and protein value of the fenugreek liquid is quite low.

Where it is available, diluted milk from animal sources (generally from the cow, and less commonly from the goat or camel) may be given to the infant at the age of 2 to 3 months. Depending on its availability, animal source milk may be given on a daily basis, or a few times a week. This continues up to 1 or 2 years or longer. In urban areas, commercially manufactured powdered milk may be used.

The practice of giving water and butter to a newborn infant is cause for concern: water is a potential source of infection, and butter from animal sources is not fully digestible by a newborn and could cause diarrhoea. Little is known about the effects of the liquid from fenugreek. The early use of milk from animal sources poses risks: although diluting milk can make it more digestible, it increases the risk of infection. Taking animal milk also reduces the child's appetite for the more digestible and nutritionally appropriate breastmilk.

Still, breastmilk constitutes the major part of the infant's diet for at least the first six months of life in most of Ethiopia. The age at which infants start the weaning process (in this context, the introduction of grain-based supplementary foods) varies considerably throughout the country with the ethnic make-up of the population, the degree of influence of urbanization, the socio-economic status of the household, and tradition. In urban areas the tendency is to start at an age of 4 to 6 months, but in some rural areas weaning is not begun until 8 months, one year, or even later.

As most children by the age of 6 months require more nutrients than breastmilk can provide, such late introduction of suppplementary foods contributes to faltering growth and malnutrition. The late introduction of weaning foods is likely to be a major cause of the high rates of chronic malnutrition and poor growth performance among children in their second year cited in Chapter III, Part 2.

Gruel, porridge, "Fefet," "Ketta" and "dabo" (thin leavened bread mixed with a sauce of legumes, unleavened bread, and thick leavened bread, respectively) are the popular traditional weaning foods used in most households. All may be based on teff, sorghum, barley or wheat, and gruels and porridges may also be based on Enset.

While these foods are good sources of nutrients in themselves, they may be prepared in such a way that their nutrient density is reduced to the extent that a child cannot eat enough to satisfy his requirements. That is, a gruel or porridge that is diluted so that a child can swallow it easily will contain less nutrients for the same volume as a thick, undiluted serving. The size of the child's stomach limits the volume he can consume at each feeding time, and thus low nutrient density of weaning foods can contribute to malnutrition.

Low nutrient density can be offset by adding energy-rich ingredients such as butter to the weaning food. This is frequently done in those parts of the country where cattle are most common. A second technique for enhancing nutrient density is the use of germinated grain in the preparation of weaning foods. The addition of germinated grain to a thick porridge will caue it to liquify, without diluting its nutrient value with water. It is reported that this practice is used among some groups in Ethiopia, but further research on the subject would be beneficial.

Another aspect of child feeding in Ethiopia that seems to contribute to the malnutrition of young children is that of feeding frequency. While most infants under 6 months are breastfeed on demand, the frequency of both breastfeeds and supplemental feeds tends to decline as children get older. If a child of 12 to 24 or 36 months is fed only twice a day, as is not uncommon in rural Ethiopia, it is very unlikely that he is receiving enough nutrients for his growth and developmental requirements. The effect is compounded if the food is of low nutrient density. To understand the importance of low feeding frequency, one needs only to consider that if a child is given three meals per day rather than two (each meal of equivalent volume and nutrient density), the child's daily nutrient intake is increased by 50 per cent.

Except in times of famine and acute food shortage, the principal cause of low feeding frequency in rural Ethiopia is almost certainly the workload that women bear in their daily life. If a woman's chores include pounding the grain and cooking the main family meals, working in the field, fetching water, fetching fuel and cleaning the home, etc., her possibilities for finding the time to prepare food and feed her young children an extra one or two times per day would seem to be limited. The problem of low feeding frequency in Ethiopia requires further study. The issue of the woman's work load will be more fully discussed in Part 4 of this chapter: Women's Roles and Status: Women's Well-being.

A final sector that has important implications for feeding practices is, in Ethiopia, the question of food availability. Because of the magnitude of this problem in Ethiopia in recent years, the issue is treated separately in Part 2 of this chapter: Availability of Food.

Child Education

The relationship between education and child survival and development is well documented from many countries of the world. Many countries have analysed the correlation between the level of education of the parents, especially the mother, and malnutrition or infant mortality rates.[41]

Education has both short and long term effects. Adult education may result in immediate improvements, while child education will have a long-term impact when children grow up to become the next generation's parents. Child education can also have early effects through a child-to-child learning process, and is an important part of the child's socialization process.

Prior to 1974, education in Ethiopia was reserved for the privileged few, and geared more towards their personal advancement than the needs of the nation. Participation rates were among the lowest in the world, with an adult literacy rate of 7 per cent and only 17 per cent of the children in primary school.[42] There was marked discrimination against females and children in rural areas. Less than 25 per cent of primary school pupils were girls, and the female literacy rate was negligible. Of the 2,754 government primary schools in Ethiopia in 1974, the majority were in urban areas where only 15 per cent of the population resided.[43]

While the Government since 1974 has accorded high priority to extending a basic level of education to the broad masses, including the previously disadvantaged female and rural groups, it has had to face the increasing problem of maintaining the quality of basic education and orienting it towards the real needs of the population. Even modest targets such as maximum primary class size of 50 and one textbook for every two pupils have been difficult to meet.

Primary school enrollment increased from 859,800 students in 1974 to 2.9 million in 1988, corresponding to a gross enrollment ratio increase from 17 per cent to 35 per cent.[44] Most of the increase occurred during the late 1970's and early 1980's.

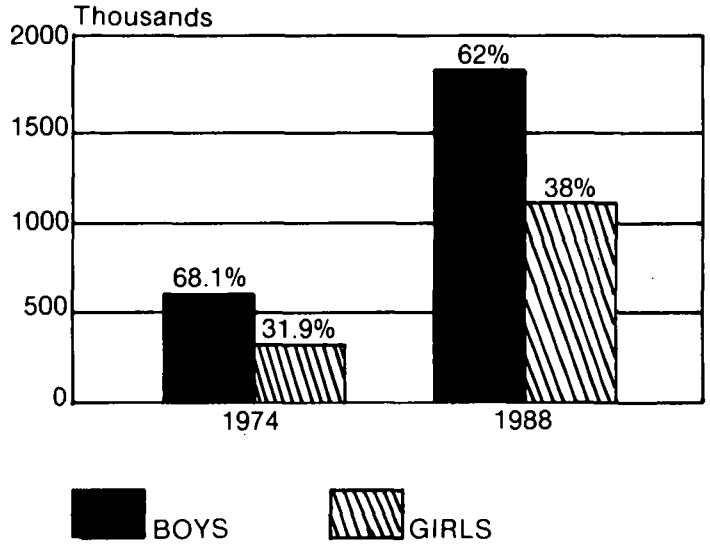
The enrollment of girls has shown a slow but steady increase over the past several years, although some regions are lagging behind others in this regard. Figures 5, 6, and 7, show the share of enrollment

by sex in primary, junior secondary and senior secondary levels in 1974 and 1988. The lowest levels of primary school enrollment for girls are recorded in Hararghe, Gondar, Gamu Gofa and Wollo.[48]

Figure 8, shows the increase in total enrollment of children in primary school in Ethiopia over the period, 1974-1988. The rapid increase in first-grade enrollment in the late 1970's and early 1980's is evident. It is also apparent that the gains made were slowed with the onset of the drought in 1983-84, but have since resumed.

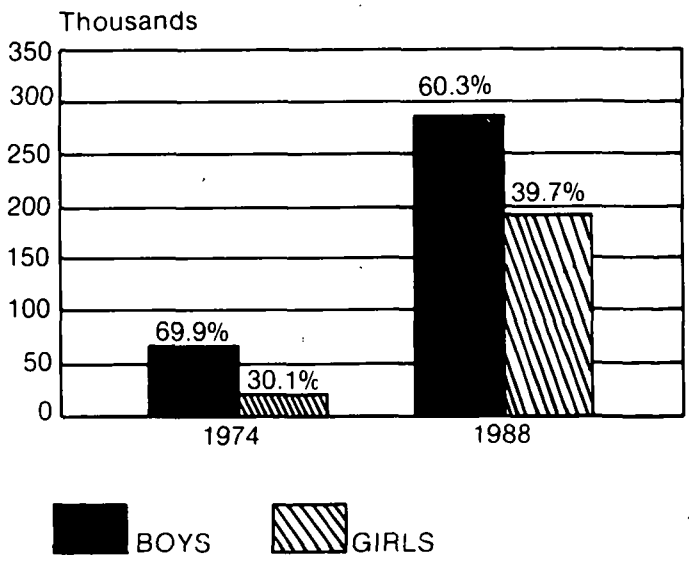
Education is a long-term investment for a family, but one that can carry a high opportunity cost. A child of primary school age contributes to the family economy in rural Ethiopia, either by his or her own labour, or by helping take care of younger siblings. If a child is in school, he or she is not available to help the mother fetch wood or water, or to look after the younger children while the mother is out working in the fields. It is the poorest families that can least afford to lose this help that the school age child can provide, and a result of this situation is that children, especially girls, may be withdrawn from primary school after a year or two. Figure 9 shows that a large number of children leave primary school after the first year, and that less than half of the children who enter the first grade reach grade five.[46]

FIG 5 PRIMARY ENROLLMENTS BY SEX



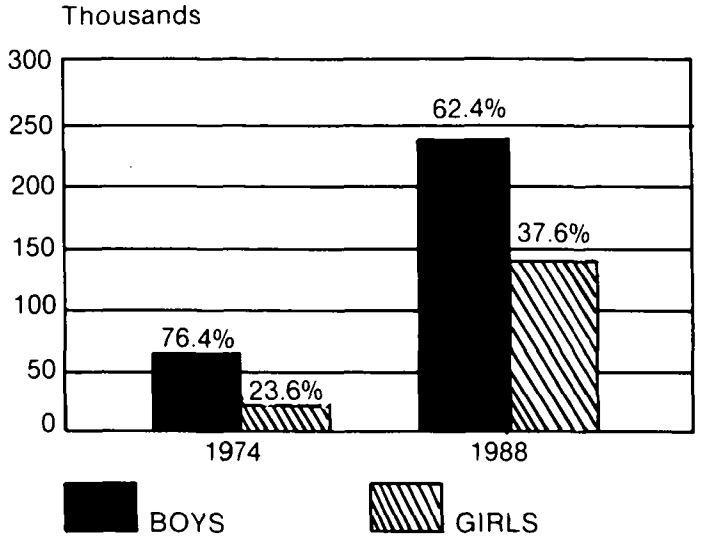
SOURCE: MOE, OCTOBER 1968

FIG 6 JR SECONDARY ENROLLMENTS BY SEX



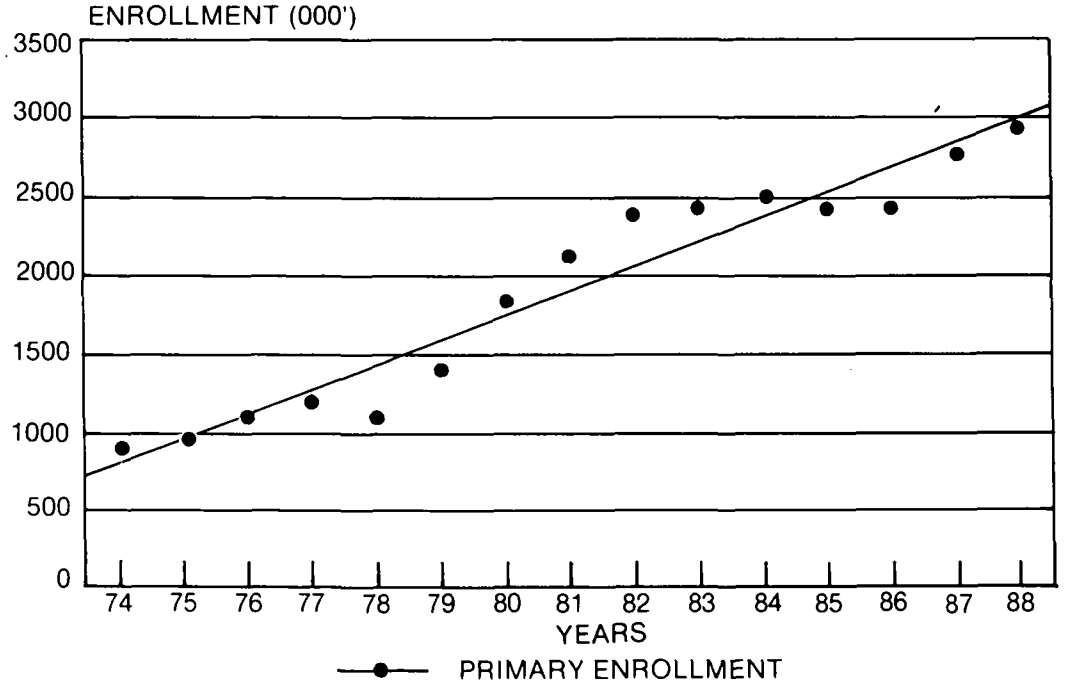
SOURCE: MOE, OCTOBER 1988

FIG 7 SR SECONDARY ENROLLMENTS BY SEX



SOURCE: MOE, OCTOBER 1988

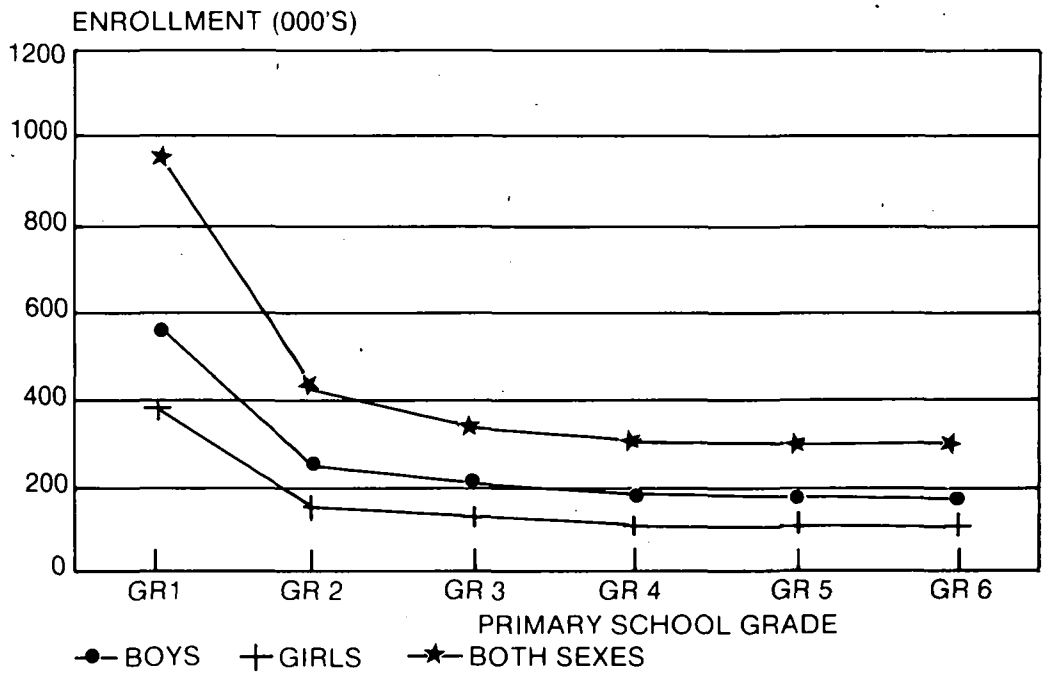
FIG 8 PRIMARY ENROLLMENT TRENDS 1974-1988



SOURCE: MOE

The situation is ironic and unfortunate: those who would benefit most from education are those who can least afford it. Part of the solution to the problem lies in the widespread establishment of a rapport between the educators and the parents, so that the latter become firmly convinced of the importance of basic education, especially for girls. The mass organization could play a role in this social mobilization effort.

FIG. 9 PRIMARY SCHOOL ENROLLMENT BY SEX, 1987



SOURCE: MOE, OCTOBER 1988

An equally important part of the solution has to do with the overburdening of women with work. Girls are expected to help their mothers, and so the time demanded of girls for household work is directly linked to the overburdening of women. To allow more time for the education of girls, it is necessary to alleviate the mother workload. The dissemination of time and energy-saving devices, such as improved cooking stoves requiring less fuelwood, bringing water points closer to villages, and assisting communities themselves to develop child caretaking mechanisms, would all contribute to freeing women and, consequently, their daughters.

Part 2. Availability of Food—an Intermediate Factor in Child Deaths

There are a large number of factors that determine who, finally, is eating what. In urban areas, income and prices are important elements. Families eat what they can afford to buy. In rural households, food consumption is largely a function of food supply. Families eat what they can manage to produce, store, process and prepare.

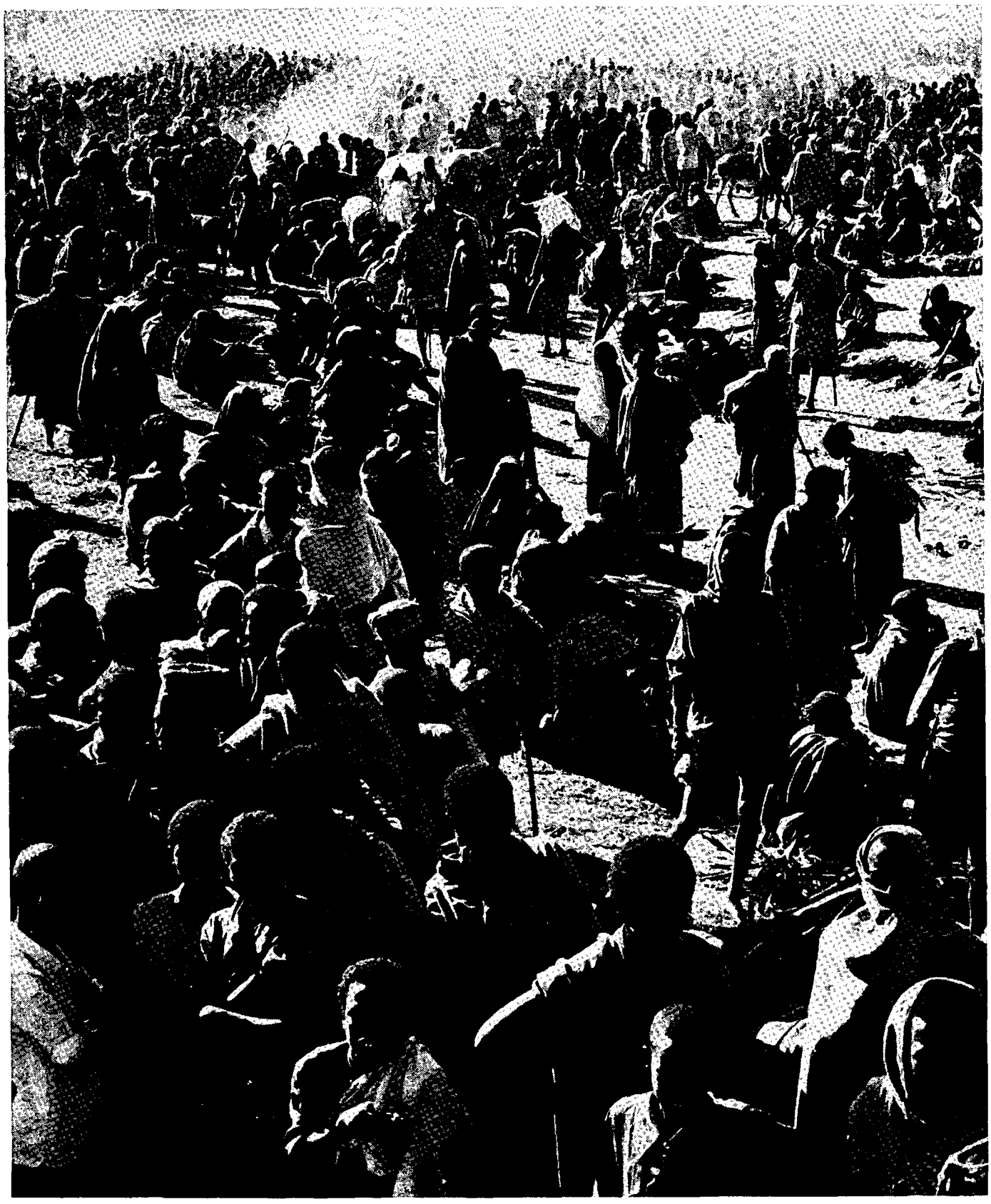
Agriculture is the mainstay of the Ethiopian economy. About 86 per cent of the population relies on farming for its livelihood,[47] and the vast majority of peasants are engaged in subsistence agriculture, producing food first for their own households and then for the market. State farms and producer co-operatives occupy respectively 3 and 4 per cent of the total cultivated area, and contribute 6 and 3 per cent of the combined production of cereals and pulses.[48] (Thus, the criticism from some quarters that the Ethiopian Government's policies in favour of collective agriculture are responsible for recurring food shortages are largely baseless.)

As a group, producers are vulnerable: the rain dependent agriculture practiced by most farmers means that there are relatively good levels of production when there is adequate rain, and poor levels when there is not.

Drought in Ethiopia has been a major cause of food shortage and hunger in much of the country in recent years; and while it is certainly the most dramatic cause, there are other factors which operate at the household level to be considered. For example, farming families which produce a surplus at harvest time may be short of food some months later. (A need for cash after harvest time may require them to sell, or the farmers' limited capacity to store and protect their harvest from insects, and spoilage may force them to sell.) Other farming families are operating with such limited resources that surpluses, or even adequate supplies of food, are never produced.

The present section discusses the issue of availability of food—and food security—at two levels: that of the nation as a whole and that of the household.

Drought, Famine and National Food Security



Drought and famine in Ethiopia are as old as the country itself. Mention of early catastrophes dates back to the historical records of the 9th century; between 1250 and 1280 there were seven famine years; two major famines in the 14th century and at least four in the 16th century; again between 1610 and 1636 eight famines occurred, with five more in the 18th century. Not all of these disasters were caused by lack of rain; some were the results of epidemics. The famine of 1888-1902, for example, developed as rinderpest spread from Italian cavalry horses to the Ethiopian cattle, killing 90 per cent of them and destroying one of the pillars Ethiopian subsistence production.

In this century, major famines affected the whole Horn of Africa in 1916 and again in 1984. In Ethiopia, Wollo was hit in 1927, 1966, 1973, 1984 and again in 1987/1988. Tigrai was hit in 1958, 1973, 1984 and 1987/1988. It is estimated that some 100,000 persons died from the famine of 1958.

The Wag Lasta Awraja in Wollo Region was hit by severe drought in 1966. A year after the famine was brought to the attention of the imperial administration, Government responded by sending 1,000 tons of wheat to be sold at a reduced price in the area. The destitute farmers could only afford to buy 78 tons, while the rest lay rotting in the store. It was not until eight months later that the remaining wheat was released and distributed among the starving population.

Wollo never truly recovered. In 1972, after years of insufficient rainfall, the big Mehr rains failed in the region. This was fallowed by a total failure of small rains in the early 1973. (The failure of the Imperial Government to respond to the famine led to its downfall in September 1974). It is estimated that 200,000 people died in the Wollo famine of 1973/1974, and that the nation lost 60 per cent of its crops and 80 per cent of its livestock.

Despite increased drought relief efforts including those from the U.S.A., and grants from many sources including China, the Federal Republic of Germany, Sweden and the United Kingdom, Ethiopia had not yet recovered from the Wollo famine when in May 1981, the Relief and Rehabilitation Commission's Early Warning System, in charge of monitoring drought indicators, reported an alarming deterioration in weather conditions in the north of the country. The warnings of possible disaster continued throughout 1983 without attracting much international attention.

In April 1983, when the number of drought affcted people had reached 3 million, UNICEF appealed for US$3.5 million to provide supplementary food and nutritional rehabilitation and to give support for water, basic drugs, shelter materials and transport. By the end of 1983, less than US$500,000 had been received.

Early in 1984, the RRC reported to all major donor agencies and diplomatic representations in Ethiopia on the increasingly desperate situation of millions of people. The call for help provoked little response. In October 1984, RRC called another meeting of the representatives of the international community in Addis Ababa, stressing that 6 million people were now affected and no action had been taken.

In that same month, the world's attentionwas finally drawn to the catastrophe in Ethiopia by five minutes of televised images from shelters in Wollo and Tigrai, shown on BBC (UK) and NBC (USA) on 23 October and soon flashed around the globe.

In December 19084, the United Nations adopted a resolution urging all member states to assist the Government of Ethiopia and to address the problem of medium and long-term recovery and rehabilitation. Later that month, when relief assistance began to arrive in greater quantities, 12 of Ethiopia's 14 regions and 8 million people were paying the price of "the worst drought in living memory." The toll was enormous: 300,000 men, women and children had already died, and in some of the biggest camps, death rates were as high as 80 to 100 a day.

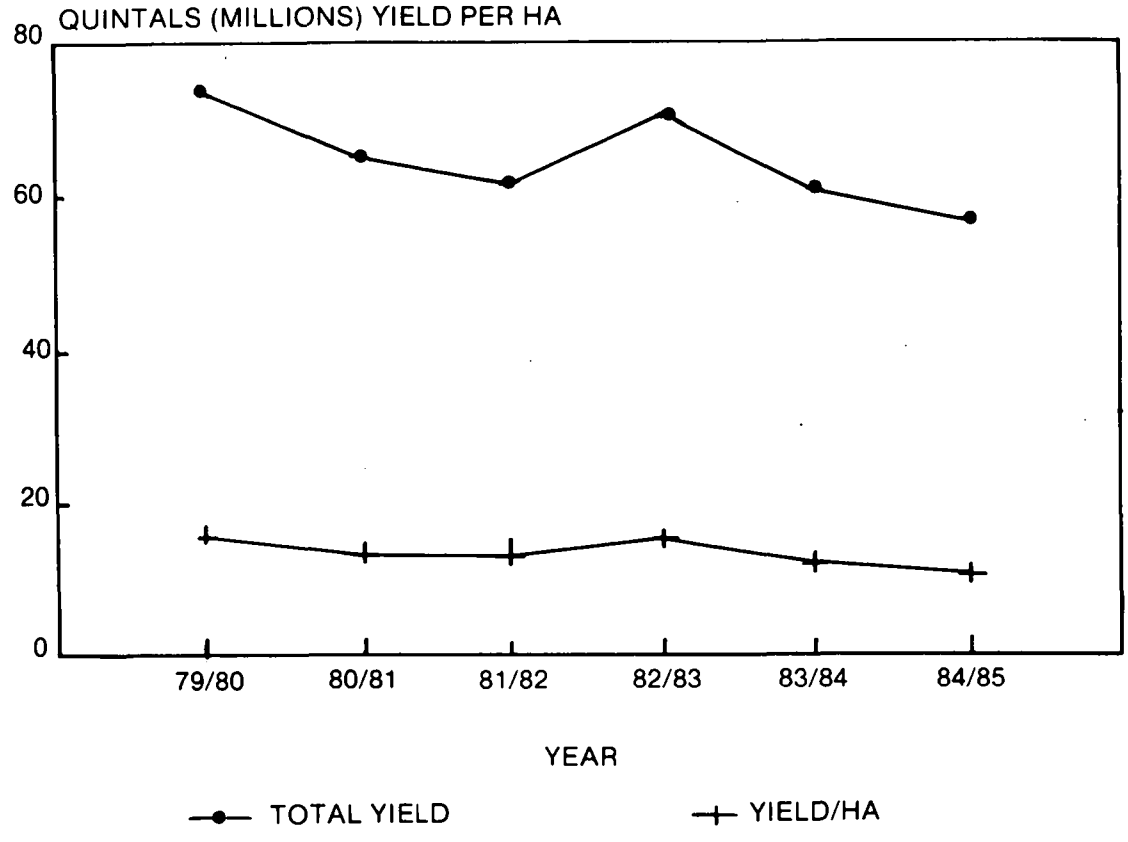
The sudden global awareness of the famine in Ethiopia and across the Sahel triggered innumerable appeals. Contributions from governments and the United Nations, collections and world-wide satellite-broadcast fund raising events provided Ethiopia with over 1 million tons of food aid in1985. The response, however, was already too late and the losses were staggering. Ethiopia had to pay a high price in children's lives before donors had been convinced of the need to act.

At the beginning of 1986, all relief camps were closed, but the emergency was far from over, with 6.8 million people still in need of food assistance. The consequence of the drought was a country left even more depleted that at the beginning of the 1980's. Irregular rainfall, together with a lack of seeds, draught oxen and farming tools, and a generally weakened population, created an even bigger need for development aid. The hopes in this respect, however, have never materialized.

In April 1986, parallel to continued international assistance, UNICEF launched an appeal for US$117 million to be used for relief and rehabilitation, aimed specifically at mothers and children. As a result of the reluctant attitude of donors towards long term development programmes, only US$5 million had been received by the end of the year.

In August 1987, the Early Warning System again predicted large scale crop failure in the country, particularly in the regions of Eritrea, Tigrai, Wollo and northern Shoa. An FAO evaluation mission in November confirmed that the country would need 1.3 million tons of food aid (including supplementary food for children) to meet the country's minimum requirements over a 12-month period. The donor response this time was timely and generous, and the Government machinery has functioned smoothly in moving food through distribution centres. The rapid response has enabled the Government to avoid establishing camps in the drought stricken areas. Armed rebellion, however, particularly in Eritrea and Tigrai has hampered relief efforts in the north.

FIG 10 FOOD CROP PRODUCTION TRENDS ESTIMATE PRODUCTION OF MAJOR CROPS



SOURCE: WORLD BANK/OSA

In spite of the large number of people in agriculture, in normal years Ethiopia is only barely self-sufficient in food production. Cereal production in normal years is some 6,320,000 tons, and normal cereal import requirements would presently be approximately 250,000 tons.[49] This shortfall may be attributed to the low productivity of the traditional agricultural sector. The "modern" industrialized sector of Ethiopian agriculture has a share of less than 10 per cent of the annual agricultural production.[50]

Figure 10. shows the declining food crop production trends over the period 1979 through 1985.

National "food balance sheets" are a useful indicator of national food security in that they provide information about total food availability. The data from FAO Food Balance Sheets over the years 1972 to 1985 show that the per capita daily food-energy supply for Ethiopia has failed to meet the generally accepted minimum requirement of 2,120 kilocalories. (It is estimated that the average working person requires a minimum of between 2,300 and 2,400 kilocalories per day). During the drought period of 1983 through 1985, the average per capita availability of food energy was only 1,692 kilocalories, at best a survival level.[51]

There is considerable variation in food availability among regions in Ethiopia. Table 7 shows per capita food availability by region over the period 1979/80 through 1983/84.

Table 7. Per Capita Food Availability by Region, 1979/80—1983/84

Region	Food Production, Grains (million quintals)*	Total Population (million)**	Per Capita Food (grams per day)	Per Capita Food (kilocalories*** per day)
Arssi	5.3	1.7	849	2,095
Bale	1.4	1.0	389	1,326
Eritrea (including Assab)	1.9	2.7	192	655
Gamu Gofa***	1.2	1.3	242	825
Gojjam	8.1	3.2	693	2,363
Gondar	6.2	2.9	575	1,961
Hararghe	6.5	4.2	283	965
Illubabor	1.8	1.0	504	1,719
Kaffa	3.3	2.5	362	1,234
Shoa (including Addis Ababa)	20.6	9.5	594	2,026
Sidamo****	2.1	3.8	151	515
Tigrai	2.3	2.4	263	897
Wollega	5.6	2.4	640	2,182
Wollo	7.6	3.6	575	1,961

* 10 quintals = 1 metric ton
** Urban and rural populations combined
*** 100 grms of grain calculated to equal 341 kilocalories
**** The diet in Gamu Gofa and Sidamo is based mainly on root crops, which are not included in the table.

Source: "A Review of Food and Nutrition Situation and the Relation of Agricultural Strategies to Food and Nutrition Improvement Policy and Programmes in Ethiopia," Dr. E.O. Idusogie, FAO, July 1987.

Such data must be interpreted with care. In the first place, the information refers only to grain availability and does not include other food sources. Secondly, the information refers to daily food availability per capita based on data from agricultural production over the course of several years, but does not tell us about seasonal or annual variations in food supply. Moreover, it does *not* refer to how much food is actually available in any given community or household, or how much is consumed by any individual.

What the data do show is relative food availability among regions of the country, and as such indicate which regions may be better off than others, and where population at risk are, in general, more likely to be found.

The drought of 1983—1985 caused acute crop losses in much of Ethiopia. With a caveat similar to that stated above, Table 8 shows the percentage decline in kilocalories available per capita per day from 1981 through 1985, for most regions of Ethiopia.

Table 8. Percentage Decline in Grain-Based Food Energy Available Per Capita per Day, 1981—1985, in 12 Regions of Ethiopia

Region	Percentage Decline in Per Capita Food Availability, 1981—1985
Arssi	36.0
Bale	37.5
Gamu Gofa	47.8
Gojjam	16.7
Gondar	20.4
Hararghe	47.8
Illubabor	0.0
Keffa	35.1
Shoa	40.0
Sidamo	40.0
Wollega	36.5
Wollo	86.4

Source: Relief and Rehabilitation Commission (RRC)

It is evident that few regions escaped the catastrophic effects of the drought of 1983-1985, and that food security at the national level is an issue of importance for Ethiopia.

Present indications are that, due to the failure of rains in mid-1987, the regions of Eritrea, Tigrai, Wollo, Hararghe, Gondar and Shoa will in 1988 face food shortages on the scale of the disaster of 1983/1985.

Food shortages tend to affect the country as a whole. The degree of this impact is uneven and in some cases not related to the actual decline in food production in a particular region. A crucial indicator of the extent and severity of the crisis conditions is provided by the market price of food, particularly grain. Price increases are not, however, only a function of decreases in food production. Government policy, the availability of international aid and local infrastructure can all influence inter-regional price differences. Within a region, the local infrastructure combined with local production levels can result in intraregional price differentials.

In Wollo, which was one of the hardest hit regions in the last drought, teff prices, as sampled in three Awrajas, increased by 419 per cent between 1981 and 1985. Nationally, the increase was 312 per cent. The impact of the price increase on urban dwellers was cushioned to some extent due to the existence of Kebelle shops, which are government subsidized. In Addis Ababa, the price index of cereals increased by 36.1 per cent between 1981 and 1984.

One of the more important interventions following the 1984 drought was the cash-for-food programme, operated by the Relief and Rehabilitation Commission with UNICEF support. This involves the provision of cash to poor families in areas where some food is available but unaffordable, in return for their voluntary labour on community based development projects which are intended to help treat the underlying causes of famine. These include small-scale irrigation, reafforestation and the terracing of hillsides to prevent soil erosion. This has proven to be less costly than feeding people in shelters and is, of course, much more productive in the long run. The RRC has also operated food-for-work projects in food short areas, providing food rations in exchange for community development efforts.

The biggest cost of the famines is paid for by the children who are involved in them. These famines affect them at a time where optimal food intake is most necessary for future development.

Repeated severe deprivation can have, for those who survive, physical and psychological effects which may never leave them. If they are in areas which are also affected by rebels, as many of the affected children are today, then this will combine with the psychological effects of war. They also pay interims of education. Hunger obviously limits the ability to attend school. Repeated hunger in a short period of time makes this almost impossible. This has implications for the future, as related. Since the main area of famine today correlates with the main conflict areas and these conflict areas tend to have lower child socio-economic indicators, the overall effect is especially devastating, probably more then "the sum of its parts."

Household Food Security

Household food security means access by poor families to sufficient food and money to meet their basic needs, to provide the minimum dietary requirements of *all* members of the household in a sustainable and environmentally sound manner.[52]

National food security does not ensure household food security. Some countries export large amounts of food, yet show high degrees of child malnutrition and high infant-mortality rates. The same adverse relationship is evident in the surplus food producing regions or districts within some countries, which export their harvests while their children remain significantly malnourished.

While Ethiopia remains far from the state of national food security, it is evident from the data presented in the previous section that some regions are generally more productive than others (while others are at continuing risk of acute food shortage). It is important, however, to note that even in the better-off regions there are great numbers of malnourished children: children of the poorest households subsisting on the most limited resources.

There is no recent information on food consumption by the rural population, nor by special social-economic groups. There is a lack of hard data on the cyclical shortages of food at household level during the agricultural year. There is a need for surveys and related research in order to identify the principal groups of households suffering from chronic and transistory food insecurity and to describe the characteristics of this groups. Such information would facilitate the formulation of policy measures to assure that efforts to increase the nation's food production will include actions to help even the poorest households to meet their basic food requirements.

Another significant food issue to be addressed is that of the intra-household pattern of food distribution. Several studies indicate a sex bias in nutrition in favour of male over female infants, girls and women in parts of the country. Cultural traditions among some groups compel women and children to eat last and least. What is required is increased control by women over the production, distribution and consumption of household's resources. These aspects are discussed more fully in Part 4 of this chapter: Women's Roles and Status—Women's Well-Being.

Part 3. The Availability of Health Requisites—an Intermediate Factor In Young Child Deaths

Ethiopia's first national rural health survey was undertaken in 1982 and 1983 by the Central Statistical Office, and covered nearly 120,000 people in rural areas. Of the survey population, 30 per cent had been ill during the previous two-week period, with regional variations from under 25 per cent to cover 45 per cent. More than two thirds of those who had been ill were so far between one and two weeks, with an average duration of illness of 10 days.[53]

Although there is a general health statistics concerning child morbidity, those that are available show a consistent and not surprising pattern:

- The incidence of illness is highest in the young age groups. The rural health survey of 1982/83 found that 10 per cent of Ethiopian children under one year of age had suffered from ill health for more than half of their lives.
- Diarrhoea and respiratory diseases are the main problems for children under 5. The average number of episodes of diarrhoea per child per year is 5. In Ethiopia, there are over 100,000 new cases of diarrhoea each day.
- Nearly 60 per cent of child morbidity is due to preventable causes.[54]

The climate and topography of the country contribute to the problem of child morbidity and child health; but in the main the health problems of Ethiopian children are related to poor nutrition; to the unavailability of basic requisites such as clean water, adequate sanitation and health services and, finally, to poverty. Food and nutrition issues have been discussed in previous sections of this analysis, and poverty will be discussed in Chapter V. The present section addresses the availability of basic health requisites:

- access to and utilization of health services,
- access to clean water, and
- adequate sanitation.

Access to and Utilization of Health Services

Since 1974, the number of health units in Ethiopia has more than doubled. It is estimated that only 20 per cent of the population had access to a health facility at the time of the revolution, and there was a strong bias towards secondary and tertiary care (specialist services) in the urban centres. The Government estimates that at present, 43 per cent of the country's population have access to a health facility.[52]

Access to a health facility is defined in Ethiopia as living within 10 to 12 kilometres of a Health Station. A Health Station is the smallest health unit in the conventional health structure, and is normally to be staffed with one to three health assistants. It is theoretically capable of providing health services for about 10,000 people, and is intended to serve as the health unit of first contact and the entry point into the general health services. Health stations are supposed to have a small laboratory to carry out limited but important tests. They are, moreover, responsible for supervising community (Kebele) health services.

The community health service acts as a bridge between the community and the conventional health-care-delivery system. A community health service is staffed with a community health agent (CHA) and a trained traditional birth attendant (TBA). The tasks of the CHA and TBA include:

— Giving health education to the community
— Performing, at their level, mother and child health services
— Improving environmental sanitation, i.e., to protect water sources and to help construct latrines and refuse disposal facilities.
— Providing first aid, and referring patients to the nearest health institution as appropriate.
— Participating in the control of endemic and epidemic diseases.
— Registering and reporting births and deaths occurring in the community, reporting morbidity in the community, and performing other activities as necessary.

In the past seven years, some 9,000 CHA's and roughly an equal number of TBA's have been trained for the community health services. There has been a high default rate among trainees, however, estimated to be as high as 70 per cent.

Deployment of personnel in health stations has also been a problem. In 1984, 45 per cent of the country's health stations had only one health assistant, and 9 per cent had none at all.[56]

The high default rate of CHA's and trained TBA's is the result of a state of isolation of these cadres, both from the general health care system and from the communities in which they work. The absence of remuneration arrangements, generally poor supervision and support from the health station, difficulties in obtaining supplies, lack of patient referral procedures, and the unavailability of in-service training, all discourage the CHA and TBA from continuing in service.

Lack of community support for the CHA's and TBA's stems from a failure, at the outset of the programme, to consult the communities in defining the role of the CHA's and TBA's and in selecting candidates for such training.

The weak management arrangements that characterize the relationship between the CHA/TBA and the health station are also reflected in the relationship between the health-staiton level and that of health centres at the Awraja level. Supervisory and co-ordinating functions are weak. In general, there is a "management vacuum" below the regional health-department level. (The problem of Awraja-level management is more serious in the health sector than in any other, as all other sectoral ministries in Ethiopia have Awraja-level offices with co-ordinating and supervisory responsibilities for the Awraja population).

This bottleneck in the implementation of health programmes has been recognized by the Government, and in 1986 a first step was taken to overcome the problem with the establishment of a programme for training Awraja health managers. The initial intake in the two year training course was 19 participants, and it is planned to raise the number of 25 trainees entering the course each year. As Awraja health managers enter into service over the next few years, it is expected that the administration of health services at rural hospitals, health centres and health stations will improve.

Of equal importance for improved health care delivery are programmes that are being developed for health institutions to mobilize the population for better health—and better utilization of available health services. Educational materials highlighting maternal and child health issues are being developed for dissemination to the large population of new adult literates in the country.

A weak logistics infrastructure will, however, continue to be a major problem in health management unless specifically addressed in the next few years. There is generally inadequate provision of transport for supervision; and arrangements for the ordering, reception, storage, and distribution of supplies require improvement.

The availability of pharmaceuticals is a problem in much of the country especially at the level of rural health stations. There is an overall shortage of essential drugs in the country, and the problem in rural areas is compounded by the logistical and management difficulties of delivering supplies to remote localities. The Primary Health Care review of 10 essential drugs) were available in only 7 per cent of the health facilities surveyed.

Staffing and supply problems at the periphery of the health care delivery system may contribute to low utilization rates even among the population who have theoretical access to health facilities. There are several other factors, however, that are equally important to the problem of utilization of health services. One is (in some areas) a cultural preference for traditional healers over professional health personnel. Another is that, even though a family may live within 12 kilometres of a health station, the mountainous terrain, or the lack of roads or transport may preclude travel to the health facility especially if one is ill or has to carry a sick child.

Yet another, and perhaps the most important in relation to maternal and child care, is once again the problem of the excessive workload of women. With her responsibilities for farming, cooking, fetching fuel and water, etc., it is difficult to expect the mother to find the time it takes (perhaps a full day) to walk 12 kilometres to a health station with a sick child, or with a child who should be immunized or weighed and walk back again. It is difficult to expect a pregnant woman, with all her other duties, to walk so far for antenatal care and a tetanus immunization. The problem is compounded by the lack of integration of services at the health station. That is, MCH clinics are frequently operated separately, and on different days, from immunization or health education services. Efforts are now being made to integrate health-station services.

Immunization

The challenge to the health-care-delivery system is reflected in the 1985 figures for immunization:
— 12.2 per cent of Ethiopian children immunized against measles;
— 11.1 per cent immunized with BCG against tuberculosis;
— less than 5 per cent immunized against poliomyelitis, diptheria, pertussis, and tetanus;
— less than 5 per cent of pregnant women immunized with tetanus toxoid.[57]

The Expanded Programme of Immunization (EPI) was nationally launched in 1980 with the aim of decreasing mortality, morbidity, and disability caused by the six EPI target diseases, i.e., measles, tetanus, poliomyelitis, diphtheria, pertussis, and tuberculosis. The objective of EPI was to progressively increase the population with access to immunization by 10 per cent annually so that, by 1985, at least 50 per cent of the population of the country would have access to immunization services. A PHC review published in 1985 revealed, however, that less than 20 per cent of the population had access.

In view of this low level of performance, strategies were evolved to heighten the visibility and awareness of EPI nationwide. EPI had been placed in the Party Plan of Action of the Workers' Party of Ethiopia in 1981, and this was backed up by budgetary allocations from the national revenue. The Government endorsed the "We the People" pledge at the United Nations General Assembly in 1985 and the resolution of African Health Ministers declaring 1986 "African Immunization Year."

The "We the People" pledge for Universal Child Immunization (UCI) was signed in Ethiopia in March 1986, and a Plan of Action launched for nationwide attainment of UCI by 1990. UCI as a programme of national importance was highlighted when the Head of State, together with UNICEF's Executive Director, participated in a ceremony on 7 April 1987 marking a phase of acceleration of immunization. The campaign was especially successful in Addis Ababa, where 65 per cent of the eligible children were fully immunized (this is the best coverage of any capital in Africa). One year after the campaign was launched, it was reported that there were no more cases of polio appearing at the Black Lion Hospital, the city's largest.[58]

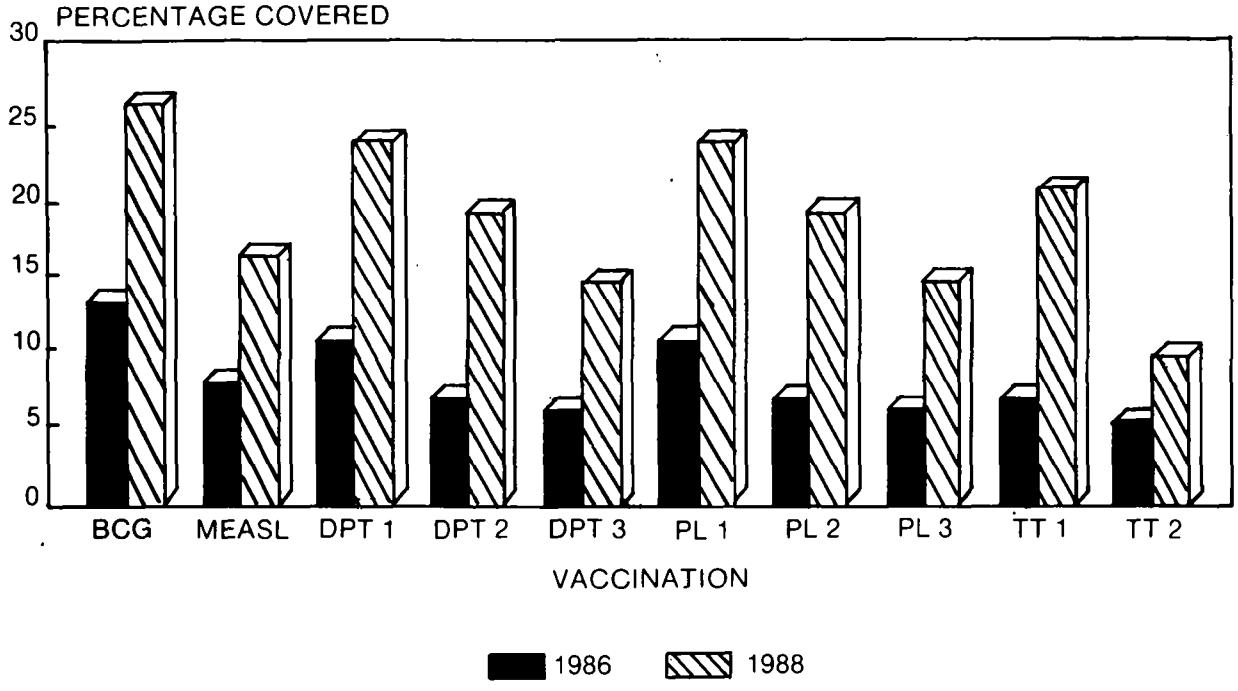
Table 9 shows the number of children immunized in 1986 and in 1988, and the percentage of children under the age of two covered (in the case of TT, the table shows the number of pregnant women and the percentage covered).

Table 9. Immunization Performance, 1986 and 1988

Vaccination	1986		1988	
Vaccination	Immunizations	Percentage of Eligibles	Immunizations	Percentage of Eligibles
BCG	423,600	13.9	602,331	26.8
Measles	315,300	10.4	437,776	16.6
DPT 1	361,300	11.9	577,204	24.1
DPT 2	277,600	9.1	461,8538	19.3
DPT 3	220,700	7.2	383,408	16.0
Polio 1	355,900	11.7	577,638	24.1
Polio 2	275,800	9.0	464,236	19.3
Polio 3	221,300	7.3	386,052	16.1
TT 1	186,600	9.4	427,517	20.1
TT 2	116,500	5.9	240,867	11.3

Source: MOH/UNICEF

FIG 11 COVERAGE OF CHILDREN UNDER TWO PERCENT COVERED OF ETHIOPIAN CHILDREN 1986 AND 1988



SOURCE: UNICEF, PROGRESS REPORT ACHD IN ETHIOPIA, MARCH 1989

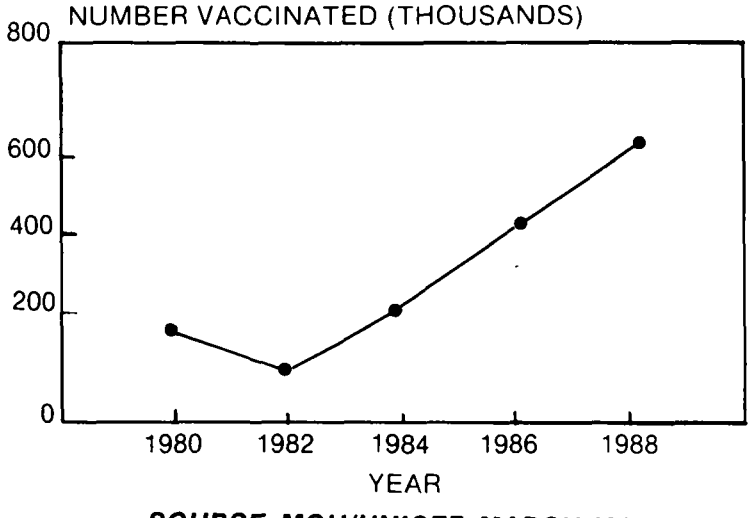
PL = POLIO
MEASL = MEASLES

Figure 11 shows the increase in immunization coverage over the same period.

Figures 12, 13, 14, 15 and 16 show the increases in the number of children (and women in the case of TT) immunized with BCG, measles tetanus toxoid, DPT and polio respectively, since 1980.

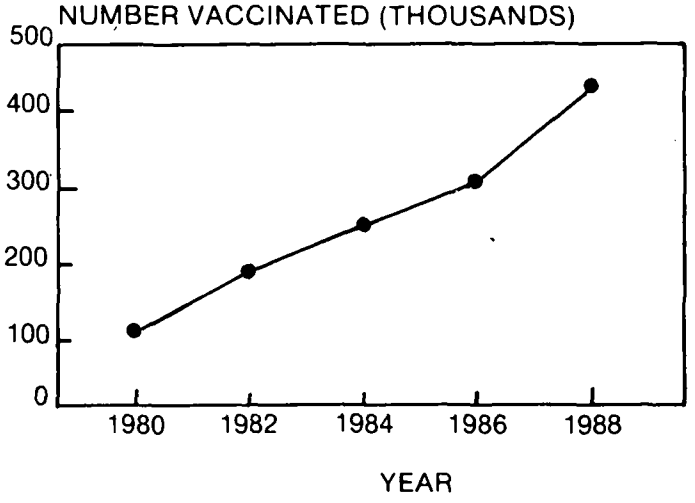
Figure 17 shows the variation in immunization coverage among regions in Ethiopia. Addis Ababa, Bale, Wollega and Illubabor have been the most successful, while Wollo and parts of Shoa have had the poorest coverage.

FIG 12 BCG IMMUNIZATIONS 1980—1988



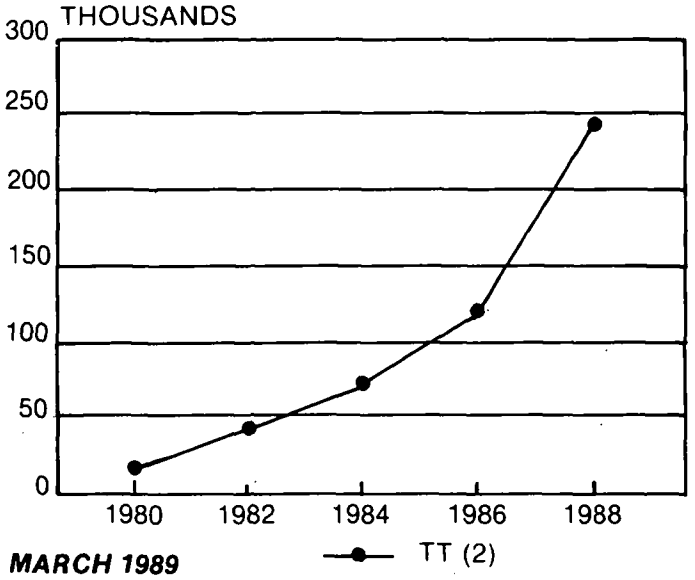
SOURCE: MOH/UNICEF, MARCH 1989

FIG 13 MEASLES IMMUNIZATIONS 1980—1988



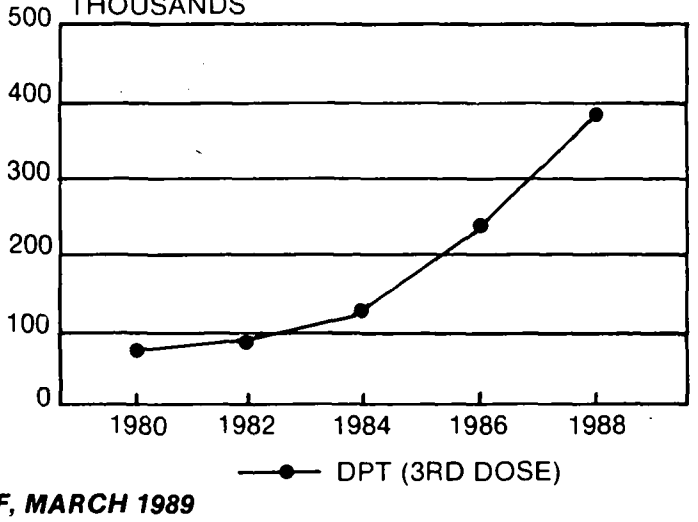
SOURCE: MOH/UNICEF, MARCH 1989

FIG 14 TT (2) IMMUNIZATION 1980—1988



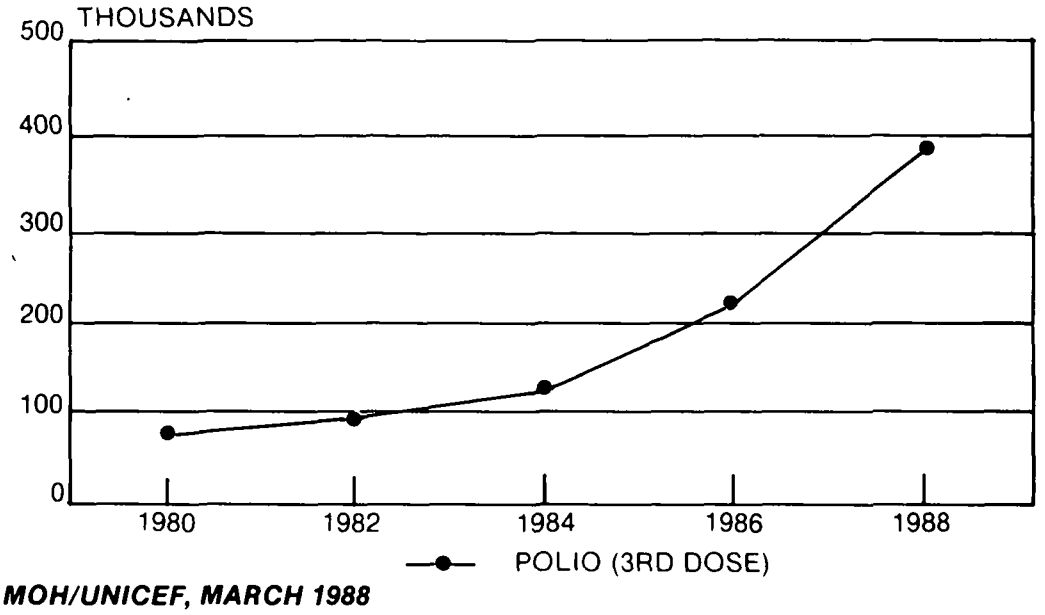
SOURCE: MOH/UNICEF, MARCH 1989

FIG 15 DPT (3) IMMUNIZATION 1980—1988



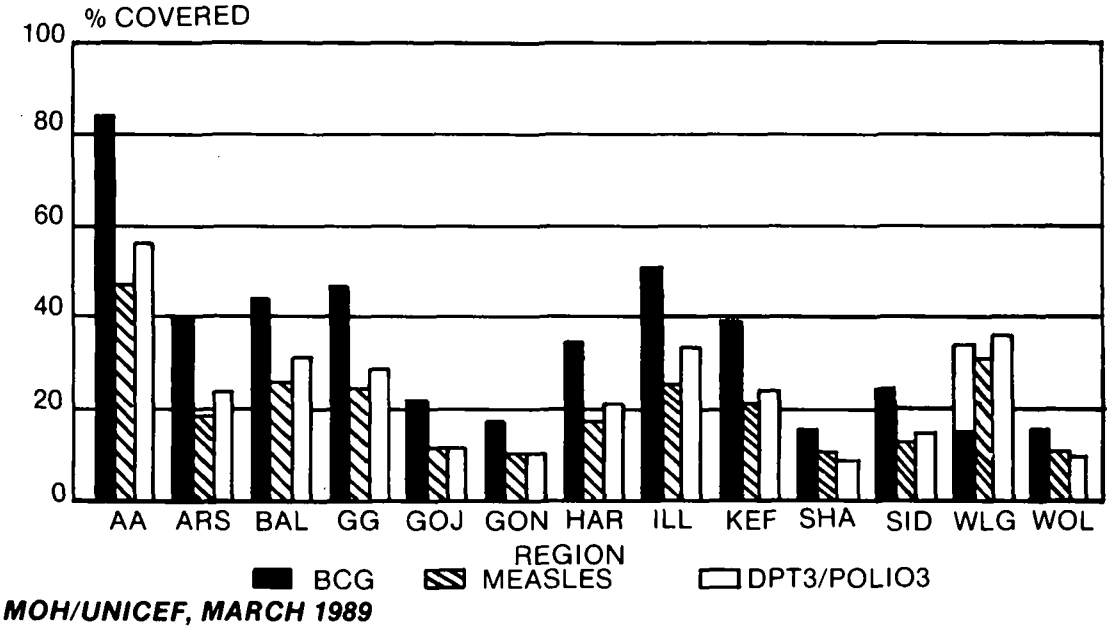
SOURCE: MOH/UNICEF, MARCH 1989

FIG 16 POLIO (3) IMMUNIZATION 1980—1988



SOURCE: MOH/UNICEF, MARCH 1988

FIG 17 IMMUNIZATION COVERAGE SELECTED REGIONS, 1988



SOURCE: MOH/UNICEF, MARCH 1989

Access to Clean Water

The Government estimates that 85 per cent of the total population of the country—equivalent to some 39 million people—suffer from a lack of safe drinking water. Many of those who do have access to safe drinking water live in the urban centres: it is estimated that 70 per cent of urban dwellers have access to a source of potable water although the sources are less than adequate in many cases.[59]

Less than 10 per cent of the rural population have reasonable access to a source of potable water,[60] and generally the amounts available are insufficient to meet daily household needs and to maintain acceptable hygienic practices. The remaining 90 per cent of the rural population depend mainly on traditional sources such as small streams, area drainage, cesspools, and ponds for their water supply. These sources are not only unclean, but very often contaminated with animal-excreted and other pollutants.

It was pointed out earlier in this analysis that in rural areas, by social and cultural tradition, the responsibility for fetching water lies with the woman, specifically the mother of the household with the support of her children. Frequently, the distance travelled to collect water requires half a day's walk, carrying an empty container on the way to the source and a filled one on the way home. The farther away the water source, the larger the container that the woman is likely to carry in order to reduce the frequency of the trip.

It is evident that this burden takes a toll on the physical well-being of the woman, especially if she is pregnant or lactating, and can thus contribute to maternal malnutrition and the malnutrition of her young children. It is equally evident that the time spent on the task reduces the amount of care and attention she can give to her children.

The quality of the water obtained after such a strenuous effort is rarely acceptable. Rather, it is a source of disease. The high prevalence of diarrhoeal diseases among children, and hence high infant and child mortality rates, can be traced to the use of unsafe water and unhygienic practices. In addition, other diseases such as dysentery, typhoid, amoebiosis, hookworms, schistosomiasis, ascaries, scabies, trachoma and conjunctivitis are water related.

The scale of the water problem in Ethiopia is enormous. In addition to the number of new water sources that must be protected or developed, repair and rehabilitation is necessary for many previously constructed systems. The lack of community involvement when the earlier water systems were built, the lack of spares and the lack of local maintenance capability have greatly hampered the operation even of minimal water-supply systems in rural areas.

Activities aimed at improved rural water supplies in Ethiopia began more than 20 years ago, but most of the accomplishments in the sector have come only in the last 10 years. The water source technology most frequently selected in the past was the bore hole.

Since the late 1970's, simpler and less costly technologies have been increasingly adopted; and the construction of hand-dug wells, spring protection and, in some areas, ponds and roof catchments is being undertaken on a large scale.

Still, the per capita water consumption of the rural population is very low. Various studies have indicated that it ranges from 5 to 20 litres per day. The factors that influence consumption rates are the quantity of water available, water prices and the family's income, distances from water points, water usage, containers, weather conditions and difficult terrain. Of these, the distance from the household to the water point is the most significant factor.

The scattered distribution of the rural population and their dwelling in inaccessible locations hamper efforts to improve the rural water-supply situation.

Adequate Sanitation

The development of adequate water supplies close to households would do much to relieve the burden of women's work, and thus is an important intervention in its own right. If, however, the goal is to reduce the incidence of diseases—particularly diarrhoeal which kill children—that are associated with water, then sanitation must be addressed.

The environmental sanitation situation of the country is among the worst in the world. Less than 7 per cent of the total population use adequate latrines, and less than 3 per cent of the rural population do so. Only 1.7 per cent of the total population has access to adequate refuse disposal systems. Many households display an insufficient understanding of hygienic practices regarding food, water, and washing.

The issue of environmental sanitation is important not only in rural Ethiopia but also among the urban poor where people live in close proximity. In such situations, contamination of the water supply with fecal or other waste matter is inevitable unless adequate sanitation and waste disposal facilities are present.

Part 4. Women's Roles and Status: Women's Well-Being-an Intermediate Factor in Child Deaths

The importance of the well-being of women for the well-being of children has been emphasized throughout this analysis. If a woman is malnourished, it is likely that her baby will be. If she is less educated, it is likely that her children will be. If she is overworked with farming and household tasks, she is less able to fill her traditional role as the child's caretaker.

It should also be clear that women are themselves a group at risk: the maternal mortality rate in Ethiopia is among the highest in the world. Women contribute a substantial proportion of the household's and the community's labour, but do not seem to get a proportional share of its benefits.

The present section discusses the roles and status of women in Ethiopian society with special emphasis on their participation in the rural economy.

Women's Freedom and Rights

Until the establishment of the People's Democratic Republic of Ethiopia, the country's civil code, as well as traditional laws of Islam and the cultural heritage of certain ethic groups within the country, emphasized the woman's status as being dependent on the goodwill of her husband. The husband is the head of the household, and the woman must obey him and care for him.

Even today, certain regulations concerning membership in rural Peasants' Associations allow women as full members only if they are the heads of the households.

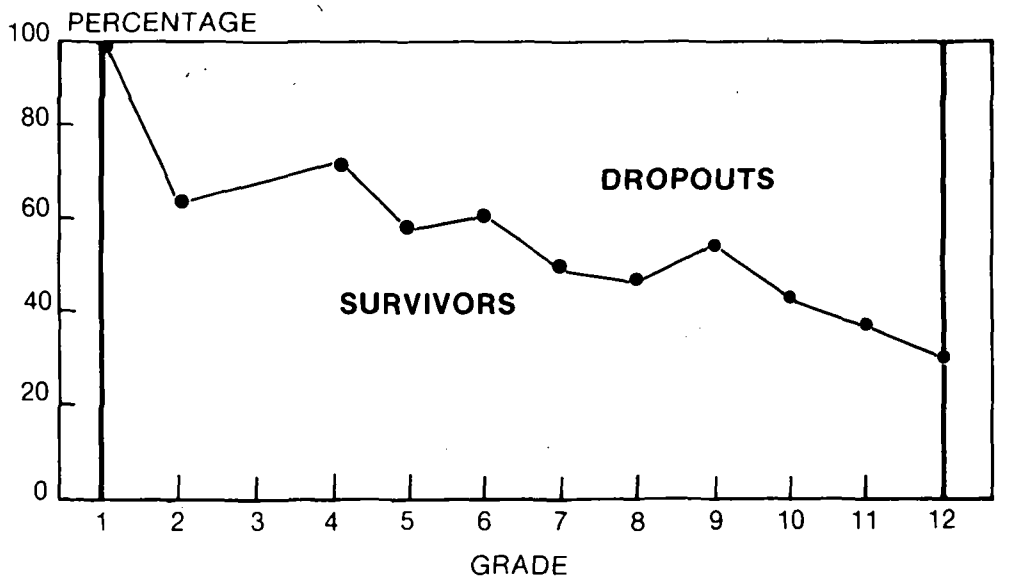
The constitution adopted by the National Shengo (parliament) in September 1987 accords women equal rights with men before law, and equal rights to participate in political, economic, social, and cultural life. The state is to provide women with the support necessary to ensure such equal participation, and is to see that appropriate measures are taken to ensure that women during pregnancy and maternity are provided with health services, suitable working conditions, and adequate rest periods. Spouses are to have equal rights in their family relations

That such articles are included in the Constitution is due in part to the influence of the Revolutionary Ethiopian Women's Association (REWA), the mass organization established in 1980 to organize both urban and rural women in the country.

Traditions, however, do not change easily, and the feudal structure of the rural economy inherited from the pre-revolutionary regime has left most Ethiopian women with a burdensome but subordinate role in economic life and little role in political life. Even today, few women hold office in any mass organization (e.g. Peasants' Associations, Urban Dwellers' Associations and Producers' Co-operatives) other than the women's organization, REWA.

It was pointed out in Chapter IV, Part 1, that rates of school enrollment for girls still lag far behind those for boys. This has unfortunate long-term implications for the country: it has been demonstrated in many countries that rates of infant—and child-mortality decrease with increased levels of education and literacy among women. Figure 18 shows that many girls who enter school do not complete their education. The failure of girls to be sent and kept in school, moreover, is directly related to the workload of women which "spills over" on their daughters who are expected to help them. In Menz, in northern Shoa, girls 6 to 8 years of age are expected to care for grazing sheep and goats (one girl will take care of about 20 animals). It has been suggested that an appropriate UNICEF intervention would be the introduction of sheep dogs to take care of the animals, allowing the girls of the area to go to school. Such an intervention would not be a fragmentation of the programme because it would support the objective of promoting child development in the immediate term and child survival in the long term.

FIG 18 GIRL'S EDUCATIONAL SURVIVAL FOR GIRLS ENTERING GRADE ONE IN 1971/2 AND REACHING GRADE TWELVE IN 1982/3



SOURCE: MOE; (DUE) TO STATISTICAL ERRORS AND THE EFFECTS OF REPEATERS, RATES ARE SOMETIMES INCONSISTENT

Women as Food Producers

In the economy of Ethiopia, as in that of many African countries, women are the backbone of the food production system. It is estimated that between 60 and 80 per cent of the total labour expended on farming activities in Africa is contributed by women, and it is considered that the situation in Ethiopia is similar.[61]

Ethiopian women are involved in the entire gamut of agricultural activities, with the exception of land clearing and preparation (tree-felling and ploughing) which are tasks usually performed by men. Even in these instances, however, women perform such work as the collection of wood (once the felled trees have been split into firewood by men) and the removal of stones from the field. Ethiopian rural women are involved in planting, weeding, harvesting, threshing, processing, storing and marketing of farm products. Most tasks related to animal husbandry, and to dairy and poultry production, are also performed by women.[62]

In the peak agricultural season, women spend up to 10 hours per day in the field.[63] The heaviest workload on women, during the pre-harvest and harvest, generally coincides with the period of lowest household food availability and the physical strain on her—especially if she is pregnant or lactating—is thus exacerbated.

The woman's role in marketing is also demanding. Women usually supplement the family's income by selling the produce over which they have control, such as butter, cheese, eggs, chickens, and garden products.[64] (While it is important that the family's cash income be augmented, the net effect of selling food products can be counterproductive if the household's—and especially the children's—food consumption needs are not met first). It is estimated that women spend 3 to 4 hours per week on marketing activities.[65]

Lastly, there are tasks that devolve on women by virtue of their accepted roles as the provider of daily meals for the family. Activities in this area include grinding and pounding of grains and other foodstuffs, the drying and storing of food, preparing the food for eating and the fetching of water and firewood. The last two activities alone can consume 6 to 8 hours each day.[66]

It is estimated that the average Ethiopian woman has a working day of 12 to 14 hours. Much of this is spent in hard physical labour. The woman's role as producer, in its present form, is generally detrimental to her own well-being and to the well-being of her children.

Increasing food security in Ethiopia, at both the national and household levels, clearly implies the need for increased agricultural productivity. Increased productivity will require improved farming technology, increased availability of inputs such as fertilizers, pesticides and insecticides, improved water sources for irrigation, the introduction and popularization of drought resistant crops, better storage and transport facilities, and a market pricing structure that would encourage surplus production.

What should be clear from this analysis, however, is that agricultural productivity depends in large measure on the woman, and that programmes to increase productivity must recognize the woman's role as the productive force. An increase in production cannot come as a result of increased work by women. On the contrary, the women's workload must be reduced as the household becomes more productive. This could partly be achieved by the development and introduction of technologies that lighten the load of women's work, but there is also the fundamental need for the society's attitudes towards the sexual division of labour to evolve towards a more egalitarian position.

According to Ethiopian law, "any person of either sex (has the right) to become a member (of an agricultural producer's co-operative) so long as he or she is 18 years old and interested to earn his or her living by farming." In 1986, there were 648,000 women members in agricultural co-operatives. This represents 11.4 per cent of the 4.7 million members in a sector, where women make a very vital contribution. Social conditioning and hence the ability of both sexes to accept and integrate the change are some of the reasons for this low level of female membership. This gets compounded by her dual responsibilities as farmer and housekeeper and the time implications discussed earlier.

This has several implications. First, the ability to participate in co-operative affairs is limited. Second, this additional time allocation places stress on the time she can allocate to the care of her children. This last factor can only be alleviated by the establishment of day-care centers, which are still not common and in part depend on a predispositional attitude towards their establishment. This is more difficult to obtain in a male dominated situation, hence creating a vicious circle: male dominated co-op—no day care—reduced female membership—continued male domination. Membership can, however, also serve to break this cycle through the breakdown in negative male attitudes and an improvement in female self-image.

The formation of REWA is an important indicator of the Government's commitment to improving the role of women over time. REWA has contributed to the improvement of child-care services. The existence of this organization can only serve to improve the situation of women over time and hence also their children. It is important to note that membership in REWA has increased from 2.2 million in 1981/82 to 4.9 million in 1986/87. This represents approximately 42 per cent of all women between 15 and 64 years of age in 1987.

A potential indication of future participation in mass organizations is indicated by the membership of girls in REYA. In 1986/87, 1.25 million or 50 per cent of all members were girls. This is a very promising sign for the future role of women in the country.

The analysis here indicates that the involvement of women, combined with an improvement in their situation, is essential. As a result, they must be made an integral part of the development planning and implementation process if successful improvements are to become a reality.

The "old style" of programming for women, promoting knitting, sewing and basketmaking, has not responded to the needs of women, nor has it recognized their crucial role in the survival and development of children. Rather, all programmes should recognize and respond to the "women's dimension." Instead of special, separate projects for women, all UNICEF programmes should have a women's dimension.

CHAPTER V. BASIC CAUSES OF CHILD DEATHS

Part 1. Poverty and Underdevelopment—a Basic Cause of Child Deaths

Poverty can be defined as a situation where people cannot fulfill their basic human needs. Survival of young children must be considered as one of the most basic of human needs. In this sense, poverty can be described as a situation where young children die.

Poverty is, however, more often defined as a relative lack of food, clothing, shelter, household commodities or cash. The relationship between poverty, by such a definition, and disease, malnutrition, and child deaths is complex. It is not only the availability of resources per se that determines the fate of the child, but also the way that limited resources are controlled and managed.

Ethiopian children die today because they are born at the bottom of the world's economic ladder. Children born into the feudal world which existed before the 1974 revolution had even less chance for life and its basic requisites. On the even of the revolution, life expectancy was among the lowest in the world, and infant mortality among the highest. These indicators of extreme marginalization reflected the structure of the society and the organization of the economy, generally considered to be one of the most backward in the world.

Peasant labour supported the luxury of the imperial family, nobles, and the civil bureaucracy through rents, compulsory labour, tribute and taxation, and crop shares (which could be as much as two-thirds of one's produce). Almost nothing was returned to the peasants to help increase their productivity or improve their welfare.

In consequence, the new Government inherited a country at the farthest reaches of underdevelopment. The nation and its people were almost entirely dependent on subsistence agriculture and herding. The level of industrialization was negligible. Mineral and water resources remained unexploited and in many cases unexplored.

Production was inadequate. The peasant majority could not produce enough food for their own needs (especially as large shares were frequently owed to landlords), and the small commercial farming sub-sector produced little for export or industry. Technologies and incentives for increased productivity were not available. While the 1960's and 1970's saw rapid economic growth in many of the countries of the Third World, Ethiopia's economy was stagnant and its poverty unalleviated.

Part 2. The Internal and International Order—a Basic Cause of Child Deaths

The 13 years since the revolution have been too few to reverse the internal order of underdevelopment and deprivation, especially as a variety of trends in the world economy brought adverse effects. The decade of rapid economic growth and relatively favourable international trade terms for the Third World came to an end as the Ethiopian revolution was emerging. There has been a general economic retrenchment on the part of the industrialized countries and sharp increases in the price of oil (in 1973/74, and again in 1979/80). The import costs of finished industrial products have risen steeply, and the prices for primary products have declined. Interest rates have risen, and maturity periods for loans have shortened, with consequent increases in the debt service ratio of the nation's economy. The effects of these trends on the Ethiopian economy have been compounded by various civil disruptions and the severe drought of 1983-1985, which have absorbed already scarce economic resources.

To the extent that global economic trends contribute to the continued underdevelopment of Ethiopia's economy, and to its continued poverty, they contribute to the death of its children.

In Ethiopia, there are three factors which have special relevance to the alleviation of poverty. Two are domestic in nature, being ecological degradation and population growth, and the third is the external factor of international development assistance.

Ecological Degradation

Ethiopia's people and economy are almost entirely dependent upon the fertility of the land and adequate rainfall. The soil's fertility is being diminished by widespread and rapid erosion, and by denutrification (both due in part to increased population pressure on the land). Rainfall has become less reliable, and drought cycles are shortening. The deteriorating environment and its fragile ecology threaten Ethiopia by directly reducing food production. The reduction is considerable when the rains are inadequate, and almost total when the rains fail.

The ramifications are wide-ranging. They start with the diversion of limited resources from domestic development, including land reclamation and irrigation, as imported food needs rise. They include greatly increased susceptibility to famine at the household level. It is estimated that any appreciable rainfall deficiency places 10 to 15 per cent of the population at immediate risk of starvation.[67] They are intensified as drought and famine bring in their wake degradation of the land and even greater impoverishment of the people, and hence a further decline in productive capacity.

The north and central highlands are the heart of Ethiopia and the traditional home of its people. Some 88 per cent of the population live on the 44 per cent of the land surface which constitutes the highlands. They have been inhabited and cultivated for centuries and—for centuries—with the onset of the normal heavy rains the flooding streams and rivers have washed the rich topsoil from their catchments and carried it westward into the Nile, or southward into the Indian Ocean.

The rate of this erosion is increasing, an outcome of overuse of land and deforestation. At the beginning of the century, about 40 per cent of the land surface was forested; today less than 4 per cent remains under natural forest cover.

Forests have been destroyed as the need for land for cultivation and pasture has increased, and as the need for fuelwood has grown. (The fact that fuelwood has become so scarce in some areas has a further deleterious effect ont he productivity of the land. Manure which had been used as natural soil fertilizer is increasingly being used as fuel for cooking and heating. Moreover, crop residues which used to help restore lost nutrients are now being used for fodder. Both factors contribute to the denutrification of the soil).

The consequences are alarming. Of the total highland area:

- Some 60 per cent of the most serious erosion has occurred in a zone covering all the highlands in Eritrea, Tigrai, Wollo, northern Shoa, eastern Gondar, and parts of Hararghe and Bale. In this zone 12 per cent of the land is already lost for agricultural use, and an additional 36 per cent is seriously eroded and now considered to be a low-potential zone.
- If present trends continue, the 36 per cent that is now considered to be a low-potential cereal zone will be lost for agricultural use by the end of the century.
- If land degradation proceeds at the present rate, the cost in lost agricultural production could be as much as a 5 per cent reduction in Gross Domestic Product in the 1990's.

Significant and sustained improvements in well-being cannot occur for any groups—including and especially children—until the process of land degradation is reversed and the potential damage of drought lessened.

Population Growth

The population of Ethiopia in 1988 is estimated to be 47.2 million persons. Given the present population growth rate of 2.9 per cent per year,[68] there will be more than 67 million Ethiopians by the year 2000. The demand for food, energy, and social services will increase accordingly.

Two important points may be made about Ethiopia's immediate population growth. First, *the annual numerical increase is vast:* the implication of the size of Ethiopia's present population is that at *any* given rate of growth, the annual increase will be larger than in countries with smaller base populations. Second, the population will grow—and will grow very substantially—no matter what policies are adopted by the Government or by individuals. The mothers of the future are already born, and even if they were to reproduce only at replacement level, the population of Ethiopia will double before stabilizing.

At present, Ethiopia has a development deficit. The economy has expanded, but the population has grown even faster with the result that per capita income and per capita food availability, to name but two, have declined. Present development efforts are being overtaken by population growth. At present, there are more than 4 million children under the age of two in Ethiopia who require immunization, and at present rates, there are nearly 2.3 million *new* children each year who will need to be immunized. It is estimated that, by the end of the century,

- At the current rate of agricultural production, there will be a 41 per cent yearly shortfall in domestic food supplies.

— To just maintain the present rates of school enrollment, the Government must build 8,000 new schools and train 100,000 primary school teaches to be able to cater for the growing number of children of primary school age.

Theoretically, Ethiopia has the natural resources to support a population perhaps two or three times greater than at present. The arable land that remains uncultivated in the southwest and the southern grasslands could be brought under irrigation at some cost. At greater cost, more land could be cultivated under irrigation. The country has immense potential in livestock and fisheries. To exploit these resources fully, however, would require time and substantial financial resources. Ethiopia has neither.

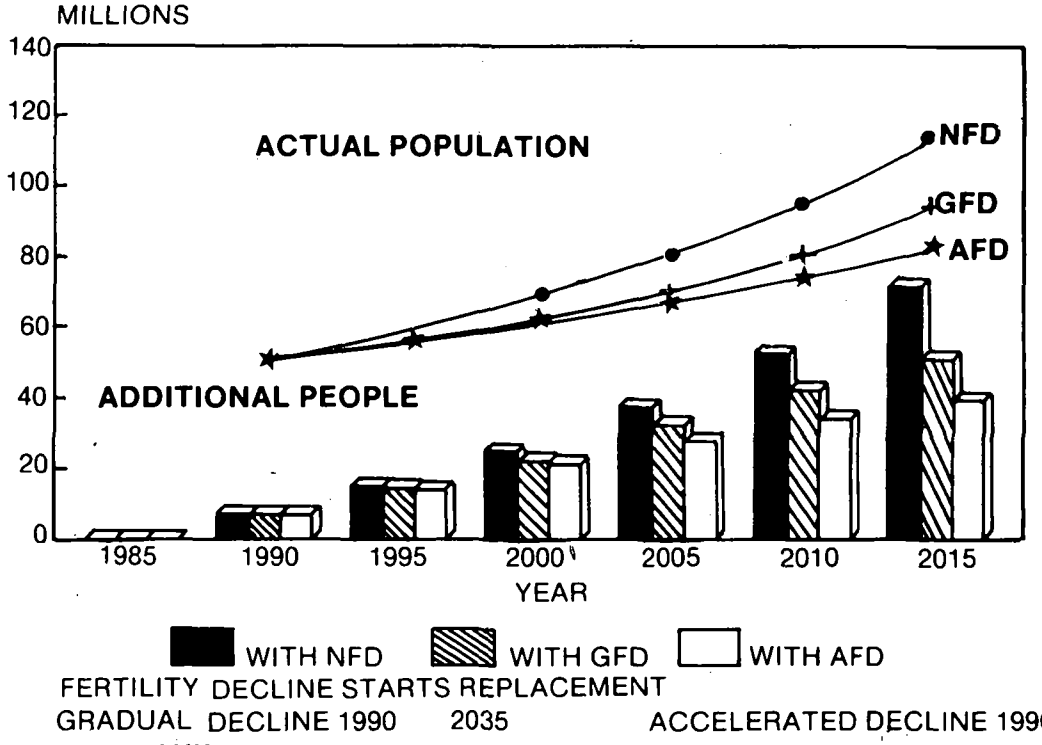
Whatever happens today does make a difference: even small reductions in fertility significantaly affect the size of the population in the medium and long term. If birth rates could be reduced by just one half of one per cent, Ethiopia's population in the year 2015 would be 81 million rather than 113 million. If the population growth rate began declining at even modest rates in 1990, Ethiopia's population would be 20 million less than if it were to begin declining at the same rate in the year 2,000. Figure 19 shows the projected increase in population from the period 1985 through the year 2015, using different assumptions for the year in which fertility begins the decline.

The size of families and the survival of children are linked. When parents must face the fact that every fourth child is likely to die before the age of five, they may hope to secure the future by producing more children. They must be provided with the means of safeguarding the lives of their children. It has been shown that, in the long term, better child survival leads to smaller families.

International Assistance

Although generous, the world's response to Ethiopia's most recent drought and famine was tardy. Appeals began as early as 1981, and were reinforced by UNICEF in 1983. The delay in the world's recognition and reaction to the problem until 1984, when the BBC galvanized the world's conscience, has been described by RRC as "sheer apathy, or politicization of humanitarian aid." This structure could be applied to the whole pattern of international assistance in recent years.

FIG 19 POPULATION PROJECTIONS 1985—2015 BASED ON FAMILY PLANNING PROGRAMMES



SOURCE: WORLD BANK

Even with the outpouring of international aid during the height of the famine in 1984 and 1985, Ethiopia received less than half the average annual per capita assistance for sub-Saharan Africa. The figure of US$8.70 in development assistance per capita for Ethiopia is the lowest in Africa, and can be compared to figures of $28.90 for the Sudan, $69.40 for Somalia, $99.20 for Botswana, and $101.50 for Mauritania.[69]

There has been willingness on the part of the international community to provide relief assistance, but less willingness to contribute towards rehabilitation and development. This, combined with the conditionality of a substantial proportion of the assistance received by Ethiopia, threatens to perpetuate people's dependency rather than promote their self-reliance.

CHAPTER VI. GOVERNMENT POLICIES AND PRIORITIES FOR ACTION

Part 1. Government Policies

Development Plans

To fulfill its goals, the Ethiopian Government adopted a Ten-Year Plan (1984-94) and a series of intermediate plans (two-Year Plan 84/86, Three-Year Plan 86/89, Five-Plan 89/94). The broad objective of the Ten-Year Plan is to "transform . . . the economy through development of the country's productive forces and raise the standard of living of the population." The Ten-Year Plan encompasses an overall development strategy, while the shorter plans support its implementation in stages, and facilitate strategy and target adjustments.

The main objectives are to improve the material and cultural well-being of the people through the provision of adequate food, clean water, basic health services, and education; to accelerate the growth of the economy through the expansion of the country's productive capacity and to ensure a structurally balanced development of the national economy by expanding industries based on domestic resources; to eliminate unemployment gradually and to ensure a balanced and proportional development of all regions of the country. Another major area of priority is to improve the lives of the nomadic population by the introduction of settlement projects and cattle raising co-operatives.

Objectives of the Three-Year Plan (mid-1986 to mid-1989) include the provision of primary health care for 80 per cent of the population, together with increased attention to mother and child care and vaccination programmes to cover 70 per cent of children under 1 year of age. The plan also stipulates that 23 per cent of children under 5 will receive health checks and that the gross enrollment rate for elementary schools will increase from 32 per cent in 1985/86 to 43 per cent by 1989. Finally, an additional 2.1 million people in rural areas will be provided with safe water supplies.

The targets set in the Three-Year Plan reflect major readjustments to the surprising total of 42 million people revealed by the first national census in 1984, rather than the 35 million estimated when the Ten Year Plan was drawn up.

Social Mobilization

Next to the provision of services, the fundamental issue is to inform the beneficiaries of their availability and to convince communities of the necessity of using them. It is known that even the 43 per cent of the population with access to health facilities are not utilizing them to their capacity.

Information, stressing the importance of health care, adequate nutrition, safe water, sanitation, and female education, must be communicated on a very large scale in order to reach rural communities and mobilize them to participate in the development process.

For this purpose, Ethiopia is well served by the mass organizations which reach a large majority of the people. Social mobilization is a common phenomenon in the recent history of the country, having been used extensively during the introduction of land reforms and the literacy campaign. Whereas both relied on engaging students and teachers, the literacy campaign in particular demonstrated a strong understanding of the social mobilization process. After the allocation of the necessary funds, it drew on the participation of the Head of State, ministries, mass organizations and the communities themselves, displaying enough flexibility to allow for local initiative to mobilize and thus to ensure the widest possible implementation.

The example of the Addis Ababa accelerated programme of immunization is an impressive illustration of Ethiopia's aptitude at social mobilization. When the programme was launched, the chairpersons of the urban dwellers' associations personally visited the families in their neighbourhoods to inform them of the benefits of vaccination.

Members of youth associations toured homes to register children under the age of two and pregnant women. The mass orgsnizations became mobilizers, organizers, and participants in the campaign. Immunization and oral rehydration therapy came to nearly every house, introduced by relatives or neighbours.

A social miblization committee, formed several months previously, worked out strategies and approaches for communication suport. By the end of the programme, ten months later, the number of children fully protected had risen from 25 to 68 per cent, demonstrating that it is possible to reach the masses with information about health.

Resettlement and Villagization

Ethiopia has not been self-sufficient in food for the past many years, but between 1983 and 1985, total agricultural output dropped even lower, by nearly a quarter, resulting in a direct loss of access to food for most of the rural population.

One of the key elements in the Government's anti-famine strategy has been to resettle families from the worst hit northern regions to the more fertile provinces in western and south-western Ethiopia. The highlands of the north, with 88 per cent of the rural population and 95 per cent of the cropped land, are also the most vulnerable because of irregular rainfall, overutilization, overgrazing and widespread deforestation, leading to soil erosion.

Recognizing resettlement as one of the means of decreasing the population density in the north and encouraging utilization of fertile land in the south of the country, the Government set a target of resettling 1.5 million people. By the end of 1986, when the programme was brought to a temporary halt for evaluation and consolidation, 600.000 people had been moved.

By mid-1987, many of the resettled villages in Illubabor, Kaffa, Wollega, Gojjam, and Gondar were doing well, according to the reports of FAO and the Irish NGO, Concern. Self-sufficiency in grain was achieved after only one cropping year. They still need all the development assistance they can get, however, in order to increase the number of water supply schemes, stimulate agricultural development, and improve the nutritional and educational status and general well-being of the population.

With most of Ethiopia's peasants scattered over vast plateaus, on remote mountains and in inaccessible gorges and 75 per cent of them living half a day's walk or more from an all weather road, the Government set itself the target of villagizing the whole rural population, in order to be able to provide it with social services, implementation of the policy began in 1985 in parallel with resettlement. Families are moved within a radius of 4 to 5 kilometers from the former homestead so that they are still able to farm their old land should they prefer. Should they not wish to do so, they are provided with a landplot closer to the new village.

Better planning is clearly necessary, but a nucleated rural population is likely to be advantageous in the management of land use, in providing access to agricultural inputs and to markets, in mobilization for reafforestation, soil and water conservation, and for the provision of safe water, better housing, latrines, primary health care and immunization facilities, schools and other social services.

In terms of development, villagization suggests a potentially improved situation, putting basic services within the reach of a formerly scattered rural population. Better community participation and a strengthening of the role of women, through opportunities for new support systems, are two of the emerging possibilities. Simultaneously, efforts must be made to safeguard the environment and protect the population from possible adverse consequences of an unprecedented proximity such as the risk of water borne disease due to inadequate sanitation.

Given the new context, opportunities must be seized for increasing agricultural production, with the view to raising the general nutritional status of the population. Essential equipment for improving agricultural output can be made available to peasants through shared ownership: for example, tractors and fertilizers, which under normal circumstances are beyond the means of an individual farmer, may be affordable to a group.

Production incentives can be given by allowing families or the community to retain certain quantities of cereals, thus improving the security of the population's supply of food.

Resettlement and villagization are Government policies. Positive attitudes and support by donor countries and the United Nations system can help smooth difficulties and maximize the potential benefits of both policies.

Primary Health Care

The health problems of Ethiopia are related to too little food, preventable diseases and poverty, which could be avoided if people had the necessary resources, access to basic services, and awareness of the causes of the problems.

Communicable diseases constitute a significant proportion of the problem, and they are exacerbated by poor nutritional status. Acute respiratory tract infections, diarrhoeal diseases, measles, whooping cough, tuberculosis, diphtheria, tetanus, and, in some areas malaria are among the communicable diseases needing attention.

The Government of Ethiopia endorses the international strategy developed at Alma Ata of Primary Health Care, based on the following principles:

- A strong sustained political commitment to health and development issues;
- The integration of health into an overall social development strategy;
- The participation of communities in the identification of needs, the implementing of solutions, monitoring, and follow-up;
- Inter-sectoral co-ordination between the health, nutrition, education, water, sanitation, agriculture, and other relevant sectors;
- The integration of appropriate technology in health services;
- Accessibility of essential health services to all;
- Ensuring the direct linkage, method of reference, and responsibility down through the pyramidal health system, from the ministry at central level to the community health services at village level.

These principles are translated into action through a number of interventions, including maternal and child health (MCH) programmes, providing ante—and post-natal follow up and care services during labour and birth, family planning, growth monitoring of children, prevention and control of respiratory and diarrhoeal diseases, and immunization.

The promotion of adequate maternal and child nutrition, the provision of clean water and sanitation facilities, the availability of essential drugs, combined with health, nutrition, and environmental education for both medical staff and communities, also constitute part of primary health care.

The vehicle for promoting PHC—as well as for attaining UCI by 1990—is the Accelerated Child Health and Development Programme (ACHD), which was established in 1985-1986 by the Ministry of Health with UNICEF assistance. The ACHD programme focusses on the Awraja, and combines services of immunization, ORT and the control of diarrhoeal diseases, management of acute respiratory tract infections, MCH care and family planning services. By the end of 1987, the ACHD programme was established in 49 of the country's 102 Awrajas, and data already indicates that the rates of increase in immunization coverage are highest in these Awrajas.

Universal Primary Education and Literacy (UPEL)

Both UNESCO and UNICEF are assisting the Ministry of Education's plan to achieve universalization of primary education and literacy (UPEL) in Ethiopia. Four strategies constitute the basis of the programme: development of the grade 1 to 6 curricula for primary schools, research on the quality of primary education, teacher training, and mass education.

The development of a more comprehensive primary school curriculum started in 1980, and testing is now going on in 70 experimental schools throughout the country. It covers Amharic language, mathematics, environmental education, history, geography, biology, physics, and handicrafts.

The curriculum emphasizes *learning by doing*, teaches skills relevant to the children's everyday life, and promots social consciousness. During Amharic language classes, children are not only taught how to read and write, but are also helped to become responsible citizens. The reading materials provide information on health, nutrition and sanitation, agriculture, and the importance of soil protection. Theory is followed by practical projects, such as gardening, construction of latrines, and the digging of wells.

Because of the shortage of school books in Ethiopia, UNICEF and UNESCO are assisting the Ministry in the preparation and printing of reading materials, focussing on child survival and development principles and strategies, advocacy against harmful attitudes and practices adversely affecting society, whilst highlighting the equality of girls and boys, women and men.

Teachers' Training

There is a great need for skilled teachers in Ethiopia. At present, many are recruited directly from high school without any special pedagogical training. The in-service training of headmasters and of 2,500—3,000 teachers per year is assisted, under UPEL, through the Ministry of Education.

Monitoring and evaluation of the in-service courses and of the performance of the trained teachers and headmasters is conducted regularly. It is estimated that, in order to provide the growing number of primary school children with education, the Government must train an additional 100,000 teachers before the year 2000. In this context, UNICEF is advocating that an increasing numbe of female teachers be trained.

Teaching aids are also scarce in Ethiopia. For the purpose of designing and developing low-cost prototype teaching materials, Awraja pedagogical centers have been set up, and the assembled knowledge is then passed on to the teachers for implementation.

Alternative Education

One aspect of the education problem that had to be addressed by the Government initially was the elimination of the backing in the education field. Schools could not possibly absorb the entire population, yet it was a Government objective to "provide free education to the broad masses." The literacy campaign was part of the answer.

Since literacy is an issue not bound to a classroom, teaching could take place anywhere: under a tree, in factory compounds, in institutions, in churches and mosques, and at any time of the day or evening, as chosen by the community. This undertaking, launched in 1980, has yielded results which have been widely praised. It is estimated that before the revolution only 7 per cent of the population was literate. By 1987, an estimated 64 per cent of Ethiopians over the age of 10 (some 18 million people) could read and write.

The campaign is organized in two cycles every 12 months; the first round is regarded as an "attack" period, during which all members of the community over the age of 8 are invited to attend classes. This is followed by a "mop-up" period, designed for those who were unable to attend the previous round, or who failed the exams and required remedial tuition. During this second period, post-literacy activities are organized for those who successfully graduated from the course.

A major difficulty in the literacy campaign stems from the country's wide diversity of languages. It is estimated that 94 per cent of the population speaks one or more of the 15 basic languages, all of which are used in the literacy campaign. For the majority of learners, of course, achieving literacy in their own language takes a shorter time than if a second language is introudced.

The relevance and the practical orientation of instructional materials used in post-literacy education has helped to sustain the interest of the learners and has facilitated easier comprehension, so accelerating the learning process. Consultations with the participants and flexibility in programming has maximized attendance.

Reading, Writing, and Child Survival and Development

The availability of educational material to be used in classes is a necessary tool for the implementation of the basic literacy campaign.

It is not enough, however, to teach people how to read and write. To maintain and strengthen literacy and prevent students from relapsing into ignorance, the provision of post-literacy materials is a major element of this non-formal education effort.

To this end, 44 million easy-to-read booklets have been produced, 29 million for the basic literacy classes and nearly 15 million for post-literacy training. Most of these are in Amharic, Oromigna, Tigrigna, and Wolaitigna, with the remainder in the other 11 national languages. This material, produced with UNICEF assistance, tries particularly to reach out to women. It concentrates on such topics as childhood diseases, vaccination, modes of diseases transmission, personal hygiene, the care of pregnant women, the basics of nutrition, home improvement, and water conservation.

The post-literacy booklets are available through more than 7,000 reading centers established by Urban Dwellers' and Peasants' Associations throughout the country. The Ministry of Education also produces a quarterly newsletter, printed in five languages. Each issue includes material on at least one topic concerning child survival and development.

The Status of Women

The legislative and administrative bodies of Ethiopia have traditionally been—and continue to be—male dominated. In 1987, there were no women among the Government's 20 ministries and only one female vice-minister. There were no women in the Politburo (composed of 11 full-time and 6 alternate members). Among the 200 members of the Workers' Party Central Committee, one woman was a full-member and four were alternate members. Of the 343 delegates to the 1986/1987 Constitution Drafting Committee, there were 15 women. Only 25 women were elected to the National Shengo (Parliament) which has 835 seats.

A high proportion of the female population marry at a very young age. For the 95 per cent of Ethiopia's women living in rural areas, their job is to fetch water and firewood, to cook, to weed and harvest, to go to market, and to look after the family and children; a rural woman's workload is estimated to average from 12 to 14 hours a day.

An employment survey carried out in January 1981 showed that only 17.9 per cent of females were employed, in both the public and private sectors. There is, of course, a direct link between this figure and the educational situation of women: of 100 girls who enter Grade 1 (first year of primary school), 50 will enter Grade 3 and less than 5 will reach Grade 12 (the secondary school graduating year).

The statistics reflect the attitudes of parents, who often think it unimportant for a girl to be literate or educated, when she is more needed at home to help her mother with her disproportionately large workload. Denied education, women are denied a role in decision making. Thus they are unable to appraise their own situation, which has a direct impact on their health and that of their children.

As noted in Chapter IV, with the establishment of the Peoples' Democratic Republic of Ethiopia and the adoption of the new Constitution by the National Shengo in September 1987, it is now a Government policy to ensure women's equal rights under the law, and to provide women with special support to promote their full participation in the political, economic, social, and cultural life of the nation.

Part 2. UNICEF Programming

The most recent UNICEF programming cycle (1983-1988) attempted to address the problems of children and women in Ethiopia through projects undertaken both at national level and in selected regions. The programme was ambitious, and it has been suggested that UNICEF's limited resources were perhaps spread too thinly to have the impact on children that had been hoped for.

A major difficulty was, of course, the problem of planning in the course of an emergency. The crisis that overtook the country in 1984 and 1985 required a substantial proportion of UNICEF's resources, but financially and in terms of staff time. Regular programmes were to some extent relegated to a second priority when the task of immediately saving lives was at hand. Additionally, the existence of the emergency harmed UNICEF's efforts at fundraising for its "noted" projects, only 17 per cent of which were funded in the last programme cycle. Donors provided resources to the emergency before providing resources to longer term development programmes. UNICEF expects to be more successful in raising special assistance contributions in the next cycle (1988-1993), and is seeking US$50 million for the five-year period. The reasons for optimism are that the present emergency has been better anticipated and is being better controlled, and that the quality of the special assistance programmes has improved with experience. Donor attitudes in the past may characterized as saying "Yes" to people and "No" to the Government of Ethiopia: in effect this means saying "No" to the people. *UNICEF is confident that donors will perceive UNICEF programmes as "people oriented" programmes developed with the Government and in accordance with Government plans,* and that donors can say "Yes" to the people and "Yes" to UNICEF and the Government.

The past UNICEF programme cycle has had special impact on Government planning, specifically with respect to the "Rural Integrated Basic Services (RIBS) approach. Following a rapid appraisal of the RIBS programmes late in 1987, the Government is studying the integrated and decentralized approach to meeting child survival needs, and may adopt the approach as national policy. UNICEF views this as a very positive trend in favour of integrated programming.

Part 3. Priorities for Action

This analysis has attempted to describe the complex series of processes that determine, finally, whether children live or die. Various causes of child deaths have been discussed in three categories: immediate causes, intermediate causes, and basic causes of child deaths.

In general, actions taken to directly combat the immediate causes of child death show immediate and dramatic results. The use of ORT saves lives immediately, and UCI will prevent millions of unnecessary deaths by disease. Such actions, however, need to be repeated if their effect is to be sustained. If the Ethiopian child has five episodes of diarrhoea per year, he or she will need ORT five times. An immunization system must not vaccinate the child population just once; new children are born every day and they, too, must be immunized.

Actions taken against the intermediate causes of child deaths, because of the nature of those causes, may be more complicated, or more expensive per capita, or take more time to show their impact. Changing attitudes towards the woman's role in society will be a slow process. Providing water supplies in rural areas is an expensive proposition. Educating children, especially girls, may not show its greatest impact until after many years, when they have become adults who are better able to care for their own childrenn.

The basic causes of child death are the most intractable. Poverty is a most difficult problem to address, but it cannot be ignored if child death is to be reduced in the long run.

If we wish to reduce the rates of child deaths dramatically, then programmes must be designed to attack the immediate causes of child death, i.e., disease and malnutrition—*including* disease and malnutrition in mothers.

If we wish to remove the causes of disease and malnutrition, we must develop programmes promoting food security and emergency preparedness, rural water supply, sanitation, child care, and education. Awareness and understanding of the role of women must be at the centre of the development of these programmes. If we wish to remove the basic causes of child death, to improve child surival in the long run, we must recognize that poverty and its effects *can* be alleviated; if not on a massive scale, then at least in some communities and districts, which may then serve as examples to others.

Because of the high numbers of unnecessary child deaths in Ethiopia, priority mut be given to immediate life-saving actions. These will include improved maternal and child health care, immunization, the promotion of ORT, improved care of respiratory tract infections, growth monitoring, and the prevention of micronutrient disorders.

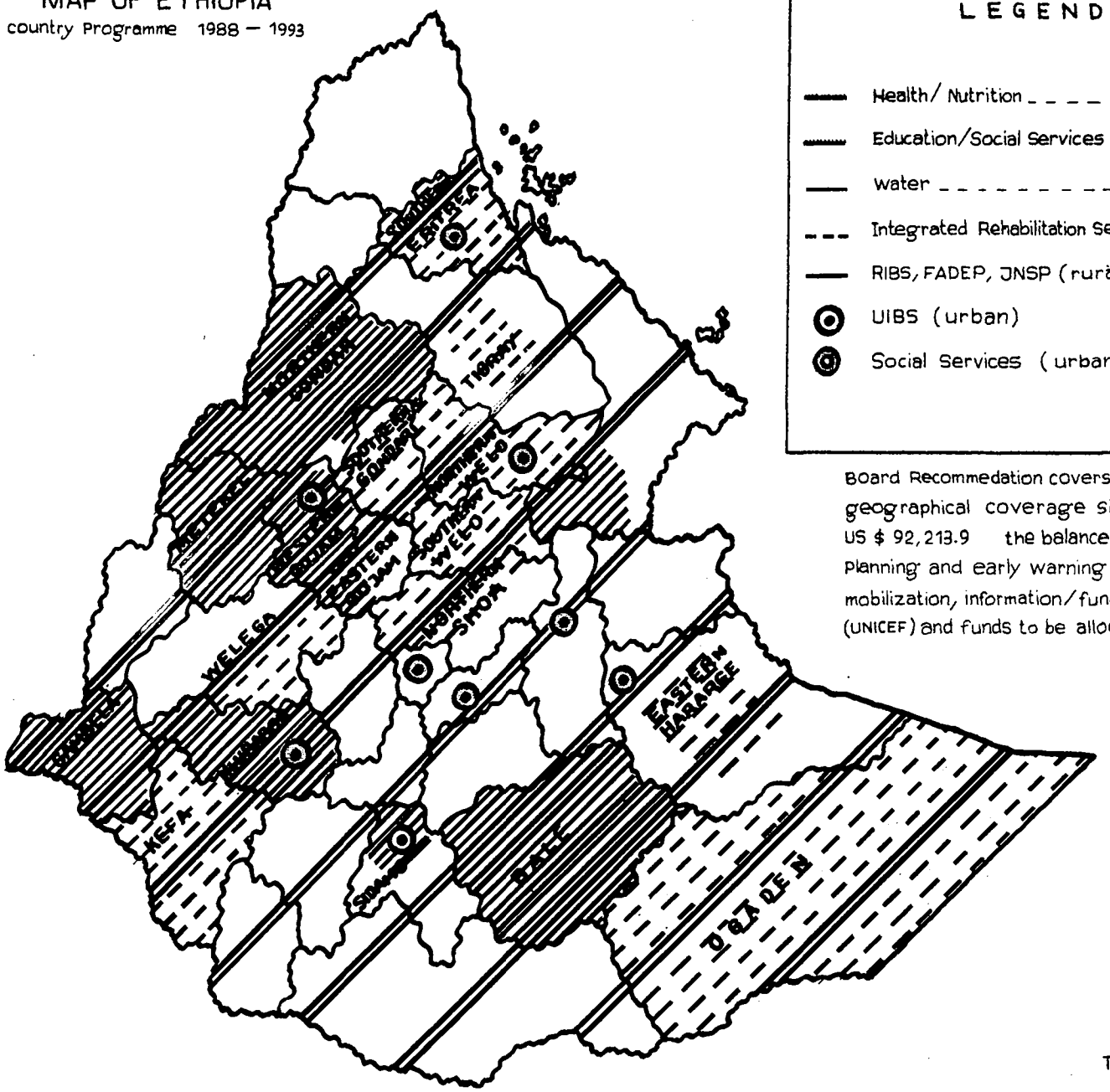
Because we also recognize the complexity of the causes of death, disease and malnutrition, we must also assign priority to actions to remove those causes. Actions at this level include disaster preparedness, nutrition surveillance, the promotion of improved child feeding through nutrition education, expansion and improvement in health care through training and through the supply of essential drugs, the development of a food and nutrition policy, education, especially as it affects girls, rural water supply and sanitation.

Because, finally, the problems of poverty and underdevelopment cannot be ignored, integrated development programmes must be undertaken that poverty can be alleviated, and that when it is, children survive.

For the more than 1,000 Ethiopian children who will die today, and tomorrow, and the next day . . . we can do no less.

MAP OF ETHIOPIA

country Programme 1988 – 1993



LEGEND

		US $ ' 000
———	Health/ Nutrition	30,569.9
———	Education/Social Services including UIBS	17,246
———	Water	13,873
- - -	Integrated Rehabilitation Services (including Health & water)	13,650
———	RIBS, FADEP, JNSP (rural)	16,875
◎	UIBS (urban)	
◎	Social Services (urban)	
	TOTAL	92,213.9

Board Recommedation covers US $ 100,000,000 out of which the geographical coverage shown on the map is for the total of US $ 92,213.9 the balance is for analysis coordination, advocacy, planning and early warning System (Government) and communication/ mobilization, information/fundraising, planning and project support (UNICEF) and funds to be allocated Still to programmes 7,786.1

Grand total US $ 100,000,000

50 M. US $ GR 50 M. US $ S.C.

(Excluding Emergency funds)

The map indicates the situation in June 1989

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41. The interpretation of such studies is not always a straightforward task, because very often higher levels of education are closely associated with other factors as well, such as higher income and better access to health services.
42. Ministry of Education, Education Statistics, Summary Tables 1967/68-1985/86.
43. UNICEF Source.
44. Ministry of Education, Education Statistics, Summary Tables 1967/68-1985/86, and October 1988.
45. Ibid.
46. Calculated from Ministry of Education, Education Statistics, Summary Tables 1967/68-1985/86, and October 1988.
47. Central Statistical Authority.
48. The National Food and Nutrition Strategy for Ethiopia (Final Draft), Food and Nutrition Task Force, Report Based on the Debre-Zeit Workshop Organized by the Office of the National Committee for Central Planning, 9-16 August 1987.
49. Idusogie, E.O. "A Review of Food and Nutrition Situation and the Relation of Agricultural Strategies to Food and Nutrition Improvement Policy and Programmes in Ethiopia," FAO, Accra, Ghana, July 1987.
50. Ibid.
51. Ibid.
52. Racelis, Mary. "Women and Household Food Security," Keynote Address, JNSP Workshop, Awassa, Ethiopia, 1986.
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54. Ministry of Health data.
55. Ibid.
56. Statistical Report on Health Status and the Availability of Health Facilities, UNICEF, 1986.
57. Ministry of Health data.
58. Interview with Dr. Demissie Habte, Dean of the Faculty of Medicine, Addis Ababa University.
59. Central Statistical Authority.
60. Ibid.
61. Elsa Teferi. "Food Security in Ethiopia: A Socio-Economic Overview with Special Emphasis on Women," paper presented at the Household Food Security Worshop, 16-22 February 1986, Awassa, Ethiopia.
62. Ibid.
63. Poluha, Eva. "Study on Two Ethiopian Woredas: On the Economic Activities of Peasant Women and Their Role in Rural Development," Ministry of Agriculture, SIDA, Addis Ababa, 1980. Quote from Elsa Teferi, op. cit.
64. Elsa Teferi, op. cit.
65. Ibid.
66. Ibid.
67. Relief and Rehabilitation Commission.
68. Central Statistical Authority.
69. World Bank, 1986.

Annex

ETHIOPIA
BASIC DATA*

BASIC INDICATORS

Under 5 Mortality Rate:	1960: 294 per thousand live births 1987: 261[a] per thousand live births
Infant Mortality Rate:	1960: 175 per thousand live births 1987: 155[b] per thousand live births
Total Population (millions)	1986: 44.7 1988: 47.2[c] (estimate)**
Annual Number of Births:	1987: 2,098,000
Annual Number of Infant and Child Deaths (0-4):	1987: 547,000
GNP per capita:	1986: $120
Life Expectancy at Birth:	1987: 42[d] years
Percentage of Adults Literate:	1985: 64 per cent
Percentage of Age Group Enrolled in Primary School (male/female):	1984—1986: 44 per cent/28 per cent

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* Unless otherwise indicated, all data are those presented in The State of the World's Children, 1989.

** The estimate is based on the 1986 population figure, calculated at an annual growth rate of 2.9 per cent.
CFYSO figures indicate: 172,[a] 139,[b] 47.3,[c] 48.5.[d]

NUTRITION

Percentage of Children with Low Birth Weight:	1982-1985: 13
Percentage of Mothers Breastfeeding:	1980-1986: At 6 Months: 97 At 12 Months: 95
Percentage of Children Under 5 Suffering from Protein-Energy Malnutrition:	1980-1986: Mild/Moderate PEM: 60 Severe PEM: 10
Prevalence of Wasting, Children Aged 12-23 Months:	1980-1986: 36 per cent of age group
Average Index of Food Production per capita (1979-1981 = 100):	1986: 88
Daily per capita Calorie Supply as percentage of Requirements:	1983: 84 per cent* 1985: 94 per cent

HEALTH

Percentage of Population with Access to Drinking Water:	1983-1986: Rural: 6**[a] Urban: 19**[b]
Percentage of Population with Access to Health Services:	1980-1986: 43***[c]

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* The State of the World's Children, 1987

** Institute of Development Research, "Evaluation of the Impact of UNICEF Assisted Water Supply Projects in Bale, Hararghe, Shewa and Wollo, Ethiopia Programme Cycle 1980-1983 (Executive Summary)," 1986.

*** Ministry of Health.
CFYSO figures indicate: 9%,[a] 83%,[b] 43%.[c]

HEALTH (continued)

		1981	1985-86	1987-88
Percentage of 1 Year Old Children Fully Immunized:	TB:	10	12	28
	DPT:	6	6	16
	Polio:	7	6	15
	Measles:	7	9	13
	Pregnant Women TT:		6	5
ORS per 100 Episodes of Diarrhoea:	1986: 9 litres			
Maternal Mortality Rates:	1985: 20* per 1,000 live births**			

EDUCATION

Adult Literacy Rates:	1970: Male: 8 per cent Female: 1 per cent 1986: Total: 64 per cent
No. of Radio Receivers:	1985: 184 per 1,000 population
No. of Television Receivers:	1985: 2 per 1,000 population
Primary School Enrollment Ratio (gross):	1960: Male: 11 Female: 3 1984-1986: Male: 44 Female: 28
Percentage of Grade 1 Completing Primary School:	1980-1986: 41 per cent
Secondary School Enrollment Ratio:	1984-1986: Male: 14 Female: 9

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* CFYSO figure indicates 18.

** World Bank, Sector Review, Ethiopia, Population, Health and Nutrition, 1985.

DEMOGRAPHIC INDICATORS

Population under 16 (millions):	1987: 21.1
Population under 5 (millions):	1987: 7.6[a]
Population Annual Growth Rates:	1965-1980: 2.7 per cent 1980-1986: 2.4 per cent 1984: 2.9 per cent
Crude Death Rate:	1960: 28 1986: 25[b]
Crude Birth Rate:	1960: 51 1986: 44[c]
Life Expectancy:	1960: 36 1987: 42[d]
Total Fertility Rate:	1987: 6.2[e]
Percentage of Population Urbanized:	1987: 12[f]
Average Annual Growth Rate of Urban Population:	1965-1980: 6.6 per cent 1980-1985: 3.7 per cent

ECONOMIC INDICATORS

GNP per capita:	1986: US$120
GNP per capita Average Annual Growth Rate:	1965-1980: 0.4 per cent 1980-1986: -2.1 per cent

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* Central Statistical Authority, 1987 (1984 census).
CFYSO figures indicate: 7.9,[a] 18.1,[b] 46,[c] 48.5,[d] 6.8,[e] 10.3.[f]

ECONOMIC INDICATORS (continued)

Rate of Inflation:	1980-1986: 3.4 per cent
Percentage of Population Below Absolute Poverty Level:	1977-1986: Urban: 60 per cent Rural: 65 per cent
ODA Inflow:	1986: US$642 million
ODA Inflow as Percentage of GNP:	1986: 11.5 per cent
Debt Service as percentage of Exports of Goods and Services:	1970: 11.3 per cent 1986: 25.8 per cent

WOMEN

Life Expectancy Females as Percentage of Life Expentancy of males	1987: 107.9 per cent
Enrollment Ratio of Females as Percentage of Males:	1984-1986: Primary-School: 63.6 Secondary-School: 64.3
Percentage of Women Aged 15-44 Using Contraception:	1981-1985: 2
Percentage of Pregnant Women Immunized Against Tetanus:	1986-1987: 5
Maternal Mortality Rate:	1985: 20* per 1,000 live births**

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* CFYSO figure indicates 18

** World Bank, Sector Review, Ethiopia, Population, Health and Nutrition, 1985.