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MORTALITY, A DETERMINANT AND A CONSEQUENCE OF POVERTY AND HUNGER IN WEST AFRICA

Political Map of West Africa



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1. Introduction

At a United Nations summit convened in New York in September of 2000, 147 heads of state and government met to examine measures to achieve a more equitable and rapid path to sustainable development for all peoples of the world. During this summit, leaders of the world recognized the dangers posed by disparities between rich and poor nations and resolved to institute measures to reduce these disparities. Representatives at the summit unanimously adopted the Millennium Declaration, which called for the international community to take a number of actions necessary to achieve certain fundamental goals with respect to global peace, security and sustainable human development for all peoples, including the environment, human rights and governance. To attain the objective of reducing human misery and promoting social development, the international community agreed on a set of indicators to measure achievements in human development. To track development, the following goals were set: Eradicate extreme poverty and hunger, Universal primary education, Gender equality, Reduce child mortality, Improve maternal mortality, Combat HIV/AIDS, Malaria and Other Diseases, Ensure Environmental Sustainability and Global Partnerships for Development. The latter goal is considered essential for the attainment of the set goals.

In this paper an attempt will be made to study the causal relationship between mortality, poverty and hunger and their potential impact on the attainment of the first Millennium Development Goal, 'Eradicating Extreme Poverty and Hunger', in the West African sub-region. Available data on poverty, hunger and mortality would be reviewed with the aim of establishing the interrelations between mortality, poverty and hunger.

1.1 Profile of Sub-Region

The West African sub-region comprises seventeen countries with a population of about 250 million with just under half of the population living in Nigeria. The sub-region consists of largely low-income countries with Gross National Income per capita ranging from US\$180 in Guinea Bissau and US\$130 in Sierra Leone to US\$1,330 in Cape Verde in 2000 (see Table 1) Recent estimates put the average per capita income of West Africa at US\$309 compared to an average for Sub-Saharan Africa of US\$470. The region's economic growth has been estimated at 2.5 per cent in the recent past while population has been growing at the rate of 2.2 per cent per year. It is estimated that the economy needs to grow at the rate of 6-7 per cent a year for the region to meet the goal of cutting poverty in half by 2015¹. Considering the erratic rainfall pattern, the recent influx of swarms of locust and the unstable political climate in a number of countries in the sub-region, attainment such levels of economic growth would be extremely difficult.

West Africa is one of the poorest regions of the world with over 55 per cent of its population living on less than \$1 a day.

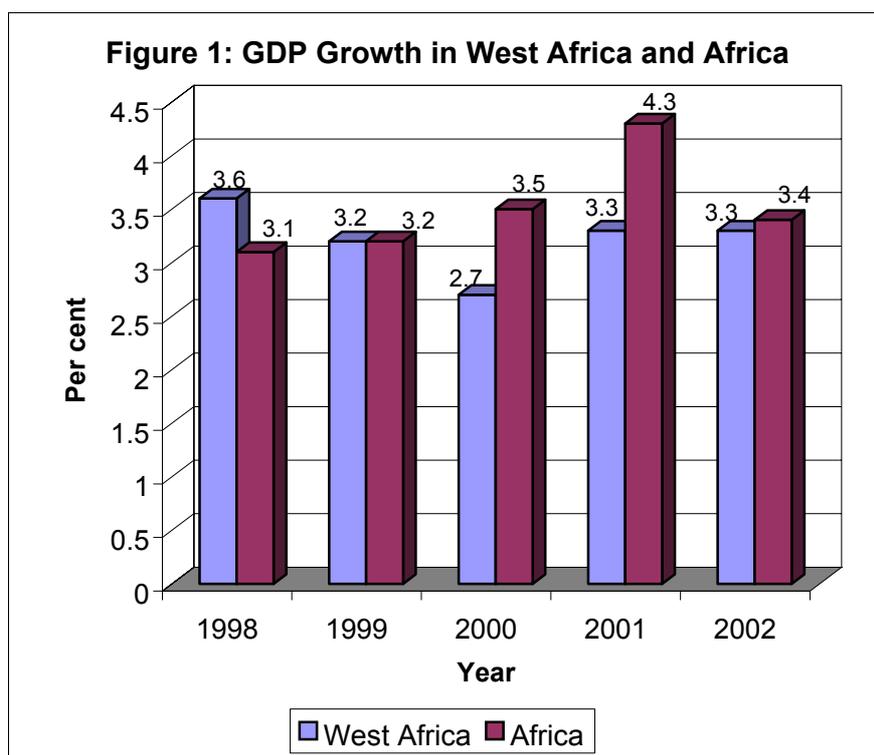
Regarding GDP growth of the West African sub-region, Figure 1 shows that the sub-region registered only marginal improvements in the growth rate of its economy. It can be observed that compared to growth rates registered by the African region as a whole, West Africa trails behind. This marginal again in economic growth can be attributed to the poor performance of the agricultural sector over the years both in terms of unfavourable terms of trade and low productivity orchestrated by low rainfall on the one hand and pest infestation on the other.

¹ World Bank, 2004

Table 1: Growth Performance in the West African Sub-Region

Country	GNI per capita		GDP growth rate	
	1990	2000	1980-90	1990-99
Benin	360	380	2.5	4.7
Burkina Faso	290	230	3.6	3.8
Cape Verde	980	1330		
Cameroon	970	570	3.4	1.3
Ivory Coast	780	660	0.7	3.7
Gambia	320	330	n.a.	n.a.
Ghana	390	350	3.0	4.3
Guinea	460	450	n.a.	4.2
Guinea Bissau	220	180	n.a.	n.a.
Mali	270	240	0.8	3.6
Niger	310	180	-0.1	2.5
Nigeria	270	260	1.6	2.4
Senegal	720	500	3.1	3.2
Sierra Leone	260	130	n.a.	n.a.
Togo	430	300	1.7	1.5

Source: World Bank, *Attacking Poverty*, World Development Report 2000/2001



Note: Data are weighted by country GDP relative to African GDP
 Data for 2001 is based on estimates whilst that of 2002 is projected
 Source: Economic Commission for Africa

Most economies in the sub-region are largely dependent on agriculture both in terms of its contribution to the economy and employment opportunities provided by the sector. Except in Cape Verde, Cameroon and Cote d'Ivoire, more than half of the workforce is employed in the

agriculture sector². Although the sector may be the single largest employer, there is an imbalance between the sectors contribution to employment and its contribution to the economy. For example in Burkina Faso, it is estimated that approximately 84 per cent of the workforce are employed in agriculture whilst the sector only contributes only 35 per cent of GDP. This disparity mirrors low levels of agricultural output in most West African countries.

Agricultural production in the sub-region has been erratic for many years. Since the drought years of the 1970s and 1980s, the sub-region has been experiencing erratic rainfall patterns which have had negative effects on output. In general, the region has not been able to grow enough food for the rapidly growing population, a problem compounded by increased rural to urban migration orchestrated by dwindling rural income due to years of persistent drought and pest infestation. Food security of the region has been threatened even more by the influx of large swarms of desert locust, which have devoured thousands of hectares of farmland leaving millions of farmers without food and livestock without fodder.

In terms of the Human Development Index of the UNDP, West African countries rank amongst the bottom 25 per cent countries of the human development scale consisting of 173 countries. A review of the human development ranking of the sub-region over the past decade only reveals marginal improvements for the region.

Apart from natural constraints to economic growth which largely affects the agricultural sector in West Africa, the sub-region is faced with a problem of civil strife and conflict, which has impeded development. The sub-region accounts for more than 70 per cent of military coups. Over the past 15 years, nine of the 15 members of ECOWAS have experienced some form of instability ranging from high intensity civil wars to violence during elections³. In 2003 it was estimated that 65 per cent of West Africa's population lived in countries severely affected by conflict. This conflict situation in the sub-region has had dire consequences both in terms of human, material and economic costs. It is difficult to quantify the human costs of conflicts in the sub-region but these could include; loss of life, destruction of property, diversion of resources from investment, promotion of capital flight, the disruption of economic transactions, and the channeling of scarce government resources away from public services to military expenditure. According to Omar Kabbaj these are consequences of instability in the African continent, which exemplify the economic and social costs of many wars and conflicts ravaging the African continent. The conflict situation in West Africa further explains the abysmal performance of the economies of countries of the sub-region.

2. Theoretical Perspective of Linkages Between Mortality, Poverty and Hunger

For a better understanding of the impact of mortality as both a determinant and a consequence of poverty and hunger in West Africa, an attempt will be made to examine the linkages between these factors and what influence they may have on each other. Issues to be addressed in this section relate to mortality, poverty, hunger/nutrition and HIV/AIDS.

² African Development Bank, African Development Report, 2001

³ The World Bank Group, 2004

2.1 Mortality

High mortality rates observed in Developing countries for many years and the resultant low life expectancies has created remarkable differences in the age structure between Developed and Developing countries. In developing countries this has created a relatively young population whilst in developed countries, there is the problem of aging which in some countries is beginning to affect labour supply and pressure on social services. In many countries in sub-Saharan Africa, gains made in extending life expectancy over the years through improvements in health services is being negated by the high HIV/AIDS prevalence rates. It is estimated that average life expectancy in sub-Saharan Africa is now 47 years when it would have been 62 years without AIDS. Studies have shown that in Botswana life expectancy at birth has dropped to a level not seen in the country since before 1950. Many countries in Southern Africa will see life expectancies fall to near 30 years, levels not seen since the end of the 19th Century⁴.

In sub-Saharan Africa reductions in life expectancy as a result of high HIV/AIDS prevalence has influenced changes in the age structure of many countries in the sub-region. The disease affects the most productive age group in the population, largely affecting the population aged 15-49 years, a fact which is unique to HIV/AIDS in comparison with other diseases⁵. In view of the important input of the youthful population into the economy of any nation, the devastating effects of the disease on the youth of sub-Saharan Africa has dire consequences on the productive sectors of the economies of many countries. Mortality may, therefore, be both a consequence and a cause of poverty.

2.2 Poverty

Research has shown that poverty is a multi-dimensional phenomenon, which can be measured in terms of income and expenditure levels but can also be perceived in terms of individual's social interactions and state of mental well-being⁶. To engender international comparability, however, two poverty lines are often used based on purchasing power parity. A population falling below a poverty line of two US Dollars per person per day is considered to be moderately poor whilst those falling below a US Dollar per person per day are considered to be extremely poor. The causal relationship between poverty and hunger on one hand and between poverty and mortality on the other is not as simple as it may appear.

Problems of poverty and hunger are closely associated. According to Saigal et al the differences between the two are largely definitional. The authors on the one hand indicated that the number of people suffering from malnutrition is calculated on the basis of the amount of money required in different countries to purchase sufficient foods for adequate diets whilst on the other they indicated that poverty is defined in terms of income level below which people are incapable of accessing sufficient food for a healthy working life. One can deduce from these definitions that the association between the two is close.

Hunger, which is manifested by the prevalence of malnutrition, is largely an indication of a population's inability to provide the requisite balanced diet for a healthy living. Although other factors such as low literacy levels, high population growth rates, environmental degradation and rural-urban migration can be underlying causes of malnutrition poverty

⁴ Stanecki K. A., 2002

⁵ Haslwimmer, 1996

⁶ Oduro and Aryee, 2003

exacerbates it. Poverty limits accessibility to food and basic services like health and education⁷. It is worth noting that poverty is in turn aggravated by malnutrition, hence creating a vicious circle of poverty and malnutrition.

In view of increasing medical costs globally, it has been observed that poverty influences use of modern health facilities, hence poverty's influence on health outcomes. Since poor households tend to spend a higher proportion of their income on basic needs such as food, their expenditure on health is limited. The limiting effects of poverty on access to food and health services tend to cause high mortality among the poor. In turn high mortality among the poor rids these communities of much needed income earners and aggravates the problems associated with poverty.

2.3 Hunger/Nutrition

Malnutrition or inadequate nutrition takes many forms. Some times it is the result of lack of adequate food intake or in some forms it is caused by a lack of essential vitamins. Just to name a few, malnutrition could be in the form of protein-energy malnutrition, iron deficiency anemia, vitamin A deficiency, iodine deficiency and zinc deficiency. Malnutrition has been found to be the cause of increased vulnerability to serious and chronic illness, mental retardation, physical disability, diminished educational and economic prospects and early death⁸. Although the effects of malnutrition are often not seen in the short term, the impact is often irreversible, it is called the "silent emergency"⁹.

A major challenge posed by malnutrition, which has attracted much attention in the recent past, has been the impact of nutrition deficiency on people living with HIV/AIDS. HIV has been found to compromise the nutritional status of infected persons, which then increases the susceptibility to other infections whilst on the other hand malnutrition exacerbates the effects of HIV by further weakening the immune system. Improved nutritional intake is therefore, essential to prolong the lives of people living with HIV and AIDS, which have financial implications for their families. This implies that in countries with a high prevalence of HIV/AIDS, additional costs incurred in the meeting the nutritional needs of people living with the virus and the loss of the economic input of such persons could drastically reduce household income levels.

Research has found malnutrition to be economically costly to communities and countries in general. Because the effects of nutritional deficiencies are cumulative, when it occurs among children, such deficiencies lead to child deaths, increased health costs to families and governments, decrease mental capacity, and lower future productivity which eventually impedes the development of nations¹⁰. Among farming communities, heavy workload of women often reduces the food intake of children and women hence worsening the nutritional status of children and women. Increased susceptibility of the malnourished child to infection also implies that the chronically malnourished child is often sick and bedridden and requiring care. This implies that often either the child's mother or another adult has to withdraw from work to care for the child. This, in most African societies where women play a pivotal role in food production implies a loss of farm labour eventually having a negative impact on food production. Malnutrition among adults has similar effects on agricultural production.

⁷ SPACO, *Department of State for Finance and Economic Affairs, The Gambia, 2003*

⁸ USAID, 2002

⁹ Lwanga and Piwoz, 2002

¹⁰ Lwanga and Piwoz, 2002

2.4 HIV/AIDS

HIV and AIDS have been found to be by far the leading cause of death in sub-Saharan Africa (UNAIDS). Since the beginning of the epidemic over 15 million Africans have died of the disease and it is estimated that 2.3 million adults and children died of AIDS in sub-Saharan Africa. When the first cases of AIDS were first diagnosed in the 1980s, the disease was viewed more as a medical than an economic or social challenge. With increasing numbers of cases around the globe the social and economic problems posed by the disease became more apparent. According to a report quoted from the AP/Washington Post by the Kaiser Daily Reproduction Health Report, although HIV/AIDS is a “chief underlying cause” of child deaths, particularly in sub-Saharan Africa, inadequate prenatal and health care delivery cause the greatest proportion of preventable deaths. HIV/AIDS has been a major contributing factor to persistently high levels of morbidity and mortality in the sub-region.

In Sub-Saharan Africa where the disease is more prevalent, the majority of the population is not part of a fully operating medical care system. Medical costs associated with caring the sick have to borne by families along with funeral expenses of family members who die of HIV/AIDS¹¹. Apart from the medical costs being incurred through the purchase of modern drugs, other costs relating to traditional medical treatment and expenses on special foods for the patient are also met. At the household level HIV/AIDS also has economic effects on farm households. Cash income and labour are partly diverted to cope with and compensate for the effect of HIV/AIDS. This reduces the amount of money available to the household and cuts the labour input for both farm and non-farm activities. Cumulatively, HIV/AIDS impacts negatively on household income and increases the impoverishment of households.

Households with a person living with HIV/AIDS are also more likely to spend more money on medical bills. In addition to increased medical bills the sick requires care and their contribution to household income is also curtailed. The resultant cuts to household income and expenditure on funerals of those dying of the disease tends to increase household poverty levels. At the national level, HIV and AIDS bring additional pressure on health budgets. UNAIDS estimates that in sub-Saharan Africa the annual direct medical costs of AIDS (excluding antiretroviral therapy) is about US\$30 per capita compared to overall public health spending that is currently less than US\$10 for most African Countries. The spending of scarce national and household resources on the care of people living with HIV/AIDS implies that monies that could otherwise been spent on preventable diseases and food is now being spent on the disease both in terms of the provision of medical services and in campaigns to stem the spread of the disease. This has implications both on poverty levels and the potential impact on adult and child mortality.

3. Methodology

A study of this nature requires one to take a closer look at the state of mortality, poverty and hunger in West Africa. It would be essential to study the causal relations between each of the factors. It may not be sufficient to restrict the scope of research on these three factors a lone but it would be necessary to broaden research into other factors, which could influence the relationship. For example, the existence of wars and civil strife have been seen as an impediment to the attainment of food security in many parts of sub-Saharan Africa. Changes in the land tenure system have in some communities impacted on access to land and

¹¹ Haslwimmer Martina, 1996

consequently influenced agricultural production and food security. Environmental factors have also been an integral part of initiatives aimed at improving food security. All these factors require being closely looked at although due to the nature of this paper these factors cannot be looked at to great depths.

In this paper an attempt will be made to review existing published data for West African countries with a view to determining trends, identifying potential consequences of these trends and deducing from the available data what causal relationships exist between mortality and poverty on the one hand and mortality and hunger on the other. In the process the influence of other mitigating factors in the direction of the relationships would also be examined and inferences drawn based on the available evidence. In view of the rapid rate of increase in HIV infection in West Africa and the consequences of the disease both in terms of its effects on agricultural output and its increased strain on health resource, data on HIV/AIDS would also be reviewed.

4. Mortality, Poverty and Hunger in West Africa

4.1 Mortality

As has been experienced globally, mortality levels in all West African countries declined considerably over the past two decades. This is, largely attributable to improvements in health services, in general, and improvements in water and sanitation. Despite considerable gains in terms of improved mortality conditions, levels of mortality in West Africa and sub-Saharan Africa, in general, remain among the highest in the world. According to the UNICEF report (Progress for Children) child mortality in many developing countries remain shockingly high, particularly in sub-Saharan Africa. Such high levels of mortality according to UNICEF would make it difficult for these countries to meet the Millennium Development Goal (MDG) of reducing child deaths by two-thirds come 2015. According to the UNICEF report, in order to reduce child mortality by two-thirds by 2015, countries need to record an annual decrease in child deaths of 4.4 per cent. The report concludes that such levels of mortality reduction may not be attained since child mortality in 18 countries in sub-Saharan Africa has either remained the same or become worse.

Like other countries in Africa, West Africa has also enjoyed considerable improvements in infant and child survival over the years. Data on infant mortality presented in Table 2 indicates significant reductions in mortality amongst infants in all West African countries. Oduro and Aryee however observed that the gains are marginal in view of the fact that in a number of countries in 2000 the infant mortality rate was higher than the average of 102 deaths per 1000 live births observed for developing countries. According to the available data, infant mortality levels are highest for Sierra Leone, Niger, Guinea Bissau, Mali, Gambia and Guinea.

There are indications that gains made in child survival in some countries have been lost for one reason or the other. In Burkina Faso, for example, an increase was observed in child mortality between 1993 and 1999 from 205.5 to 219.5 deaths per 1000 live births, respectively. It has been reported that child mortality has increased in Ivory Coast by 1.1 per cent. Five West African countries have been listed among the ten countries with the highest mortality rates in the world in 2002. Of these countries Sierra Leone with the greatest number of child deaths globally registered a child mortality rate of 285 per 1,000 live births. Next on

the list were Niger (with 265 deaths), Liberia, Mali, Guinea-Bissau and Burkina Faso with 205 deaths per 1000 live births, respectively¹².

Table 2: Infant Mortality in West Africa, 1990 and 2000

Country	Infant Mortality Rate (per 1,000)	
	1990	2000
Benin	99.2	83.8
Burkina Faso	109.8	91.8
Cape Verde	68.0	52.4
Cameroon	89.8	82.2
Ivory Coast	97.2	84.2
Gambia	138.0	119.0
Ghana	79.4	64.8
Guinea	139.4	118.0
Guinea Bissau	145.0	125.0
Liberia	142.8	91.8
Mali	139.0	124.0
Niger	147.6	130.0
Nigeria	100.6	82.6
Senegal	71.2	59.0
Sierra Leone	190.2	153.6
Togo	93.4	78.2

Source: African Development Bank, Statistics on African Countries

In all the West African countries differentials have been observed in levels of mortality across socio-economic groups. In The Gambia, for example, infant child mortality was higher in rural when compared to urban areas. Similarly, mortality among children decline with a significant increase in educational attainment (formal education) of mothers¹³. In Guinea it was reported that whereas the infant mortality rate for Conakry in 1999 was 74 deaths per 1000 life births, the comparative rates for other urban areas and the rural areas were 79 deaths and 116 deaths respectively. It has also been observed that children of the rich are more likely to survive than those of the poor. In Burkina Faso, for example, child mortality among populations in the poorest quintiles was estimated at 223.9 deaths per 1000 live births compared to 199.2 deaths per 1000 live births among the non-poor population in 1993¹⁴.

Differentials in mortality between urban and rural areas can be attributed to numerous factors, which range from differences in socio-economic characteristics of populations, variations in disease prevalence among regions and demographic and environmental factors, which may affect survival. Other factors such as access to and affordability of health services can also immensely contribute to geographic variations in child survival.

High mortality rates in the West African sub-region as in the rest of sub-Saharan Africa has been attributed to a number of factors. Among the factors contributing to current high levels of under-five mortality are; HIV/AIDS, inadequate prenatal health care, including lack of “skilled help” during childbirth and infectious and parasitic diseases such as diarrhea,

¹² UNICEF, 2004

¹³ Sarr A., 2000

¹⁴ Oduro and Aryee, 2003

respiratory track infections, malaria and measles. Other factors identified are malnutrition, unsafe water supply, poor sanitation and armed conflict. According to UNICEF HIVAIDS accounts for eight per cent of child deaths in sub-Saharan Africa. The problem of AIDS on child survival is compounded by the fact that children who lose their parents due to the pandemic have limited chances of survival. The UNICEF Regional Director in Eastern and Southern Africa was quoted as having told a journalist ahead of the launch of 'Progress for Children' that; "The looming crisis of AIDS is going to make it a daunting task for sub-Saharan Africa to meet the target of reducing child mortality within the required period".

Another challenge faced by West African countries in reducing child mortality is the persistent conflict environment that prevails in the sub-region. In Ivory Coast for example, since the military coup of 1999, the country has been experiencing civil conflict which has negatively impacted on child survival. Similarly, in Sierra Leone civil conflict has reduced chances of child survival. In Senegal the Jola population who are mainly found in the conflict ridden region of Southern Senegal (Cassamance) demonstrated significantly lower child survival rates than the national average. Although civil strife may directly impact on child survival in the sub-region, the indirect effects may be more pronounced. Strife in a number of West African countries has resulted in massive population movements with negative consequences on the welfare of both children and their parents.

At the macro-level economies of countries have been devastated by conflict. According to the World Bank, the strife in Ivory coast had severe economic consequences for the six members of the West Africa Economic and Monetary Union (WAEMU) where growth in their economies fell from 317 per cent to 1.2 per cent in 2003. In 1999 it was estimated that \$800 million that could have been used for development was instead diverted into conflict¹⁵. This implies that monies that should have been spent on developing the social sectors, such as improving service delivery in the health sector and investment in food production were spent on fueling civil conflict with devastating consequences on the population.

Mortality levels in West Africa are extremely high. Despite gains in improvement of health services, achievements in mortality reduction have been curtailed by the continuous existence of infectious diseases and civil strife in a number of countries. Without concerted efforts to combat disease and civil strife in the sub-region, the desired levels of mortality reduction may not be attained in the near future.

4.2 Poverty

In West Africa, the low per capita income levels as reviewed earlier are suggestive of high levels of poverty in the sub-region. The evidence to be reviewed in this section of the paper is based on poverty levels as measured in terms of national poverty lines set by individual countries. Some countries adopted the international standard definition of poverty – expenditure less than US\$1 per day whilst others have set their poverty line at the cost of a food basket providing 2,700 calories adult equivalent unit. Most of the data reviewed here has been obtained from poverty studies conducted in most West African countries in the course of the preparation of national Poverty Reduction Strategy Papers.

Poverty levels in the West African sub-region are generally high. Although some countries recorded a decline in the phenomenon in the past, poverty has actually increased in other

¹⁵ *Worldbank Website, 2004*

countries. Available data shows that in Ghana the proportion of the population categorized as poor was 51.7 per cent in 1991/92 declining to 39.5 in 1998/99. Similarly, in Ivory Coast the proportion of the population below the poverty line declined from 36.8 in 1995 to 33.6 in 1998. It is however likely that due to civil strife experienced by that country in the recent past poverty levels might have drastically increased. In contrast in Burkina Faso and The Gambia poverty levels increased during the periods for which data is available. In Burkina Faso the proportion of the population classified as poor increased from 44.5 per cent in 1994 to 45.3 per cent in 1999. In the Gambia the proportion of the population below the overall poverty line in 1992 was estimated at 60 per cent increasing to 69 per cent in 1998. Whereas the proportion of the population of the Gambia below the food poverty line increased from 33 per cent in 1992 to 37 per cent in 1998.

It is interesting to note that available data shows that in Benin whereas poverty levels in urban areas have declined from 28.5 per cent in 1994/95 to 23.3 per cent in 1999/2000, in rural areas the proportion of the population that are poor increased from 25.2 per cent to 33 per cent for the same periods under review. Although evidence is not available for other countries, it is highly likely that a similar scenario obtains in a number of countries in the sub-region. This is because in many countries in West Africa years of persistent drought and pest infestation has led to a sharp drop in agricultural output, hence the decline in rural income levels in many countries. In countries like Ivory Coast, Sierra Leone, Senegal (Southern Senegal), Liberia and Guinea Bissau the problem is compounded by internal conflict, which has displaced millions of farmers from their farmland. A large number of farmers have been forced to leave their settlements to seek refuge, from war and civil strife, in urban areas, resulting in increased urban poverty.

Poverty in West Africa is more prevalent among women and in rural areas, although urban poverty is on the increase, largely as a result increased rural-urban migration, which is causing an increase in urban unemployment and also exerting pressure on social services. Urban poverty in many West African countries has been exacerbated by the unprecedented population increases of urban areas, which is attributable to the influx of both economic and political refugees. Rural poverty accounted for 94 per cent of total poverty in Burkina Faso, 70 per cent in Ghana, and 88 per cent in Mali. Marked differences have been observed across countries between urban levels of poverty and rural levels. In Ivory Coast a 1998 poverty survey revealed that 42 per cent of the rural population fell below the poverty line compared to 23 per cent of the urban population. In The Gambia, results of a poverty survey in the same year revealed that 34.8 per cent of the population in rural areas were extremely (i.e. population below the food poverty line) whilst 15 per cent of the population living in urban areas and 4 per cent of those in the Greater Banjul area fell below the extreme poverty line¹⁶. In all the countries for which data is available similar disparities have been observed in poverty levels between urban and rural populations.

Even wider disparities have been observed in poverty levels across socio-economic groups within the sub-region. In general, the observed poverty levels are higher among food crop producing farmers than those producing crops for the export market. Results of a poverty survey in Burkina Faso in 1998 revealed that whereas 53.4 per cent of food crop farmers fell below the poverty line, 42 per cent of cash crop farmers were poor. The Burkina Faso survey further revealed that poverty was worsening among food crop farmers whilst declining among cash crop farmers. In Ivory Coast a similar survey in 1998 revealed that the proportion of food

¹⁶ Republic of The Gambia, SPA II/PRSP, 2002

crop farmers that were below the poverty line exceeded that of cash crop farmers by 5 percentage points. The differences observed in a 1998/99 poverty survey between the two socio-economic groups was 20 percentage points. Difference observed in poverty levels between socio-economic groups depicts the poor performance of the economies of the West African sub-region, which are largely dependent on agriculture. The causes of rural poverty in Africa has been attributed to lack of access to land, and low and variable agricultural output and incomes due to poor farm practices, droughts, and diminished employment opportunities¹⁷.

The high incidence of poverty in the West African sub-region has both social and economic implications. The poor, globally, have been identified with lower educational attainment, poor sanitary conditions, poor access to safe water and poor health and nutrition, conditions not conducive to longevity. In Burkina Faso 1993 estimates of the child mortality rate for the very poor and non-poor was put at 199.2 and 223.9 respectively. Malnutrition rates for the same period for Burkina Faso were put at 35 per cent for the very poor and 33.3 per cent for the non-poor. In The Gambia the 1998 Household Poverty Survey results revealed that Lower River, Central River and Upper River Divisions with the highest poverty indices have the highest levels of malnutrition.

Apart from the high levels of malnutrition that may partly, explain the high mortality rates among the poor compared to the non-poor in West Africa, another possible explanation is differentials in access and affordability of health services. In Ghana, for example, it was observed that between 1991/92 and 1998/99 use of health facilities declined amongst the very poor. In the rural areas 65 per cent of the very poor did not consult a health personnel or attend a health center, hospital etc when they fell ill¹⁸. Similarly, in Niger 29 per cent of women in the lowest wealth quintiles obtained anti-natal care compared to 77 per cent of women in the highest wealth quintile in 2000. Such disparities in the use of health facilities may, partly, explain differences in infant and child survival between the poor and non-poor in the sub-region. It is worth noting that the structural adjustment programmes of the 1980s in most countries in West Africa led to the introduction of cost recovery in health services with the withdrawal of most government subsidies in the social services. These measures could have impacted on the purchasing power of the poor, hence a reduction in the uptake of health services.

The evidence on poverty as reviewed earlier point to the possible consequences of poverty on intervening factors that could impact on infant and child survival in the sub-region. From these evidence one can safely conclude that in West Africa poverty is a major contributory factor to the persistently high levels of morbidity and mortality in the sub-region.

4.3 Hunger/Nutrition

A major challenge facing sub-Saharan African countries today is the inability of the sub-region to combat hunger and poverty. A third of the sub-region is malnourished and childhood mortality rates are among the highest in the world. The African continent continues to register the highest population growth rates in the world, despite the high mortality rates observed over the years. Africa is the only continent where hunger and poverty are projected to worsen in the next decade¹⁹. This inference is based on the slow pace of reduction of malnutrition in

¹⁷ Kabbaj Omar, *The Challenge of African Development*, Oxford University Press, 2003

¹⁸ Oduro and Aryee, 2003

¹⁹ *International Food Policy Research Institute*, 2002

the sub-region. According to a FAO report, a large number of countries have succeeded in turning the tide against hunger but in some countries the trend shifted in the opposite direction. In West Africa, Nigeria was listed among countries, which have regressed in terms of improving nutritional status. According to the report, several countries in Central and West Africa have seen their numbers of hungry people rise due to conflict²⁰.

In West Africa most households have insufficient food in terms of quantity, quality and utilization. In the sub-region about a third to half of the population suffers nutritional deprivation, including protein-energy malnutrition and deficiencies of vital micronutrients²¹. Stunted growth, a measure of chronic malnutrition, is highly prevalent among West African children with more than a third of children stunted. The proportion of chronically malnourished children ranged from 7 per cent in Nigeria to 39 per cent in Niger. In some countries the prevalence of chronic malnutrition worsened over the years. In Niger, for example, the proportion of children that were stunted rose from 32 per cent in 1992 to 40 per cent in 2000²². Some seasonal variations have been observed in levels of malnutrition in some countries. In The Gambia, for example levels of malnutrition are highest amongst children during the rainy season (often referred to as the hunger season) than during the dry season when food is more available.

High levels of malnutrition in West Africa have implications on both the health and economy of the sub-region. Malnutrition increases the risk and severity of infectious diseases in the region, particularly among children and women of reproductive age. Malnutrition is said to be a contributing factor to about half of all childhood deaths. Malnutrition affects the immune system's response to infection and interferes with the body's ability to utilize food. Recent research findings have shown that even mild and moderate forms of micronutrient malnutrition can substantially increase the rates of childhood illness and death. Childhood mortality is said to increase exponentially with lower nutritional status. Malnutrition levels observed among pregnant women in West Africa have been high with almost half of pregnant women suffering from iron-deficiency anemia. Malnutrition during pregnancy, apart from posing a threat to maternal survival, can also put the life of the child at risk in view of the fact that such a child is highly likely to be an under-weight child and susceptible to diseases or it may even die before being born. These are the factors that are contributing to the high levels of infant, child and maternal mortality in West Africa.

Improving nutritional status of the population of West Africa has gained a new impetus in view of an increasing threat of HIV and AIDS. Poor nutritional status has been found to be a recipe of heightened susceptibility of HIV infected persons to illness and opportunistic infections. This has become of much concern in West Africa in view of the fact that 50 per cent of adults infected with HIV are women aged 15-49²³. These women being in their most reproductive years have the potential of transmitting the disease to their children either through pregnancy, labour or breastfeeding.

Another dimension to the problem of malnutrition is that children born to malnourished women are more likely to have low birth weight, which decreases their chances of ever attaining full growth and increases their mortality risks. In West Africa malnutrition during pregnancy is quite common due to heavy physical workload during pregnancy and the

²⁰ *The State of Food Insecurity in the World 2003 (SOFI 2003)*

²¹ *Lwanga et al, 2002*

²² *Odura and Aryee, 2003*

²³ *SANA, 2002*

existence of cultural practices, which do not engender adequate nutrition for women, in general, and pregnant women in particular. In most countries in West Africa the tradition of giving men the most nutritive part of a family's diet at the expense of women and children remains entrenched in many communities. In addition myths exist that forbid pregnant women from eating certain nutritive food. Some of these cultural practices explain the high incidence of malnutrition among pregnant women in the sub-region.

Civil strife and the resultant population displacement in many West African countries have contributed to the high prevalence of malnutrition among both adults and children. Conflict contributes to food insecurity in two ways. Firstly, through the displacement of people a large number of people are exposed to hunger and starvation and secondly, conflict causes structural food insecurity. Structural food insecurity occurs when conflict prevents farmers from producing food and/or when access to food is disrupted due to a blockade of roads and means of transport and access to markets. According to FAO, conflict in sub-Saharan Africa resulted in losses to almost US\$52 billion in agricultural output between 1970 and 1997. The World Bank estimates that \$800 million that could have been used for development in West Africa was instead diverted into conflict. The conflict situation in many countries in the sub-region has over the years had serious consequences on the economies of countries and seriously aggravated poverty levels, in general, and malnutrition in particular. The World Bank has identified the conflict in Ivory Coast as particularly damaging to the economy of the sub-region. Serving as a regional hub for land locked countries in the region, 43 per cent of Mali's and 77 per cent of Burkina Faso's exports are shipped through Abidjan²⁴. This conflict has serious implications on the already volatile economies of neighbouring countries.

The negative effects of conflict on food security is manifest in the high incidence of malnutrition and childhood mortality in countries like Guinea Bissau, Sierra Leone, Liberia, Guinea and Ivory coast. Levels of undernourishment among children in conflict situation are often higher than that of adults. Citing the United Nations International Children's Education Fund, Kabbaj (2003) indicated that the incidence of malnutrition tends to be higher among children than among adults and in emergency situations (such as famine or military conflicts), children also suffer more than adults. Children in conflict situations in West Africa are therefore, susceptible to infectious diseases and have higher propensity of dying at an early age.

Apart from the effects of hunger in terms of reducing longevity, hunger can also negate a country's development efforts. Three UN agencies, FAO, the World Food Programme and the International Fund for Agricultural Development documented the debilitating effects of hunger on both individual and overall economic growth²⁵. The agencies showed that unless hunger is dealt with effectively, prospects for achieving other goals would be severely compromised. The incidence of malnutrition in West Africa unless effectively addressed is likely to negatively impact on productivity and frustrate efforts aimed at poverty reduction. As the sub-region faces a new challenge of HIV/AIDS and a spate of natural impediments to increased agricultural output such as environmental degradation, drought and pest infestation, malnutrition is increasingly likely to accelerate poverty in the sub-region.

Most countries in West Africa, especially those bordering the Sahara Desert are semi-arid and faced with a problem of rapid environmental degradation, drought and erratic rainfall patterns. Since agricultural production in most countries is largely dependent on rainfall, agricultural

²⁴ *The World Bank, 2004*

²⁵ *FAO, 2002*

output has been quite unpredictable and fluctuated over the years. Years of persistent drought in the 1970s and 1980s resulted in the large population movements from rural to urban areas. These movements, particularly, affected the Sahelian countries, which were hardest hit by the drought. Such population movements have resulted in the loss of much needed labour for the agricultural sector and increased urban poverty. Over the years, rainfall patterns have been quite erratic in the sub-region, which has aggravated the food security situation of most countries.

The need to cope with the food needs of a rapidly growing population of West Africa, has forced farmers in many countries to employ farming techniques, which have had dire environmental consequences in the sub-region. Excessive felling of trees during the clearing of agricultural land and over grazing has resulted in the destruction of the environment, which has led to accelerated desertification in many countries in the sub-region. These developments have had negative consequences on agricultural production, hence increased poverty and food shortages.

In 2004 the West African sub-region experienced the worst locust invasion for 15 years. In the affected zones, families have lost 70 to 80 per cent of their harvests. The extent of damage caused by the locust invasion differs across countries in the region. According to FAO estimates, leaving Mauritania aside, only five per cent of the savannah grassland on the southern fringes of the Sahara was likely to suffer food shortages in 2005. The regions hardest hit by the locust invasion in West Africa are Senegal, Central Mali, Northern Burkina Faso, Niger and Chad. FAO estimates that grain production in the nine Sahel countries is to decline from 14.3 million tones in 2003 to 11.6 million tones in 2004. In Niger where a major shortfall in grain is expected, grain output in 2004 plunged by 19 per cent according to the Inter-State Committee to Fight Drought in the Sahel (CILSS). In Senegal grain production is estimated to have dropped by 22 per cent. The locust invasion has not only destroyed crops but also destroyed pasture. In the northern regions of Burkina Faso, 80 per cent of pasture has been completely wiped out by locust. In some rural areas in the sub-region, the price of grain has doubled whilst the price people could get for their cattle has halved as herdsmen who were running out of fodder sold their animals to buy grain²⁶. This precarious situation in West Africa is likely to worsen the state of nutrition in the sub-region, increase poverty and malnutrition and reduce longevity.

Poor nutritional status in West Africa, of particularly women and children, is likely to increase vulnerability to infectious diseases, increase morbidity and mortality and eventually increase poverty levels in West Africa. As the locusts continue to infest a number of West African countries as I write this paper, there is a potential for the survival of the locust swarms in to the next farming season. This potential poses a serious threat to food security in the wake of a below average grain harvest in many countries in the sub-region in 2004. The potential negative effects of natural calamities on food security in West Africa, as exemplified by the 2004 locusts invasion is testimony of the vulnerability of the sub-region's food security to natural disasters.

²⁶ *Integrated Regional Information Networks, 2004*

4.4 HIV/AIDS

HIV and AIDS have brought enormous strain on the economies of many countries in sub-Saharan Africa. In addition to the human toll, the epidemic has brought additional pressure to bear on the health sectors of many countries and through ill-health crippled household economies by reducing economic production in many communities. The incidence of HIV/AIDS in West Africa, although among the highest in world, is still lower than levels observed in Eastern and Southern Africa. On average the incidence of the disease is lower than the sub-Saharan Average of 7.5 per cent. According to available statistics, the highest incidence of HIV/AIDS has been observed in Ivory Coast (7.0 per cent), Liberia (5.9 per cent), Nigeria (5.4) and Burkina Faso (4.2 per cent). On the other hand the incidence of the disease was lowest in Senegal (0.8 per cent), The Gambia and Niger (1.2 per cent) and Benin (1.9 per cent).

The data presented in the Table 2 below shows that more than 50 per cent of adults living with HIV/AIDS in the sub-region are women aged 15-49. The high infection rates observed in the sub-region among women in their prime ages is indeed worrying. This is because women in West Africa produce a chunk of the food grown in the sub-region, hence a high incidence of HIV/AIDS could have serious consequences on food security for the region. Also of concern, is the large number of children orphaned by the disease in the sub-region. Considering lower survival chances of orphaned children compared to non-orphans, an increase in orphan-hood could cause an increase in the already high levels of childhood mortality in West Africa.

Table 3: Estimated Number of Adults, Women and Children Living with HIV/AIDS, Adult HIV/AIDS Prevalence Rate, AIDS Deaths and AIDS Orphans by Country, 2003

Country	Adults	Adult Rate	Women	Children	AIDS Deaths	AIDS Orphans
Benin	6,200	1.9	35,000	5,700	5,800	34,000
Burkina Faso	270,000	4.2	150,000	31,000	29,000	260,000
Ivory Coast	530,000	7.0	300,000	40,000	47,000	310,000
Gambia	6,300	1.2	3,600	500	600	2,000
Ghana	320,000	3.1	180,000	24,000	30,000	170,000
Guinea	130,000	3.2	72,000	9,200	9,000	35,000
Liberia	96,000	5.9	54,000	8,000	7,200	36,000
Mali	120,000	1.9	71,000	13,000	12,000	75,000
Niger	64,000	1.2	36,000	5,900	4,800	24,000
Nigeria	3,300,000	5.4	1,900,000	290,000	310,000	1,800,000
Senegal	4,000	0.8	23,000	3,100	3,500	17,000
Togo	96,000	4.1	54,000	9,300	10,000	54,000

Note: these statistics are estimates at the end of 2003 published by UNAIDS in their 'Report on the Global HIV/AIDS Epidemic, July 2004'. The estimates include all people with HIV infection, whether or not they have developed symptoms of AIDS, alive at the end of 2003. If a country is not included in the table it is because there are no reliable statistics for the country. Adults in the table are defined as men and women aged 15-49 and children are defined as under the age of 15 years. Orphans are children aged under 17 who lost one or both parents to AIDS.

Source: UNAIDS, Culled from HIV and AIDS Statistics for Africa, 2004

Although the data presented in Table 3 points to relatively low levels of HIV/AIDS prevalence, other studies indicate much higher levels in some population groups. In Ivory Coast studies carried out in the early 1990s indicated infection levels of nearly 15 per cent among pregnant women and as high as 62 per cent among prostitutes in the capital Abidjan²⁷. Due to the frequent movement of people across the border from Burkina Faso to Ivory Coast in search of work, concern is growing in Burkinabe government quarters as to the potentials for the spread of the disease across the border. The UN estimates that by the year 2005 HIV could be responsible for 20 to 24 per cent more deaths in the 15-49 age group in both countries. In Ghana studies conducted in the past have been reported to show that AIDS infection was rising among school children. A study conducted in a Ghanaian coastal town among 40 pupils who volunteered to donate blood to a hospital found that more than half the pupils were HIV positive²⁸. In Senegal concern for the vulnerability of children to HIV infection prompted the government to promote condom use in the country, specifically targeting school-going youth.

In Africa the impact of HIV/AIDS have been found to have multi-dimensional effects on the continent. The disease has been found to impact on the health sector in various ways. HIV/AIDS affects countries by increasing pressure on health resources, negatively impacts on quality of care, increases infection rates among health workers and causes a reduction in the number of health personnel either through illness, death or health care workers deciding to quit their work as a result of increased workload and eventual frustration. These impacts of the disease eventually translate to increased health bills in countries.

At the household level HIV/AIDS strips families of assets and income-earners and ends up impoverishing them. In Ivory Coast, a study revealed that income in households affected by the disease was half that of average household income. This was attributed not only to the loss of income due to illness among household members, but also because other members had diverted more time and effort away from income-generating activities²⁹. Similar studies conducted in Burkina Faso, Rwanda and Uganda, calculated that AIDS will not only reverse efforts to reduce poverty, but will also increase the percentage of people living in extreme poverty (from 45 per cent in 2000 to 51 per cent in 2015). In Burkina Faso it was estimated that rural families reduced their agricultural work or even abandoned their farms because of AIDS. A similar study in Ethiopia found that AIDS-affected households spent 11-16 hours per week performing agricultural work, compared with an average of 33 hours for non-AIDS households.

The economic loss to the AIDS-affected household is not only limited to loss of the contribution to the household economy of the infected person but also results in loss of income due to medical expenses on the patient and eventually on their funeral. According to a study in Ivory Coast, health care expenses rose by up to 400 per cent when a family member had AIDS. Such expenses can seriously dwindle household resources, which could affect household nutrition and the general health of households. For most children loss of parents or guardians to AIDS implies the assumption of responsibilities. Often these orphans have to fend for themselves and in most cases cannot afford to pursue education. The state of affairs often has dire consequences on the survival chances of children and the future growth and development of these children.

²⁷ *FAO website*

²⁸ *Ameyibor, E., Health-West Africa: Fighting the Scourge of AIDS, IPS*

²⁹ *Bechu N (1998)*

From the evidence reviewed in this paper the cumulative impact of HIV/AIDS can negate the development efforts of any country and impede efforts aimed at poverty reduction and improving the health of a populace. Although national efforts in West Africa to control the spread of HIV/AIDS have not been discussed in this paper, it is evident that despite the relatively low levels of HIV infection, there are indications that the potential exists for an increase in the pandemic in the region. This is because socio-cultural practices conducive to spread of the disease are still highly prevalent as rates of infection increase in most countries. Some of these practices relate to the high prevalence of polygamy, wife inheritance, female genital cutting and a culture of denial and stigmatization of HIV positive persons. Overall, the findings are indicative of the fact that in West Africa, unless HIV infection rates are drastically reduced, the target of the first MDG 'halving poverty and hunger by 2015' is quite unlikely to be attained in view of the debilitating effects of the pandemic on the population of the sub-region.

5. Conclusion

Mortality levels in West Africa continue to be extremely high. Gains in mortality reduction in the sub-region can only be consolidated within a conducive socio-political environment. The attainment of peace and stability in the sub-region is, therefore a prerequisite for the attainment of the desired goal of rapid mortality reduction.

In the West African sub-region, poverty levels are highest in rural areas, among food crop farmers and female-headed households. These population groups are quite vulnerable in that those found in predominantly rural areas tend to have limited access to essential services, particularly health and education and increases their vulnerability to diseases. The phenomenon of poverty, highly, influences mortality levels in the sub-region both directly and indirectly. The poor have been observed to be more prone to malnutrition and less likely to use modern health services. This, in addition to other factors, explains the high levels of mortality in the West African sub-region. Considering the impact of poverty on mortality levels in the sub-region, poverty can be seen to be a contributory factor to high mortality in the sub-region.

Regarding the nutritional status of the population of the sub-region, the available evidence shows that micronutrient deficiency is highly prevalent. The evidence further shows that the poor and rural populations are the most likely population groups to be malnourished. Ironically, food crop farmers are much more vulnerable than other population groups. This finding is quite worrying in view of the fact that a large proportion of farmers in West Africa are food crop farmers. Considering the vulnerability of malnourished populations to infectious diseases and the potential for nutritional deficiency to affect productivity at work, meeting the food requirements of the rapidly growing population of West Africa would be a daunting task under the prevailing circumstances. Malnutrition in addition to contributing to increased poverty and mortality levels is also a consequence of poverty in West Africa.

In West Africa the scourge of HIV/AIDS is not only a strain to the economies of states and households, but is also a hindrance to the development of countries. The epidemic has meant an increase demand on resources for the health sector resulting in the diversion of resources otherwise meant for other development initiatives into the cure and prevention of HIV/AIDS. The disease has also resulted in a reduction of productivity at work and has in some countries in the West African sub-region begun to negatively impact on food security. This situation has set in motion a cycle of malnutrition, disease, mortality and food insecurity. As was given in the evidence above, high HIV/AIDS prevalence in some countries has led to reduced productivity and an increase in poverty and malnutrition. The evidence further shows that high levels of malnutrition translate to increased disease prevalence, mortality and food insecurity.

Overall the evidence in this paper shows that mortality is both a determinant and a consequence of poverty and hunger in West Africa. For the sub-region to overcome the problems related to mortality, poverty and hunger, it is essential for efforts to be intensified towards improving productivity of the agricultural sector, the quality of health services the fight against HIV/AIDS. In terms of priorities, it is absolutely necessary to take on the challenges posed by the three problems at the same pace and time. This is because neglect of any of these problems or even under investing in any may negate any efforts aimed at solving the other.

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