

## Original Article

# Strategies to address nutritional problems in African children caused by poverty and the HIV / AIDS epidemic

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In spite of the natural endowment in Africa, the problems of hunger and under nutrition still remain the bane of human development. Problems related to nutrition are critical constraints to economic growth and these have been exacerbated with HIV/AIDS epidemics, leading to an increase in the number of orphans in Africa. Poverty and hunger are intertwined and these undoubtedly impinge on child survival. Finding solutions to nutritional dilemmas in Africa needs to go beyond non-nutritional divides and it should be realized that improving nutrition in developing countries is both a humanitarian and an economic imperative. Sustained poverty reduction will require economic growth centered on labour-intensive, employment creating policies and technologies in the atmosphere of political stability. However, economic growth can be a slow process by which to reduce poverty, and there is no guarantee that growth alone will adequately improve the incomes of the poorest in society. Therefore, it becomes necessary to institute strategies, which would not only focus on economic growth indices but also include programmes that will better the living conditions of the people, with special consideration for children. African countries need to identify with the Millennium Development Goals (MDGs) if sincere nutritional care is to be provided for the people to improve their well-being and production capacity. Therefore, it is appropriate for national governments and their development partners to initiate different "better life programmes" (BLPs) to facilitate and ensure that citizens have access to the tools that will allow them meet their food and nutrition requirements. Thus, the interventions, in addition to their intrinsic value in reducing child inadequate nutrition, are likely to provide important gains in terms of reducing current poverty and increasing future productivity.

**Key Words:** nutritional dilemmas, Africa, child health, HIV/AIDS orphans, poverty, hunger, better life programmes

## Introduction

It is very tempting to agree that Africa is endowed with natural resources that could hardly be boasted of by any other continent in the world. The size of arable lands in African countries is enough to produce steady food supply to feed the entire population. In spite of regular and continuous effects of environmental factors like drought, flood and other man-made disasters (e.g. war, political instability, etc.), on food production in Africa, the land has not yet failed to yield its agricultural produce, even though the inputs have always been on the marginal. This is an evidence of natural potential that Africa has to provide for the nutritional needs of the inhabitants. Numerous strategies, policies, and programmes intended to assist Africa's development have been conceived and undertaken by international bodies, regional and sub-regional groups, and national institutions. Still, Africa is far from achieving food and nutrition security for its entire people. Therefore, the question still remains how to find solutions to the nutritional dilemmas in Africa for child health: HIV/AIDS orphans, poverty, and hunger.

Literatures are saturated with problems of inadequate nutrition including causes of these problems and the resultant effects on people, especially in Africa. In most

instances, sizeable chunks of these resource materials are devoted to cataloguing problems that most people are already aware of inadequate nutrition and its attendant problems of underweight, stunting and wasting, especially among children. Table 1 shows the prevalence rate of malnutrition in Africa from 1990 to 2001 and this was projected to 2005.

Constant trend in stunting, which is an indication of past chronic malnutrition, was observed in Eastern Africa and this was projected to continue even in the year 2005. However, there was reduction in the prevalence of stunting in other four regions in Africa with Southern Africa recording the greatest reduction in prevalence. This might be attributed to the level of socio-economic development of some countries in this region. Eastern Africa recorded constant highest level of prevalence in the trend of stunting,

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**Table 1.** Prevalence of undernourishment in children 0-5 years

Region	Prevalence (%) of undernourishment in children 0-5 years											
	1990			1995			2000			2005		
	Uwgt	Stnd	Wstd	Uwgt	Stnd	Wstd	Uwgt	Stnd	Wstd	Uwgt	Stnd	Wstd
Eastern	26.7	44.4	N/A	27.9	44.4	6.6	29.2	44.4	7.6	30.6	44.4	8.7
Central	27.8	42.2	N/A	26.9	40.0	7.0	26.1	37.8	9.1	25.3	35.8	11.9
Northern	12.3	27.4	N/A	10.9	24.4	4.7	9.7	21.7	6.2	8.6	19.1	8.0
Southern	14.0	25.4	N/A	13.9	25.0	3.7	13.7	24.6	4.9	13.6	24.3	6.6
Western	27.8	34.7	N/A	27.5	33.8	10.5	27.1	32.9	10.3	26.8	32.0	10.2

which might be related to the problems of continuous civil war and prolonged drought that were being experienced in this part of Africa, especially as this concerned Somalia and Eritrea. Data available on the prevalence of underweight, which is a measure of acute malnutrition, showed similar trend according to regions. Again, Eastern Africa showed a steady increase in prevalence of underweight between 1990 and 2000 and this was even projected to increase until year 2005. Since underweight is a current state of malnutrition, this may explain the reason why there has been a steady increase in the prevalence because the effects of wars and drought are still persistent. Other regions in Africa showed gradual reduction in the prevalence of wasting and underweight between 1990 and 2000, this was also projected to continue in 2005.

This paper focuses on finding solutions to those issues that have been the bane of African progress, resulting into nutritional dilemmas. The goal is to suggest strategies that may upturn the present precarious situations affecting child health and nutrition, especially as these are exacerbated with increasing number of HIV/AIDS orphans, poverty and hunger. Table 2 shows a decade trend in poverty and hunger between 1990 and 2001. The data revealed that there was a slight reduction in the level of poverty and hunger as measured by the level of undernourishment in sub-Saharan Africa. Although, the trend was not the same in all the regions making up sub-Saharan Africa, data from Central African region showed that the increase in the level of poverty and hunger has been consistent. It should be

realized that Central African region is a land-locked area and this usually hinders economic development, in addition to constant problems of natural disaster including drought. Reducing hunger and malnutrition in Africa is a formidable goal that must be addressed through sound research agendas and progressive policy actions. Importantly, this framework must have goals and action-instruments that are feasible and timely, and must make more efficient and equitable use of Africa's vibrant resources, which include its people, cultural diversity, rich natural resource base, large land area and favourable location. However, policy actions require human resources development, which depends on early promotion of good health and nutrition. Unfortunately, many African countries hold a misconception that correcting malnutrition is a social welfare expense. Consequently, very limited budgets are allocated to correct this basic life-threatening problem. In the process of national nutrition development, therefore, developing countries must give priority to support important physical and administrative infrastructures and capacity building in the public sector to facilitate this goal. Promoting good child health and nutrition, in particular, will have long-term benefits for a nation, both in terms of economic and social returns. Table 3 shows some statistics, which could be used to explain the present situation in the African continent.

According to these data, Africa's population is still considered high. The fertility rate of 5.1 still shows that population control programmes need to be taken with all the seriousness it deserves. Infant morbidity and mortality rates

**Table 2.** Trends in poverty and hunger in sub-saharan Africa

Developing World Region/sub region/country [undernourishment category]	Number of people undernourished			Proportion of undernourished in total population		
	1990–1992	1995–1997	1999–2001	1990–1992	1995–1997	1999–2001
	Millions			%		
Sub-Saharan Africa	165.5	192.7	198.4	35	35	33
Central Africa	22.0	39.5	47.6	35	53	58
Southern Africa	34.2	37.1	36.8	48	46	41
West Africa	36.2	31.3	32.7	21	16	15
North Africa	5.7	5.8	6.1	5	4	4
East Africa	73.2	84.8	81.3	44	45	39

Sources: Total population: *UN Population Prospects*, 2000 revision; Undernourishment: FAO estimate

**Table 3.** African regions data profile

Sub-Saharan Africa Data Profile			
	1998	2001	2002
Population, total	628.4 million	673.8 million	688.9 million
Population growth (annual %)	2.5	2.4	2.2
Life expectancy (years)	..	..	45.8
Fertility rate (births per woman)	..	..	5.1
Infant mortality rate (per 1,000 live births)	..	..	103.1
U5 child mortality rate (per 1,000 live births)	..	..	173.9
Child immunization, measles (% of under 12 mos)	53.4	56.2	57.6
Prevalence of HIV (female, % ages 15-24)	..	9.4	..
Literacy total (% of ages 15 and above)	..	64.1	64.9
Literacy female (% of ages 15 and above)	..	56.6	57.5
Primary completion rate, total (% age group)	..	55.0	..
Primary completion rate, female (% age group)	..	49.0	..
Middle East And North African Data Profile			
Population, total	283.5 million	300.0 million	305.8 million
Population growth (annual %)	2.0	1.9	1.9
Life expectancy (years)	..	..	68.6
Fertility rate (births per woman)	..	..	3.1
Infant mortality rate (per 1,000 live births)	..	..	43.7
Infant mortality rate (per 1,000 live births)	..	..	54.1
Child immunization, measles (% of under 12 mos)	92.4	92.3	92.0
Literacy total (% of ages 15 and above)	..	69.4	..
Literacy female (% of ages 15 and above)	..	59.1	60.9
Primary completion rate, total (% age group)	..	88.0	..
Primary completion rate, female (% age group)	..	84.0	..

Source: World Development Indicators database, April 2004

are still considered very high when compared with international standards. This spells the need for improved health care system and environmental sanitation processes that will reduce the incidence of infection and enhance its management. The percentage of immunization coverage also shows that just a little above 50.0% coverage has been achieved. Immunization is one of the basic strategies of child survival programme and needs to be given due consideration to reduce the incidence of child morbidity and mortality. Extra efforts should be made to educate people on the importance of immunization to child health and there's need to disabuse peoples' minds on the allegation that immunization materials are being used to cause sterility, especially in countries like Nigeria.

It should be realized that solving most of the nutritional problems facing Africans needs to go beyond nonnutritional divides. More importantly, improving nutrition in developing countries is both a humanitarian and economic imperative. Sustained poverty reduction will require economic growth centered on labour-intensive, employment creating policies and technologies. Dr. Rizwanul Islam in 1990 conceptualized the inter-linkage between poverty and nutrition as a cycle in his paper titled "Poverty and its Effect on Nutrition". Nutritional status is both an effect and a cause of income-earning opportunities.

Development policy may influence the cycle positively by improving the ability of households to obtain food, e.g. through public distribution, employment provision, or through policies relating to health and education, particularly female education. Nutrition is thus an outcome of food and non-food factors; of privately *consumed basic* needs and socially provided basic needs. These are some of

the important issues dictating the state of nutrition in any given circumstance.

It becomes imperative to suggest new and innovative initiatives against poverty in Africa that will sharply reduce hunger and malnutrition. A growing body of evidence indicates that broad-based economic growth is necessary to increase incomes and consumption in order to reduce poverty. Poverty has conventionally been measured as the number or proportion of people in a population who earn less than is required for minimum subsistence. It is as such implicitly an economic concept with income traditionally considered as the main determinant of a person's well being. It is now recognized that poverty cannot simply be measured by daily expenditures, such as the well-known one US dollar per day line, but rather, it is a complex set of conditions that encompasses the entire living situation of the poor. New facts show that many African nations have fully committed themselves to Poverty Reduction Strategies<sup>2</sup> that are much in line with the Millennium Development Goals (MDGs) established by the Millennium Declaration of the United Nations, even they are not quite as ambitious.<sup>8</sup>

MDGs adopt nutritional status as one of the key indicators of poverty and hunger. It serves as the first step in recognizing that policies, programmes and processes to improve nutritional outcomes have a role to play in global development. Conventionally, nutrition is seen as integral to the first of the MDGs, which is on hunger and poverty. However, nutrition is also an instrument to achieve other MDGs, especially those relating to improvements in primary education enrolment and attainment, gender equity, child mortality, maternal health, and an ability to combat

**Table 4.** Millennium Development Goals and Targets

No.	Goals	Targets
1	Eradicating extreme poverty and hunger	Halve the proportion of people whose income is less than 1 US dollar a day
2	Achieving universal primary education	Halve the proportion of people who suffer from hunger Ensure that children everywhere, boys and girls alike, will be able to complete a full course of primary schooling
3	Promoting gender equality and empower women	Eliminate gender disparity in all levels of education
4	Reduce child mortality	Reduce by two-thirds the under-5 mortality rate
5	Improve maternal health	Reduce by three-quarters the maternal mortality ratio
6	Combat HIV/AIDS, malaria, and other diseases	Halt and reverse the spread of HIV/AIDS  Halt and reverse the incidence of malaria and other major diseases
7	Ensure environmental sustainability	Integrate the principles of sustainable development into country policies and reverse the loss of environmental resources Halve the proportion of people without sustainable access to safe drinking water and basic sanitation Achieved a significant improvement in the lives of at least 100 million slum dwellers
8	Develop a global partnership for development	Develop further an open, rule-based, predictable, nondiscriminatory trading and financial system Address the special needs of the least developed countries Address the special needs of landlocked countries and small islands developing states Deal comprehensively with the debt problems of developing countries through national and international measures in order to make debt sustainable in the long term In cooperation with the developing countries, develop and implement strategies for decent and productive work for youth In cooperation with pharmaceutical companies, provide access to affordable, essential drugs in developing countries In cooperation with the private sector, make available the benefits of new technologies, especially information and communications

Source: [http://www.developmentgoals.org/About\\_the\\_goals.htm](http://www.developmentgoals.org/About_the_goals.htm)

disease (5<sup>th</sup> Report on the World Situation, 2004). It is expected that when MDGs are achieved, most nutritional problems will be effectively brought under control, especially among children. The under-listed MDGs in Table 4 have the following components and targets that have direct and indirect impacts on nutrition.

Eradication of poverty and hunger is a function of economic growth paths, which tend to be slower in very low-income economies in Africa than other low-income countries. It is a fact that economic growth can be achieved primarily through enhanced economic productivity, which in turn comes about through broad improvements in the intellectual and technical capacity of the population. The potential intellectual and technical capacity of the population is dependent on improved nutrition, particularly for young children and women in their child-bearing ages. Addressing the root causes of poverty, such as the lack of off-farm employment opportunities and low levels of education and infrastructure, is central to any poverty reduction strategy. In addition to the above, in order to overcome hunger and malnutrition, promote sustainable management of resources; create effective and low-cost agricultural systems. African countries must, as a matter of

urgency overcome challenges of poverty and economic growth, food and nutrition security and enhanced human development. In the same realm, consideration should be given to population growth including urbanization and displacement, natural resources and agricultural inputs and profitable control of markets, infrastructure and international trade. It is equally important to overcome the challenge of domestic resource mobilization and international assistance. One should not lose sight of the importance of management of internal or political conflicts, which is crucial in preventing wars.

There is now a widespread consensus on the importance of social security programs, more specifically, social welfare programmes and safety nets. These are considered as components of public policy reduction strategy.<sup>1</sup> Social security programmes are composed of policy and programmes instruments such as general food subsidies, targeted income transfers, public works, school feeding, social funds, small credits, and emergency feeding programme. Formal safety net programmes, usually from the public sector or private employer, are needed to protect the poor and those vulnerable to becoming poor in the short and sometimes long term. These must be viewed

as part of a wider development strategy, and implemented as such. It should be noted that formal safety nets have an assistance role and a risk-reducing or insurance role. In actual fact, safety nets can serve to redistribute income and resources to the needy in society, so that the impact of poverty is reduced; they can also help protect individuals, households, and communities against risks to their livelihoods.

It is important to state that in Africa and probably elsewhere, safety nets were promoted as a response to the (perceived to be short term) adverse effects of structural adjustment programmes. Though some safety nets had a developmental component (for example, the World Bank's Social Funds in Zambia), they were still largely associated with the idea of a short-term buffer. Social protection is a newer term that incorporates safety net programmes but in its broad form sees a role for renewed state involvement; emphasizes a longer-term developmental approach; includes social assistance and social insurance; and is often advocated as a right, rather than a reactive form of relief. Social protection policy balances interventions designed to protect shocks and destitution, reduces their impact and cope with the aftermath.

Drawing from the Nigerian experience, the use of the term "safety nets" connotes assistance in time of emergencies only. In most instances, people do not usually associate safety nets concept with programmes that should be considered as part of developmental issues. This is because awareness and national discourse on developmental policies using the term "safety nets" have not been given much publicity. In this wise, a common and widely used term has been coined to mean safety nets in the region, and this is "Better Life Programmes" (BLPs). This term is usually perceived as sets of life benefiting programmes, which include improving peoples' accessibility to daily means of livelihood that will enhance their nutritional status. In this context, it becomes necessary to critically examine all the programmes that had been and should be incorporated into BLPs that may improve the nutritional status of individuals, especially children. There is need to emphasise that BLPs are not limited and should not be limited to programmes that have direct relationship with nutrition alone but encompasses all health; agricultural, economic, social and political issues including information technology. This may serve as a blueprint for African countries.

BLPs are sets of life enhancing programmes that could be implemented and sustained. In Nigeria, the programmes were successful in terms of how many people benefited from them when they were newly instituted. However, BLPs witnessed a downturn in terms of supports received from the government and donor countries because of the political impasse that engulfed the country in the early and mid '90s. Nevertheless, this provides the opportunities to have a better plan for future BLPs, as all the shortcomings and hindrances were visible before the collapse of the regime that initiated them. Presently, with a full democratic government in place in Nigeria, new improved versions of BLPs are already orchestrated and these will be implemented under various nomenclatures. One of the ways by which BLPs may help find solutions to nutritional dilemmas in Africa includes shifting back to

a more balanced approach between state and private sector functions in development, with emphasis on efficiency in resource allocation. BLPs stress the need to integrate social, cultural, political and environmental parameters into planning. This should be directed towards reducing poverty and creating a framework for pro-poor growth. In essence, this will create enabling environment for good nutrition and improved child health.

Presently, formation of the New Partnership for Africa's Development (NEPAD), which is an amalgam of African initiative and ownership with neoliberal concepts, will accentuate some of the important components of BLPs. As part of NEPAD initiatives, it supports trade liberalization and globalization but emphasizes that the process needs to be fair and the playing fields made more level for participating countries. It calls on African countries to conduct domestic reforms in improving governance, eliminating corruption, allowing democratic structures and processes to build up, encouraging a free press, and enforcing an independent fair and reliable judicial system. It should be realized that through the NEPAD policy framework, the African leaders jointly accepted responsibility for eradicating poverty and placing their countries, both individually and collectively, on the path of sustainable development and growth. As part of their involvement and agreement, the leaders committed themselves to principles, values, priorities, and standards of governance that are internationally acceptable. It was agreed that African government should commit themselves to people-centred participatory development processes. One of the more direct approaches to finding solution to nutrition dilemmas in Africa was highlighted by the NEPAD strategy that seeks an agriculture-led development, which will eliminate hunger by reducing poverty and food insecurity. All these have bearings on nutrition and development and should be given due consideration to improve human survival. Mechanisms should be instituted by the home government in conjunction with donor agencies to enhance sustainability of NEPAD so that it will not go moribund with the end of the regime that initiated it. There may be the need to clearly define NEPAD as a human right project that should not be neglected by succeeding African state governments, if the benefits are aimed at outlasting it.

BLPs can also formulate poverty reduction policies, with emphasis on agricultural development by supporting local farmers in production of food crops and encouraging large-scale cash crop production to earn foreign exchange. The support may be in providing inputs including making high breed plant and animal species available for cultivation, rearing and creating accessibility to credit facilities by farmers through the establishment of ad hoc agricultural credit development financial institutions. It may also include support for agricultural research and making the research findings available to farmers through the use of trained extension workers. In essence, African countries must act on the Maputo Declaration's target of allocating 10% of the national budget to agriculture. Local and international markets should be created for agricultural products to enhance the financial status of farmers and arrangement should be made to pay for surplus produce that the farmers may be

unable to sell. Cognizance should be given to the likely problems that BLPs may encounter in international trade. There is the problem of unevenness of the playing field in international trade, with the European Union, the United States, and Japan protecting their markets against imports from developing countries.

Another area of human development that BLPs should consider is the economic empowerment of women and reduction of social and economic discrimination against them. Efforts should be intensified particularly to improve women access to land, credit facilities, input and output markets and considering girl child education as a matter of urgent concern. It will not be over-stating issues to assert the importance of political will and commitment to these reforms in an atmosphere of good governance that is characterized by impeccable democratic structures and processes and the rule of law enforced through a reliable and independent judicial system.

It is necessary to add that BLPs should be people oriented. Experience has shown that reform processes are fostered by wide involvement and participation of people at all levels and across different organizations and social groups. It is important, especially in poverty reduction strategy processes, to involve all stakeholders including civil society and private sector groups representing the poor in programme planning, decision making and implementation modalities. In the same perspective, it is essential to involve farmers in the innovation process through participatory technology development to ensure that innovations are suitable.

The need for human power development through capacity building has become a necessary appendage to support the structure upon which the whole essence of BLPs is pivoted. The need for capacity building is non-negotiable in ensuring that BLPs deliver what is expected in terms of meeting the standard indicators of human development including provision of adequate nutrition. Competence is required at all levels of macroeconomic management, budgeting processes and linking them to long-term national strategies, and in financial accountability and monitoring. It is also necessary at the sector level in priority setting and policy formulation, at the local and micro level in local administration and in project evaluation and management.

The inter-link between health and food production becomes more obvious with the advent of HIV/AIDS, which now poses a great threat to human existence. HIV/AIDS has a devastating effect on many aspects of development, including the ability of households and communities to secure adequate food. Table 5 presents the prevalence in terms of the trend in the number of newly infected people.

**Table 5.** HIV/AIDS (Figures for 2001)

Region	Adults and children living with HIV/AIDS	Adults and children newly infected with HIV	Adult prevalence rate
Sub-Saharan Africa	28.1million	3.4million	8.4%
Middle East and North Africa	0.44million	0.8million	0.2%
World	41.49million	5.141million	1.2%

Source: UNAIDS (2001)

HIV/AIDS and food and nutrition insecurity may become increasingly entwined in a vicious circle - HIV/AIDS heightens vulnerability to food insecurity, which in turn may heighten susceptibility to HIV infection. A plethora of studies on the impacts of HIV/AIDS on food and nutrition security have emerged in recent years. Many have employed a sustainable livelihoods approach to structure their investigations, and many have found that the effects of HIV/AIDS are significantly eroding human, social, financial, physical, and natural capital. It is, however, dangerous to generalize. The determinants and impact of HIV/AIDS and the degree of resistance or resilience vary widely among geographical areas and livelihood systems. Land-labour ratios and the relative degree of substitutability between household resources, among other factors, will determine the scope and types of possible response to HIV/AIDS. Therefore, BLPs must ensure the establishment of support programmes for rural health particularly and fighting HIV/AIDS, with efforts to enhance the accessibility of women to health care services, education, land, water, production factors and economic markets. BLPs may scan alternative programmes and policies such as the free health care for women and children who are HIV positive, creating opportunities for early childhood education, and promote public works programmes to enhance women's contribution to the whole package of support. Table 5 shows the prevalence of HIV/AIDS in the world in the last 2 years. However, it should be noted that sub-Saharan Africa presented a gory picture on HIV/AIDS.

#### **Evolutionary process of nutritional development**

Experiences from some developing countries that have undergone evolutionary changes in nutritional development show that there were nine essential elements crucial in tackling under-nutrition with remarkable progress.<sup>9</sup>

- Advocating nutrition promotion through informal meetings with concerned professionals will lead to a systematic approach for development of national food and nutrition policy. The policy makers should realize three key points equally as important to them and their constituents. (1) improving the people's development (2) malnutrition is not a health problem, but an outcome of social disparity and nutritional status is a country's investment, not an expense, and is fundamental to future (3) the problem must be addressed beyond the health sector since nutrition considerations relate to several sectors.

- Building a critical public awareness, especially by making nutrition findings from nutrition assessment surveys available for people to know about the nutrition situation in the country.
- Addressing nutrition as a separate entity in national development
- Creating a multi-sectoral policy and planning body for nutrition programme implementation, which will set out ambitious and comprehensive goals to improve the nutritional status of the population by tackling the problems from many fronts. These may include improvement of health care and hygiene, increased food availability, nutrition education and improvement of socio-economic conditions of the vulnerable groups.
- Solving the broad-based problem of protein-energy malnutrition and micronutrient deficiencies in a well-defined primary target group. In terms of target groups, infants and young children, pregnant and lactating women and school-aged children were defined as priority groups. Due to vulnerability, the magnitude of problems and consequences, and varying implementation strategies, infants and preschool-aged children should be given the highest priority.
- Institutionalizing nutrition within the existing infrastructure for nationwide implementation. It is very important to make nutrition part of the normal functioning of the governmental machinery to improve its modality of operation. Sustained action also requires institutionalization where a programme is adopted, expanded and becomes a part of existing governmental infrastructure. Several factors may influence this process including implementing successful demonstration projects as examples for replication and advocacy, developing nutrition units and programme that fit within existing policies and work/activity schedules.
- Redefining the national mechanism for effective resource allocation. Instead of having numerous sector-specific committees, only one national committee should be established and placed in charge of development policies and infrastructural considerations from the central level on down to the rural areas. This will be a striking organizational reform, which combine macro- and micro-level structures to support both the top-down macro-policy and bottom-up planning by the community and peripheral government resources.
- Strengthening the community-based approach for sustainability. This may include ability to improve community participation and the integration of sectoral development activities. It may involve development of simple and practical indicators that are understood and measurable by the villagers e.g measurement of birth weight, weight-for-age of under fives, etc.
- Ensuring continuation of policy commitment and refinement of programme implementation. In

- order to make an improvement in a social indicator like nutrition, it requires continuity in policymaking and adjustment of programme implementation.

#### **Other important considerations to finding solutions to nutritional problems**

Great emphasis has been laid on governmental interventions to solving nutritional problems in Africa; while little consideration has been given to the roles individuals and cooperate bodies can play in addressing the problems. It is in this light that it becomes relevant to discuss the roles that the individuals and private organizations/industries can play in the matter.

#### **Roles of individuals**

Improving nutritional status of members of a household depends on the level of involvement of the head of the household in nutrition security of the family as a unit. Information abound that many female-headed households do suffer nutritional problems, although women are believed to be the de jure in household nutritional matters. It is now becoming clear that male involvement in nutritional matters should be considered as a priority issue if improvement in household nutrition security is sincerely desired. Literatures usually consider male involvement in household nutrition from the myopic view of financial contribution/support alone without considering other factors that are very crucial to household nutrition security. It should be noted that household nutrition security goes beyond the frontiers of financial support from men. It includes men's adoption/disposition to family planning methods to have the family size that could be managed effectively, ability to provide good housing with adequate sanitation and provision of enabling environment for women to practice exclusive breastfeeding and reducing their workload at home by providing some of the basic household labour-saving devices.<sup>10</sup> The influence of male headship in African countries also shows that the type of food that women prepare at home is subject to what the man wants. This suggests the need to direct nutrition information to men, so that they can positively influence the availability of nutritious food at home. It should also be added that men have more influence at the top political decision-making levels on pertinent issues affecting African countries, including nutrition. This spells the need to equip men with more nutrition information so that they can become more active in nutrition, which has been hitherto considered as a feminine venture. This is not to undermine the crucial roles women play in ensuring that the family enjoys good nutrition. It is also important to add that families should imbibe the old culture of backyard gardening to support household nutrition.

#### **The private sector/industry**

Apart from generating employment for people to make a living, the private sectors/industries need to be more involved in production of nutritional products. They need to consider the crusade of food fortification programme as a service to better the life of humanity rather than a capital draining venture. Food fortification is one example where

industry and trade work in a largely commercial environment and play a leading role in a health intervention endeavour. By building on existing food production infrastructures, fortification unites the market system and the private food sector. While government determines priorities, sets policy and advocates for action, industry provides much of the initial investment, with the ultimate financing borne by consumers. The private sector also offers technical expertise in production and marketing and, most importantly, a businesslike approach to solving problems. For instance, analysis of investments in the salt iodization programme around the world has shown that in the past decade, a public investment of nearly 400m US dollars was matched by private investment exceeding 1.5b US dollars.<sup>6</sup> In addition to this, industries that produce food related products should ensure that they dispense in retail forms that is easily affordable by all and sundry, especially the downtrodden. In Nigeria, Cadbury and other companies in food business have initiated the packaging of beverages and powdered milk in small sachets that most people can afford.

Industries should also support community development projects that will have direct bearing on nutrition. Examples can be the provision of financial and technical assistance to rural farmers to enhance their food production capacity.

grammes to improve human life. In a situation whereby a country becomes ostracized as a result of political problems, the NGOs usually provide succour to the people by becoming the link between the citizens of the sanctioned country and foreign donors.

However, now that democracy is thriving in most African countries, it seems that the support available to NGOs have been dwindling as donor agencies feel more comfortable now relating directly with the government at the expense of NGOs. It should however be realized that when donor agencies go through the government to execute programmes, they may not yield the desired results. This is because there may be politicization of the programme to the detriment of the beneficiaries. In most instances proper programme evaluation is hindered when it is executed by the government. NGOs need to be more involved in activities that have direct link with nutrition, especially those working in African countries where there is high incidence of malnourished children.

#### Development of technology

Developing and disseminating different types of technology such as information and communication technology (ICTs), geographic information system (GIS) mapping, integrated pest management (IPM) technologies, post-harvest technology, early warning systems for drought

**Figure 1.** Levels of Aids to Developing Countries



#### Non-Governmental Organisations (NGOs)

Non-governmental organizations have been a formidable force to reckon with in welfare programmes. In most instances they provide a better route to reaching people with life-saving programmes. Owing to government bureaucratic bottleneck, non-governmental organizations have been supported by donor agencies to develop pro-

and flooding, irrigation systems and other types of water and soil management technologies to rural areas and small farmers is vitally important for food and nutrition security. This is another area where policy research can provide insight into the best application of these technologies to smallholder agriculture and to diverse realities of the poor and food insecure.



### Role of partnership in solving nutritional problem

The developed world needs to promote rule-based trading and financial systems, provide more generous aid to developing countries that are committed to poverty reduction, and assist with relief for the debt problems. Partnership with developed nations should focus attention on problems of the least developed countries and of landlocked countries and small island developing states, which have greater difficulty competing in the global economy. There should be the development of an open, rule-based, predictable, non-discriminatory trading and financial system. Partnership should consider a commitment to good governance, development, and poverty reduction.

In partnership with developing countries, the developed world should conceptualize and implement strategies for decent and productive work for youth. In addition, there is need for cooperation with pharmaceutical companies, provide access to affordable essential drugs and make it available to developing countries. In collaboration with the private sector, the partnership should make available the benefits of new technologies, especially information and communications. The graph below shows the level of aids that were available to low-income countries and the need to double the current level of assistance.

### Conclusions

The national government has the major responsibility of ensuring that individuals are able to obtain enough food of good quality at all times. The government has a duty to establish the conditions and institutions necessary to enable citizens to access the basic requirements of nutrition security and the means to acquire this food. These could be through cash incomes or access to productive resources, education in order to provide proper nutritional care to one's dependents and oneself and effective health services. It should not be expected that one detailed policy and action prescription would enable national governments to effectively address malnutrition in all countries. Differences in historical factors including political structure, agro ecological conditions and economic imperatives influence food and nutrition security in African countries and these will never be exactly the same as those of another. The good tiding is that African countries have all the potentials to attain nutrition security with all the available natural and human resources, if only the government and the people can become more committed and sincere to make it work. It should be added that foreign assistance in terms of technical expertise and financial assistance from donor agencies may be required to jump-start the economies and create enabling environments for development.

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