

Addressing Sustainable Development Goal 2:

THE GHANA ZERO HUNGER STRATEGIC REVIEW

SUMMARY REPORT



CONTENT

FOREWORD	4
ACKNOWLEDGEMENT	6
ABOUT THE STUDY	8
Background	8
Aims and Objectives	9
Strategic Review Process, Methodology and Structure	9
Definition of Terms	11
SITUATIONAL, RESPONSE AND GAP ANALYSIS	
The Hunger Situation	13
Food and Nutrition Situation	15
Gender, Care and Social Protection	20
Gaps and opportunities	21
CONCLUSIONS AND RECOMMENDATIONS	
Conclusions	26
Recommendations	28

Foreword

hana has been commended globally for significantly reducing poverty, hunger and malnutrition between 1990 and 2014. However, the Sustainable Development Goals which member countries of the United Nations adopted in 2015 require higher commitment and more detailed strategic planning, to achieve this ambitious set of goals. What actions do we need to take in Ghana to achieve Sustainable Development Goal (SDG) 2 - Zero Hunger? How can we "end hunger, achieve food security and improved nutrition, and promote sustainable agriculture" without leaving anybody behind by 2030? How do we ensure that everyone has access not just to enough food but to diets that are rich in both calories and micronutrients?

These are the questions which the Ghana Zero Hunger Strategic Review has sought to address. The review identifies the causes of hunger, food insecurity and malnutrition and proposes measures to address them. It also draws a roadmap which informs the Government and stakeholders of what needs to be done to achieve all five targets of SDG 2.

The review confirms the importance of agriculture to the country as it remains a major contributor to poverty reduction due to the significant proportion (45 percent) of Ghanaians actively engaged in it. From stakeholder consultations across the country, the review establishes that the limited increase in food production is related more to lack of markets than production constraints. It further affirms that the country is facing a debilitating triple burden of malnutrition (underweight, overweight and micronutrient deficiencies).

The World Food Programme (WFP) has been a key partner in efforts to eliminate hunger and malnutrition in Ghana. Over the years, its programmes have kept in tandem with Ghana's development. It provided food aid in the challenging 70's and 80's, evolved to local food purchases from surplus production regions to deficit areas in the past decade, and now provides cash and vouchers which are boosting markets in communities, especially in northern Ghana. WFP support to the national school feeding programme, smallholder farmers, communities affected by climate change, and the prevention of mal-

nutrition, is well known. Currently, its innovative programme which engages private sector agro-processing firms in a market-based approach to improve food and nutrition security, falls in line with Ghana's vision to move from aid to trade.

WFP commissioned the John Agyekum Kufuor Foundation (JAKF) to undertake the zero hunger strategic review on behalf of the Government of Ghana in 2016. Under the leadership of HE John Agyekum Kufuor, former President of the Republic of Ghana, the Foundation mobilized an expert research team comprised of Prof. Matilda Steiner, Dean, School of Biological Sciences, University of Ghana, Prof. Joseph Saa Dittoh, Climate Change and Food Security Department, University for Development Studies, Dr. Sam Newton, Senior Lecturer of the School of Medicine and Health Sciences at the Kwame Nkrumah University of Science and Technology, and Prof. Charity Akotia, Dean, School of Social Sciences, University of Ghana, to conduct the review.

What is clear from this report is the need for the Government and its partners to prioritize the elimination of hunger, food security and malnutrition as a basis to achieve other developmental goals. With 13 years left to achieve Zero Hunger in 2030, there is an urgency to re-double efforts using clearly thought out actions identified in the road map of this review.

Prof. George Gyan-Baffour (MP)

Minister for Planning

Acknowledgement

he Ghana Zero Hunger Strategic Review report was prepared within the framework of the Memorandum of Understanding between the World Food Programme - Ghana (WFP) and The John A. Kufuor Foundation (JAKF). Undertaken on behalf of the Government of Ghana, the review process was under the leadership of HE John Agyekum Kufuor, former President of the Republic of Ghana, who served as the lead convener, and was made possible by the institutional leadership provided by HE David Beasley, Executive Director of WFP. The government of HE Nana Addo Dankwa Akufo-Addo has been fully supportive, and so was the immediate past president, HE John Dramani Mahama, under whose auspices the process commenced. The President's Chief of Staff, Hon. Frema Osei Opare provided additional support on behalf of the government.

During the review process, the research team was guided by an advisory board made up of the Ministers of the Ministry of Food and Agriculture; Ministry of Local Government and Rural Development; Ministry for Planning; Ministry of Health; Ministry of Gender, Children and Social Protection; Ministry of Fisheries and Aquaculture; Ministry of Education; Minister of State in Charge Agriculture, the Ministry of Finance and Economic Planning as well as the National Development Planning Commission and the National Disaster Management Organization.

Immense gratitude goes to the technical team members who ensured quality control for both the methodology and field consultations. They comprised technical representatives of the aforementioned ministries, Premium Foods Limited, the Hunger Alliance, Alliance for a Green Revolution in Africa, Peasant Farmers Association, International Institute of Tropical Agriculture, Private Enterprise Federation, Food and Agriculture Organization, German Development Cooperation, Global Affairs, Canada, International Food Policy Research Institute, Forum for Agriculture Research in Africa, World Health Organisation, Institute for Food Agriculture Development, African Development Bank, and Ghana Nutrition Association.

We are also grateful for the good work of all the regional representatives of the various public institutions and companies that contributed at the regional stakeholder consultation workshops across the country. During the focus group discussions, the local communities in particular enriched the report by sharing what it really means to be hungry. We appreciate especially the communities of Nyamebekyere in the Central Region, Osabene and Basare Nkwanta in the Eastern Region as well as Kudula and Garishagu in the Northern Region for their enthusiastic cooperation.

Special mention is made of the research team led by Prof. Matilda Steiner (Dean, School of Biological Sciences, University of Ghana), Prof. Joseph Saa Dittoh (Climate Change and Food Security Department, University for Development Studies), Dr. Sam Kofi Newton (Senior Lecturer at the School of Medicine and Health Sciences at the Kwame Nkrumah University of Science and Technology) and Prof. Charity Akotia (Dean, School of Social Sciences, University of Ghana) for their tireless dedication and commitment to completing the review.

Finally, our gratitude goes to the staff of the World Food Programme and the John A. Kufuor Foundation for their hard work in facilitating the review process.

About The Study

BACKGROUND

The Zero Hunger Strategic Review in Ghana has been a country-led, open and consultative process involving relevant stakeholders. The review has established a baseline that fosters joint understanding of the challenges and gaps in the national response to food and nutrition security, leading to joint agreement and consensus on priority actions required to achieve the United Nations Sustainable Development Goal 2 (SDG 2). SDG 2 aims to "end hunger, achieve food security and improved nutrition, and promote sustainable agriculture" by 2030. The five targets of SDG 2 are:

- By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round.
- By 2030, end all forms of malnutrition, including achieving, by 2025, the
 internationally agreed targets on stunting and wasting in children under
 5 years of age, and address the nutritional needs of adolescent girls,
 pregnant and lactating women and older persons.
- By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishermen, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and nonfarm employment.
- By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality.
- By 2020, maintain the genetic diversity of seeds, cultivated plants, and farmed and domesticated animals and their related wild species, including through soundly managed and diversified seed and plant banks at the national, regional and international levels, and promote access

to and fair and equitable sharing of benefits arising from the utilization of genetic resources and associated traditional knowledge, as internationally agreed.

AIMS AND OBJECTIVES

The main objective/deliverable of the Ghana Zero Hunger Strategic Review has been the creation of a national report and road map to zero hunger which the Government and its partners can use to inform their roles in-country. The Report has ensured that the 5 principal targets of SDG 2 and the closely related five pillars of the Zero Hunger Challenge are adequately addressed, in terms of strategic directions and monitoring mechanisms.

STRATEGIC REVIEW PROCESS, METHODOLOGY AND STRUCTURE

The Research Team, identified through the John A. Kuffour Foundation (JAKF), used several qualitative and quantitative research techniques and tools to undertake the review. The Research Team was multidisciplinary and included experts in areas of agriculture, nutrition, health, gender, development policy and others deemed relevant to the task by the team.

Comprehensive desk studies as well as engagement with stakeholders at national, regional and community levels in various parts of the country were undertaken to ensure a good understanding of food and nutrition security issues at all levels of the Ghanaian society. The desk study involved reviews of published and unpublished materials on hunger and malnutrition; food and nutrition security related policies, strategies, plans, programmes and projects of the country over time; food and nutrition security strategies of international organizations as well as health care systems and policies that directly and indirectly impact on food utilization. Situational, response and gap analyses were undertaken to get an insight into the food and nutrition security in the country and what had been done or not done about it.

The structure of the report is as follows:

1. Situation analysis – The emphasis has been on food security and

nutrition trends, causes of food insecurity and malnutrition, methods used to address the problem in the past and the shortcomings of those methods, the degree to which food systems and food sovereignty perspectives have been incorporated into past strategies etc. The analysis was presented along the SDG 2 targets.

- 2. Response Analysis This involved analysis of the food security and nutrition policies, strategies, programmes and projects of Government agencies, Development Partners and NGOs. Institutional arrangements and capacities as well as human and financial resources allocation for food security and nutrition interventions were analysed. There was also the need to link policies, strategies, programmes and other planned interventions to implementation and achievements over the years. The response analysis thus involved the engagement of several stakeholders (policy makers, implementers, beneficiaries etc.) at national, regional, district and community levels.
- 3. Gap Analysis Gaps in policies, plans, strategies, programmes, projects, funding, implementation etc. especially in relation to prevailing paradigms (e.g. "commoditization" and overdependence on imported seeds and fertilizers) were critically examined. Important as prevailing paradigms are, the continued food insecurity and malnutrition in several parts of the country suggests the need to consider the integration of other paradigms such as local food systems and food sovereignty perspectives in food and nutrition security programming. The analysis was done by taking cognisance of gender and generation so that pertinent differences between different gender and age groups would not be overlooked. It also recognized differences in population groups (poor, marginalized groups etc.) and geographical areas so that specific needs and priorities could be highlighted.
- 4. Recommendations Recommendations have been made with focus on:
 - Opportunities to fill gaps in the national response through government, partner, civil society or private sector interventions, focusing on how suggested interventions would respond to the

needs of different population groups (e.g. disaggregated by sex and age);

- Opportunities to improve plans, programme design, implementation and effectiveness, coordination, institutional capacities, resourcing, etc.;
- Priority actions to be taken in the short to medium term, including targets, implementation and resourcing modalities.

The recommendations centred on how to achieve equity and empowerment of identifiable groups; how to ensure environmental sustainability and resilience across agricultural landscapes; identification of new or innovative investment strategies and implementation pathways for inclusiveness; effective trade-offs between multiple livelihood benefits and food and nutrition at multiple scales; and incentives for adoption of sustainable and climate-smart agricultural practices that enhance ecosystem services and promote improved productivity and equity. The convergence of water, food, energy and trade-offs that exist and impinge on SDG 2 has also been analyzed.

DEFINITION OF TERMS

It is important to operationally define the keyword "hunger" and show the linkages with factors that impact on it from a multi-sectoral perspective (Figure 1).

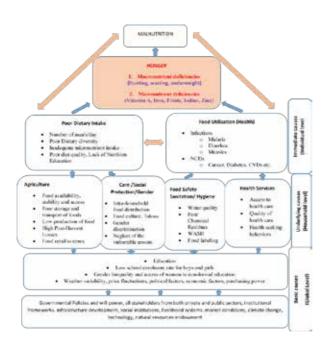
Depending on the usage of the term, the concept hunger covers a broad spectrum from the short-term physical experience of pain or discomfort to the chronic food shortage and to severe life-threatening lack of food. Hunger is a condition in which a person, for a sustained period, is unable to eat sufficient food to meet basic nutritional needs in terms of both macro and micro-nutrients (NDPC, 2016).

Two key terms arise in the definition of hunger - food insecurity and malnour-ishment. Food insecurity is the lack of secure access to sufficient amounts of safe and nutritious food for normal growth and development and an active and healthy life. The four main components of food insecurity are unavailability, inaccessibility, unaffordability and instability (i.e. unsustainability). Mal-

nourishment, which occurs when nutrient and energy intake do not meet or exceed an individual's requirements, is also critical and is the basic cause of hidden hunger.

Oftentimes, the definition or interpretation of hunger is skewed towards lack of macro-nutrients (energy). Nevertheless, the issue of hidden hunger (the chronic deficiency of essential vitamins and minerals - micronutrients) is critical to ensuring health, productivity and proper development. That is why in tackling hunger it is necessary to emphasize ensuring food and nutrition security.

Food and nutrition security is not only about having enough food, but having access to varied sources of food that can help ensure diet quality, so that diets are sufficient not just in calories but also in micronutrients (Meenakshi, 2016). Poor diets contribute significantly to diseases such as coronary heart disease, cancer, stroke and diabetes (Frazao, 1996).



Situational, Response and Gap Analysis

THE HUNGER SITUATION

Ghana with a population of about 28,833,629 (2017 estimate) and a population growth rate of about 2.3 percent per annum, is a naturally well-endowed country when compared to many other West African or even African countries. With a total land area of 23,884,245 hectares, Ghana is endowed with an extensive tropical forest, petroleum and numerous mineral resources including gold and bauxite. Ghana is a lower middle-income country with a 2016 GDP (purchasing power parity) estimate of US\$120.8 billion (but US\$42.76 billion at the official exchange rate) (CIA, 2017). The 2016 GDP per capita estimate is thus US\$4,400. Poverty in Ghana decreased significantly overall within the last decade and Ghana was the first African country to meet the Millennium Development Goal (MDG) 1 of halving poverty. The national poverty level decreased from 56.5 percent to 24.2 percent between 1992 and 2013 (Cooke et. Al., 2016). The 2015 population survey by USAID also showed an 18 percent reduction in poverty in northern Ghana between 2012 and 2015. Despite these achievements there are still over 24 percent of the population below the poverty line (of about US\$1.25 per day) and the estimated Gini coefficient is 0.42 indicating high inequality. Studies have shown that north-south, rural-urban and female-male inequality has increased over the period of the poverty decline and that child poverty is becoming a very serious problem (Cooke et al. 2016).

Figure 2 shows the trend of the contributions of agriculture, industry and services to Ghana's economy from 2010 to 2016 and Figure 3 gives the relative contributions of the sectors to GDP in 2016. The share of the agricultural sector declined dramatically from about 30 percent in 2010 to about 20 percent in 2016. The services sector and industry shared the loss from agriculture almost equally. The petroleum sector has been a major boost in the industry sector.

For an agricultural country such as Ghana with an undeveloped industrial sector, the decline in agricultural sector share is worrying especially as a large majority of the populace trace their livelihoods to the sector. The growth

of the service sector without significant growth in the industrial sector only means Ghana is helping to market the products of other countries. The banking, insurance, telecommunication and other components of the service sector, for example, support the buying and selling of imported products more than products from Ghanaian agricultural and industrial sectors. Many goods in the shops all over the country are imported and similar Ghanaian products are finding it difficult to compete. There is obviously some degree of dumping by trading partners. The risk and unsustainability of the prevailing booming service sector is obvious and dangerous.

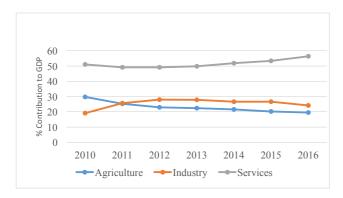


Figure 2: Trend of contributions of main sectors to Ghana's GDP (2010-2016)

Source: CIA Fact Book (2017)

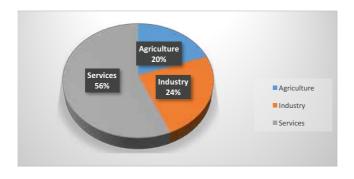


Figure 3: Sectoral Contributions to Ghana's GDP in 2016

Source: CIA Fact Book (2017)

Despite the loss in its share contribution to the GDP, agriculture is and will continue to be the mainstay of the economy because the majority of Ghanaians derive their livelihood from the agricultural sector as shown in Figure 4. About 45 percent of the population are actively engaged in agriculture. Several industries are agro-industries and some of the services exist because of agriculture. Thus, a large majority of Ghanaians derive their livelihood directly or indirectly from the agricultural sector, which is a major force for poverty reduction (World Bank, 2007).

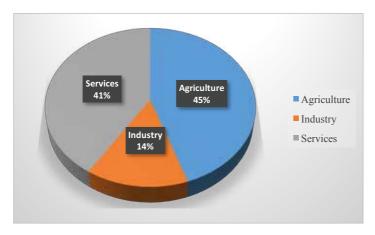


Figure 4: Occupation of labour force

Source: CIA Fact Book (2017)

FOOD AND NUTRITION SITUATION

Ghana has been commended worldwide for reducing poverty, hunger and malnutrition. Poverty reduction is important for food and nutrition security because "hunger is primarily a problem of poverty" (Parikh, 1992). Hunger in Ghana decreased by 75 percent between 1990 and 2004. The malnourished population also reduced from 7 million in the early 1990s to less than 1 million in 2015. Nevertheless, hunger and malnutrition persist in many parts of Ghana especially the Northern, Upper East and Upper West Regions, as well as many rural and peri-urban communities across the nation, and could increase given the unsustainable food production systems that continue to be practised in all parts of the country.

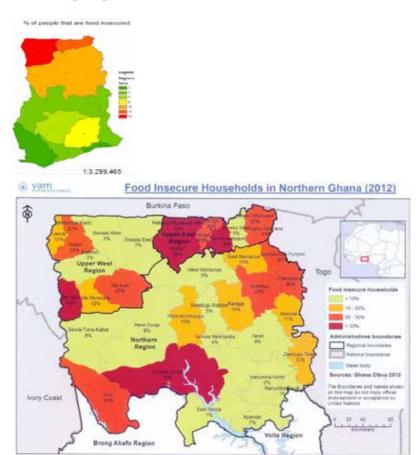


Figure 5: Regional Disparities in the Food Security Situation in Ghana

Hunger arises out of limited food availability, accessibility, affordability, stability and utilization and all these situations exist in food-and-nutrition-insecure areas in the country. From the stakeholder consultations and focus group discussions, the limited increases in food production in all parts of the country is related more to lack of markets (including the lack of standard weights and measures) and low prices for the produce than low use of production inputs and production constraints. The two related problems continue to keep many farm families and dependents poor, food insecure and malnourished.

With regard to malnutrition, Ghana faces the triple burden of malnutrition (underweight, overweight and micronutrient malnutrition). Nearly 20 percent of children under five in Ghana are stunted (too short for their age). This indicates chronic malnutrition. Stunting is more common in the Northern Region (where about 33 percent of children are stunted) and less common in the Greater Accra Region where about 10 percent are stunted. Stunting is more common among children of less educated mothers (26 percent). Wasting (too thin for height), a sign of acute malnutrition, is far less common (5 percent). Furthermore, 11 percent of Ghanaian children are underweight, (too thin for their age). The nutritional status of Ghanaian children has generally improved since 2003. However, it is important to note that despite the progress at the national level there is a disparity at the regional level (Figure 6). Stunting is significantly high in Northern, Upper West, Central, Volta and Western regions while wasting is serious in Upper East, Northern and Central regions. Overweight is gradually becoming a problem in all regions but is quite significant in Greater Accra, Central and Volta Regions.

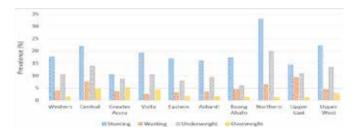


Figure 6: Under-nutrition Profile in Ghana among under-5 children
Source GDHS 2014

There is also disparity between males and females across the regions. Six percent of Ghanaian women and 10 percent of men are underweight (body mass index or BMI < 18.5) while about 40 percent of women and 16 percent of men are overweight or obese (BMI \geq 25.0).

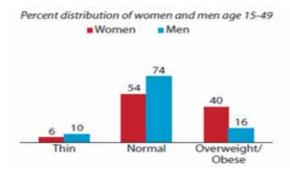


Figure 7: Nutritional status profile of women and men

Source: GDHS (2014)

Micronutrient malnutrition is also a serious problem. Vitamin A, lodine and Iron deficiencies are prevalent, especially among children and women of child-bearing age and this has a great bearing on the high maternal mortality associated with anaemia. One major challenge with respect to micronutrient malnutrition is the general reluctance of the population to eat fruits, and the perception that fruits are food for the sick. Another dimension is the relatively high cost of fruits and vegetables.

With respect to productivity and incomes of small-scale food producers, the finding is that there have been modest increases mainly in maize, rice and soybeans, the crops actively promoted by development partners. Productivity has stagnated for most of the staple food crops, and incomes have not improved. Indeed, for most farming families and others, poverty and hunger have been increasing. The cost of production continues to increase partly because several farm inputs are imported. What should be done in the agricultural sector to ensure that food and nutrition security does not continue to be a problem?

The role of market prices (affordability) in influencing dietary intake cannot be overlooked since this has a huge impact on hunger and hence malnutrition. Based on data available, nutrient requirements of Staple-Adjusted-Nutritious Diet (SNUT) were modeled by WFP/GHS (2016) to show to what extent nutrient requirements were met. Greater Accra Region had the lowest rates of

non-affordability (around 10 percent), while the Northern Region had very high non-affordability (34 percent for 4PH and 76 percent for 5PH). Figure 22 puts the cost disparity across the country to eating a nutritious meal in perspective and partly explains and correlates well with the under-nutrition situation in the country (Figure 23).

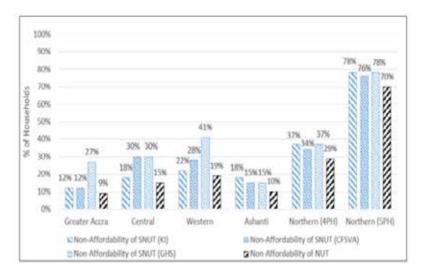


Figure 8: Percentage of households unable to afford minimum cost of a nutritious diet by region

Source: WFP/GHS (2016)

With respect to the target of sustainable food systems and resilient agricultural practices, the finding is that small-farmer (local) food systems tend to be more sustainable and resilient and that it is necessary to promote ecosystem-friendly practices which farmers are using but with difficulty. Farmers should be supported to move from their Low External Input Agriculture (LEIA) to Low External Input and Sustainable Agriculture (LEISA). Also, the tendency for modern agriculture to move towards monoculture is leading to food and nutrition insecurity. There must also be seed security in order to provide sustainable food and nutrition security. In the area of fisheries, unsustainable fishing practices are rampant and need to be tackled holistically. Fish is the largest source of animal protein in the country.

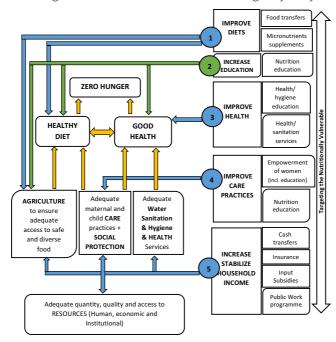
GENDER, CARE AND SOCIAL PROTECTION

Gender inequalities influence food and nutrition security in the country. Specific gender-related issues include some cultural practices that limit women's access to productive resources, administrative and other bottlenecks that limit women's access to agricultural credit and use of agricultural equipment and the general negative perception of agriculture as a profession for drop outs and people without formal education.

Social protection interventions are important for food and nutrition security. The Government of Ghana has put in place some social protection interventions which have strong legal and policy backing. The major ones include the Ghana School Feeding Programme (GSFP) which provides hot meals to children of selected public schools, and the Livelihood Empowerment against Poverty (LEAP) which provides cash transfers to the vulnerable. Additionally, the National Health Insurance Scheme (NHIS) makes provision for free health insurance to the aged and pregnant women, while the Capitation Grant and free distribution of school uniforms and books to public school children are also examples of social protection interventions instituted by the government.

It must be noted that there are informal social protection practices in Ghanaian societies. The family and the extended family system in particular serves as social protection for its members. Families and other members of the community take responsibility for taking care of the aged, persons with disabilities, the sick, the unemployed, newborn children and mothers, as well as orphans in their families. Such shared responsibilities and obligations of family members are ingrained in the Ghanaian cultural values.

In spite of these programmes, there are some gaps such as lack of coordination among the various sectors, lack of monitoring and supervision of the programmes, inadequate funding and overdependence on donor agencies for financial support. It is important that the government puts in effective coordination and monitoring frameworks that will ensure the successful implementation of the programmes. It is also important to narrow the gap between men and women with regard to food and nutrition security. The need to pay particular attention to people with disability (physical and mental), orphans, the aged, and chronically sick people who are marginalised by society



should not be ignored, if Ghana is to attain zero hunger by the year 2030.

Figure 9: Nutrition/Social Protection /Education linkages

(Possible Entry points for social protection programmes) Modelled upon the UNICEF Conceptual Framework of Malnutrition

GAPS AND OPPORTUNITIES

Several gaps have been identified with respect to past and current food security, nutrition and social protection policies, plans, strategies, programmes and projects, and it is hoped that those gaps will be addressed during the implementation of this Strategic Review. Government monetary contributions to the largely donor-funded programmes and projects have been too insignificant over the years. Without Government commitment to significant funding of food and nutrition security future programmes and projects, zero hunger by 2030 will be impossible.

The main identified gaps in the national and sectoral level policies, strategies

and plans include the following:

- Inadequate understanding of national policies, strategies and plans by those who are expected to implement them at the regional and district levels mainly due to inadequate sensitization and engagement with actors at these levels;
- 6. Inadequate capacity in terms of numbers and quality at the district level to implement policies, plans and programmes.

Points 1 and 2 present an opportunity to right the wrongs by undertaking intense sensitization and retraining of district-level implementers of programmes and projects. The adequate building of the capacities of local-level implementers of food and nutrition-security policies, programmes and projects is critical for the achievement of zero hunger.

- Evidence usually used to formulate food and nutrition security policies is weak and unbalanced mainly because it is not based on rigorous information gathering, checking, rechecking and cross-checking or on field evidence.
- 8. Policies, strategies or plans do not indicate geographical or locational targeting to reduce hunger. Effective targeting reduces cost of implementation of food and nutrition security programmes and projects. Targeting must be considered a critical step in programme and project implementation.

Points 3 and 4 imply the need for adequate time and resources to be devoted to information gathering either from secondary sources or from the field, and rigorous analysis for policy making and development planning. It is from good information that effective targeting can be done.

9. Inadequate funding of plans, projects and programmes: Government funding of food and nutrition security plans, programmes and projects has been dismal over the years. Almost all food and nutrition security programmes and projects undertaken in Ghana have been largely donor-driven and donor-funded. Ghana cannot continue to rely on Development Partners (DPs) for the initiation, funding and implementation of programmes and projects and ex-

pect to achieve zero hunger.

10. Many of the bilateral programmes and projects are four or five-year "technology transfer" programmes and projects and seem to be performing well while the programmes or projects last but do not usually have any long-term impact. They are also usually within enclaves (a few communities in a few districts of some regions) and are thus limited in coverage. They have proved to be clearly unsustainable. The different levels of government need to own such interventions to ensure sustainability.

Points 5 and 6 clearly indicate that if sustainable zero hunger is to be achieved in Ghana, The Government of Ghana must commit considerable resources to food and nutrition security. Present and future governments must show commitment to SDG 2 by funding food and nutrition security programmes and projects adequately. Government agencies and the Ghanaian private sector should drive programmes and projects and should contribute substantially to the funding of food and nutrition security programmes and projects.

- 11. Local (indigenous) knowledge has been ignored to a large degree in food and nutrition security programming. Research has over the years shown the importance and usefulness of incorporating relevant local knowledge into programmes and projects for effectiveness and sustainability. A case in point is in food preparation where indigenous methods tend to retain nutrients while "modern" methods virtually destroy the nutrients in foods.
- 12. There has also been no emphasis on strong agriculture-nutrition-social-protection linkages at production and consumption levels. Food production is principally for consumption to nourish the body. That basic knowledge is being replaced with food production for money, so that even if the food produced is not good enough to nourish the body it could still bring in some money, which, in their opinion, is in order. Obviously, this is unacceptable in a zero-hunger drive. Only wholesome food can result in zero hunger.

Points 7 and 8 call for very effective capacity building of agriculture and nutrition actors at district and community levels and for governments to enact

laws to prevent the production and sale of unwholesome foodstuffs. The capacity of food and nutrition security policy-makers and planners must be built with regard to nutrition-sensitive agriculture and how to incorporate nutrition concerns in agricultural plans, programmes and projects and vice versa. Food-based approaches for nutrition adequacy will continue to be the most cost effective and feasible option in Ghana

- 13. The importance of gender is always stated in the various policies, plans, programmes and projects. There however does not seem to be a good understanding of what roles the different genders are expected to play and the consequences of those roles. The understanding of "gender" by many policy-makers and planners is questionable. Gender must be understood and applied objectively towards the improvements in the roles of both women and men in agriculture and agribusiness.
- 14. Generational concerns have also not been adequately taken into consideration in the formulation and development of food and nutrition security policies, plans, strategies, programmes and projects. Special attention needs to be paid to youth concerns with respect to agriculture. Farming is not a naturally attractive profession and thus requires the creation of a special enabling rural environment which narrows the difference between living conditions in urban and rural areas. Also, as pointed out by farmers in the communities visited in the course of this study, children grow up having no interest in agriculture because child rights laws and child labour concerns are preventing children from learning the rudiments of farming and developing some attachment to farming. Without such learning, children naturally grow to dislike farming even as a hobby. Child labour must be clearly distinguished from apprenticeship and training on the job.

Points 9 and 10 calls for greater understanding of gender and generational issues relating to food production, processing, marketing and consumption, and for making those concerns reflected in food and nutrition security policies and plans.

15. Inadequate attention is paid to micronutrient malnutrition, which is "hidden hunger". The cost of hidden hunger to the nation, house-

holds and individuals is too heavy to be ignored.

16. Over-nutrition and obesity problems are also beginning to be public health concerns.

Points 11 and 12 suggest that there are other important areas of "hunger" that must be adequately taken on board immediately for the achievement of zero hunger.

Conclusions and Recommendations

CONCLUSIONS

The Ghana Zero Hunger Strategic Review set out to identify the causes of hunger, food insecurity and malnutrition in Ghana, the measures taken so far to address the problems, the gaps that exist and what Government and its development partners can do to ensure zero hunger by 2030. The process was very participatory, involving all levels of stakeholders from the national to the community level.

Ghana has done relatively well with respect to reducing both food insecurity and malnutrition compared to other countries in the continent but it is still confronted with the triple burden of malnutrition, that is protein energy malnutrition, micronutrient malnutrition, overweight and obesity. Protein energy malnutrition and micronutrient malnutrition are still prevalent in rural areas, especially in the Northern, Upper East and Upper West regions.

The causes of hunger and malnutrition in Ghana are basically poverty mainly due to the inability of farmers to obtain secure markets for their produce and low prices; lack of education/knowledge; the promotion of unsustainable farming systems; post-harvest losses; socio-cultural factors; and climate change, which reflects in irregular rainfall and droughts. The Government and development partners have formulated policies and instituted strategies, programmes and projects over several decades and even though there have been some successes, about 1.2 million Ghanaians remain classified as hungry. Others may also be hungry without knowing it since there is relatively high ignorance about "hidden hunger" or micronutrient malnutrition.

Ghana could have done better if it had taken a number of measures and actions. They include the following:

- Adequate funding of food and nutrition security interventions instead of depending almost wholly on donor support;
- Effective and adequate inter-sectoral and inter-ministerial collaboration;

3. Effective monitoring and evaluation of food and nutrition security programmes to help improve programme deliverables. Effective monitoring and evaluation would have also prevented unnecessary duplication of efforts by development partners and NGOs.

It was found that gender inequality impacts negatively on food and nutrition security in several ways. Specific gender-related issues include difficulties in accessing productive resources such as land, labour, credit, and mechanization services. Work overload as well as the perception that females are not farmers, even though they do a lot of farm work, are other gender-based problems facing rural women. On the positive side women as home keepers determine to a large degree the nutritional content of the food eaten by farm families and thus their empowerment necessarily implies better access to nutritious food by the whole family.

Food-based approaches (including food systems involving livestock, poultry and fish farming) are the most sustainable ways for food and nutrition security. Thus, nutrition-sensitive agriculture is key to the elimination of hunger. This study contends that small farmer production of mixed cropping and mixed farming, and the ecosystem-friendly practices employed in production ensure holistic production of nutritious foods for the family and for sale. However, the small farmer has to be supported to produce more efficiently and to gradually increase his acreage over time. Profitable agricultural production can be obtained by small farmers if they understand the principle of Sustainable Agricultural Intensification (SAI). The youth can be attracted to agriculture under SAI and the development of irrigated agriculture. Some aspects of the Planting for Food and Jobs initiative such as home vegetable gardens are aimed at food and nutrition security and should be encouraged. Another area that needs priority attention is the institution of grades and standards for various commodities to promote effective marketing of all agricultural produce (crops, livestock/poultry and fish).

Private sector involvement is important if the Zero Hunger target is to be achieved. Farmers are a part of the private sector but other agribusiness concerns such input dealers, aggregators, processors, marketers, financiers and others are critical in ensuring the proper functioning of commodity value chains. It is also important to foster private-public partnership across all levels. Government needs to engage the private sector with the aim of reducing

tariffs, granting import cost concessions, and granting targeted subsidies to providers of storage equipment and tools. The private sector and other organizations, for example, should help fund social intervention programmes. Internally Generated Funds (IGFs) can supplement what the government receives from donor agencies and should be considered in addition to the budgetary allocations from government. At the local level, Zero Hunger will require the mobilization of grassroots organizations, NGOs, and community groups. At the grassroots, the people should be made to own programmes for sustainability sake, and actively participate in policymaking, monitoring the implementation of guidelines and programmes at all levels.

The food system model being proposed for piloting at chosen food-insecure locations is a variant of the agricultural clusters model. It is a model that relies on the cooperation and collaboration of all value-chain actors within a particular farmers' location. The model does not distort the holistic food system of the small farmers but also incorporates the value chain concept to ensure value addition of the produce and remunerative return to the farmer. The model is based on adequate financial input by the credit system. It is hoped the Bank of Ghana proposal for agricultural financing will see the light of day to support the clusters.

RECOMMENDATIONS

To implement the strategies as outlined in the document the following recommendations are suggested.

- A multi-sectoral and multi-level approaches for maximum impact is required in order to eradicate hunger in Ghana. The SDG2 targets must be mainstreamed in all sectors and at all levels from the national to the local level. All stakeholders should be welcomed on board as per the framework (Figure 1). Health, gender and social protection, agriculture, environment and sanitation, soil and water, climate change, civil society, finance and others, are all relevant factors in addressing Zero Hunger. Coordination is key and the success of the Zero Hunger Initiative depends on a strong, powerful and vibrant coordinating institution.
- Effective implementation begins with commitment at the highest level.
 Tackling hunger and malnutrition must be a priority for the Government of Ghana. The government needs to ceaselessly take all measures

within its means to ensure that its people are protected against food insecurity throughout the country. This high-level commitment will ensure that concerted efforts are directed towards the Zero Hunger Challenge campaign to end hunger through a 'whole-of-government' approach.

- At the top of the hierarchy should be an Advisory Board in the Office of the President and at Cabinet level, which should include representatives from development partners (WFP, UNICEF, FAO, USAID etc.), researchers, universities and other institutions. This should facilitate integration at the highest level. Currently, some of these development partners are doing their best to help but efforts are fragmented and often duplicated.
- A Food and Nutrition Security Inter-Ministerial Board responsible for the drafting and implementation of the food and nutrition security plan should be established.
 The Board would be responsible for close coordination of government agencies at national, regional, district and local levels to ensure they work together. It would work closely with regional, district, and community food and nutrition security committees. The Food and Nutrition Technical committee (FNTC) would continue to play its leadership role, but should be enhanced and strengthened through financial and technical support to enable it to play its coordination role more effectively.
- Education, awareness and sensitization programmes on attitudes and behaviour change particularly in relation to cultural beliefs and practices towards food and nutrition issues must be intensified.
- It is important to encourage effective coordination, monitoring and supervision at all levels of policy formulation and implementation.
- Programme design should be informed by gender, location, disaggregated assessment, monitoring and reporting.
- Programmes that target females in agriculture should be strengthened. Women should be empowered for example, to rear animals as an alternative means of livelihood to supplement their income and also to feed their families.
- To sustain programmes and to prevent them from collapse, there should be partnerships with the private sector and also a consideration of how to internally generate funds (IGFs).
- There is a need for proper monitoring and setting up of a reporting system on health, social protection and gender issues in order to track improvements in nutrition, health and social intervention programmes such as LEAP and GSFP. Mon-

itoring through the involvement of research institutions and CSOs is key to ensuring that the social intervention programmes are working at all levels and that they are tailored to be culture-specific. The use of ICT would be useful in monitoring and tracking the LEAP to ensure its effectiveness.

- A realistic transfer value for social intervention programmes must be established to enable adequate provision for the needs of its beneficiaries. Provision for social programmes such as the school feeding programme which currently stands at 80 pesewas per day is simply unrealistic to provide for the nutrition needs of school children.
- Social intervention programmes should be reviewed to identify those which must be made more nutrition-sensitive. For example, it is important to ensure that the LEAP1000 programme is conditional on attendance at antenatal care (ANC) services and Child Welfare Clinics (CWC).
- Collection of good and relevant data at the district level on social intervention programmes would be essential to help track progress. The districts therefore need to be well-equipped and resourced to enable them keep accurate data on the progress made by social protection programmes.
- The legislation for social protection and GSFP should be finalized to ensure adequate allocation of resources in the national budget.

By 2030, a Ghana free from hunger and all forms of malnutrition can be achieved if this is led by the government, supported by donor organizations, industry and individuals while tapping the expertise of the National Development Planning Commission (NDPC). The Scaling Up Nutrition (SUN) Movement will ensure every child, woman, person with disability and all persons across all stages of life, irrespective of age and gender, can realize their right to food and nutrition, reach their full potential, and ultimately promote national development. It must be reiterated that since Ghana joined the SUN movement in the year 2011, there have been many positive achievements towards eliminating all forms of malnutrition in Ghana under the auspices of the NDPC in coordinating activities which led to the development of Ghana Nutrition Policy, establishing the baseline of the nutrition situation in Ghana, and identifying trends in nutrition financing. These efforts can be harnessed for the good of a Ghana free of hunger and all forms malnutrition.

