

PATHWAYS TO GHANA'S FOOD SYSTEMS TRANSFORMATION

I. INTRODUCTION

Ghana, like several other countries in the region, is not on track to achieve Zero Hunger (SDG 2) by 2030 nor the Global Nutrition Targets by 2025. The situation is worsened by the COVID-19 pandemic, climate challenge, and general economic conditions. High costs of food, especially fruits and vegetables and animal source foods, which constitute important aspects of healthy diets, make it difficult for most people to afford healthy diets. The consequence is the worsening of the triple burden of malnutrition; undernutrition, micronutrient malnutrition (MM) and overweight and obesity (OO).

The situation calls for drastic transformation of the prevailing food system to an integrated one that recognizes interrelationships between at least five easily recognizable food sub-systems (as stated below) as well as with other systems such as the health, environment, education, trade and energy systems. Human and planetary health concerns must be integral components of food systems. Ecosystems are the productive base of food, and food produced must not only quench hunger but must also nourish bodies.

Food systems are usually sub-divided into the following food sub-systems:

- 1) Agriculture production sub-system
- 2) Food storage and transport sub-system
- 3) Food transportation sub-system
- 4) Food retail sub-system
- 5) Food consumption sub-system

The proposed pathways to transforming Ghana's food system are presented under several headings below. It must be noted that food systems imply integration of activities from farm to fork, including disposal, thus, there must be integration of policies, strategies, plans, funding etc. The divisions indicated here are mainly for convenience and for focused presentation of the pathways.

II. THE PATHWAYS FOR FOOD SYSTEMS TRANSFORMATION IN GHANA

a) Political Will and Commitment

The usefulness of the technical pathways and indeed the whole transformation agenda is based on strong and practicably demonstrable high-level political will and commitment for resilient and sustainable food systems transformation. That is to be achieved by the following actions:

- ❖ Sensitization of policy makers and politicians at all levels (national, including Presidency and Parliament, regional and district) to better understand the concept of resilient and sustainable food systems, the costs involved in taking no action to fix a broken food system, and the benefits and processes involved in the transformation process.
- ❖ Establishment of a Food Systems Transformation Technical Steering Committee at the Presidency with Multi-Sector Technical Working Groups at national, regional and district levels so that there can be effective awareness creation, advocacy and programming, implementation, and monitoring and evaluation across sectors, regions and districts. Good stakeholder involvement that ensures inclusiveness and that all voices are heard. Government should commit to adequate funding of the food systems transformation process. Donor assistance can be welcomed but should not replace government funding.
- ❖ Effective and adequate inter-sectoral and inter-ministerial collaboration; and effective monitoring and evaluation to ensure effective integration of the various food sub-systems and other relevant sectors such as health, environment, education and others, and to prevent duplication of efforts by government agencies, development partners and NGOs.

b) Agriculture Production Sub-System

- ❖ The agricultural production sub-system will involve the promotion of two food production systems categories: **agroecological food production systems and industrial food production systems**. They should be promoted side-by-side in a kind of symbiotic relationship, as explained below. For both categories, there should be emphasis on sustainable agricultural intensification (SAI) principles to ensure the maintenance of planetary health, increases in productivity and the production of healthy foods.
- ❖ In the short to medium term (1 to 5 years), there should be re-orientation of all stakeholders in agriculture and food production in the country (MoFA and related Ministries, agriculture-related NGOs and CSOs, development partners and other) on agroecological and systems processes in agriculture and food production. Agroecology seeks to “optimize the interactions between plants, animals, humans and the environment while taking into consideration the social aspects that need to be addressed

for a sustainable and fair food system” (FAO, 2018). It has been shown that agroecological and systems processes tend to be nutrition-sensitive (involving diverse crops), gender-responsive, climate-smart, inclusive and result in the production of low cost and safe nutritious food with minimum damage to natural ecosystems. All these factors are necessary ingredients for resilient and sustainable food systems, Our agricultural training institutions have largely ignored agroecology hence the need for retooling of almost all those involved in the transformation process. Agroecology, in practice, encompasses conservation, regenerative and climate-smart agriculture as well as biodiversity conservation and sustainable land management practices which involve minimal use of external agrochemical inputs. Use of innovative site-specific and crop-specific fertilizers are, however, encouraged.

- ❖ The short to medium term activities at the farmer level will involve strengthening inclusive farmer groups and women led community-based organizations to promote “modern” agroecological practices (through sustainable agricultural intensification, SAI, methods), solar powered farmer-led irrigation (FLI) practices; as well as sensitization of various farmer groups on learning-by-doing and peer-to-peer learning approaches, gender inclusive technologies and practices and product marketing strategies and opportunities.
- ❖ The problem of secure access to agricultural land by women, the youth and migrant farmers can still be a problem in small scale agroecological food production. The pathway to getting secure land for these three categories will be by bye-laws formulated and passed at District Assemblies with the active participation of community stakeholders (chiefs, landowners, women and youth groups etc). Rural migrants are the major food producers in the country. Customary land laws differ across the country.
- ❖ The long-term agenda will commence with the short to medium term activities. It involves restructuring of agriculture curricula at all levels of the educational system (from basic to tertiary) towards the concept of agricultural and food systems with emphasize on agroecological and systems approaches.
- ❖ Agroecological approaches have also been shown to have the potential of restoring and rehabilitating the many landscapes destroyed by unsustainable agricultural practices, mining, overgrazing, logging etc. It is an important medium to long-term pathway since it is one of the important ways to increase and strengthen the food systems’ productive base.
- ❖ Another medium to long-term pathway is a comprehensive strategy towards ensuring seed and breed security, achieving food sovereignty and enhancing biodiversity. COVID-19 has clearly shown that this pathway is very necessary for resilience, sustainability and inclusiveness (i.e. leaving nobody behind!).

The above pathways will not be difficult to pursue because the traditional methods of food production in almost all parts of Ghana (i.e. mixed cropping of mainly indigenous crops, mixed farming) and use of the products of semi-wild trees and shrubs for food and medicines are basically agroecological and systems processes. What is required is to use science and technology to improve upon the farmer-led technologies and innovations to increase productivity and production. If well planned, the youth are likely to be attracted to the methods as farmers.

- ❖ Well-planned and established industrial food production systems should be an integral part of the food systems transformation process. They are necessary to mainly feed agro-industries with raw materials and thus create employment in the formal sector. They will, in addition, supplement the agroecological production with regards to food security. The agroecological production systems can also be out-growers to the industrial food production systems.
- ❖ Investments in fisheries and aquaculture should be greatly increased. Areas suitable for fisheries and aquaculture should be identified and profiled and an enabling environment created for investment by the private sector.

c) Food Storage and Transportation Sub-System (includes food safety and food access)

- ❖ Appropriate post-harvest technologies (for various value chain levels) should be developed and/or improved upon for all types of food products. Indigenous methods should be studied and built upon.
- ❖ Poor food storage is the cause of food loss and wastes and unsafe food. Good and affordable storage facilities close to food producing areas are necessary. Indigenous storage systems (e.g. traditional silos built using earth and straw grass to store grains) should be improved upon by staff and students of Universities of Technology and others. They should be tasked and supported financially by government to do so.
- ❖ Other low-cost food storage and preservation technologies that do not depend on agrochemicals should be identified and promoted.
- ❖ Cold storage systems are required for storage of vegetables and fruits. Government should invest in cold vans to preserve fruits and vegetables in transit.
- ❖ Ghana's dietary guidelines should be finalized and disseminated as soon as possible. The dietary guidelines could be a tool for government ministries to use in educating promoting healthy diets.
- ❖ Most Ghanaians cannot access or afford healthy, diverse, quality and nutritious diet, even if the food is physically available because of high prices and low incomes. High costs of transporting food from production sites to markets also contribute to this situation. Infrastructural development, especially trunk and feeder roads, are required.
- ❖ Construction of farmers' markets along major trunk roads and designated places in all districts and municipalities will enhance the marketing of farm produce and improve people's access to safe food.
- ❖ The school feeding programme should be revamped and expanded to cover all basic schools by always providing adequate funds. Only qualified and well-trained caterers should be employed and monitored. No quantity of resources is too much to build Ghana's future through better nutrition of the children.

d) Food Transformation Sub-System

- ❖ Identify and promote promising low-cost indigenous agricultural and food processing systems.
- ❖ Also, identify and promote local food processing firms whose products are of high nutritive value.
- ❖ There should be legislations that restrict imports of heavily subsidized unhealthy (and cheap) food as well as production of cheap and sugar-sweetened beverages locally.
- ❖ Government and the private sector should promote the development of value chains of non-wood forest products (semi-wild fruits such as sheanuts, baobab and tamarin as well as snails, crabs etc.)
- ❖ There should be a policy to provide incentives to processors who site their firms in the rural areas and source their raw materials from the smallholder farmers.
- ❖ Appropriate fortification, as needed, of selected foods with micronutrients should be carried out as part of the food transformation agenda.
- ❖ There should be a restriction on advertising of unhealthy foods to children, including restricting the use of billboards for advertising sugar-sweetened beverages on the streets.
- ❖ There will be the need to reform the food labelling laws to make it possible for consumers to make informed decisions on food choices.

e) Food Retail Sub-System

- ❖ Several food retail outlets do not have the required level of sanitation. District/Municipal Assemblies' bye-laws on food retail sanitation should be passed and/or strictly enforced.
- ❖ Another necessary legislation and enforcement is for the prohibition of the use of unhealthy packaging materials such as plastics.
- ❖ Sensitization of the populace on behaviour change towards healthier diets is necessary.
- ❖ Also, public sensitization towards healthy lifestyles can curb the rising obesity and overweight incidence, as well as reduced non-communicable disease.

f) Food Consumption Sub-System

- ❖ Consumption of healthy diets is largely constrained by the costs relative to incomes. The cost of healthy diets can be reduced through specialized incentives such as subsidized credit, secure market outlets etc. to producers of nutritious foods. Ghana's food and nutrition policy should prioritize the production of specific nutritious foods across the country.
- ❖ Cottage industries, in rural communities, for the processing and packaging of locally produced fruits and vegetables and other nutritious foods such as orange flesh sweet potato, should be established in identified locations.

- ❖ Local and exotic poultry production systems should be promoted through active improvements in their value chains to reduce the cost of eggs and poultry (including guinea fowl) meat. The breeding (day-old chicks production) and poultry feed sectors should be greatly incentivized so that they will depend on local feed ingredients. There should be greater commitment by stakeholders to develop the local poultry industry value chain.
- ❖ Production of urban and peri-urban agricultural production of fruits and vegetables will greatly enhance consumption of healthy diets. Government should acquire land in urban and peri-urban areas for the purpose; and agricultural extension agents should be specially trained in urban and peri-urban agriculture.
- ❖ Home gardens in urban, peri-urban and rural home steads for the production of nutritious foods; such as fruits, vegetables, orange flesh sweet potatoes and others; mainly for home consumption, should be promoted.
- ❖ Improved and efficient food storage, transportation and transformation, as discussed above, are also important in healthy diets costs reduction.
- ❖ There should be well-planned awareness creation and advocacy strategy against poor food consumption habits and the consumption of unwholesome foods, especially by children.

g) Research and Development

- ❖ National research fund – There is need to actualize the national research fund which has been on the drawing board to support food systems and other research. Government should commit to make budgetary allocation to this fund. The private sector should be made to contribute to the fund as a form of investment.
- ❖ As indicated in section III, there is need for science and technology to be applied to existing farming systems to achieve “modern” agroecological practices. The research pathway to achieve resilient and sustainable food systems must involve “research-to-practice” or “community of practice” methodologies. All agriculture-based research agendas should embrace systems thinking. Research related to the systems and agroecological practices discussed in section III should be community-based. Farmers should not be treated as a homogenous group.
- ❖ Food systems research should as much as possible draw on science and traditional knowledge.
- ❖ Research should also emphasize on the linkages between the farm, off-farm and non-farm sectors; that is, linkages of the different food sub-systems as well as non-food systems. Food processing research should look out for processing methods that destroy the nutritive values of food commodities and make necessary recommendations for improvements.
- ❖ Evidence-based data should be collected on all aspects of the food system (production, processing, packaging, marketing, consumption etc.) and analyzed for effective policy formulation and planning.
- ❖ The food systems transformation should result in the promotion and dissemination of information about indigenous foods systems and their nutritional benefits
- ❖ Research should also be on recipes that cover indigenous crops, fruits, vegetables and other local products.

h) Linkages with other Sectors – Health, Environment, Education, Trade, Energy, Social Protection Etc.

- ❖ As stated earlier, human and planetary health concerns must be integral components of transformed food systems. Resilient and sustainable food systems can be possible when the people have access to basic services in health, education, social protection, water, sanitation and hygiene. There is need for strong integrated and multisectoral approach to food systems transformation.
- ❖ Ghana needs to have a proper balance between investments in agricultural production for export and production of affordable nutritious food for its population. Achieving resilient and sustainable food systems require a major change in policy and relative investments for food self-sufficiency and international trade.
- ❖ Ghana has in place several social protection programmes such as the school feeding programme, LEAP and others that have the potential to greatly enhance food systems transformation. They need to be made to function optimally to achieve their expected objectives. Food systems transformation must result in food and nutrition security for all, leaving nobody behind.

i) Awareness Creation, Advocacy and Nutrition Education at All Levels

- ❖ There is considerable ignorance of the importance of food and nutrition security and the need for food systems transformation at all levels in the Ghanaian society. Thus, an important pathway is a comprehensive plan to create awareness and provide adequate nutrition education to persons at all levels. Consumers need to be made aware of the health and nutrition benefits of a transformed food system.
- ❖ Strong advocacy for food systems transformation can be through community level “food systems champions”.