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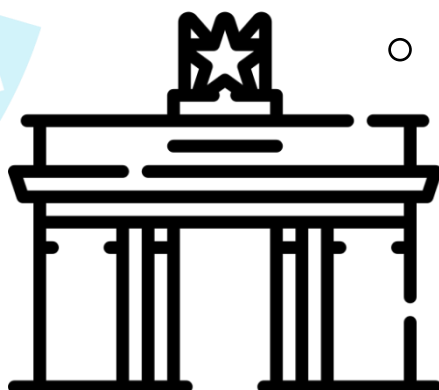


GHANA FOOD SYSTEMS SUMMIT DIALOGUES SYNTHESIS PAPER

From Dialogues to Action: Ghana's food systems actors
identify food systems challenges and opportunities for
transformation



No one should be
left behind



Republic of Ghana

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Please refer to Appendix III.



Dialogue Rapporteurs (Government of Ghana Commissioned Food Systems Dialogues)

Please refer to Appendix IV.



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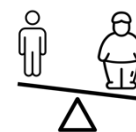
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With over 600 million people estimated to be hungry **globally** (FAO, 2020), nearly 2 billion estimated to be overweight or obese, and approximately 2 billion experiencing micronutrient deficiencies (Micha et al 2020), the world is undoubtedly suffering from multiple burden of malnutrition (including micro- and macro-nutrient deficiencies, obesity, and diet related non-communicable diseases). Recent analysis indicate that the world is not on track to achieve the Global Nutrition Targets as set by the World Health Assembly, let alone eradicate malnutrition in all its forms – as envisioned in Agenda 2030 (UN 2015). The 2020 SOFI Report estimates that about 690 million people went hungry in 2019 - up by 10 million from 2018, and by nearly 60 million in the last five years (FAO, 2020). Climate change, is also affecting food production and consumption patterns, leading to undernutrition and overall development. Thus, there is urgent need to review our food systems, to ensure food and nutrition security and to promote sustainable development. The food security and nutrition status of most vulnerable population groups is likely to deteriorate further due to the health and socio-economic impacts of the COVID-19 pandemic.

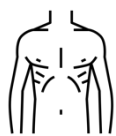


In sub-Saharan Africa, food and nutrition security situation is dire and predicts serious consequences for public health and sustainable development. By 2030, NCDs are predicted to become the leading cause of death in Africa (Africa GBD Obesity Collaborators, 2017; NCD Risk Factor Collaboration, 2016). The rate at which these are increasing in sub-Saharan Africa (SSA) is alarming. An analysis spanning 1975-2016 showed that six of 60 nations in the world with the fastest-rising rates of adult obesity are in Africa (NCD Risk Factor Collaboration, 2016). Currently experiencing a surge in obesity and other diet-related NCDs while undernutrition and micronutrient deficiencies persist, Africa faces a new challenge of the coexistence of a double burden of malnutrition.



In Ghana for instance, one in every three women of childbearing age is anemic which begins the vicious cycle of undernutrition in children, jeopardizing the achievement of the Zero Hunger Goal by 2030. Like other countries in the sub-region, Ghana is grappling with multiple burdens of malnutrition. While food insecurity, and undernutrition (e.g. stunting, micronutrient deficiencies) persist, obesity and diet-related non-communicable diseases are rising rapidly. General nutrition situation and identification of the highest priority nutrition problems. The 2014 Ghana Demographic





and Health Survey (DHS) (GSS et al 2015) showed that among children 6-59 months of age living in Ghana, 19% were stunted, 5% were wasted, and 11% were underweight. In 2018, the Multiple Indicator Cluster Survey (MICS) (GSS et al 2012) showed nearly similar rates of stunting (18%), wasting (7%) and underweight (13%), suggesting that stunting prevalence improved only marginally during the last 5-6 years, whereas child wasting and underweight worsened during the period. Other significant problems of undernutrition in Ghana include a high prevalence anemia in children 6-59 months (55%), adolescent girls (48%) and women of reproductive age (42%).



From the foregoing, the high priority nutrition challenges in Ghana, include “stunting and wasting in children < 5 years of age; Anemia in children 6-59 months of age, adolescent girls, and women of reproductive age; but also overweight and obesity in school-age children and younger adolescents; and overweight and obesity in women of reproductive age (15-49 y of age). The Demographic and Health Surveys conducted since the late 1980s, show a significant increase in adult obesity – from 10% in 1993 to in 40% in 2015 (GSS et al 2015). Also, the Ghanaian food environments (particularly in the urban areas) is currently characterised by low-cost highly-processed foods, with nutrient-dense foods such fruits and vegetables lacking in meals because it is increasingly expensive (Laar, 2021; Laar et al 2020).



This high and rising burden of malnutrition in all its forms requires **deployment of multipronged actions** to address these challenges and therefore the sustainable development goals (SDGs). Due to the multidisciplinary and cross-sectoral nature of malnutrition, multiple food systems actors, stakeholders, and sectors will need to be meaningfully and sufficiently involved. For instance, good nutrition results from a healthy diet as well as proper hygiene and healthcare. Access to a healthy diet depends on decent employment, education, and transportation and connections to a thriving, resilient, sustainable food system (HLPE, 2017). Proper hygiene and healthcare rely on income, education, and transport, along with provision of quality health services, safe water, and adequate sanitation. Thus, efforts to address these drivers of malnutrition would require a food systems approach. The food system has been conceptualized to encompass the entire range of activities involved in the production, processing, marketing, consumption and disposal of goods that originate from agriculture, forestry or fisheries, including the inputs needed and the outputs generated at each of these steps (HLPE, 2017). Food systems also involve the people and institutions that initiate or inhibit change in the system as well as the sociopolitical, economic, and technological environment in which these activities take



place (HLPE 2017). These subsystems and drivers of the food systems influence the food environments in which people make their dietary choices:



Agricultural production subsystems: affect food availability and relative prices via investment agendas, for example by prioritizing a small number of staple cereals over legumes, indigenous grains, and other crops.



Food storage and transport subsystems: encourage or restrict domestic availability of affordable, nutrient-dense foods through export and import policies or influence toxin and pathogen-borne contamination through food safety regulations.



Food transformation subsystems: increase availability of nutritious foods through fortification and limited processing (e.g. canning), or may reduce the nutrient content of foods through heavy processing (e.g. addition sugars, salt, saturated fatty acids).



Food retail subsystems: increase or reduce availability of highly processed foods relative to whole, nutrient dense foods through food promotion

Across these sub-systems, the food environments mitigate the impact of these subsystems on individual diet choice and diet quality via a variety of factors, including food labelling, food promotion, food prices, physical access and nutrient quality and taste. The High-Level Panel of Experts on Food Security and Nutrition (HLPE) 2017 elaborates on these components as well as drivers of the food system as in Figure 1 below.

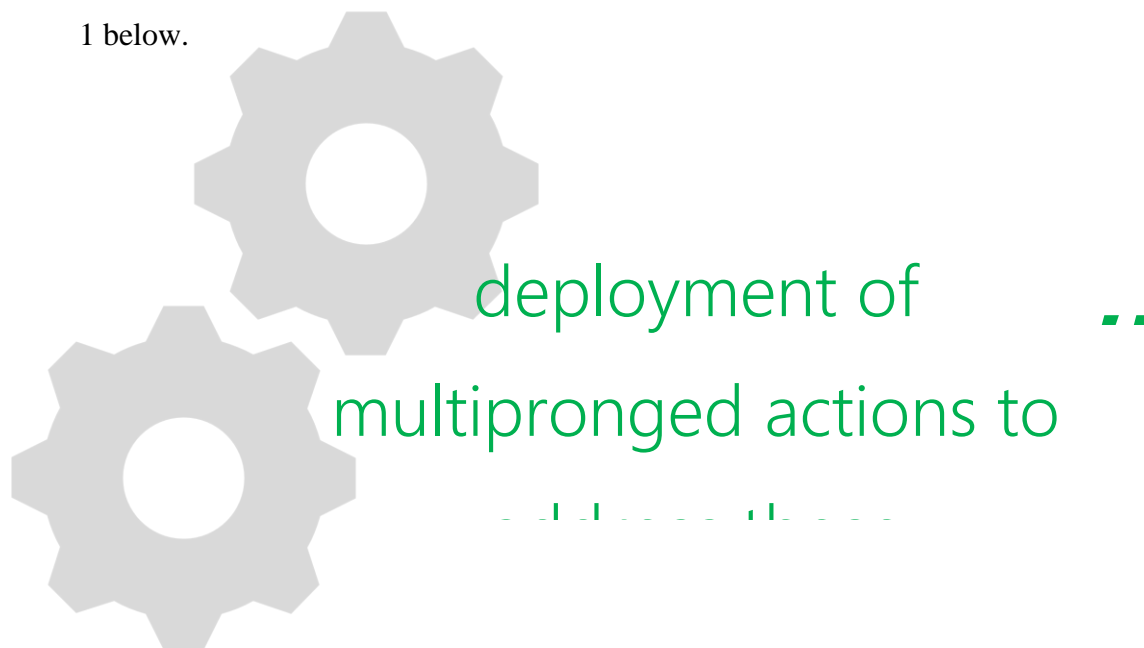
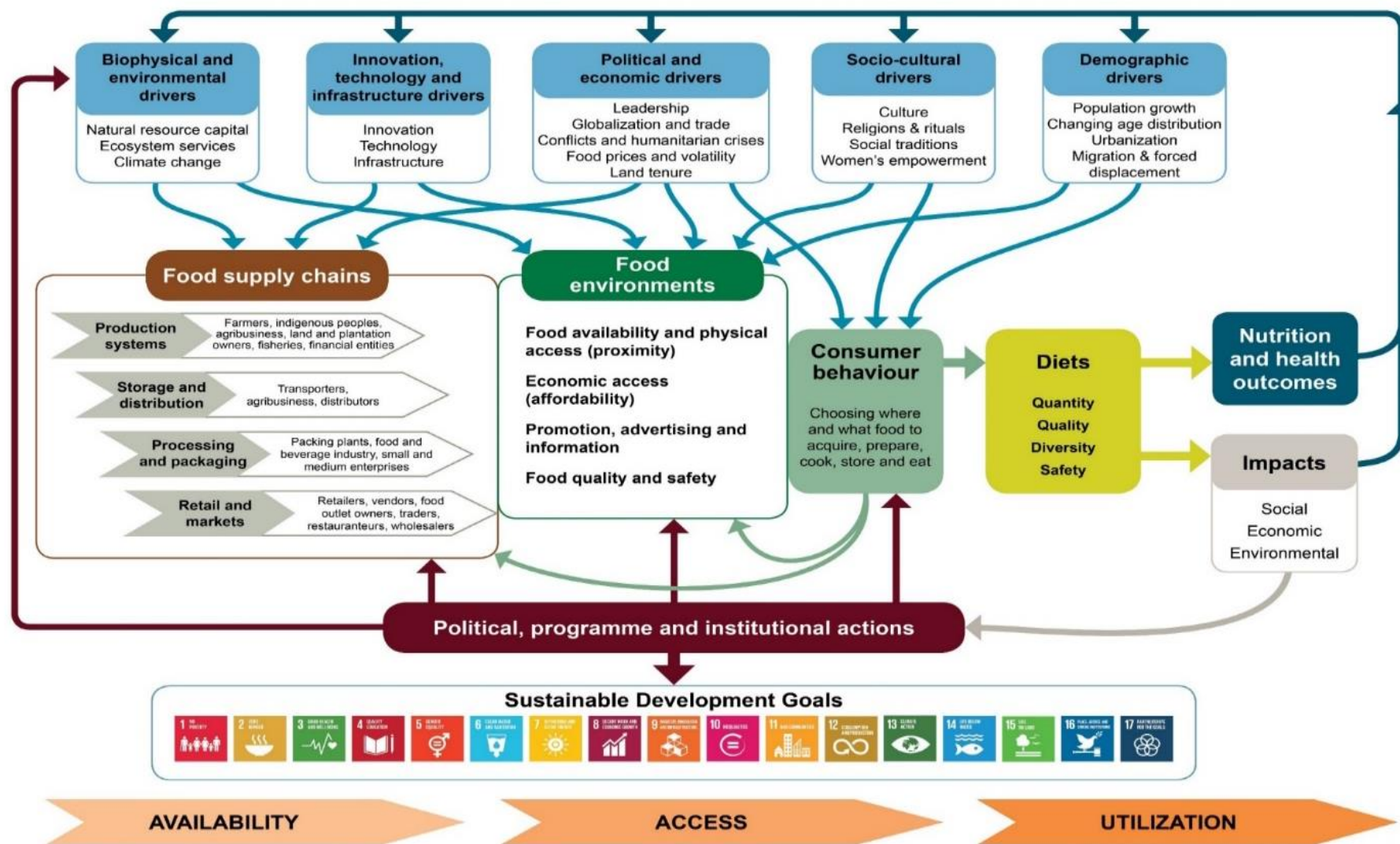


Figure 1. The Food systems: drivers, sub-systems and their impacts on consumer behaviour, diets, nutrition and health



Source: UN High Level Panel of Experts Report on Food Systems and Nutrition 2017

As shown above (Figure 1), the food system is composed of multiple sub-systems (e.g. farming system, waste management system, input supply system, etc.) which interacts with other key systems (e.g. energy system, trade system, health system, etc.), and gathers all the elements (environment, people, inputs, processes, infrastructures, institutions, etc.) and activities that relate to the production, processing, distribution, preparation and consumption of food, and the outputs of these activities, including socio-economic and environmental outcomes. Given their interrelatedness, a structural change in the food system might originate from a change in another system.



Cognizant of the above, many calls exist for partnership and collaboratively delivered solutions. In this light, in September 2021, United Nations (UN) Secretary-General António Guterres convened the **Food Systems Summit** (FSS) as part of the Decade of Action to achieve the SDGs by 2030. The Summit launched bold new actions to deliver progress on all 17 SDGs, each of which relies to some degree on healthier, more sustainable and equitable food systems. The Summit and its associated dialogues offered a singular opportunity for Ghana to accelerate its food system transformation journey to achieve sustainable healthy diets for all Ghanaians. It catalysed our clarity on the need and timeliness for such a transformation involving all sectors and stakeholders.



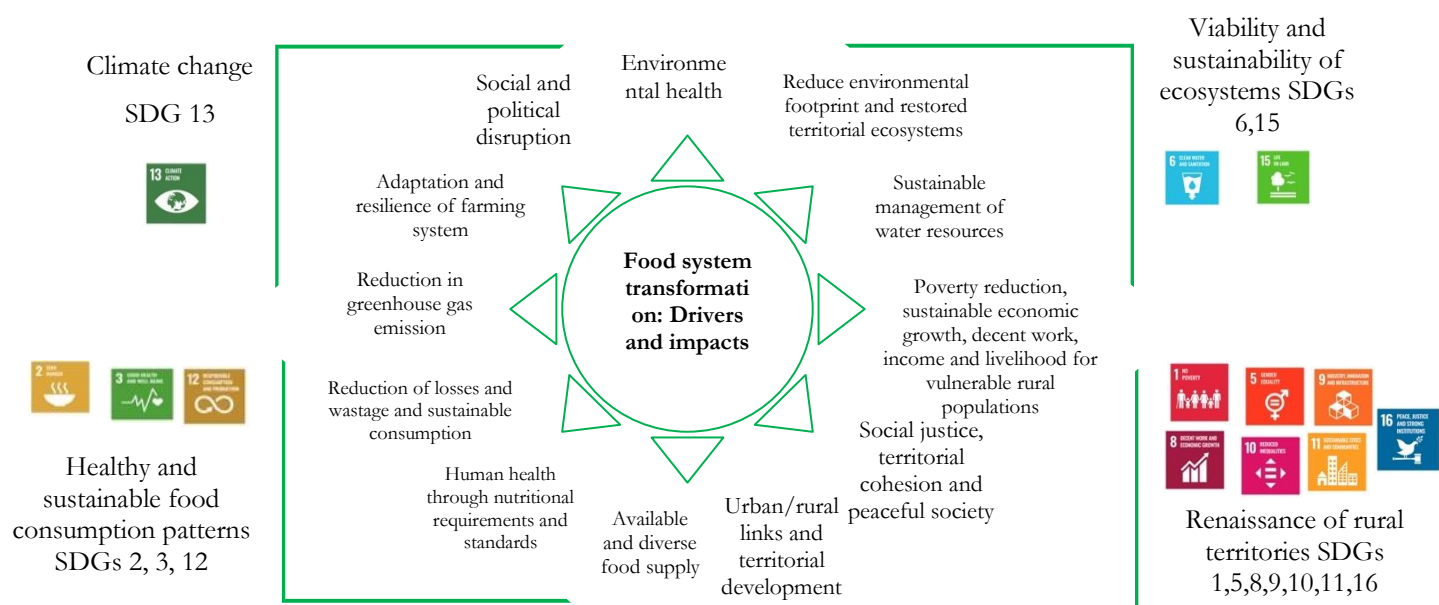
Food systems transformation and the SDGs.



Regarding food systems for sustainable development, Caron et al (2018) provide an integrated perspective to address the “food and nutrition security, ecosystem integrity, climate and social justice” nexus. Caron et al offer a four-part food systems transformation proposal, four stages of implementation, and three prerequisites for a successful implementation. The first part of the transformation relates to food consumption patterns - food systems should enable all people to benefit from nutritious and healthy food; second, they should reflect sustainable agricultural production and food value chains; third, they should mitigate climate change and build resilience, and fourth, they should encourage a renaissance of rural territories. The transformation will not occur spontaneously: it must be planned, designed, implemented, and monitored by those who will be locally involved in implementation working within agreed parameters for sustainable development at national and global levels (Caron et al, 2018). The successful implementation of the four-part transformation relies on three prerequisites: (i) suitable

metrics to aid decision-making, (ii) synergy of policies through convergence of local and global priorities, and (iii) enhancement of development approaches that focus on territories. How do we know if food systems transformation effort is contributing to the SDGs? Caron et al (2018) propose a framework that has two overarching characteristics. First, it takes interactions between food and nutrition security, environmental health, climate, and social justice into account. Second, it focuses on ways in which the nexus is influenced by changes in food systems (see Figure 2).

Figure 2: A propose framework for food systems transformation



Source: Caron et al 2018



As outlined above, inclusive and sustainable food systems are necessary not only for achieving SDG 2 but also as a contribution to the whole of the 2030 Agenda for Sustainable Development. The Dialogue background papers note that, sustainable food systems may contribute to four outcomes: (i) enabling all people to eat nutritious and healthy diets, (ii) regenerating ecosystems, (iii) mitigating climate change, and (iv) encouraging social justice through focusing on the resilience and well-being of poorer rural communities, but also all of the 17 SDGs. Thus, quest to transform our Food Systems must pay attention also to enhancing Livelihood, Economic Development and assure Healthy Planet – in line with the 17 SDGs encapsulated in the so-called 4P's - People, Planet, Prosperity, And Peace/Partnerships:

People No Poverty (Goal 1), Zero Hunger (Goal 2), Good Health and Well-being (Goal 3), Quality Education (Goal 4), Gender Equality (Goal 5), Clean Water and Sanitation (Goal 6)	Planet Climate Action (Goal 13), Life below Water (Goal 14), Life on Land (Goal 15), Peace/Partnerships Peace, Justice and Strong Institutions (Goal 16), Partnerships for the Goals (Goal 17).	Prosperity Affordable Clean Energy (Goal 7), Decent Work and Economic Development (Goal 8), Industry, Innovation and Infrastructure (Goal 9), Reduce Inequalities (Goal 10), Sustainable Cities and Communities (Goal 11), Responsible consumption and production (Goal 12)
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However, it ought to be noted that, there are economic and political interests which will influence the realization of these outcomes: transformation efforts will be contested and need strong political support, including from within urban areas, if they are to succeed. These have informed recent calls for partnership and collaboratively delivered solutions – such as the Food Systems Summit. The Summit process tabled and discussed bold new actions to deliver progress on all 17 SDGs, each of which relies to some degree on healthier, more sustainable and equitable food systems. Like all other countries of the world, the UN FSS offered Ghana a singular opportunity to accelerate its food system transformation journey to achieve sustainable healthy diets for all Ghanaians. The Summit process catalysed clarity on the need and timeliness for food systems transformation process that involved all sectors and stakeholders. For Ghana, a series of consultative processes were conducted between April 2021, and September 2021 to understand the state of Ghana’s food systems. Government commissioned dialogues (one at the national level, and four sub-national food system dialogues) were conducted in the spirit of the FSS principles of engagement. Several Independent Dialogues and the Food Systems Transformative Integrated Policy (FS-TIP) diagnostic and landscaping exercise analyzed Ghana’s food systems.



...the UN FSS offered Ghana a singular opportunity to accelerate its food system transformation journey to

Objectives of the paper

This paper is a synthesis of insights from the food systems dialogues convened by the government of Ghana as part of the United Nations Food Systems Summit, as well as those independently implemented by non-state actors. In addition, the paper derives from the compressive landscaping and diagnostic analysis implemented by the FS-TIP, and three reports commissioned by Alliance for a Green Revolution in Africa (AGRA). By compiling and examining challenges, and opportunities for reforming and transforming Ghana's food systems, the paper seeks to inform Ghana's food systems transformation policy and practice actions.



Approaches deployed in generating the paper

This paper derives from several **food systems dialogues** organized by the government of Ghana (n=5), independent dialogues organized in Ghana (n ~30), the FS-TIP landscape and diagnostic analysis, and food systems reports commissioned by AGRA. The organization of the food systems principally adhered to the Principles of Engagement and Dialogues organization as outlined in Member States and Independent Dialogues Conveners' Manuals (UN, 2020). Both the government-led and independent dialogues were guided by dialogue-specific concept notes - detailing the relevance of the dialogue, objectives, approaches, and expected outcomes. To ensure multi-stakeholder inclusivity, dialogues curators and facilitators – reflecting diverse food systems expertise (e.g. from academia, government, private independent experts, media and civil society organizations) – provided their unique inputs. The lead curators of the National Dialogues received training organized by UN Food Systems Summit Secretariat for Dialogue Conveners, Curators, and Facilitators.



A highly visible launch of the Dialogues Chaired by the First Lady of the Republic of Ghana, with participation from all food systems actors (e.g. government officials, academia, private sectors, food system actors and civil society organizations) preceded implementation of the dialogues. Publicity about the dialogues was achieved using various media platforms was done. The independent dialogues referred to above, were organized using the same principles, and approaches and responded to the Dialogue Tracks 1-5

- Action track 1: Ensuring access to safe and nutritious food for all
- Action track 2: Shifting to sustainable consumption patterns
- Action track 3: Boosting nature-positive production at scale
- Action track 4: Advancing equitable livelihoods
- Action track 5: Building resilience to vulnerabilities, shocks and stresses
- Ghana introduced an extra track. Action track 6: Integrating nutrition into primary healthcare delivery systems

The FS-TIP landscape and diagnostic analyses diagnosed, synthesized and coalesced relevant insights from the dialogues, and from key food systems actors (Ghana FS-TIP Landscaping and Diagnostic Report, 2021). The entire process was informed by extensive research (secondary analysis of existing evidence) and an iterative process with food systems stakeholders and experts. It included a cross-section of Ghana's food system actors (e.g. Ministry of Health, the National Development Planning Commission, the Ministry of Food and Agriculture, World Food Programme, Ghana's Environmental Protection Agency). The evidence from previously conducted research on Ghana's key food systems elements (e.g. food environment, food supply) was completed by current research (on stakeholder and policy landscape), and on relevant food system elements – adopting the 5-part framework on food systems – based on the HLPE framework. With inputs from local and international food systems experts, the FS-TIP constructed 22 supra-indicators – across the 5 UN Food Systems Summit action tracks and 50+ key indicators. The emerging insights from the FS-TIP Diagnostic analysis and the national, and sub-national dialogues were subjected to a review and validation (see summary in Figure 3). Additionally, findings and recommendations from a project aimed at facilitating strengthening the integration of nutrition within primary health care delivery systems in Ghana (relevant to Dialogue Action Track 6) have been incorporated into this synthesis paper: The project conducted a situational analysis to identify the highest priority nutritional problems (HPNPs) in Ghana; describe the trends and variations of the NPNPs and their immediate, underlying, and basic determinants; establish the policy and enabling environment for the scale-up of interventions for addressing the HPNPs, and to identify the gaps/bottlenecks in the policy and institutional environment for nutrition action. Thus, this report derives from the actions outlined - above, as well as from the food systems reports commissioned by AGRA, the Ghana National Food Systems Transformation Commitment Statement, and insights from about 30 Independent Dialogues associated with Ghana.



Figure 3 Pictorial summary of Ghana FS-TIP process



Source: Ghana FS-TIP Diagnostic Analysis, 2021

What was known about the Ghana Food Systems prior to the Dialogues

Ghana has made great stride in improving in its food system in the past decades. Since the 2019 Biennial Review, Ghana is on track to achieve the Malabo commitments by 2025. Previous policies have been successful in combatting some of the previous challenges the country faced in the food system, such as (extreme) food insecurity and high levels of undernutrition; now challenges have however also developed which require coordinated and integrated policies. Ghana's Food System can be described as largely informal & expanding and plays an important role in the country's economy, yet faces several challenges including increasing unhealthy consumption, poor diet quality, food safety, and nutrition insecurity and environmental resilience (Malabo-Montpellier Panel Report 2021).



Drawing on the Ghana food systems dialogues/deliberations, and the FS-TIP work, it can be said that the collective voice of Ghana's citizens is unanimous with respect to calls for food system transformation that achieves sustainable healthy diets for all Ghanaians. This entails moving away from the present situation where ministries and agencies associated with handling food, from the farm to the dining table, are working in silos to another where they integrate to assure sustainable healthy diets for all. Ghana's food systems actors identified cardinal food systems challenges, as well as potential game-changing solutions to the challenges. These are summarized in Figure 4.

3

Synthesis of Ghana's food system challenges & potential game changing solutions

Food systems challenges identified by Ghana's food systems actors

The process generated a long list of challenges outlined below (and detailed in Appendix I). The cardinal challenges (presented below) together with potential game changing solutions are also summarized in Figure 4.



- **Challenge 1: Diet quality & nutrition security:** Low production levels, affordability and demand for nutrient-dense foods among population; limited diversity of crops makes country dependent on few energy-dense but nutrient poor staples, and on imports of certain expensive crops.



- **Challenge 2: Consumption of unhealthy foods:** Urbanization at ~57% and rising incomes, as well as poor food environments are leading to increased consumption of unhealthy foods, resulting in higher obesity and Non-Communicable Disease (NCD) prevalence.



- **Challenge 3: Environmental resilience:** High vulnerability to climate change in North & Southern coastal area; heavy deforestation and illegal mining contributing to climate change and biodiversity loss. Select crops highly vulnerable to climate change.



- **Challenge 4: Infrastructure capacity:** Low use of technology, poor infrastructure, lack of processing capacity, is leading to a 20% food loss, increasing the costs for farmers and prices for consumers and limiting the ability to supply the entire country or trade.



- **Challenge 5: Discrepancies between the north and the south:** Northern Ghana is suffering from lower productivity and a difficult climate, resulting in low availability & affordability of foods, causing higher levels of malnutrition and income inequalities compared to other regions.



- **Challenge 6: Weak coordination and limited integration:** Weak coordination and harmonization of efforts among key sectors/institutions (health, food and agriculture, education, water and sanitation, social protection, etc.²⁰ and also among non-governmental organizations (NGOs). There is limited integration of nutrition services in the health sector, and inadequate research and integration of nutrition issues in

relevant sectors.²¹ Poor linkages between the faculties that provide pre-service nutrition training and the public health care services that attend to children and caregivers.

Challenges related to **food production**:



- Most government- and donor-sponsored programmes and projects do not promote the production of nutritious local/traditional foodstuffs.
- Illegal mining (*galamsey*) and is affecting the quantity, quality, and safety of food produced, while improper use of agrochemicals in farming, processing, and retail makes food unsafe.
- Inappropriate use of chemicals in fishing leading to decline in the fish stock.
- Post-harvest level challenges include food loss, fragmented food chain, poor transport, poor road linkages from farm to market.
- A lack of spatial planning in the city: there are no areas specifically designated for urban agriculture.
- Poor legal framework on land scheme: most lands in Ghana do not belong to the state, but skins, or stools.
- Lack of know-how and technology to implement climate-smart agriculture
- Treatment of farmers as a homogenous group. Different categories of farmers have different needs which must be studied/addressed
- A lack of storage facilities. Storage facilities such as sheds for livestock are needed to protect livestock from impacts of weather changes
- Low capacity of local farmers to produce healthy and sustainable food.
- Constraints to accessing finance and loan credit for the production of healthy and sustainable foods.
- Much attention is given to cocoa which is a major cash crop in the Ashanti region and main source of income to farmers, hence low production of food crops causing food insecurity.
- Over dependency on rain fed agriculture
- Lack of access to gender-sensitive equipment especially to women for small scale processing of food

- Limited access to productive resources: Women smallholder farmers have limited access to land, capital, labor resources.
- Lack of stability in terms of pricing.
- High cost of production
- “Unattractiveness of agriculture” – as a vocation to the populace – people do not consider training in agriculture necessary to become farmers.
- There is an increase of waste to landfills increases green house gases (GHG) emissions in the atmosphere which negatively impact on climate, promoting droughts or heavy rainfalls leading to floods.

Challenges related to assuring healthy and sustainable food consumption:



- Absence of food-based dietary guidelines and few standards for nutritional requirements for different age groups
- Little to no effort to valorize nutritious local, indigenous, traditional foods.
- Vulnerable local (small-scale) farmers are not protected from the inflow of foreign goods that infiltrate the market.
- Poverty is pervasive and dictates access to food.
- Influx of imported foods that are cheap but unhealthy
- Food fraud (which includes adulteration, substitution, dilution, tampering, counterfeiting, and misrepresentation of the ingredients of food or composition of food).
- Food waste and loss – significant post-harvest losses
- There are cultural and social misperceptions of what constitutes healthy foods e.g. people who consume meat are seen as rich people.
- Low nutrition literacy of the populace.
- Unhealthy packaging practices: everything is going into plastics instead of the leaves, earthen ware bowl and calabashes
- Poor water quality is a challenge as access to safe water is important for food cultivation and preparation.
- Food retailers do not adhere to safe practices resulting in microbial contamination, and foodborne diseases
- Chemicalization of foods from farm to fork and port: Inappropriate uses of various chemicals by food systems actors

- Risk of contamination/cooking methods and duration: For instance, some people add paracetamol when cooking cowpea to cook faster.
- Harmful environmental practices that destroy the natural resources and some species (crops and livestock) such as deforestation, bush fires, use of destructive agrochemicals
- Poor decentralization and distribution of resources as well as implementation of policy to the grassroots level
- Contamination of grains and legumes by aflatoxin and the lack of screening methods to ensure safe levels of aflatoxins
- Poor regulation of foods produced: there are no standards for regulating produce especially those for the local/informal markets.

Gaps in policies supportive of an integrated food systems agenda



These include;






- Implementation of Input Subsidy Programs (e.g. Seed and Fertilizer Policies)
- Sustainable Soil Fertility Management Policies
- Agricultural Extension Policy
- Mechanization Policy
- Marketing Policy
- Food Product Transformation Policy
- Gender Disparity and Women's Empowerment Policy
- Agriculture and Climate Change Policy
- Moving from nutrition-centric or agriculture-centric policies to food systems policies
- Gaps in policies that could transform Ghana's food environments

Potential game-changing solutions to Ghana's food systems challenges

The dialogues and related engagements enabled Ghanaian food systems stakeholders to propose solutions to the various food systems challenges they identified. These solutions are organized into five categories (see Figure 4 below). A full list of the solutions organized into "Production, storage, and sustainable consumption; Solutions inequalities within the Ghanaian food systems; Solutions to promoting resilience; Building demand for advocacy and leadership can be seen in Appendix II



Figure 4. Synthesis of Ghana's food system challenges & potential game changing solutions

Priority challenges				
				
Diet quality & nutrition security	Consumption of unhealthy foods	Environmental resilience	Infrastructure capacity	Discrepancies between regions
Low production levels, affordability and demand for nutrient-dense foods among population; limited diversity of crops makes country dependent on imports of certain expensive crops	Urbanization at ~57% and rising incomes, as well as poor food environments are leading to increased consumption of unhealthy foods, resulting in higher obesity and NCD prevalence	High vulnerability to climate change in North & Southern coastal area; heavy deforestation and illegal mining contributing to climate change and biodiversity loss. Select crops highly vulnerable to climate change	Low use of technology, poor infrastructure, lack of processing capacity, is leading to a 20% food loss, increasing the costs for farmers and prices for consumers and limiting the ability to supply the entire country or trade	Northern regions suffering from lower productivity and a difficult climate, resulting in low availability & affordability of foods, causing higher levels of malnutrition and income inequalities compared to other regions
Potential game changing interventions				
<ul style="list-style-type: none"> • Strengthen end-to-end planning for nutrition- sensitive production (incl. seeds, input subsidies, etc.) • Expand the district market network • Strengthen strategies to address consumer behaviors (incl. food composition tables) • Diversify school meals 	<ul style="list-style-type: none"> • Improve the food environment through consumer-focused campaigns, marketing restrictions and updating labeling rules • Incentivize production of nutritious healthy foods, e.g., via subsidized inputs • Ensure 'true/fair' pricing of foods (incl. taxation) 	<ul style="list-style-type: none"> • Strengthen the community-based monitoring projects against illegal logging • Promote solar-powered irrigation systems • Launch agroforestry programs • Promote indigenous and nutritious, yet neglected foods 	<ul style="list-style-type: none"> • Do end-to-end planning of infrastructure projects (incl. prioritization, setting up PPPs and conducting up- front modelling) • Incentivize credit extension for infrastructure projects 	<ul style="list-style-type: none"> • Strengthen input provision to farmers (incl. irrigation, insurance, extension services) • Invest in agro-processing facilities and stronger supply chains to improve market access • Scale up Livelihood Empowerment Against Poverty program

Source: *Ghana Food Systems Dialogues/ Ghana FS-TIP Diagnostic Analysis, 2021*

However, for these to be implemented, there has to be real commitment from all food systems stakeholders and actors. Following are the commitment that the Government of Ghana made toward transforming its food systems by 2030.



In Ghana, the Food Systems Dialogues implementation mechanisms included the drafting of commissioned Contextualization Papers and a National Food Systems Transformation Commitment Statement. The Dialogue Facilitators (acknowledged within this paper), and a Consultant (Professor Matilda Steiner-Aseidu) respectively drafted the Contextualization Papers, and the Statement. Some of the insights below are reproduced from these papers/statement.



Expectations of the national food systems in the coming decade







Based on our current assessments, predictions, and projections, the food systems in Ghana in the coming decade is characterized as follows:

- Reduced levels of food loss (currently > 20%) and increased dietary diversity²² based on increased production and consumption of nutrient-rich crops (including bio-fortified staples), supported by an improved infrastructure for transportation, storage, distribution, and processing. It is anticipated that this will translate into improved nutrition and health indicators including improved diet quality, reduced stunting (currently 19% of children under 5), reduced adult overweight and obesity (40% of women and 16% of men), and reduced micronutrient deficiencies.
- Higher productivity of the production systems with diverse nutritious crops (cereals, legumes, roots and tubers, fruits, and vegetables etc.) produced through sustainable and land-sparing strategies which optimize the use of land, products, and measures that also ensure food safety [e.g. aflatoxin control in maize, sorghum, and groundnut²³ and year-round vegetable cultivation (from improved urban planning that makes room for green spaces in cities for it).
- Effective agricultural policies and programs ensuring increased focus on the production of more nutritious crops such as fruits and vegetables, and animal source foods and making them accessible all year round (correcting the previous imbalance that favoured starchy staple crops).
- Expanded investment in, and increased production from the fisheries, aquaculture, small ruminants, and poultry sub-sectors providing affordable animal protein, and changes in




food consumption patterns through citizen education campaigns that influence consumer behaviour towards more nutritious diets.

- Updated local food composition tables and databases, food-based dietary guidelines, a nutrient profiling system that facilitates implementation of interventions such as food labelling (e.g. front-of-package food labelling), and guidelines on food marketing and messaging that limit marketing of unhealthy foods and beverages (especially to children). These are supported by effective implementation of policies, regulations, and fiscal measures (i) ensuring that processed foods have reduced energy density and the nutrients of concern (salt, fat, added sugar); (ii) restricting the making of misleading claims about food; and (iii) influencing food prices in favour of healthy and nutritious options. 
- Efficiency and effectiveness based on the improved capacity of the key actors in the value chains and cooperation among them. Smallholder farmers have enhanced access to extension, financial (especially women who currently have 8% inclusion in services compared to 26% for men), appropriate digital technologies and mechanization services, as well as markets. They produce more efficiently and increase their acreages sustainably based on removal of the barriers to accessing climate-smart practices, inputs (e.g. improved seeds, feeds), and weather-based crop and livestock insurance. 
- Targeted social safety nets and health and nutrition specific programmes to protect livelihoods in the face of risks related to climate variability, conflicts, and other shocks. 
- Better targeting of children in schools, through school feeding, with home-grown foods that are high in fruits and vegetables plus nutrition education that influences diet quality in homes.
- Empowered women playing leadership roles in Ghana's food systems, and youth, with greater access to, and security of tenure over land, water, and other productive resources, leading to considerable gains in productivity and production on-farm, in home gardens, and processing and trading enterprises. 

Changes to be made and **decisions that must be taken**



Significant improvements in the food systems in Ghana over the next decade will come through:

- Enforcing legislation on spatial planning of cities will enhance opportunities for urban/peri-urban production of protective foods. 

- Influencing consumer behaviour on consumption patterns in urban (unhealthy food consumption) and rural (socio-cultural context) areas through the deployment of multipronged multiple-duty actions (including strong advocacy, public nutrition education programmes, intensifying nutrition education in school curricula, and implementing a cluster of food-based policies that make healthy foods more available, affordable, and attractive than unhealthy ones) 
- Addressing the challenges to availability and affordability of feed in the livestock and aquaculture sectors, and improving storage at household, community, and market levels, including warehouse systems, investment in cold chains and use of hermetic bags for grains. 
- Better enforcement by the Environmental Protection Agency and the Food and Drugs Authority of regulations on the use of agro-chemicals (weedicides and pesticides, antibiotics), food handling practices (to minimize microbial contamination and foodborne diseases in the retail sector), and food fraud. 
- Strengthening integrated policymaking, inter-ministerial collaboration, and private sector engagement as a cornerstone for food systems transformation and aligning policies to realize synergies and address potential trade-offs (e.g. increasing production versus sustainable management of resources). 
- Implementing 'One-Health' approaches and 'Health-in-all Policies' - ensuring that public health goals explicitly inform agricultural policies such that the development of agri-food policy that supports growing the food to supply healthy human diets would provide regulating feedback between production and public health sectors. 
- Programmes that explore promising off-grid and mini-grid solutions to an electricity supply (alternative energy sources) that could meet the needs of farmers, agro-industries and households in remote areas. 
- Promoting women's leadership in food systems - making gender equity a critical consideration in food systems, as constraints or barriers to opportunities may be gender-specific, gender-intensified, and gender-imposed²⁴, and facilitating the engagement of the youth and empowerment of women in agribusiness. 
- Reviewing the national social protection framework to improve the coordination amongst its increasing access to formal social security and social insurance.

- Increasing funding of research partnerships to generate additional innovations in support of food systems and strengthening research-extension-farmer linkages
- Compiling, consolidating, updating local food composition databases including those of branded products, and establishing and maintaining a database of street food and motivating street food vendors to register in a public database
- Establishing a food systems transformation Presidential Initiative, led by a highly respected Executive Officer supported by a coordinating secretariat at NDPC and comprising representatives of key ministries.



As a country, Ghana is committing to achieving the following Food Systems Transformation targets by 2030:

- ★ Increase by 40%, production of climate-resilient varieties of diverse vegetables and legumes, fruits, and bio-fortified staple crops using sustainable agricultural practices over 2020 levels
- ★ Reduce food losses from 20% to 10% and food waste from 84 kg/capita/year (in 2015) to 60 kg/capita/year
- ★ Develop and implement food-based dietary guidelines by 2022.
- ★ Update and consolidate local food composition databases, and develop a nutrient profiling system to facilitate implementation of food-based policies (including front-of-package labelling, fiscal policies, and marketing restrictions, especially to children)
- ★ Develop food provisioning policies to instruct implementation of healthy food service in government-funded settings (especially our School Feeding Programme)
- ★ Develop and implement well-structured training programmes for agriculture extension workers in nutrition and sustainable agronomic practices
- ★ Increase the women's empowerment in agriculture index (currently 0.71) by 20%
- ★ To support increased production of fruits and vegetables, we will expand the proportion of land area under irrigated agriculture from 24.4 to 30%
- ★ Promote seed security, breed security, and land security for Ghanaian farmers especially women, youth in agriculture
- ★ Strengthen the integration of essential nutrition actions into the Primary Health Care system



5

Strategic actions and prerequisites to food systems transformation

Like all other jurisdictions, in Ghana, the road to food systems transformation will be bumpy and will require amongst others leadership, political will and commitment, meaningful and sufficient investment in research and development, deliberately recognize the complexity and interconnectedness of the food systems, as well as advocacy/scholar activism to improve food systems literacy of all actors.



Political will and commitment is a prerequisite

- First, 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 processes involved, the costs involved and the benefits of such a transformation.
- Establishment of a Food Systems Transformation Technical Steering Committee or a Council 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.



- Many calls exist for a harmonized and better coordinated food systems policy environment. This must be led by government actors.

Research is key and must be sufficiently funded by relevant actors

- Set up a 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.
- There is need for science and technology to be applied to existing farming systems to achieve “modern” agro-ecological 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.
- Food systems research should as much as possible draw on both 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.



Link with all relevant sectors and leave no one behind

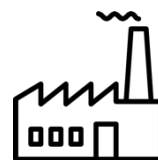
- True sustainable food systems transformation is only possible when the people at all times have access to basic services in health, education, social protection, water, sanitation, hygiene etc. This reiterates for a strong integrated and multi-sectoral approach to food systems transformation.
- Ghana 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 resilience in the food systems. They need to be made to function optimally to achieve their expected objectives.

The privates sector needs to be involved (ethically) and must pay their dues

The private sector, without a doubt is a key player in the national food systems. The majority of foods are produced, handled, processed, distributed, and sold by the private sector. As per the Public Health Act of Ghana, they have the responsibility to ensure that products are nutritious and safe for consumption. In view of the above, increased private sector support and involvement is integral in achieving the outlined food systems transformation goals, and therefore the SDGs. The government must create an enabling environment to increase private sector investment in the entire food systems (including but not limited to lowering interest rates on loans linked to food systems transformation, duty waivers, tax holidays, and producer insurance.



Food systems literacy of the Ghanaian must be improved

This may be realized through awareness creation, advocacy and systemic integration into our education (pre-service, in-service, and informal) at all levels. There is considerably low nutrition literacy, food systems literacy, and sustainability literacy as a whole. Ghanaians need to be made to appreciate the wins of food systems transformation. In particular, consumers need to be made aware of the health, economic, nutritional, and environmental benefits of sustainable healthy foods or a transformed food system. Strong advocacy for food systems transformation can be through community level “food systems champions”.



Strategic actions targeting sub-systems of the food systems



If meaningful actions focusing on the following sub-components of the food systems, those may incentivize transformation. Agriculture production, food storage, food transportation, food retail, and food consumption sub-Systems



- First, meaningful and sufficient effort must be made to ensure sustainable exploitation of the country’s food systems resource base. Effort should be made to mainstream conservation agriculture in all relevant policies and enact, air, soil and water regulations as specific legislative instruments of the Ghana Public Health Act or other relevant existing Acts.

Led by government, all food systems actors should combat illegal logging, illegal mining (galamsey), illegal offshore fishing.



- Second, increase access to land, financing and other productive resources that specifically target the weak actors of our food system (e.g. women, youth, and differently abled persons).



- The government must make specific and deliberate policy decisions (legislative and regulatory) targeting women and youths, which grant them ownership of land for food systems-related ventures.

- Promote mechanization along the entire food value chain. Mechanization of pre- and post-harvest activities will reduce drudgery and time, increase cultivation of larger areas, and will reduce postharvest losses.

- 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.



- 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.



- Regarding consumption, 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. This among other tools could be used to promote consumption of safe and nutritious 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.



- 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.

- 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.) 
- Appropriate fortification, as needed, of selected foods with micronutrients should be carried out as part of the food transformation agenda.

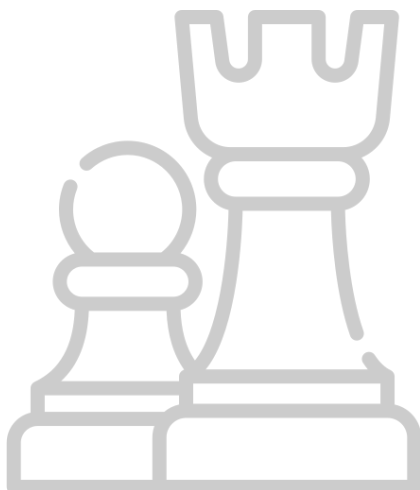




- There should be a restriction on advertising of unhealthy foods to children, including restricting the use of billboards for advertising sugar-sweetened beverages on the streets.
- There will be the need to reform the food labelling laws to make it possible for consumers to make informed decisions on food choices.

- 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.





- There should be well-planned awareness creation and advocacy strategy against poor food consumption habits and the consumption of unwholesome foods, especially by children.





- **Disruptive advocacy** (for example non-importation of certain foods) should apply to foods that are produced in or available in African countries. Advocating for this could serve to encourage the consumption of local foods. Overall, the future for Africa is to depend on itself for food supply. Others note that disruptive advocacy is not the solution. What is needed is to advocate for countries to link national agricultural transformation, trade policies, food and nutrition security policies to the nutritional needs of the population. 
- **Use of technology such as artificial intelligence (AI).** Proponents note that technology will help with data capturing, e.g., AI could link farmers on the ground to food producers and buyers to help them know what is selling and what is not. But the opposing view intimated the use of AI could be very bad especially if not used properly – especially when it is not clear who/what/when/how data should or could be used. 
- **Role of celebrities in food systems transformation:** Trade-offs regarding the role celebrities could play to help promote the Food System. There was a suggestion for celebrities to use their influence to promote food system transformation. However, some participants felt involving celebrities may only lead to popularization which is not necessarily transformation. 
- **Engagement with private sector:** Why the private sector is not engaging as expected, and yet they have too much data that they cannot even manage. They should be more open in sharing data. However, others noted that the private sector actors are business minded; they are interested in the bottom lines, or their profits and so if engaging will not lead to this why should they? Others felt that was their responsibility to engage and serve not just their board of directors, but their clients- all humans. Participants mooted the idea of decolonialization of data and destabilization of information asymmetries if we need to truly transform our food systems. The private sector actors believe that they are doing their best to contribute to research and development whilst academia and researchers believe that the private sector has a lot more role to play in food systems transformation when it comes to setting the agenda for research and in funding research. Private sector actors intimated that researchers do not know how to deal with private sector or businesses and that research cannot be funded without 


profit generation as the ultimate goal in the short-medium term. Therefore, researchers must know how to work closely with the private sector in order to attract funding.

- **China's entry into the world cocoa market.** During one of the independent dialogues, a major point of divergence was whether China's entry into the world cocoa market was a threat. While the lead industry player, the Ghana Cocoa Board held the view that China's entry into the cocoa supply chain was insignificant, so not a global threat, majority of the participants maintained the view that COCOBOD should take China serious. 

- **Weak regulatory sector:** Painting a gloomy and weak outlook of the Ghanaian regulatory sector, some dialogue participants noted that food retailers do not adhere to safe practices resulting in microbial contamination, and foodborne diseases. Regulators argued that this dismal outlook may not be based on facts – contaminants could be due to poor hygiene and food handling and not organic contaminants. 

- **Decentralization:** Political and structural gaps that continue to militate against Ghana's development is blamed on decentralization. Others vehemently disagreed. With the metropolitan, municipal, district assemblies, there are some challenges but it is not widespread. A lot of MMDCE are also supporting and prioritizing agriculture.” 

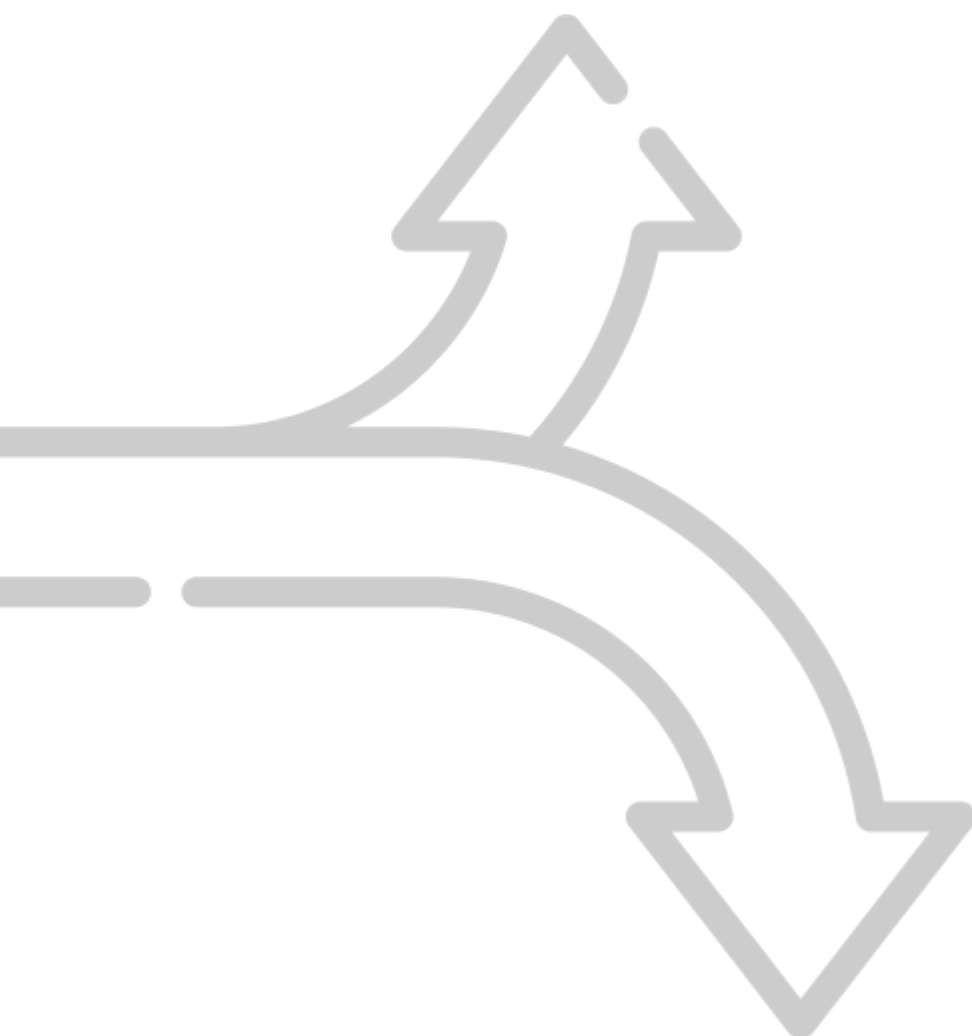
- **Policy on food importation:** a participant emphasized the need for a government policy on importation of foods grown locally in Ghana and enforcement of the policy. However, others noted that given Government's commitments towards AfCFTA, trade restrictions may not be practical. It would be more practical to promote a culture of consuming locally. 

- **Farming Systems:** Though participants held different views on the type of farming systems in Ghana, i.e., subsistence and commercial, in the end, it was agreed that both systems are important in our attempt to achieve food and nutrition security, as well as environmental sustainability, and emphasis placed on improving and making them better and sustainable. Some participants argued for monocropping to improve the efficiency of production. Others, however, argued that monocropping is a problem in sustainability. “We should not be concerned with only economic sustainability. It is important to emphasize social and environmental sustainability as well. Mixed cropping and mixed farming systems can ensure all three types of sustainability if practiced well (scientifically). Mixed cropping and mixed farming ensures diversity of foodstuffs and thus important for both food security and nutrition security (food and nutrition security)” 

- **Youth and Agriculture:** It was suggested that, Agriculture should be made attractive to youth. However, some indicated that the youth are already attracted to agriculture and face difficulty e.g. entering poultry industry. That said, the youth are not receiving the needed support from the Government including access to arable land.



- **Establishment of new government agencies:** It was suggested that Ghana establishes a Ministry for Food and Nutrition in order to guarantee budget allocation to address food and nutrition rather than leaving allocations to the discretion of Ministries such as Food and Agriculture and Health. Another participant thought this was not necessary as nutrition issues were multi-sectoral in nature. Rather, the authority for nutrition could be placed at the Office of the President or Vice President which have the mandate to direct several sectors.



Although, at the time of drafting this Synthesis paper, Ghana's Food Systems Transformation Commitment Statement, and the pathways paper are yet to be finalized, it is envisaged that Ghana's food systems actors will prioritize key food systems challenges for short-term action (i.e. within the next 2-3 years) or medium-term action (by 2030). For each of the selected top challenges, a policy-program bundle consisting of mutually reinforcing game-changing solutions will be developed taking into account robust analysis – prior, during, and post implementation. Stakeholders will finalize Ghana's food systems policy matrix for integration into Ghana's next Medium-Term National Development Policy Framework. They will propose and pursue a strategic path from diagnosis/dialogues to action, which will require a robust governance, coordination and delivery mechanisms. To this end, the stakeholders tabled and discussed the following actions as important part of the national pathways for Ghana.



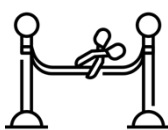
Governance, Coordination and Delivery Options to Consider

For any post-summit actions to be feasible and sustainable, it is essential that governance, coordination and delivery options are examined and the most suitable one selected to lead and guide implementation. Since any initiative for rejuvenating and growing Ghana's Food Systems will be multi-sectorial and multifaceted, it is important that the following conditions be met.



- Enlisting Government Support/Access at the Highest Level – *A Presidentially Appointed Food Systems Champion*
- Having Highly Capable, Independent and Leadership that can work to lead national scale initiatives, that is highly respected by key Ministers and that can lead a high – performance delivery team to coordinate and support key line ministries, and where necessary develop specific strategic projects.
- Having, a Strong Multidisciplinary Team in place
- Having the Ability to coordinate, implement and manage multi-sectoral programmes and projects

Option One – Using a New State Agency



The first potential governance, coordination and delivery option for the Ghana Food Systems transformation agenda is to establish a State Agency (*i.e. Ghana Food Systems Transformation Agency, (the exact nomenclature to be determined using*

State guidelines and processes). The mandate of the Agency will be to address systemic bottlenecks in the Ghanaian Food chain (*i.e. from farm to the dining table*) by supporting and enhancing the capability of the existing Ministries, Departments and Agencies (MDAs) and private and non-governmental implementing partners. The Agency may become the Secretariat of a Food Systems Transformation Council chaired by a prominent Ghanaian

It will do this by:

- **Leading problem-solving efforts** to facilitate identification of solutions to address systemic bottlenecks in priority areas that is expected as an output from the ongoing dialogues and studies.
- **Supporting implementation** of identified solutions in high priority areas by providing project management, capability building, technical assistance and knowledge sharing to implementing partners.
- **Enhancing linkages and coordination** among key stakeholders in high priority areas to reach agreed upon milestones and objectives that transform the Food Systems of Ghana and lead Ghana to high-income country status.
- **Taking ownership of all completed GoG Food System projects** and ensuring that the institutional records, memories and results are sustained and internalized in all subsequent plans to ensure sustainable development of the country.

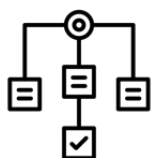
The function of the Agency is not to replace or supplant any MDA or any other public sector partner. In contrast, the Agency is to help build sufficient FS capacity and ability among its public sector partners and other stakeholders so that it will cease to exist in the future. The programs, staffing model and operating principles of the Agency will all be explicitly designed with this exit strategy goal in mind.

- To serve as a catalyst for positive, transformational, and sustainable change in Ghana's Food System, the Food Systems Transformation and Sustainability Agency will engage stakeholders in three specific activities:
 - Problem Solving;
 - Implementation Support; and
 - Assuring Sustainability of Completed Projects.

Although the team found the agency as a suitable option that satisfies all the requirements of an effective governance, coordinating and delivery mechanism for transforming Ghana's Food System, it also realized that this solution could do for the medium to long term. Setup time could be as long

as a year or more. It therefore became necessary to look at a solution that could be relied upon to deliver in the short-medium-long terms. This led to the other two propositions outlined below.

Option Two – Using existing structures, systems and entities; retooling and resourcing them to deliver food systems transformation



The alternate governance, coordination and delivery option considered was to use existing structures, systems and entities; retooling and resourcing them to deliver food systems transformation. This arrangement starts from the existing state agency and eventually births a unit that leads the transformation process. The model encapsulates all the initial modalities and conditions stipulated to guide the formation of a good governance, coordination and delivery structure (working very closely with all relevant MDAs). One of the existing and well-structured institution that fits the role is the National Development Planning Commission (NDPC).

The NDPC is a state agency established to work closely with every President of the Fourth republic of Ghana, with the mandate to make provisions for coordinated program of Economic and Social Development policies, which the President of Ghana under the constitution is required to submit to parliament within two years of assumption of office. The NDPC was set up under Articles 86 and 87 of the 1992 constitution of Ghana. Article 86 of the constitution stipulates the composition of the commission whereas Article 87 outlines the functions of the commission. The National Development Planning Act, 1994, (Act 479), formally establishes the NDPC under the office of the President and the National Development Planning (System), Act, 1994; (Act 480) makes NDPC the national coordinating body of the Decentralized Development Planning System in Ghana. These provisions lay out the core legal framework of the commission - To promote sustainable and stable development to eliminate poverty, reduce inequalities in deprived areas and improve people's quality of life. Per the constitution of Ghana, the Commission is to perform these functions:

- The Commission shall advise the President on development planning policy and strategy.
- The Commission shall, at the request of the President or Parliament, or on its own initiative- (a) study and make strategic analyses of macro-economic and structural reform options; (b) make proposals for the development of multi-year rolling plans taking into consideration the resource potential and comparative advantage of the different districts in Ghana; (c) make proposals for the protection of the natural and physical environment; (d) make proposals for ensuring the even

development of the districts of Ghana by the effective utilization of available resources; and (e) monitor, evaluate and co-ordinate development policies, programs and projects.

- The commission shall also perform such other functions relating to development planning as the President may direct.

Option 3 The **Transitive Model**



The Stakeholders referred to this third option/model as the “Transitive Mechanism”. As lauded by the Malabo-Montpellier Report (2021), the status quo – where public policy (including food systems policy) formulation and approval is primarily coordinated by the NDPC - in line with its mandate, is fit-for-purpose, however, some challenges remain. The Transitive Mechanism is a form of evolving mechanism that starts with NDPC in its current set-up, but that overtime facilitates the setting up of an independent Food System Transformation Agency. Such an Agency will bring together a coalition of diverse stakeholders/partners that will help articulate the Ghanaian Food System gaps and aspirational outcomes and ensure they are moved from discussion to action. This approach will ensure that institutional capacities are built at both NDPC and the MDAs and all the coalitions build during summit preparations are carried over and sustained.



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Appendix I

Food systems challenges identified by Ghana's food systems actors

Challenges related to food production:

- Most government- and donor-sponsored programmes and projects do not promote the production of nutritious local/traditional foodstuffs (e.g. kontomire),
- Illegal mining (galamsey) and is affecting the quantity, quality, and safety of food produced, while improper use of agrochemicals in farming, processing, and retail makes food unsafe.
- Food retailers do not adhere to safe practices resulting in microbial contamination, and foodborne diseases
- Post-harvest level challenges include food loss, fragmented food chain, poor transport, poor road linkages from farm to market.
- A lack of spatial planning in the city: a lack of spatial planning means that there are no areas specifically designated for urban agriculture.
- Poor legal framework on land scheme: lands do not belong to the state. It is the responsibility of the government to acquire these areas from traditional authorities and acquire land fully that can be utilised for planned for activities on the city masterplan.
- Limited access to productive resources: Women smallholder farmers have limited access to land, capital, labor, etc resources. .
- Climate-smart agriculture has been leading the way. However, we should not treat farmers as a homogenous group. Different categories of farmers have different needs which must be studied/addressed
- A lack of storage facilities. Storage facilities such as sheds for livestock are needed to protect livestock from impacts of weather changes
- Land encroachment: there is restriction in agricultural production in the city region as land tenure systems belong to scheme lands. This limits access to land for food system related activities.
- There is an increase of waste to landfills increases GHG emissions in the atmosphere which negatively impact on climate, promoting droughts or heavy rainfalls leading to floods.

- Low capacity of local farmers to produce healthy and sustainable food.
- Constraints to accessing finance and loan credit for the production of healthy and sustainable foods.
- Difficulty of some professionals whose work relate to land to mainstream the land tenure agenda in their work.
- Much attention is given to cocoa which is a major cash crop in the Ashanti region and main source of income to farmers, hence low production of food crops causing food insecurity.
- Local fishermen use a lot of chemicals in the fishing activities and this, coupled with other factors have caused a decline in the fish stock.
- Over dependency on rain fed agriculture
- Lack of access to gender-sensitive equipment especially to women for small scale processing of food
- Lack of stability in terms of pricing.
- Sand winning and urbanization with no compensation for the farmers and lack of proper restoration of land properties after winning the sand Lack of support for farming and fishing
- High cost of production
- There is a good system of generating policies but not implementing them.

Challenges related to healthy and sustainable food consumption:

- Absence of food-based dietary guidelines and few standards for nutritional requirements for different age groups
- Little to no effort to valorize nutritious local, indigenous, traditional foods.
- Vulnerable local (small-scale) farmers are not protected from the inflow of foreign goods that infiltrate the market.
- Poverty is pervasive and dictates access to food.
- Influx of imported foods that are cheap but unhealthy
- Food fraud (which includes adulteration, substitution, dilution, tampering, counterfeiting, and misrepresentation of the ingredients of food or composition of food).
- Food waste and loss – significant post-harvest losses
- There are cultural and social misperceptions of what constitutes healthy foods e.g. people who consume meat are seen as rich people.
- Low nutrition literacy of the populace.
- Unhealthy packaging practices: everything is going into plastics instead of the leaves, earthen ware bowl and calabashes
- Poor water quality is a challenge as access to safe water is important for food cultivation and preparation.
- “Unattractiveness of agriculture” – as a vocation to the populace – people do not consider training in agriculture necessary to become farmers.
- Chemicalization of foods from farm to fork and port: Inappropriate uses of various chemicals by food systems actors
- Risk of contamination/cooking methods and duration: For instance, some people add paracetamol when cooking cowpea to cook faster.
- Bad fishing practices and trans-shipment of fish: (these have an impact on the sustainability of fish resources).
- Food waste and loss – significant post-harvest losses

- Harmful environmental practices that destroy the natural resources and some species (crops and livestock) such as deforestation, bush fires, use of destructive agrochemicals
- Poor decentralization and distribution of resources as well as implementation of policy to the grassroots level
- Foreign rather than local dietary guidelines are used or adapted in Ghana.
- Reliance on foreign rather than local dietary guidelines by dietitians and other professionals.
- Contamination of grains and legumes by aflatoxin and the lack of screening methods to ensure safe levels of aflatoxins
- Poor regulation of foods produced: there are no standards for regulating produce especially those for the local market.
- Poor storage system across the food system, production, transportation, retailing and household
- Constraints to accessing finance and loan credit for the production of healthy and sustainable foods.

Appendix II

Potential game-changing solutions to Ghana's food systems challenges

Production, storage, and sustainable consumption

- Establishment of a national research fund: We need to prioritize investment in agriculture. Government should set up a dedicated fund purposely to support research. Government should commit to make budgetary allocation to this fund. Private sector should be encouraged to invest in the research fund.
- Need for science research journalism to communicate innovations effectively to end users. The media is too silent, not communicating science-based innovation to the populace.
- Strengthen research extension farmer linkages. Extension agents should be aware of new innovation developed by researchers and disseminate innovations to farmers. Private extension has role to play in spearheading the transfer of information from the researcher to the farmers.
- There should be a national focus on developing value chains of key staple crops.
- Valorisation of nutritious local/traditional food to incentivize production and consumption
- Application of best practices including promoting good and appropriate agronomy practices, tracing, and containing contaminated produce.
- The EPA and FDA should ensure that only approved agrochemicals are imported
- Government should set up food banks and land banks (reserve lands for agriculture) to increase food production.
- Meaningfully integrate fiscal and economic measures into food systems transformation initiatives.
- Improve access, quality and services of warehousing systems and storage facilities to reduce post-harvest losses
- Promoting practices that protect the loss of biodiversity of Ghana's indigenous and traditional foods, and natural regeneration of trees
- The language used in communicating healthy and nutrient-rich food should not be abstract.
- Intensify nutrition education in school curricula: Include nutrition education in the curriculum of children at all levels of education (from kindergarten through tertiary level) as children are change agents.
- There is the need to inspect production sites as well as the levels of chemicals in foods before sale or exportation.

- Accelerate the development and use of Ghana's dietary guidelines.
- Incorporate policies that clearly define agricultural land from infrastructure land and facilitate the use of those lands reserved for urban agriculture

Solutions to current inequalities within the Ghanaian food systems

- Government should consider the deployment of mobile agricultural extension services in the digitization drive to attract the youth to agriculture
- Women should be empowered to become economically independent. They need to be presented with opportunities of accessing finances (i.e. loans) which can help them build capacity in soya production. Soya can be processed into different nutritious recipes and families will be fed
- Encourage all community members (consumers and producers) to recycle to reduce waste and promote composed manure for farming activities in the city.
- Government should buy or subsidize lands for agricultural purposes and engage traditional landholders to address land tenure challenges for easier direct access by women and youth
- Regions with high hunger index and malnutrition should have a land tenure system that will support the production of food crops rather than cash crops
- Improving access to post-harvest technologies such as cold chains to reduce postharvest losses, especially during seasons of glut, and improve traditional production/processing/preparation technologies for competitiveness
- Improved handling of agricultural commodities that will reduce bruising in transit. Also, ensure that existing measures such as mandatory use of scales at both the farm gate and in the markets facilitate trading of farm produce.
- In terms of inequalities in the access to premix by small SMEs, Government should consider subsidy or removal of import taxes to help make nutritious processed food products more affordable and available.
- Food pricing- industrial food processors should not be allowed to dictate food prices
- A policy should be enacted to provide incentives e.g. Subsidies to processors who site their firms in the rural areas especially where the road network is not good
- Food Safety Guidelines adopted at national level and localised to assist local governments with ensuring that food handling and preparation across the food value chain is safe for consumers

Promoting resilience:

- Build data on actors in the food systems value chain, their profile, location, needs and actions given the risks.
- Government and other food systems stakeholders to support and promote all-year-round production system especially through irrigation
- Protection of local farmers by supporting them with inputs, and regulation of food inflow from other countries
- Apply best practices including enforcing good agronomy practices, tracing and containing contaminated produce. The EPA and FDA should ensure that only approved agrochemicals are imported
- Training of farmers on best practices on the management of pests, chemicals, pesticides
Dialogue participants offered specific recommendations for the government, development partners, private sector and other food systems actors:
- In collaboration with academia, government should train and certify food systems stakeholders e.g. farmers and retailers

- In collaboration with development partners, government should expand and promote livelihood and income-generating activities (e.g. backyard farming, livestock rearing) targeted at women to improve household food security
- Food safety and standards policies/regulations should have clear delineation of roles and responsibilities of regulators.
- Encourage the use of traditional silos built using earth and straw grass to store maize and millet, and other produce: When produce is stored in these environmentally friendly traditional silos, they could last for more than a year without pests.
- Inclusion of men/heads of household in nutrition education discussions: Heads of families/ include men in the discussions.
- Dialogue participants emphasized that institutional reforms and arrangements are needed to address policy and strategic gaps, including inadequate and weak enforcement of food policies and regulations
- Development planning: The country should have long-term plans and then entrench in parliament. It should be legally binding on every government to continue existing agricultural projects that will enhance the sector. Parliament should pass a law binding on every govt to continue all agricultural projects. To address environmental/sustainability challenges dialogue participants indicated that
- Policies and initiatives are needed to prevent/control overexploitation of natural resources in food value chains in Ghana
- Extension officers could educate farmers focusing on the health implications of the use of hazardous chemicals.
- Spatial production patterns could be more closely linked with soil fertility maps. i. e. Soil fertility maps are published by the soil research institute of CSIR to guide choice for crop for soils
- Scientific improvements of small farmer production systems to make them more climate-smart and resilient.
- Adopting appropriate, diverse and improved farming practices, techniques to increase food production and productivity
- Increase incentives to make agriculture attractive (branding) especially to the youth, and to attract more investments into the sector. There is a need for appropriate and adequate branding of agriculture to make it attractive to the youth. Communication experts should be used to properly brand agriculture positively.
- Improve smallholder farming in Ghana by encouraging site and crop-specific fertilizer usage.
- Proper identification and selection of good varieties of crop seeds and the breeds of animal
- Development of agronomic protocols. For instance, the current fertilizer recommendation for maize was developed many years back during the operation feed yourself era. However, in recent times more efficient fertilizers have been produced and need to be communicated to the right users.
- Innovative research and strategies into controlling pests and diseases that affect crops and animals
- Identification of food security hotspot in Ghana will play very vital role in responding swiftly.
- Insurance packages tailored toward the resilience of all players in the food chain will make the food system resilient. This may be subsidized at the beginning to encourage uptake especially for smallholder farmers.
- The issue of infrastructure (poor road networks) is a key challenge

Building demand for advocacy and leadership

- Regulatory organizations need to actively be involved in communication, dissemination of information to support advocacy efforts.
- Use consumer driven advocacy: Often industry responds to public demand or the demands of the consumer. Advocacy efforts could be used to change food consumption preferences by consumers.
- Make consumers aware of the health and nutrition benefits.
- Use evidence and science to advocate to consumers: industry would respond to science by making highly nutritious foods available because that is what consumers prefer. An example was shared about the demand for organic traditional foods in Egypt by “high class” individuals.
- Industry could lead advocacy of organic foods. Avoidance can also be a strong advocacy strategy, e.g., avoid certain foods.
- Re-discovery of lost foods and cooking methods; undiscovered traditional foods ways of cooking that are healthy can be promoted. Recipes with high nutritional value e.g., Quinoa, Fonio and healthy cooking methods could be used as advocacy tools and not only scientific data.
- National agricultural transformation: we need to advocate for countries to link national agricultural transformation, trade policies, food and nutrition security policies to the nutritional needs of the population;
- Build demand advocacy: building demand within the marketplace- the consumer demand for healthy foods; there can be social marketing with celebrities to promote particular products or types of food.
- We need to rationalize, empathize, and humanize the food system conversation/narrative
- Build capacity of local leaders on various actors of the food systems value chain.
- Local experts and community food systems actors should be linked to the state institutions in a way that engages them in various planning and execution of food systems actions. The government, the private sector as well as the academia need to support this process.
- There should be a responsible and inclusive leadership so that people at the grassroots are included in policy making and also educated on the existence of these policies.
- Inclusive leadership from government, media, civil society, and public health experts is needed. This should involve the community and the people at the grassroots levels from all sectors of the food system to enhance ownership and sustainability.
- For continuity and sustainability, leaders do not have to be political leaders. All Food systems actors can play leadership roles. Leader from where you stand.
- Develop more markets beyond the local and traditional markets and enhance access to market- create/enhance market linkages between producers and off-takers/consumers
- Go beyond bulk cocoa production to specialty cocoa production
- Further and urgent actions required are concerned with re-bagging, digitalization and newer methods of irrigation, which is critical in improving Cocoa production due to recent climate change challenge.
- It is also important to include product differentiation as a way of remaining competitive
- Developing local markets while strengthening international markets
- Strengthening of internal market systems and linkages; farm and marketing inputs (e.g jute sacks) should be made readily available.
- Increase the use of mechanized farming and innovations to promote agricultural mechanization in cocoa farming especially equipment for breaking cocoa pods.

Other cross-cutting solutions

- Farming should be encouraged as a professional career from the lower educational levels through to the higher level. This will encourage more people to have the desire and passion to go into farming
- Institutional innovations such as promoting group approach to agricultural investment and cooperative structures to ensure everybody wins
- There should be deliberate efforts to engage and involve (tertiary) students of agriculture in the design and implementation of solutions to address some of the issues affecting food systems in Ghana e.g. through projects
- Agriculture affects climate change and is also affected by climate change. So crop production processes that impact climate change must be addressed. Support those farmers who adopt farming methods that are environmentally friendly.
- Promote organic farming.
- Employ technologies targeted at fruit and vegetable, which are seasonal and perishable to increase the shelf life by employing packaging environments that help to produce safe and quality food for the short to medium term. Long Term Actions
- Promote greenhouse farming among the youth in modernization of production systems
- Promote Government-Private Partnership where private partners would be engaged to handle areas where Government cannot. E.g. Government financing infrastructural projects-irrigation, silos, etc., and the private sector partaking in the distribution of farm produce in time or marketing. Development partners can also do the same as earlier mentioned. Additionally, they can partner with our research institutions to research more on our food systems and develop more improved seedlings, etc.
- Government to create an enabling environment through designing favourable policies and strategies. Government can develop more support in terms of incentives, security for those starting their own business and making sure that any type of information and education on innovating their business and using new technologies for farming and marketing.
- The government should establish criteria for responsible agricultural investment so that PPP can be effective, and all players stand a chance of benefitting.
- Government should make a budgetary allocation to support regular testing of food throughout the food chain especially those run by public institutions to ensure food safety and food security
- We need a systems approach in dealing with food waste and increasing efficiency at each stage
- The private sector should adopt inclusive business operation models across the production, processing, and marketing segments of the food system. e.g. they can have good pro-poor financing mechanisms to support the actors in the food system
- Funding and technical support also from development partners
- Development partners need to work with government to understand our cultural issues to able to have an impact on our food system.
- Establishment of Agriculture information centers where farmers could call in or walk in at a time (where closer) for information.
- Education /advertisement on nutrient rich foods on the local TV, radio stations, community durbars, town hall meetings and every available means to counter the advertisement of junk foods on media.
- Promote agricultural intensification by using high yielding crop varieties on the current small land areas farmers' farm on, without having to expand land sizes.

- The forest areas need to be protected as farmers are encouraged to increase production on the large scale
- District Assemblies should provide proper markets for food vendors that ensure food safety.
- Establishment of a legislative instrument backing nutrition that ensures that nutrition is addressed at a high level and prevents any party from doing away with it.
- Institutional purchases by Government could create assured markets and control prices
- Value addition to foods coupled with market linkages like the school feeding programme.
- Introduce cold vans to preserve fruits and vegetables in transit.
- Hire purchase of vehicles should be promoted
- Intensify training of preparers, especially on the consequences of malnutrition and unwholesome foods.
- Enforcement of spatial planning legislation for the city and review of land tenure system to accommodate farmers to ensure balance and access to land for food production as well as other activities across the food value chain.
- Data financing. Government should allocate both institutional and financial resources; and the private sector must put together mechanisms of contributing resources to building local capacity for data.
- Collaboration among the government sectors, academia, and the private sectors should be fostered. Such collaborations can help address gaps that currently exist between these actors due to differences in their approaches.
- Making use of incentives: What are the incentives for doing the right thing? Smart incentives and disincentives need to be created to align actors in sectors of the food system.
- SMEs play large role in Africa food systems and should be provided with incentives for producing healthy, safe and sustainable food.
- The government should regulate the food retail environment. There should be regulatory standards for the food retail environment. For instance, its tax incentives, etc. in order to increase access to healthy foods.

Appendix III

List of Ghana's food systems dialogues and conveners

25

January
2021

Convened

by

Description

Power on Your Plate: All-Africa Summit on Diversifying Food Systems with African Traditional Vegetables to Increase Health, Nutrition and Wealth

World Vegetable Center

Ensuring a healthier Africa now and into the future demands a smart, sustainable food system to deliver diets rich in nutritious, plant-based foods such as African traditional vegetables. These crops were in the spotlight during ***Power on Your Plate: All-Africa Summit on Diversifying Food Systems with African Traditional Vegetables to Increase Health, Nutrition, and Wealth***, 25-28 January 2021 in Arusha, Tanzania and online. The summit sought to advance knowledge and ideas to expand the production and consumption of the crops poised to become Africa's superfoods.

26
February
2021
Convened
by
Description

Building a Strong and Resilient Agriculture (Food Security) in the midst of COVID 19

Joseph Owusu - Vice President (Communication), IAAS Ghana

Agriculture has always been the focal point of strong economic base of many countries. All same, in the wake of the novel COVID-19 pandemic, it is essential to strengthen and educate our farmers on the various innovative ways to build and strengthen our Agriculture (farmers, markets, consumers etc). Climate Change and Food Security have been a great concern for the world according to research. Africa and for that matter Ghana has not been left by the stress of scarcity of food and insecurity to many livelihoods. The Food Systems dialogue is one of the identified tools for addressing such challenges. Ghana is happy to be a part of the life transforming system. This dialogue seeks to address some causes of food insecurity through the provision of seasoned speakers to engage and interact with Ghanaian Agricultural students nationwide. The IAAS Ghana which is the national Association of all Agricultural Association seeks to partner with CSAYN to organize such a problem-solving situation in Ghana. Training of Students to be Food Security Ambassadors. Tertiary students in Ghana will be equipped on the various means of managing and sustaining Agricultural produce and products, ensure quality and hygienic food to live a healthy life. This will be done through the online extensive engagement with the students.

09 March
2021
Convened
by
Description

Strengthening African Agricultural Research for Development Systems - One Africa Voice

Forum for Agricultural Research in Africa and Partners

Africa remains severely challenged in its quest to keep the citizenry food secure by 2030. To meet this laudable objective, the transformation of Africa's agricultural systems is imperative in the light of the pressing need of the achievement of SDG 2 **“end hunger, achieve food security and improved nutrition and promote sustainable agriculture” by 2030**. Moreover, these goals are to be attained in contexts of counteracting factors, notably climate change, COVID-19, conflicts, and pest outbreaks. Within the context of the Science Agenda for Agriculture in Africa and the CAADP-XP4, the FARA-led coalition is working with the Science Group of the United Nation Food System Summit to ensure that Africa's voice is on the steps that need to be taken to address the rising food insecurity and malnutrition is heard during the UNFSS. This event concludes a two-stage virtual event hosted by FARA. The objective was to provide a platform for elicitation of the main elements of the **One African Voice** on AR&D policy brief. The goal was to bring together all stakeholders of the **One Africa Voice** on Agricultural Research for Development and use this as the basis for stimulating awareness at the highest possible level within the context of the Food System Summit. Following the first webinar, a zero-draft of the One African Voice on AR&D policy brief has been developed with significant input from FANRPAN and needs to be validated. The objective of the second webinar to be

	<p>held on 9th March 2021 is to validate the first draft of the One Africa Voice on AR&D Policy Brief that will be fed into the UN FSS process through the Science Group of the Summit. Specifically, the second webinar seeks to consolidate stakeholder feedback and concurrence with the content of the draft of the One Africa Voice on AR&D policy brief. Further, the webinar will sensitize stakeholders on the UN FSS process leading to the pre-summit in June and the summit in September 2021 and how the One Africa Voice on AR&D policy brief will be navigated through these processes.</p>
30 April 2021 Convened by Description	<p>Accelerating Solutions to Drive the Transition towards Healthy and Sustainable Consumption</p> <p><i>John Aggrey - Founder & CEO, HIRED Consult / Co-Convenors MGCY & SUYAWI</i></p> <p>“All actors in society — including local and national policymakers, private sector actors within the food system and beyond (e.g., finance and technology), consumers and citizens — have a role to play in the shift towards healthier, safe and sustainable consumption. Equity and social justice must be central to the transition, to provide the greatest benefit to all”. How do we empower consumers to make informed, healthy, safe and sustainable choices? We are pleased to invite you to our 3rd series of dialogue on food systems in support of the upcoming 2021 Food Systems Summit organized by African regional facilitators, hosted by Major Group for Children and Youth (Youth Focus Group to UNFSS) and HIRED Consult in collaboration with Sprout Up Youth and Women Initiative (SUYAWI).</p>
18 May 2021 Convened by Description	<p>Transforming Accra’s City-Region Food System through Robust Rural-Urban Linkages</p> <p><i>ICLEI Africa, FAO, Accra Metropolitan Assembly</i></p> <p>The Accra Metropolitan Assembly and key local stakeholders will share their experiences and strategies for a more resilient city-region food system that seeks to build and maximize the benefits of rural- urban linkages. Discussions will move beyond the short-term responses to the impacts of the COVID-19 pandemic on Accra’s food system, to more long-term resilience strategies for ensuring continued access to nutritious and safe food in the face of different shocks such as climatic shocks. Additionally, the city and stakeholders will discuss potential opportunities for strengthening Accra’s role across the whole food value chain for a resilient and nutritious City-region food system.</p>
26 May 2021 Convened by	<p>"Re-imagining Africa's Food Systems Transformation through Data, Advocacy, and Leadership"</p> <p><i>Professor Amos Laar [School of Public Health, University of Ghana, MEALS4NCDs/FERN]. Co-Conveners/Partners - APHRC, REPSAO, ANS, FANUS, CAPHA, A4NH/IFPRI, Rockefeller FS-TIP; ANH Academy, DFC Program, CDIA, AUDA-NEPAD</i></p>

Description	The event will offer a platform for diverse food systems actors to exchange ideas, and reflect on the challenges and opportunities for transforming African food systems. Overall, the Dialogue will discuss long-term visions for a sustainable food system in Africa; it will also identify priorities for action within the next 10 years. Participants will deliberate on the role of MEALS in reimagining <i>and re-designing the African food system</i> . Reimagining Africa's food system is re-imagining Africa's food future, and ultimately, Africa's future. Thus, these efforts will contribute to the Africa we want by 2030! 2063! & beyond.
01 June 2021 Convened by Description	<p>Ghana's cocoa production prospects in an ever-changing world</p> <p><i>Prof. Irene S. Egyir, Associate Professor, Department of Agricultural Economics and Agribusiness, University of Ghana</i></p>
19 June 2021 Convened by Description	<p>Localizing Food Systems for National Development</p> <p><i>John Aggrey - Founder and CEO, HIRED Consult</i></p> <p>Addressing food systems and nutrition in Ghana must involve bridging the rural-urban, gender and north-south gaps. By 2030 and beyond, Ghana can be free from hunger and all forms of malnutrition if we make a commitment to learn, share, and act for a robust and resilient food systems transformation. Also tapping into the expertise and lessons of existing policies and structures will ensure every child, woman, person with disability irrespective of tribe, age and gender, can realize their right to affordable, accessible, safe and nutritious food, and reach their full potential. That will inevitably promote National Development. HIRED Consult is organising this Dialogue to gather stakeholders to lend their ideas and insights to the theme under discussion, "Localizing Food Systems For National Development."</p>
21 June 2021 Convened by Description	<p>UNICEF Food System Dialogues with School-aged Children & Adolescents in Ghana</p> <p><i>UNICEF- Ghana</i></p> <p>The dialogue with children explored how food gets from where it is produced to the plates – and discussed solutions on what needs to improve, or to stop, or requires strengthening to make our food healthy, affordable, and sustainable to meet the nutritional needs of children in Ghana. Children were encouraged to have fun and be bold, and express their thoughts and experiences to make food systems work better for children in Ghana.</p>
24 June 2021 Convened by	<p>Independent Ghana's Food System Dialogue</p> <p><i>International Trade Center / Alliances for Action</i></p>

Description	<p>ITC/Alliances for Action is organizing a series of Independent Food System Dialogues. A diverse range of stakeholders — from youth activists to indigenous leaders, from smallholder farmers to scientists and CEOs – are invited to identify the most powerful ways to make food systems stronger and more equitable. The Ghana dialogue on June 24th will create a platform for actors and other interested stakeholders across the food system to discuss and contribute ideas towards building more relevant, vibrant, adaptable and sustainable food systems for Ghana. This Dialogue has been prepared in partnership with the Ghana Food Movement. The goal of this initiative is to speed up the transition to a sustainable and equitable food system in Ghana. The outcome of this online independent dialogue, a list of concrete actions and recommendations to kick start a future proof food system in Ghana, will be taken into account by the UN during the official UN Food Systems Summit later this year.</p>
24 June 2021 Convened by Description	<p>Ag. Innovations and Interventions for Food Systems Transformation in Ghana</p> <p><i>Prof. Eric Danquah, Director, West Africa Centre for Crop Improvement (WACCI), University of Ghana</i></p> <p>Innovations for Food Systems Transformation, Interventions for Food Systems Transformation and Policy for Food Systems Transformation.</p>
26 June 2021 Convened by Description	<p>Mainstreaming Nature-based Solutions for Biodiversity and Food Systems</p> <p><i>John Aggrey Founder & CEO, HIRED Consult // Major Group for Children and Youth (Youth Focus Group to UNFSS)</i></p> <p>A positive food production at scale, be it small or large scale is dependent on Biodiversity hence adopting a nature-based solution approach to better our food systems is KEY to meeting the fundamental human right to healthy and nutritious food feeding for generations to come without depleting resources. Hosted by HIRED Consult & Major Group for Children and Youth (Youth Focus Group to UNFSS) in collaboration with Friends for Leadership (#FriendsforFood), The Global Alliance for Climate Smart Agriculture (GACSA) and special appearance from Saint-Petersburg State Agrarian University, convenes an Independent Dialogue on Action Track 3 on the theme, “Mainstreaming Nature-based Solutions for Biodiversity and Food Systems”</p>
29 June 2021 Convened by Description	<p>National dialogue on Ghana’s food systems: developing a resilient and equitable food system for improved nutrition security</p> <p><i>National Development Planning Commission and the Ministry of Food and Agriculture</i></p> <p>Ghana’s inaugural dialogue will be held under the theme “Developing a Resilient and Equitable Food System for Improved Food and Nutrition Security”. It will bring together food systems actors such as producers, transporters, processors, retailers, consumers, waste managers, academics, policymakers, the private sector, youth, and women to deliberate on Ghana’s food systems. The objective of the</p>

dialogue is to share information and reflect on the status of Ghana's food systems, identify challenges and constraints, potentials and opportunities, and game-changing solutions and ideas for its transformation, including defined roles and responsibilities. The dialogue will entail a framing presentation on Ghana's Food Systems, five break-out sessions based on the Food Systems Summit action tracks, and a plenary to share and build consensus on key recommendations for transforming Ghana's Food Systems.

**30 June
2021**

Convened
by

Description

Building a Climate resilient City Region Food System Through Innovative Strategies and Action Planning in Tamale

ICLEI Africa, Tamale City

Tamale is the capital city of Northern Region of Ghana, and the most urbanised urban centre in the entire northern Ghana. The character of the food systems in Tamale mirrors those of many secondary cities in Africa or in Ghana. Own food production/ small-scale production for the market is still an important activity, especially in the peri-urban areas and outlying rural communities. Local production (UPA) is particularly important for traditional staples including cereals, leafy vegetables as well as livestock. It means that food flows into the city from faraway locations make a significant contribution to the city's food system. An estimated 80%-90% of all food distributed in Tamale is sourced within 300 km radius. The Tamale city region food system experiences the greatest direct impacts from several climate-related hazards. The Tamale Metropolitan Assembly (TaMA) and key local stakeholders will share their experiences and strategies for a more resilient city-region food system that seeks to minimize the impact and vulnerability to shocks and stresses of climate change. Discussions will include the impacts of the COVID-19 pandemic on Tamale's food system, and the strategies and plans for ensuring continued access to nutritious and safe food in the face of climatic shocks. Additionally, the city and stakeholders will discuss what would be needed at TaMA level to continue to support and facilitate transformation of the CRFS to ensure resilience.

**05 July
2021**

Convened
by

Description

Malabo Montpellier Forum: Policy innovations for food systems transformation in Africa

H.E. Ambassador Josefa Sacko, African Union Commissioner ARBE; Dr Ousmane Badiane, Executive Chairperson Akademiya2063; Prof Joachim von Braun, Director ZEF University of Bonn; Roy Steiner, Senior Vice President The Rockefeller Foundation

The Malabo Montpellier Forum, which meets twice each year is supported technically by the Malabo Montpellier Panel, which brings together 17 leading experts in agriculture, ecology, nutrition, and food security. It is hosted by AKADEMIYA2063 with headquarters in Kigali, in collaboration with ZEF at the University of Bonn and Imperial College London. This meeting of the Malabo Montpellier Forum will be co-hosted by the Malabo Montpellier Panel, the UNFSS Scientific Group, and the African Union Commission's Department of Agriculture, Rural Development, the Blue Economy, and Sustainable

Environment, and The Rockefeller Foundation. The Malabo Montpellier Panel identifies areas of progress and positive change across Africa and assesses what successful countries have done differently in terms of institutional and policy innovations and program interventions. It produces two reports annually that serve as background documents for the Forum meetings, which act as platforms for dialogue and exchange among high-level decision-makers, usually ministers and permanent secretaries. The co-chairs of the Forum are H.E. Hailemariam Desalegn Boshe, Former Prime Minister of Ethiopia, and The Right Honorable Dr. Saulos Klaus Chilima, Vice President of Malawi. The basis of this upcoming Forum will be the Panel's next report on *food systems transformation in Africa – **Connecting the dots: Policy innovations for food systems transformation in Africa***

**06 July
2021**

Convened
by

Bridging The Digital Divide

Lydia Carroon, Business Manager of the Microsoft Airband Initiative, Regina Richardson, Program Officer, Seed & Extension Systems, AGRA and Samuel Afrane, Country Director of The Hunger Project-Ghana in addition to other development experts.

Description

Learn how bridging the digital divide in rural communities can promote community-led development while maintaining food sustainability. Join representatives from The Hunger Project and development experts from other civil society organizations as they identify ways that implementing digital technology can transform food systems. When private service providers and public interest nonprofits work together to develop digital solutions, community-led development in rural communities thrives.

**08 July
2021**

Convened
by

Young African Researchers' Dialogue (YARD) : mobilizing Young African researchers for the UN Food Systems Summit

Pr. Michel Edmond Ghanem (UM6P, Morocco), Pr. Shailaja Fennell (University of Cambridge), Dr. Florence Mayega Nakayiwa (RUFORUM), Dr. Prince Zogli (African Researchers' Network)

Description

The YARD dialogue will address key questions raised by the five action tracks of the UNFSS, and will provide a rich picture of how youth and specifically young African researchers regard the subjects of the action tracks and their suggestions for achieving the objectives of each action track and the challenges facing this particular category of researchers in Africa.

**21 July
2021**

Convened
by

Sub-national dialogues on Ghana's food systems: developing a resilient and equitable food system for improved nutrition security

National development planning commission and the ministry of food and agriculture

Description

Ghana's sub-national food systems dialogues will be held under the theme "Developing a Resilient and Equitable Food System for Improved Food and Nutrition Security". It will bring together food systems actors such as producers, transporters, processors, retailers, consumers, waste managers, academics, policymakers, the private sector, youth, and women to deliberate on food systems

at sub-national levels of the country. The objective of the dialogue is to share information and reflect on the status of food systems of Ghana' agro-ecological zones which cut across the three special development authorities of the Country, namely 1) Northern Development Authority; 2) Middle-Belt Development Authority; and 3) Coastal Belt Development Authority which represents the three broad geographical belts of the country. The objectives of the dialogue are to identify the peculiar challenges and constraints, potentials and opportunities within each agro-ecological zone, and ideas to transform local food systems, including roles and responsibilities. The dialogue will entail a framing presentation on the local food systems of each special development authority, and five break-out sessions based on the Food Systems Summit Action Tracks, and a plenary to share and build consensus on key recommendations for transforming the food systems of the Special Development Authorities.

**23 July
2021**
Convened
by
Description

Role of Agricultural Biotechnology in Food Systems Transformation

Pablo Orozco - Cornell Alliance for Science

The one-and-half-hour dialogue will be divided into three sessions. Main presenters will have 10 minutes to give their perspective on each sub-topic. After that, two discussants will have five minutes each to offer their perspectives on the topic for discussion. Main presenters may or may not use power point slides, but discussants will speak without any slides. Participants are highly encouraged to stick to the allocated time so we can hear as many voices in the room as possible. There will be time at the end of the discussion for general comments. Three main topics will be discussed; current impact of ag biotechnology in food systems transformation, future possible impacts of ag biotechnology in food systems transformation and future possible impacts of gene editing in food systems transformation.

**20 August
2021**
Convened
by
Description

Transformational Changes in Bolstering African Food Systems

John Aggrey - Founder and CEO of HIRED Consult

A robust and resilient food system, with a blend of (subsistence and commercialized) has the potential of being profitably productive. This has become necessary at a time when food systems across the continent are responding to rapid urbanization, rising incomes, and changing diets (consumption and production).

**14
September
2021**
Convened
by
Description

Building resilient food systems; the Ghanaian youth perspective

Green African Youth Organization (GAYO)

Building resilience of local food systems is critical to averting large-scale future shortages and impact on climate change. One critical observation is the way long

standing dialogues on global discussions have often treated youth as a distant party, discussions on food systems must recognize youth and their communities as critical stakeholders from the onset. This can be achieved through integrated consultative engagements and decision-making processes at different levels to create synergies and adequately assess linkages in the agriculture value chain towards improving the supply chain, decrease losses and waste, and also ensure access to nutritious food.

Like all developmental elements, youth, women and children are worst hit in the event of widespread challenges. Recognizing the critical potential and role that young people and women alike can play when adequately enabled and positioned, the GAYO led food system dialogue seeks to mobilize them as essential change agents that can provide leadership on issues that affect food production.

This dialogue will inspire youth action and their contribution directly to national food security by exploring the following;

Practices, experiences (existing youth action) and the enabling environments that will enhance the youth engagement in building resilient food systems.

Youth and gender considerations in existing National food policies, policy gaps and lessons learned and the role of in bridging the gap between evidence-based resilient actions and policy.

Effectively triggering proper youth and women synergies for resilient food systems, Promoting cooperative action and mobilizing support to overcome the barriers to youth engagement in building resilient food systems.

Generally, the objective of this dialogue in line with the United Nations food summit objective is to; **inspire youth action in making food systems more sustainable and equitable for all.**

**22
October
2021
Convened
by**

Creating Alternative Sources of Funding for Natural and Safe Foods Production in Ghana

Mr Kenneth Opare (CEO Equity Ocean Farms) Perpetual Quarshine (Judicial Service Ghana Training School) Mr Ebenezer Kwabena Oppong (Equity Ocean Farms, Head of Media Department)

Description

As we close the UN food systems summit 2021, we would like to continue the momentum of these important, Topic for the society and the engagement from multiple stakeholders on a regional and country level is essential.

This forum aims to discuss the most crucial agenda of the food systems for Africa particularly Ghana, this series of independent Dialogue will examine.

General Overview

Funding food production in Ghana from primary to consumption source.

How to access opportunities in the food industry.

Panellists from diverse background have been invited to share their viewpoints on the Topics challenges and opportunities. Join us in-person as the experts explore the possible partnership to accelerate these changes the audience will have the opportunity to contribute to the discussion and to the vision of the Summit.

Appendix IV

Facilitators and rapporteurs of the Ghana Food Systems Summit Dialogues

DIALOGUE FACILITATORS		
S/N	Name	Affiliation
1	Mrs. Mary Mpereh	National Development Planning Commission
2	Ms. Paulina Addy	WIAD, Ministry of Food and Agriculture
3	Ms. Angela Dannson	Ministry of Food and Agriculture, Consultant
4	Prof Amos Laar	School of Public Health, University of Ghana
5	Prof Anna Larrey	Dept. of Nutrition and Food Science, University of Ghana
6	Dr. Kingsley Pereko	University of Cape Coast
7	Dr. Gloria Elssilfie	University of Ghana
8	Prof Francis Bruno Zotor	School of Public Health, University of Health and Allied Sciences
9	Prof Richmond Aryeetey	School of Public Health, University of Ghana
10	Prof Saa Dittoh	University of Development Studies
11	Dr. Dorothy Effa	AGRA
12	Mr. Joseph Faalong	Ministry of Food and Agriculture
13	Prof Paul Amuna	School of Public Health, University of Health and Allied Sciences
14	Dr. Reginald Annan	Nutrition Unit, Biochemistry department, KNUST
15	Mr. Charles Nornoo	Independent Consultant, FS-TIP Project. Tony Blair Institute Ghana
16	Prof Seth Adu Afarwuah	School of Public Health, University of Ghana
17	Ms. Ruth Sithuma	Nutrition Specialist/ UNICEF
18	Jevaise Aballo	Nutrition Officer/ UNICEF
19	Ms. Millicent Omala	World Food Programme
20	Dr Patricia Gyaa Owusu-Darko	Kumasi Technical University, Kumasi, Ghana.
DIALOGUE RAPORTEURS		
20	Ms. Josephine Quagrainie	Ministry of Food and Agriculture
21	Mr. Peter Aboagye	Ministry of Food and Agriculture
22	Mr. Gideon Ashitei	Ministry of Food and Agriculture
23	Ms. Lila Karen Amponsah	National Development Planning Commission
24	Mrs. Eugenia Awuah Adjapong	National Development Planning Commission
25	Mr. Emmanuel Kofi Abotsi	National Development Planning Commission
26	Mr. Freeman Vatoafi Lawoe	National Development Planning Commission
27	Ms. Phyllis Parbey	School of Public Health, University of Health and Allied Sciences
28	Ms. Solace Tamakloe	Ministry of Food and Agriculture
29	Mr. Joshua Addae	National Development Planning Commission
30	Mr. Kofi Ntim	National Development Planning Commission
31	Ms Amy Esi Buah	Ministry of Food and Agriculture
32	Ms. Abigail Yvette	
33	Mr. Norbert Ndaah Amuna	School of Public Health, University of Health and Allied Sciences
34	Ms. Akosua Pokua Adjei	University of Ghana, School of Public Health
35	Ms. Faustina Gyimah	University of Ghana
36	Ms. Sophia Ayiku Stevens	School of Public Health, University of Health and Allied Sciences
37	Ms. Francisca Agyekum	School of Public Health, University of Health and Allied Sciences
38	Mr. Gideon Senyo Amevinya	University of Ghana, School of Public Health
39	Afua Atoubi-Yeboah	University of Ghana, School of Public Health
40	Ms. Akua Tandoh	University of Ghana, School of Public Health
41	Ms. Gifty Las Ayela	University of Ghana
42	Mr. Joseph Bandanaa	University of Ghana
43	Mr. Munkaila Lambongang	University of Ghana
44	Ms. Silver Henri Nanema	University of Ghana, School of Public Health
45	Mr. Joseph Nakonja	School of Public Health, University of Health and Allied Sciences
46	Dr. Phyllis Ohene-Agyei	University of Ghana, School of Public Health

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