



Asda/ Walmart Global Food Security Project

Corporate-led actions to contribute to food
security in sub-Saharan Africa

A Briefing Paper for Workshop on 4 – 5 November 2013, London



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1. Preface

I look forward to meeting each of you, and to working with you on this exciting project, which Asda/Walmart believes is critically important to food security in sub-Saharan Africa (SSA). This project has come together very quickly because of the urgency of the work that has to be done.

The scale of population growth that SSA will experience in the next two decades accompanied by the impact of climate change will put considerable strain on the continent's primary agricultural resources. A failure to provide this growing population with access to food could have serious consequences. It is beholden on all of us who have business interests on the continent and who care about social justice to work with local partners in a culturally sensitive manner to find solutions.

Many organizations across the globe are already working to accelerate the delivery of projects to ensure food security in SSA and those efforts are to be commended but more needs to be done.

This project is intended to create and nurture new partnerships across the food value chain that will identify and implement joint innovation projects, initially focused on SSA. These company-to-company efforts will yield additional results toward achieving global food security. Asda/Walmart has challenged the AHC / Irbaris team to move quickly to bring key companies together for the 4 – 5 November 2013 meeting, and we are pleased with their results.

This briefing paper is an important part of the project. While you will be familiar with most of the issues and potential actions discussed, it serves as a useful aide memoire for the workshop. By framing key issues, it also serves as a springboard for discussion and debate. I trust you find it useful before, during and after the workshop.

You and your companies are among the leaders and experts in the food supply value chain. We appreciate the fact that you are investing your time toward this project and the intimidating challenge we all face in improving global food security.

Paul Kelly

External Affairs Director, Asda

2. Executive Summary

This Food Security Project brings together many of the global corporate leaders active in the sub-Saharan African (SSA) food value chain to develop shared and specific corporate-led actions that allow communities to feed themselves and support their economic growth. The project is focused on delivering tangible results in the short-term, and providing a springboard in the medium-term through an approach that creates value for communities and companies together.

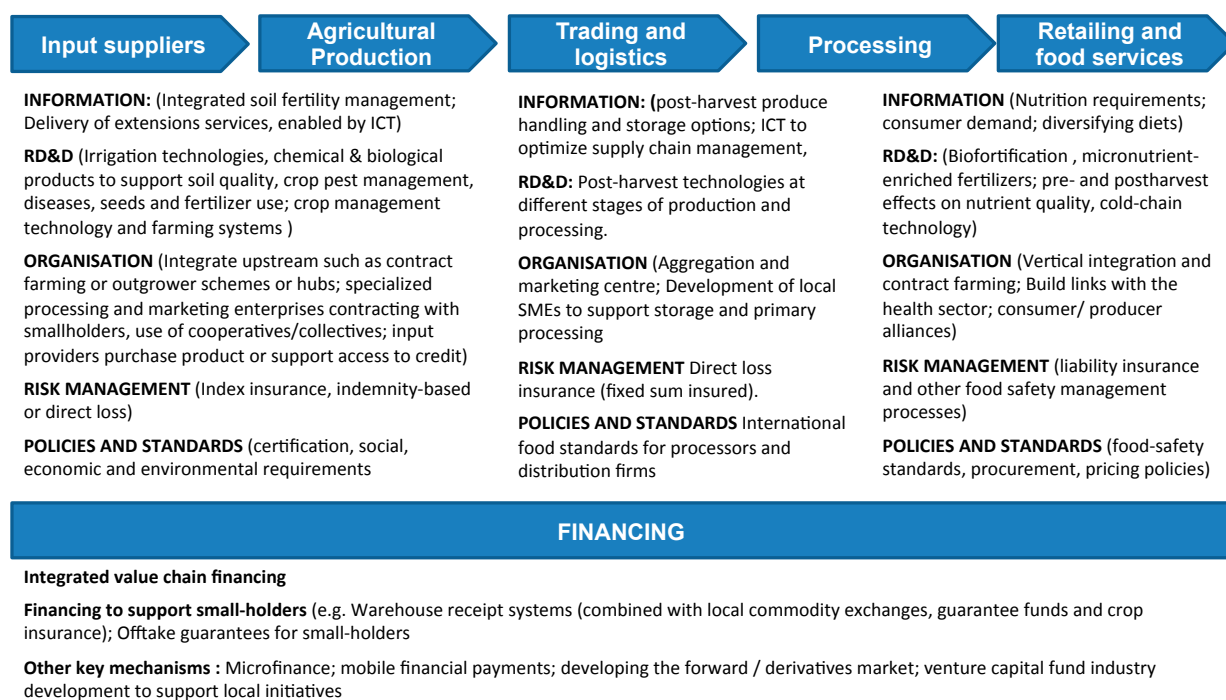
This document supports this project by providing an overview of some of the underlying challenges; describing specific actions that are being taken; and describing potential approaches for companies to come together to scale up existing actions and develop new ones.

There are significant environmental, technological, market, and socioeconomic constraints throughout the value chain in SSA that are well-known by companies participating in this project. For example, these constraints include lack of access to inputs, credit or markets; degradation of natural resources; lack of access to infrastructure for storage, distribution and processing; and lack of access to a variety of nutritious food.

While there are numerous initiatives led by governments, companies and other organisations in response to these challenges, this project fills a niche: bringing companies together to focus on those solutions directly within corporate influence, rather than those that are based on politics or regulation or international policy. This project's approach is to create shared value for communities and companies, with a focus on core business models, rather than providing a philanthropic or incremental 'CSR' response.

Many companies are already taking actions that contribute towards food security. Some of these corporate-led actions are summarised in **Figure 1** below:

Figure 1 – Corporate actions across the value chain



This project brings together companies to consider those opportunities across the value chain where multiple companies can collaborate. Shared opportunities could include:

1. **Creating new market and revenue opportunities.** This includes using product and service innovation to meet pressing social needs. For example, nutritional deficiencies can be reduced through new low-cost staple products.
2. **Strengthening the value chain.** This includes enhancing quality, improving efficiency, reducing waste, and managing risks across the value chain. For example, shared warehousing and logistics, controls to avoid food waste, improving energy efficiency.
3. **Building capacity.** This focuses on the part of the value chain where companies can realistically build knowledge and skills and access to market for commercial/semi-commercial small-holders and emerging farmers. For example, increasing extension services and technical assistance; improving inputs and their application, and access to them; supporting infrastructure development; and increasing access to financing

Any multi-company opportunities that are developed in this project should follow six principles. The opportunities should be: **driving social progress; business-driven; creative; ambitious; practical and additional.**

3. Introduction to the food security project

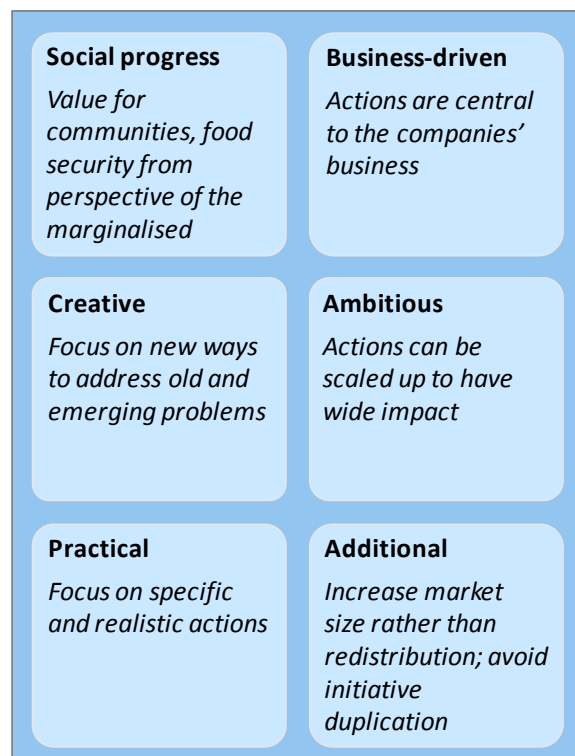
3.1. Objectives

This project brings together key players that are active in the sub-Saharan African food value chain to develop shared and specific corporate-led actions that contribute to food. The actions aim to deliver immediate results, and provide a springboard for future work. While this project is ultimately about global food security and future work will consider other regions, the starting point for this workshop is sub-Saharan Africa.

This project takes a systems approach. Rather than focusing on individual company actions, the entire food value chain is considered. The outcome of the project will be the identification of specific actions that individual and multiple companies can take to address food security issues (e.g. integrated solutions for smallholders, alternative distribution models, targeting consumer needs). Key

principles for the project are illustrated in the box to the right.

The key principles for the project



Asda / Walmart hopes this workshop will serve as the beginning of a series of initiatives to develop and implement actions in both sub-Saharan Africa and other regions of the world.

3.2. Purpose of this document

This Briefing Paper provides an overview of some of the drivers behind food insecurity in sub-Saharan Africa and summarises actions that some companies are taking to contribute to food security. It includes an assessment of the barriers and effectiveness of the corporate actions. It also raises a number of questions that

companies may consider as they develop shared actions that create value for communities and companies.

The actions listed in this document are taken from literature, interviews with workshop participants and experience of the project team. They include actions that contribute to resource efficiency, supply chain resilience, and social development. The actions are not comprehensive, but are set out as a way of illustrating some current successful work, and to provoke debate. **For more detail and examples please refer to the Annex to this document.**

This Paper provides a basis for learning and understanding to help prepare participants for the workshop. The workshop will add to and refine the content in this Paper, and critically, prioritise actions and set out next steps to implementing them.

3.3. Scope

Feeding a growing population by 2050 is a key concern for many. This project is focusing on sub-Saharan Africa (**Figure 2**) because it has so many challenges that are relevant to the whole world (see **section 4.3**), and also so much potential for action. The region is seeing the beginning of a transformation from subsistence farming to commercial farming, and there is significant potential for productivity gains from existing natural resources.

Figure 2 – Map of Sub-Saharan Africa (in red)



Despite the global economic slowdown in 2012, growth in sub-Saharan Africa remained robust, supported by resilient domestic demand and still high commodity prices. In 2012, the region's growth was estimated at 4.7%. Excluding South Africa,

the remaining economies grew at a robust 5.8%, with about a quarter of countries in the region growing at 7% (exceeding China and India)¹. The current spend on infrastructure in Africa is about US\$45 billion a year, approximately half of what is needed, so there are substantial opportunities for the private sector to either invest alone or in partnership with government². It is no surprise that seven of the world's ten fastest growing economies (2011-2015) are in SSA³.

The project is intended to focus on the role of companies across the value chain working together. There are numerous initiatives led by governments, companies and other organisations to work on food security. These include groups developing senior corporate commitments (e.g. WBCSD or WEF) and projects responding to specific country or crop-specific opportunities (e.g. Grow Africa), amongst others. However, there is still a great and unique role for companies to collaborate to identify and deliver actions. Although the workshop will not have NGO or government participation, the actions identified will form the basis for future discussions with others including corporate contributions to global meetings such as the WEF, G8, G20, among others.

This project deliberately excludes certain issues that affect food security, as they are too broad-ranging, too political, or not easily within direct corporate influence. These issues include commodities trading, government policy and legislation (including subsidies, tax, trade restrictions etc), debates around economic growth vs. sustainability and natural capital; biofuels; GM crops; sovereignty; and managing competition for resources.

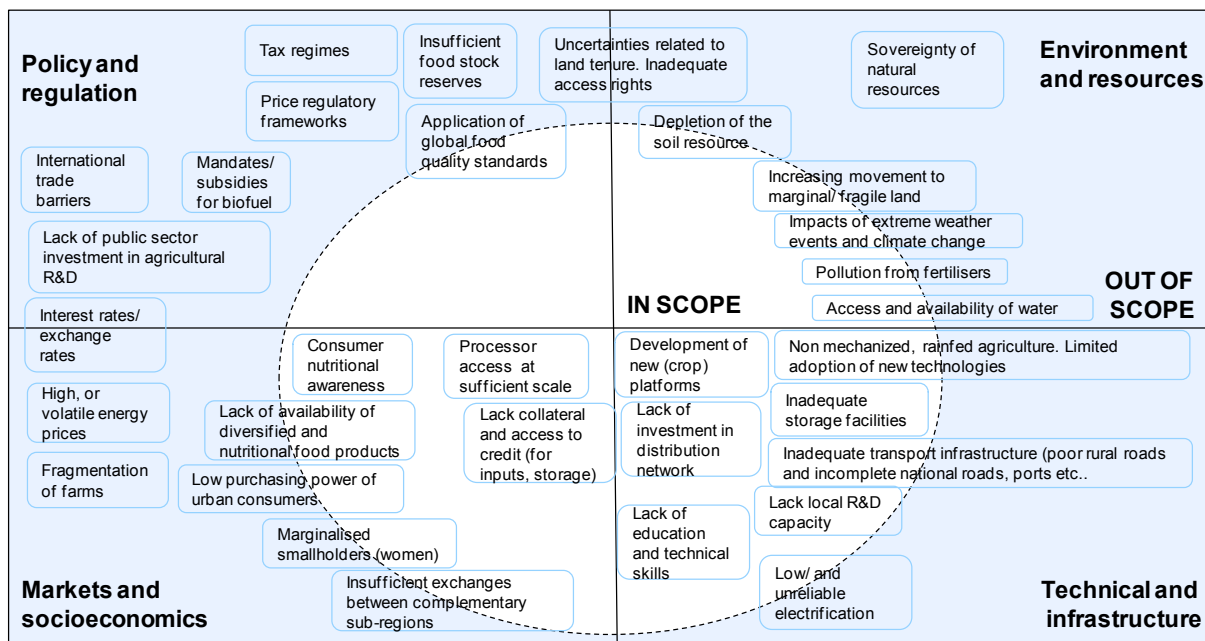
During the November workshop, the scope of issues within direct company control, and therefore, with potential for solutions will be considered. As a starting point, some of the potential issues or challenges to be included or considered out of scope have been drafted for further discussion. This is illustrated in **Figure 3** below.

¹ World Bank (2013) Africa's Pulse: An analysis of issues facing Africa's economic future. April 2013, vol 7.

² KPMG (2013) Foreign Direct Investment in Africa <http://www.kpmg.com/africa/en/issuesandinsights/articles-publications/pages/foreign-direct-investment-in-africa.aspx>

³ 1. China, 2. India, 3. Ethiopia, 4. Mozambique, 5. Tanzania, 6. Vietnam, 7. Congo, 8. Ghana, 9. Zambia, 10. Nigeria

Figure 3 – Some of the issues considered within scope of this workshop



4. Framing Food Security

4.1. Defining food security

The definition of food security has changed over the years. Initially, it described the availability of adequate global supply of basic foodstuffs. This has developed over the years so that it now includes safe and nutritious food meeting people’s needs for an active and healthy life. The core issues are: availability, accessibility, stability and sustainability. The FAO definition is “Food security [is] a situation that exists when all people, at all times, have physical, special and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life” and it is this definition we shall use in this document.

Food security operates on three interconnected levels: individual consumption needs, household aggregate demand, and supply and demand balance at the national and regional level. Given the focus on sub-Saharan Africa, this project considers availability of nutritious food and access to that food for the individual, as well as access to food markets (for producers).

4.2. Challenges to food security

Local food security is threatened primarily when local food production is constrained, for example by climatic conditions such as drought or floods and there is insufficient production in a particular area to feed the dependent population living there; and/or when local/imported food prices are very high, which may be due to increases in fuel/transportation costs or to the vagaries of international commodity markets. Volatility has had a huge impact on consumers in developing countries as high food prices led to doubling inflation rates in low-income countries where staples make up more than half consumer expenditure.

Barriers to food security come from both demand and supply side. They include a number of complex mutually-reinforcing factors, including:

Demand side

- Growing food demand and a dietary transition from cereals towards more animal protein in emerging economies, as more than a billion people move into the middle classes.
- Biofuels programmes in USA and Europe that provide subsidies and mandates to increase biofuels, leading to greater use of corn and vegetable oils for biofuels and thereby increasing the price of the commodities.
- Increases in the price of crude oil, which has the dual impact of making inputs (such as fertiliser and equipment) and transportation of food products more expensive, and also forcing demand for biofuels up.

Supply side

- Weather and crop disease issues, as well as degradation of land and water resources, exacerbated by the impacts of climate change, reducing productivity. In the past, such yield shocks have led to export bans and restrictions from some of the major exporters, further reducing supply and exacerbating price increases.
 - Low stock levels, so that when weather and crop diseases shocks hit commodity markets, already low stocks exacerbate price impacts, as occurred in 2007/8.
 - Limited production due to natural resource constraints, such as competition for land; water scarcity and land degradation (24% agricultural soils are degraded – 12m ha agricultural land is lost per year) and from urbanisation and a reduction in farmer numbers
 - Lower investment in agricultural production and research leading to lower growth in productivity.
-

- Lack of infrastructure, including storage and transport, leading to significant losses and waste (one-third of food is lost or wasted globally).
- Exchange rates that affect global commodity prices and also imports/exports.
- Speculation on the future prices of commodities may push prices up and increased trading volumes contribute to price volatility.
- Even where people get access to some food it is often not of sufficient quality or nutritious value, or diversified. Malnutrition is a massive problem in SSA. Up to one-third of child mortality is due to malnutrition. There are parts of SSA where obesity from a high carbohydrate diet is also taking its toll.

4.3. Specific challenges in sub-Saharan Africa

Sub-Saharan Africa has many specific issues that make food security particularly difficult. For example, food supply problems are exacerbated by the phenomenon of rapid urban expansion and migration to regional capitals. Africa has the fastest growing population in the world and this is projected to double to 2 billion by 2050. However, the current food production system would only be able to meet 13% of this increased demand.

Rural productivity in sub-Saharan Africa ranks among the lowest in the developing world. This is caused by a broad spectrum of factors, including: extreme climatic conditions; poor and disconnected state of infrastructure; and the persistence of traditional methods of subsistence farming rather than using high-tech inputs and modern methods. While subsistence rain-fed farming provides livelihoods for most of the rural population, it is mostly undertaken in remote areas without access to urban markets or to agricultural inputs (e.g. fertilizers, drought-resistant seeds). This constrains agricultural productivity on a large scale and prevents smallholders (most of whom are women) from transitioning from self-sufficiency to commercial farming, as a means of exiting poverty.

Food security is closely related to poverty. In sub-Saharan Africa the population is 813 million, of whom 386 million live on less than \$1.25 a day, making the poverty headcount ratio 47.5%⁴. Smallholder farmers number around 33 million, represent 80% of all farms in the region, and contribute up to 90% of food production in some areas⁵. Developing smallholder agriculture can be effective in reducing poverty and hunger in low-income countries where there is sustainable access to markets.

⁴Swiss Re (2013) Sigma No1/2013: Partnering for food security in emerging markets. Swiss Re, Zurich.

⁵ ODI (2013) Leaping and learning: Linking smallholders to markets. <http://www.odi.org.uk/publications/7453-leaping-learning-smallholder-farming-market-intervention>

Smallholders make up half the food insecure population, the rest is landless poor in rural areas (30%) and urban poor.

Women smallholder farmers need particular attention as they are so often ignored or underestimated as many surveys only count paid labour. Women are critical as farmers themselves, as “invisible” helpers that work alongside men without appropriate right to resources or decision-making, and by buying and selling products at market for families. In many cases, women and men have distinctly different tasks and responsibilities based on gender. Women make up 60% of the chronically hungry, and women smallholders are approximately 43% of the agricultural labour force of developing countries.

Sub-Saharan African is also deeply affected by malnutrition: more than 200 million people go hungry, and 40% of the children under 5 are stunted due to malnutrition. The prevalence of malnutrition varies by region: it is lowest in north Africa (4%) and highest in central Africa (40%). Every year 115,000 maternal deaths worldwide are associated with iron deficiency, caused by malnutrition. The FAO estimates that removing gender inequalities in agriculture could reduce the number of hungry people in the world by 100–150 million⁶.

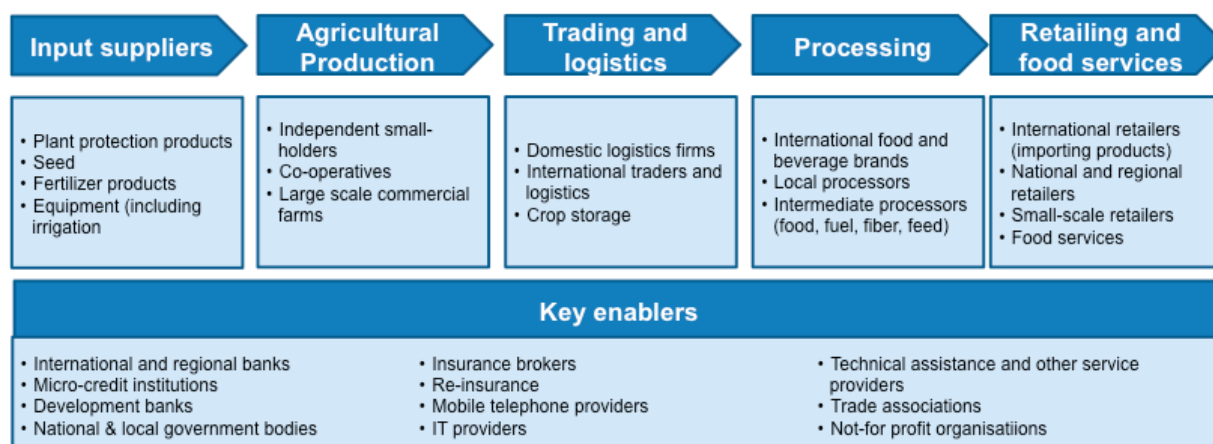
It is therefore imperative that agricultural productivity improves. Theoretically, opportunities exist: sub-Saharan Africa is one of the world’s six major crop regions, and the only one with potential for significant yield improvements. There is a young rural workforce, an expanding urban consumer market, and potential to increase trade opportunities intra-regionally and abroad.

4.4. Overview of food value chain or network

When looking at food security, this project considers the entire value chain covering agricultural production, food distribution and the needs of end consumers including poverty alleviation. In practice, food supply and demand operates less as a linear chain and more as a network including many enabling organisations such as finance, ICT and a critical role played by public bodies. This is illustrated in **Figure 4** below.

⁶ FAO (2011) The State Of Food And Agriculture 2010-2011 - Women In Agriculture: Closing the gender gap for development

Figure 4 - Overview of the food value chain



5. Inputs and Production

5.1. Challenges

Particular challenges relating to **AGRICULTURAL INPUTS** (such as seeds, equipment, fertiliser and natural resources like land and water) include **resource inefficiency**, **environmental externalities**, and **inadequate access to affordable inputs**. Even where SSA countries are fertile, rates of soil depletion and degradation are also high. As a result, observed yields are believed to be less than one third of potential yields⁷.

Challenges regarding **AGRICULTURAL PRODUCTION** relate to **supply of agricultural products, farmer livelihoods** (particularly smallholders and the role of women, lack of information and skills), and **access to markets**. Farmers often are not linked to markets because they are remote, production is low, farm-gate prices are low, and there is a lack of information. Production is the most risky part of the value chain, as producers attempt to adjust production levels to meet market dynamics, are susceptible to weather and climate change and vulnerable to volatile production costs.

5.2. Opportunities

There are many opportunities with regards to increasing access to and use of inputs. Sub-Saharan Africa has the lowest world record of agro-inputs application and

⁷ Pender et al (2004) Strategies to increase agricultural productivity and reduce land degradation: evidence from Uganda. *Agricultural Economics* 31(2-3): 181–195.

utilisation; only 9kg per ha (10% of world average)⁸, and less than 20% of arable land is planted with improved seed varieties⁹. In addition, inputs are disproportionately expensive: farmers pay two to four times the world average price and more than 90% of fertilisers in SSA are imported. This is mainly due to poor infrastructure and geography; however government policies (e.g. tariffs) and limits to economies of scale also play an important role.

Producers form the largest component of the agro-food value chain, and this is potentially the most important part of the chain in determining food security. Finance and insurance are critical at this stage, to mitigate or insure against risk; for example, farming experiences a funding gap due to the long production cycle.

⁸ Morris et al (2007) Fertilizer Use in African Agriculture: Lessons Learned and Good Practice Guidelines. World Bank.

⁹ Brookings (2011) Africa Growth Initiative: Enhancing Agricultural Productivity For Shared Growth In Africa.

5.3. Actions

Potential actions are illustrated in the box below

INFORMATION AND AWARENESS RAISING

1. **Supporting integrated soil fertility management** e.g. agroforestry, no-till farming, crop rotation
2. **Extension services** and demonstration plots (i.e. the transfer and exchange of practical information for the farmer). This can be enabled by ICT

RESEARCH, DEVELOPMENT AND DEPLOYMENT

1. **Research into fertilizers and seeds** (e.g. reduction of leaching loss, disease and drought resistant seeds). Tested in country to determine optimum levels of applications, efficacy and cost.
2. Research into innovative use of **chemical and biological products** to support soil quality, crop pest management, diseases
3. Application of innovative **irrigation technologies** (e.g. drip irrigation)
4. **Crop management** technology - computerized control of all aspects of agricultural processes

ORGANISATION

5. **Processing and marketing firms can have closer involvement in direct production** in large-scale operations. This can include contract farming or outgrower schemes and use of nucleus farm hubs
6. Support for organization of farmers into **cooperatives**, collectives etc; farms themselves can **vertically integrate downstream** through collective action (e.g. cooperatives, farmer associations) to overcome asset gaps
7. **Backward integration** where input providers purchase product or have model for supporting access to credit; also forward integration (where processors move into marketing and distribution).

RISK MANAGEMENT

8. **Index insurance** - meteorological trigger, or area yield trigger
9. **Indemnity-based or Direct loss (fixed sum insured/variable sum insured)**

POLICIES AND STANDARDS

10. **Certification** based on social, economic and environmental requirements

6. Distribution, storage and processing

6.1. Challenges

Key challenges to address are **post-harvest losses, lack of transportation, inadequate distribution and lack of (and access to) processing facilities**. One third of food produced is lost/wasted each year globally and in sub-Saharan Africa, average post-harvest losses (PHL) are estimated to be over 40%, and up to 70% for some fruits and vegetables¹⁰. PHL happen at every stage of the supply chain, but in developing countries harvesting, drying and storage are all stages which see substantial losses, both quantitative (physical losses caused by rodents, insects or infestations) and qualitative (loss of quality and value). Distribution of any crops or food products is a challenge as Africa has one of the lowest road densities in the world¹¹, and transport costs are prohibitive, as much as five times than that of Asia.

6.2. Opportunities

The agro-processing sector is the most significant component in the agro-food industry and covers a broad area of post-harvest activities, packaged raw materials, processing of intermediate goods and fabrication of final products. It is the subsector in the value chain that creates needed agribusiness opportunities for investment and sustainable livelihoods.

There are opportunities to improve post-harvest management at the farm level, along the value chain, and to improve distribution efficiency and access to local processing facilities. On-farm storage can improve pest/fungi management and is one way to mitigate seasonal and inter-year production shocks, although access to credit and knowledge of storage techniques must be in place.

¹⁰ UNIDO (2007), *Food Processing Pilot Centres: An approach to productive capacity building for trade and poverty alleviation in Africa*. United Nations Industrial Development Organization (UNIDO), Vienna, Austria

¹¹ WDR (2009) *Reshaping Economic Geography*. World Bank.

6.3. Actions

Potential actions are illustrated in the box below.

INFORMATION AND AWARENESS RAISING

1. **Increase farmer knowledge** of post-harvest handling and storage options and best practice guidance
2. **Use of ICT to optimize supply chain management**, delivering efficiency improvements for transportation logistics. (e.g. smart logistics, traceability and tracking system, supplier networks and distribution networks)

RESEARCH, DEVELOPMENT AND DEPLOYMENT

3. **R&D for post-harvest technologies** at different stages of production and processing. This includes use of varieties / inputs, on-farm storage, drying and threshing techniques, pest control etc. Includes metal silos, different types of bag/sack etc

ORGANISATION

4. **Establishing aggregation and marketing centres** in selected countries to facilitate markets and reduce post-harvest losses
5. **Integrate producers and processors.**

RISK MANAGEMENT

6. **Direct loss insurance (fixed sum).** Sum insured based on value of infrastructure

POLICIES AND STANDARDS

7. **Adapting to international food standards** for processors and distribution firms, setting internal standards
-

7. Nutrition and Access to Food

7.1. Challenges

Malnutrition is the single biggest risk factor for the burden of disease in most of SSA. Micronutrient deficiencies are widespread, and vitamin A, iron and iodine deficiencies represent the three biggest concerns. At the same time, some parts of Africa are seeing an increase in **obesity**, where the available food is starchy and carbohydrate rich.

Access to food requires availability of food, affordability of food, and acceptability of food to consumers (including the nutritional content). Many agriculture projects have not been designed with explicit nutritional objectives and have been focusing on calorie intake or economic factors such as growing cash crops instead of local crops with high nutritional value.

7.2. Opportunities

The way that food is produced, stored, distributed and processed will affect the access and nutritional content of food. Nutrition can be considered at all stages of the value chain. Ensuring access to food is the best step to reducing malnutrition. However, there are specific efforts to work on the nutritional content of food that can be considered. Examples include the density of essential nutrients, biofortification, product diversification and reduction of food safety liability and contamination.

The time when nutrition is utterly critical is in the first 1000 days covering pregnancy and a child's first two years – it is therefore critical that any actions are focused on women and infants.

Choices about which kind of food to eat are guided by both objective (what is available and affordable) and subjective (habits and preferences) factors. Actions to increase nutrition must therefore affect both.

7.3. Actions

Potential actions are illustrated in the box below

INFORMATION AND AWARENESS RAISING

1. **Improve knowledge of nutritional requirements** across value chain.
2. **Shape consumer demand:** Actions to incentivize or encourage consumers to diversify their diets.
3. **Increasing dietary diversification** – through product diversification, e.g. dairy, livestock, home gardening, and aquaculture. Can include varietal trials and taste testing with farmers and children

RESEARCH, DEVELOPMENT AND DEPLOYMENT

4. **Biofortification of staple food crops:** Innovation of development and marketing of biofortified crops targeted at low-income market, either by genetic modification, or by agronomic practices, or conventional plant breeding
5. **Micronutrient-enriched fertilizers** are applied to crops and increase their growth and the nutrients in the crop.
6. **Research into pre and post-harvest effects on nutrient quality,** or the adoption of productivity-enhancing inputs and cold-chain technology

ORGANISATION

7. **Build stronger links with the health sector as well as consumer/ producer alliances**

RISK MANAGEMENT

8. **Identify potential changes in costs to increase nutritional content in food**
9. **Use of product liability insurance** and other risk management processes for food safety management

POLICIES AND STANDARDS

10. **Development and implementation of food-safety standards** (e.g. BSI/PAS standards), the adoption of food-quality standards by supermarkets, and changes in policies on procurement and pricing

Use of certified products

8. Finance

8.1. Challenges

A major challenge in sub Saharan Africa is the lack of finance for producers. Without access to credit, farmers cannot buy high quality inputs or seeds, or build storage structures. The seasonality of crops means that there can be times of the year when farmers have no cash flow. Farmers may not be able to prove land ownership, or have any assets to use as collateral.

8.2. Opportunities

There are huge opportunities to provide low cost, easy to obtain finance. Value chain financing is an important approach for integrated supply chains (e.g. sugar, tea, rice, dairy), where forward linkages can be used as a collateral substitute. There are also examples of financing receivables and using approaches such as warehouse receipting to avoid selling products once the price has collapsed. Other opportunities include approaches to finance large groups of small farmers (e.g. credit-scoring approaches) and different models for providing finance to co-operatives. Mobile technology has become an effective way of reducing administrative costs and overcoming transport and physical access difficulties.

8.3. Actions

Potential actions are illustrated in the box below:

1. **Finance each stage of value chain – integrated.** This can include
 - a) **Increasing access to capital** for physical installations (warehouse, refrigeration etc) and transport infrastructure
 - b) **Investment in processing operations** to increase margins for local producers
 - c) **Investments in companies able to secure markets** for products.
2. **Financing to support small-holders (can be part of item 1)**
 - a) **Warehouse receipt systems** (combined with local commodity exchanges, guarantee funds and crop insurance)
 - b) **Offtake guarantees for small-holders**

Other mechanisms which are important:

3. **Microfinance** including a broad range of financial services such as deposits, loans, payment services, money transfers, and insurance to poor and low-income households and their microenterprises.
4. **Mobile financial payments** using mobile money transfer scheme
5. **Developing the forward / derivatives market** to enable hedging over long tenures
6. **Develop local capital debt markets**
7. **Venture capital fund** industry development to support local initiatives

Other types of actions that could be listed:

8. Credit score cards (including other practical tools to assess risk in agricultural lending)
 9. Structured trade and commodity finance
 10. Transactional services to agricultural businesses
-

9. Developing shared actions

Actions presented in previous sections cannot be taken in isolation. Many of the issues require multiple interventions with parties across the value chain to work together. Furthermore, actions need to be specific to the different geographies, crops and people involved. During the workshop, actions will be prioritised on the basis of certain criteria, informed by the **six principles** described in **section 3.1** of this Paper. For example, actions are (capable of being) cost effective, actions will benefit a large number of people, actions can be implemented within two years, companies can influence the outcome of the action, actions can be achieved with more than two companies etc.

Many actions to expand markets have already been developed, and the issue is how to scale them up. Equally, there are new markets that can be created and maximized. There are a number of potential areas where several companies across the value chain can come together to generate economic value through social progress.

Figure 5 provides a summary of some examples which are discussed in further detail in the rest of this section.

Figure 5 – Summary of some examples of cross-cutting areas for consideration

New market and revenue opportunities	Strengthen the value chain	Overcome capacity constraints
<ul style="list-style-type: none">• Develop low-cost high nutritional value products• Develop local markets• New products and services	<ul style="list-style-type: none">• Broaden and deepen engagement down the value chain• Role of value chain financing, remove barriers to private sector investment• Improve efficiency, enhance quality and reduce waste	<ul style="list-style-type: none">• Access to inputs, insurance, finance• Improvements in knowledge, technical assistance• Infrastructure development

9.1. New market and revenue opportunities

Actions can focus on the role of product and service innovation to meet pressing social needs. Questions to consider include:

- How can **local markets be developed** to allow smallholder farmers to make long-lasting improvements in efficiency, yields, crop quality and profits?
- How can **low-cost high-nutritional value products** with sustainable profit margins be developed?
- How can corporations **engage with consumers**, especially poor urban consumers, to improve diet diversity and nutrition?
- Where are the **opportunities for providing new services in value chains** to add value? This includes opportunities across insurance, financial services, business services, product development, training etc. What is the role of technologies to facilitate access to market information?
- How can corporations create **access to international markets**? (e.g. further aggregation of smallholders, business model changes, offtake agreements)?

9.2. Strengthen the value chain

Corporations working collaboratively can enhance quality, improve efficiency and manage systemic risks across the value chain. Questions to consider include:

- How can **locally-focused R&D** be developed and financed? (e.g. development of seed-varieties, use of fertilizers, drying methods)
 - How can **retailers and processors broaden and deepen their engagement up the value chain** - especially with producers? (e.g. addressing nutrition requirements, development of domestic retail activities)
 - How can **input providers broaden and deepen their engagement down the value chain** - especially with producers?
 - How can the role of local SMEs to process, store and distribute post-production food for **local markets** be expanded?
 - What is the potential for **innovative finance and insurance models**? (e.g. using farmers' produce as collateral rather than land or property)
 - How can banks **integrate lending and investment** across the value chain?
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9.3. Overcome capacity constraints

Markets can grow by overcoming capacity constraints of farmers. Corporate efforts can replicate projects in new geographies or new crops, or scale them up to the point they become commercially sustainable. Those actions that specifically address small-holder concerns and target women are most important. Questions to consider include:

- How can corporations **build local relationships**, especially with smallholders?
- How can corporations and other stakeholders **improve extension services** based on their position in the value chain (e.g. education on agricultural inputs, irrigation, yield enhancement, marketing, distribution, nutrition, and financing)?
- How can **improvements in water use, seed application, and fertilizer application be supported?**
- Which models are most effective for building **essential infrastructure** for producers?
- How can small-holders be **brought into the wider market** (e.g. use of nucleus farms)?
- How can access to **local capital markets** be increased?
- How can access to **risk management tools**, including insurance, be increased?
- How can effective **finance models be expanded?**

The enabling environment is crucial to the success of these actions. Issues that play a key role in the enabling environment and policy dialogue tend to be outside the direct control of companies, for example regulations, legal framework, sector policies, prices, import/export balance, and access to natural resources. As governments tend to lead on these issues, they are not considered within the scope of this Paper or workshop. However, there will be many areas where companies can impact these issues, either through partnerships or lobbying and advocacy; these must not be excluded when corporate initiatives resulting from this workshop are further scoped and developed.

10. Measures of success for this food security project

This briefing document provides the first step in bringing together a number of leading corporations to develop shared actions to address food security.

In the short term, measures of success for this project include:

- Commitment from five major companies actively involved and investing alongside Asda / Walmart
- Commitment from >10 companies to actively engage within Joint Innovation teams
- Agreement on key actions to pursue and next steps to implement them
- Multiple companies re-convening within one year to report progress

Over the longer term, measures of success include:

- Actions are implemented on the ground, with multi-stakeholder input
 - Actions are aligned with existing initiatives
 - Extension of this project within sub-Saharan Africa and into other regions of the world
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11. Contact Details

We look forward to getting your feedback on some of the actions described and drawing on them to identify opportunities for multiple businesses to work together. If you have any queries on the content, please contact kate.weinberg@irbaris.com or david.lyon@irbaris.com

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