



## DISCUSSION PAPER

**Fueling the Business of Nutrition:** What will it take to attract more commercial investment into nutritious food value chains?

Beth Jenkins and Richard Gilbert

#### Focus

This discussion paper asks what is needed to unlock greater commercial investment into value chains that can improve access to nutritious foods among low-income consumers in developing and emerging markets, with a special focus on the small and medium enterprises that currently struggle the most to obtain it. For brevity, we will refer to "nutritious food value chains" and "SMEs that improve access to nutritious and safe foods."

The paper does not focus on attracting or steering investment into multinationals based on their nutrition impacts, or on encouraging them to invest their own resources in developing more nutritious products. However, multinationals could be one source of investment into smaller, more local companies via corporate venturing or acquisition.

#### Objectives

What is needed to unlock greater commercial investment into nutritious food value chains is a question that spans disciplines, from nutrition to agribusiness to SME finance and blended finance. Many stakeholders will need to be involved in answering it, including donors, development organizations, and government agencies with the mission to improve nutrition on one hand, and investors with the mandate to generate financial returns on the other hand. The investor group includes both impact investors who may be willing to accept below-market returns, mainstream commercial investors who seek to maximize returns and those seeking a balance between the two.

This paper is intended to frame and contribute to the discussion among these and other stakeholders, but not to provide all the answers.

#### Methodology

This discussion paper is based on a review of relevant literature and interviews with investors and experts at the intersection of business and nutrition. Interviewees are listed in the Acknowledgements.

**Fueling the Business of Nutrition:** What will it take to attract more commercial investment into nutritious food value chains?

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he leadership challenge is clear – and urgent. It will be impossible to achieve the Sustainable Development Goals without mobilizing substantially more commercial investment, innovation and implementation capabilities from the private sector. This includes not only large multinational corporations and financial institutions, but also national companies and small and medium enterprises, which have enormous untapped potential to support job creation and the production and delivery of essential products and services to local populations. At the same time, governments and international organizations have a crucial role to play in setting appropriate priorities, policies and agendas, and strengthening enabling environments and incentives.

In short, achievement of the SDGs will require what have long been termed public-private partnerships and platforms. These include innovative new public-private financing mechanisms, increasingly described as blended finance. Despite the progress made over the past two decades, there are simply not enough of these partnerships at sufficient scale and level of ambition to meet the gaps in investment, innovation and implementation. This is especially true when it comes to funding the growth of small and medium enterprises and to building inclusive business models that include low-income producers, workers and consumers in their value chains.

This discussion paper explores these issues with a focus on the specific challenge – and opportunity – of attracting commercial investment into nutritious food value chains, or value chains that provide beneficial nutrients and minimize potentially harmful effects on consumers.

Malnutrition – including both undernutrition and overweight and obesity – directly affects 1 in 3 people on the planet. The World Health Organisation (WHO) estimates that in 2014, more than 1.9 billion adults worldwide were overweight or obese, while 462 million were underweight.<sup>1</sup> Apart from the obvious health, social and humanitarian challenges caused by such statistics, there is a large economic cost – both in terms of lost household capabilities and incomes and in terms of macroeconomic growth. Undernutrition in Africa and Asia, for instance, is estimated to reduce gross domestic product by 11% per year. <sup>2</sup> In the United States alone, the healthcare bill for treating obesity could be as high as \$210 billion.<sup>3</sup>

Building new alliances and financing models to tackle the scale and complexity of malnutrition will be essential to achieving the SDGs. And no one sector has the resources and capabilities to tackle it alone. Efforts have traditionally been hampered by a fragmented and uncoordinated response between the agriculture and nutrition communities, a lack of awareness and understanding of the underlying and interconnected causes of malnutrition, and insufficient policy and market incentives to attract commercial investment and innovation. Agriculture and food production are the essential foundations for good nutrition and building more nutritious food value chains has to be at the heart of a collective response to malnutrition.

There are valuable lessons and experiences to build on. Over the past two decades, global platforms such as the Global Alliance for Improved Nutrition (GAIN) and its Scaling Up Nutrition (SUN) Business Network have played pioneering roles. They have raised awareness of the economic as well as social imperative for tackling malnutrition, convened stakeholders across sectors to create a shared vision and mobilize resources and innovation, and experimented with market-based approaches to developing nutritious value chains. This paper reflects some of these approaches and explores how to diversify and scale up both the sources of commercial investment and their impact.

Since 2003, the Corporate Responsibility Initiative at the Harvard Kennedy School has worked to understand different models of engagement among companies and other actors to tackle complex development challenges. Over the last seven years in particular, we have strengthened our focus on what is needed to effect change that is truly systemic, and that brings about sustainable impact at scale. One key success factor is 'system leadership,' which can help to catalyze, align, and support the efforts of diverse stakeholders and accelerate progress. Recent reports have looked at water, agriculture, and food security.

This paper is intended to help frame discussion about the role of commercial investment in nutrition. Financially sustainable and scalable models that deliver nutritious foods to consumers are an important part of the systemic change needed to achieve nutrition goals – and at the same time, systemic change and leadership are required to make such models possible. We hope that this paper will not only frame discussion around this topic, but also help to inspire new investment partnerships and progress.

#### Jane Nelson

Director, Corporate Responsibility Initiative Harvard Kennedy School

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# The Need for Commercial Investment in Nutritious Food Value Chains

The time is right to deepen the conversation about how to attract commercial investment into companies that improve access to nutritious foods among low-income consumers in developing and emerging markets.

One in every three people around the world today is malnourished, imposing a heavy burden on those individuals, their families, and their societies. This includes undernutrition as well as overweight and obesity, driven by factors including poverty, urbanization, demographic change, environmental pressure, and globalization. Altogether, malnutrition costs the global economy an estimated \$3.5 trillion a year.<sup>1</sup>

While malnutrition was once narrowly framed as a public health problem, more attention is now being paid to influencing food systems and their role in what consumers eat, as a key part of the solution.<sup>2</sup> In this regard, a number of factors make it hard for consumers to eat sufficient quantities of diverse, nutritious foods. For example:

- Nearly half of all fruits and vegetables produced worldwide currently spoil before they can be consumed,<sup>3</sup> reducing supply and increasing prices.
- Processed foods high in calories, sugars, salt, and harmful fats are cheaper and more convenient than healthier options. Processed food sales are growing faster in lower middle-income countries than upper middle- and highincome countries.<sup>4</sup>
- The food system is also struggling to respond to increasing demand for nutritious food in the face of population growth and natural resource constraints. The global population is expected to reach almost 10 billion by 2050, increasing demand for food by some 50% compared to 2013, while water and additional arable land remain in short supply. Many small-scale farmers face insecure land rights and increased land ownership by large corporations can result in a focus on exports, with few of the resources coming back in support of nutritious food value chains for local populations. At the same time, the effects of climate change will reduce both the yield and nutritional value of major crops, including decreased protein, iron, zinc and other micronutrients.<sup>5</sup>

These challenges also present opportunities for business, especially in developing and emerging markets. According to the Business and Sustainable Development Commission, business opportunities in the implementation of food-related Sustainable Development Goals could be worth more than \$2.3 trillion a year by 2030. This includes \$155-405 billion in reducing food waste in the value chain, \$165-255 billion in meeting the increasing food requirements of people emerging out of extreme poverty, and \$110-205 billion in reformulating products for increased nutritional value. More than two thirds of the total prize is located in developing countries.<sup>6</sup>

**Investment in food and agriculture is already growing significantly, but unevenly around the world.** For example, the consultancy McKinsey & Co. reports that global food and agriculture investments tripled between 2004 and 2013 to more than \$100 billion. Investment advisory firm Valoral has tracked an increase in the number of investment funds specialized in food and agriculture from 38 to 446 between 2005 and 2017. However, more than 60% of the assets under management by these funds are invested in North America and Europe. Only 6% are invested in the Asia Pacific region and 4% in Africa.<sup>7</sup>

#### Developing country food and agriculture sectors are

**complex.** They comprise a wide variety of companies playing a variety of roles in the production, distribution, and sale of a wide variety of food products. These companies range in size from multinationals to large regional and national companies to small and medium enterprises. They offer different growth prospects and rates of return, and have different financing needs. <figure>

### Figure 1 Access to Finance as a Barrier to Business in Sub-Saharan Africa

Scale-related advantages give large companies critical roles to play in addressing food system challenges and delivering more nutritious options to consumers in developing countries. In many parts of Sub-Saharan Africa, for example, large, well-established national companies dominate the production of some staple foods and condiments, such as edible oils, wheat flour and salt. For example, approximately 95% of wheat flour in Africa is processed and packaged in mills with a capacity of at least 20 metric tons a day,<sup>8</sup> and an estimated 60% of salt comes from large salt producers.<sup>9</sup> Such companies are well-positioned to produce low-cost micronutrient-fortified products and deliver them efficiently, at scale, to local consumers. Their size, track record, and market position mean they find it relatively easy to attract commercial financing.

However, small and medium enterprises (SMEs) also have critical roles to play in meeting consumers' nutrition needs, and they struggle to attract financing as illustrated in Figures 1 and 2. While actual data is scarce, the prevailing sense is that SMEs, along with smallholder farmers, make up the bulk of the food system in developing and emerging markets.<sup>10</sup> While definitions vary by country, the International Finance Corporation generally defines SMEs as enterprises with 11-250 employees. SMEs are generally hard to finance because they have modest needs, limited collateral, and uncertain growth prospects, making it hard to cover deal generation costs and deliver risk-adjusted returns to investors. A recent study by the International Finance Corporation estimates that nine million SMEs, 44% of all formal SMEs in developing countries, have unmet financing needs of \$4.5 trillion a year.<sup>11</sup> According to the World Bank's Enterprise Surveys,<sup>12</sup> access to finance is identified by businesses as being one of the top barriers holding them back in many parts of Sub-Saharan Africa as highlighted in Figure 1.

The gap for SMEs that improve access to nutritious foods – especially among low-income consumers – may be especially acute as a result of exposure to the agriculture sector and limited consumer demand, which further increase the risk and decrease the expected returns for investors.

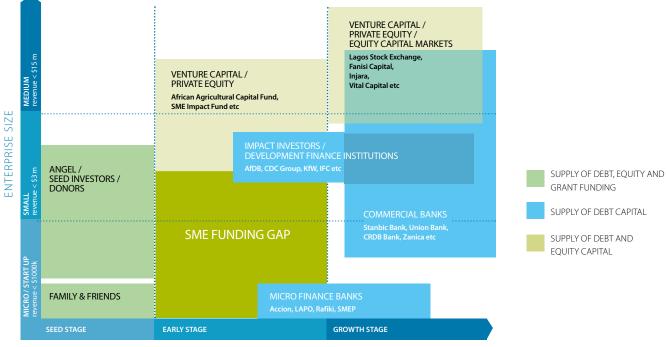


This paper focuses on SMEs all along the value chain that, in a variety of different ways, can help to improve access to nutritious foods among low-income consumers in developing countries and emerging markets. For brevity, we will use the terms "SMEs that can improve access to nutritious and safe foods" and "nutritious food value chains" to refer to this group.

As investment into the food and agriculture sector grows, there is an opportunity to attract more of it into companies that improve access to nutritious foods in developing and emerging markets – including the SMEs that currently struggle the most to obtain it, commonly called the "missing middle".

Filling the gap highlighted in Figure 2<sup>13</sup> is likely to require different combinations of donor money and commercial financing, from sources including domestic and international venture capital and private equity funds, commercial lenders,

pension funds, sovereign wealth funds, and the capital markets. **This paper is intended to frame discussion about how to capture this opportunity.** It describes three "building blocks" that must be in place for commercial investment to flow into these companies, and suggests a number of actions that could be taken to drive progress in each area. It also stresses that these building blocks are interconnected and interdependent and therefore need to be tackled in concert, with a strong role for donors to enhance investor incentives and for 'system leadership' to align the efforts of all stakeholders to accelerate the process.



### Figure 2 Financing Gap for Agri-Food SMEs in Developing and Emerging Markets

STAGE OF ENTERPRISE LIFECYCLE

Source: Dalberg Advisors Report for Scaling Up Nutrition Business Network

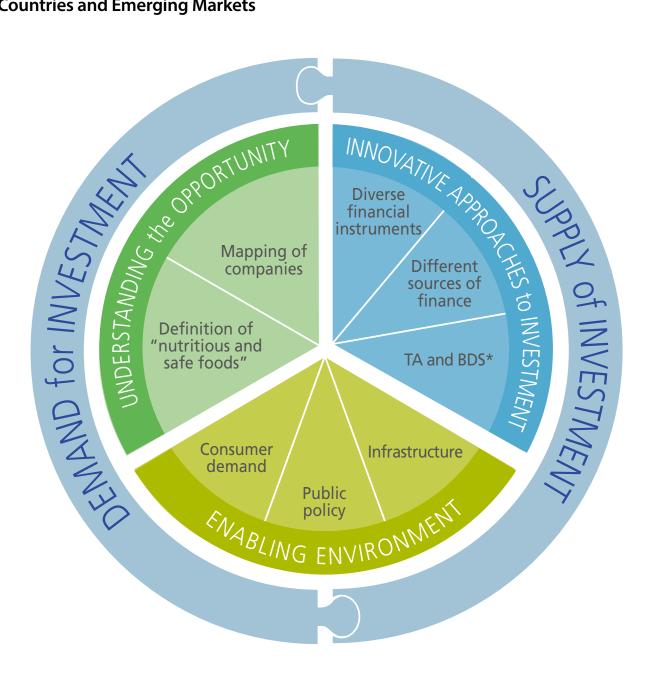
### Putting the Building Blocks in Place

To attract commercial investment flows into nutritious food value chains that reach low-income consumers in developing and emerging markets, three building blocks must be in place.

### These building blocks include:



**The building blocks are related and interdependent.** For example, how the opportunity space is defined helps determine what kinds of companies can be found within it. Their capabilities and the environments in which they operate shape their demand for investment, and how easy it is to fulfill using traditional investment approaches – in turn suggesting how other forms of capital and subject matter expertise might be deployed to de-risk opportunities and get more commercial investors involved. **Ultimately, the building blocks are about connecting demand for investment with supply.** The next three sections describe these building blocks and suggest a number of actions that could be taken to put them in place. Figure 3 Building Blocks to Attract Commercial Investment into SMEs that Improve Access to Nutritious and Safe Foods Among Low-Income Consumers in Developing Countries and Emerging Markets



### A CLEAR UNDERSTANDING OF THE OPPORTUNITY SPACE

For investors to allocate investment into nutritious food value chains, they need a clear definition of what that means and a sense of the investment potential.



Right now, most investors do not recognize "nutritious food value chains" or "companies that can improve access to nutritious and safe foods" as a category or sector. Those interested in food and agriculture focus on the sector more broadly, or on potentially fast-growing sub-sectors such as ag tech. The word "nutrition" can lead investors to think "niche markets."

# **1.1** Definition of "Nutritious and Safe Foods": (consistent with GAIN terminology and likely scope of investments).

While defining "nutritious and safe foods" can be surprisingly complex, the Global Alliance for Improved Nutrition (GAIN) offers a relatively simple, common-sense definition. This definition recognizes that there is no bright line between what is nutritious and what is not, but rather a continuum of nutritional value; that different consumer groups have different needs; and that overall dietary diversity is key:

A nutritious food is "a food that, in the context where it is consumed and by the individual that consumes it, provides beneficial nutrients (such as vitamins, major and trace minerals, essential amino acids, essential fatty acids, and dietary fiber) and minimizes potentially harmful elements (such as anti-nutrients and quantities of sodium, saturated fats and sugars)."<sup>14</sup>

### **1.2** Mapping of Companies with Investment Potential

Taking this definition of the term, a wide variety of companies all along the value chain play, or could play, roles in improving access to safe and nutritious foods, as illustrated in Figure 4. These include companies that address specific nutritional deficiencies or nutritionrelated illnesses as their core business, such as readyto-use therapeutic food manufacturers. But this group also includes a host of other companies that self-identify in terms of nutrition either very little or not at all. These include producers of crops that are inherently nutritious and manufacturers that produce a combination of foods that are nutritious and foods that are less so. These also include companies that fortify foods with vitamins and minerals during processing, or who are upstream in the value chain, such as providers of fertilizers and seeds, or all along valuechains, such as cold storage or logistics services. These diverse companies naturally have diverse financing needs.

Once the space is clearly defined, efforts can be undertaken to gather intelligence on companies within it - whether by donors and development organizations in a catalytic capacity or by investors as part of the due diligence process. For example, a recent review by PATH for the UK Department for International Development (DFID) gathered information about the business models of 33 companies that are helping to improve access to nutritious foods among low-income consumers in developing and emerging markets in some way.<sup>15</sup> Another recent study by iGravity for the Global Alliance for Improved Nutrition (GAIN) gathered information about the business model, size, stage, and financing needs of 52 companies in Kenya and Tanzania. In the aggregate, these companies reported a demand for working capital finance, productive asset finance, growth capital, and other forms of finance of \$44 million, or approximately \$850,000 per company. The total demand for finance among companies that improve access to nutritious foods in these two countries will, of course, be multiples larger.<sup>16</sup> More detail is provided in Box 1.

#### To build a clearer understanding of the opportunities to invest in nutritious food value chains, stakeholders could:

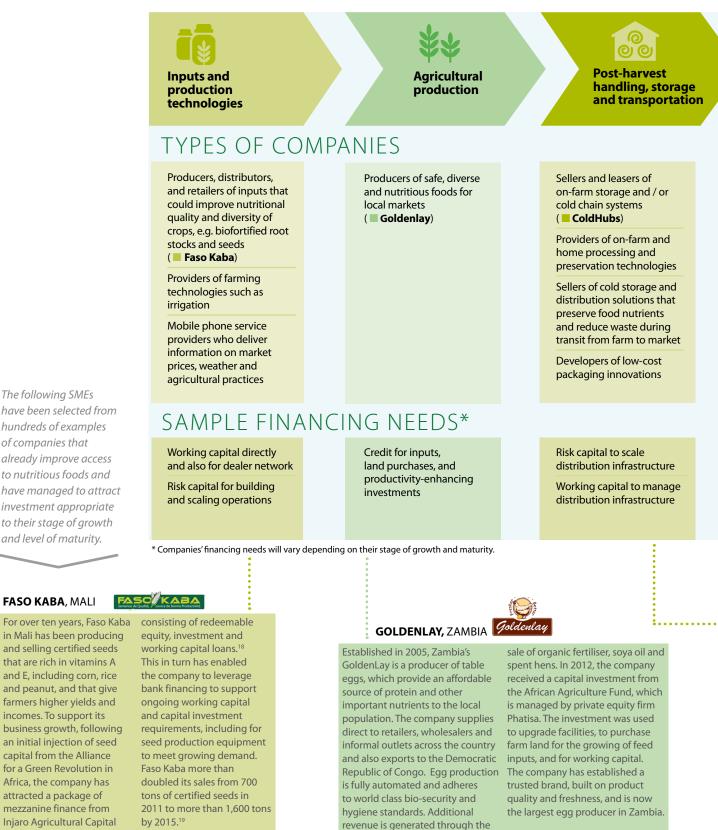
Develop an investor-friendly "nutritious food value chain" framework to identify and categorize companies that are already improving or poised to improve access to nutritious foods. Such a conceptual framework is critical to understand the broader ecosystem, identify companies that offer investment potential, enable dialogue between diverse sectors, and answer the first question that most investors will have: "What kinds of companies are we talking about?" This could involve deepening and refining Figure 4 below, using a minimum of technical nutrition or development language. Generate market intelligence to interest and inform investors, helping to harness existing investment flows and unlock new ones. This could include information about market conditions and trends in particular sub-sectors along nutritious food value chains, as well as information identifying specific companies. Country platforms like those in the New Vision for Agriculture network and the SUN Business Network could contribute to this research, help communicate the results, and connect companies with investors.

### Box 1 Identifying Nutrition Investment Opportunities in Food Value Chains in Kenya and Tanzania

In spring 2018, the Global Alliance for Improved Nutrition (GAIN) commissioned iGravity, an impact investment advisory firm, to assess the financial needs of companies in nutritious food value chains in Kenya and Tanzania, assess their investment-readiness, and develop a "dealbook" of potentially investable deals. Out of an initial pipeline of 500 companies, researchers interviewed a total of 52, which met basic criteria for nutrition investments. These included primary producers, food processors and manufacturers, and providers of value chain services such as cold storage – very different types of companies in terms of their economics and capital needs.

Researchers found that most of these companies were relatively small, familyowned, medium growth businesses with fewer than 50 employees and profit margins varying between 5 and 10% depending on their position in the value chain and other factors. Many of them reported self-financing productive assets like factories and equipment using retained earnings, resulting in slow growth, and agro processors specifically reported operating below capacity due to a lack of working capital, suggesting potential to increase efficiency and profitability. These 52 companies reported needs for productive asset finance of \$29 million, working capital finance of \$8 million, and growth capital of \$1.5 million.<sup>17</sup> Together these 52 represent an aggregate investment demand of \$44 million, with a simple average of \$850,000 per company and actual amounts ranging between \$4,000 and \$5 million.

### Figure 4 Mapping SMEs that Can Improve Access to Nutritious and Safe Foods and th



have been selected from hundreds of examples of companies that already improve access to nutritious foods and have managed to attract investment appropriate to their stage of growth and level of maturity.

#### FASO KABA, MALI

in Mali has been producing and selling certified seeds that are rich in vitamins A and E, including corn, rice and peanut, and that give farmers higher yields and incomes. To support its business growth, following an initial injection of seed capital from the Alliance for a Green Revolution in Africa, the company has attracted a package of mezzanine finance from Injaro Agricultural Capital

**12** FUELING THE BUSINESS OF NUTRITION

### eir Investment Needs

Processing and manufacturing Distribution and retail

#### Mills and refineries

Manufacturers and suppliers of micronutrients for food fortification

Producers of complementary and/or therapeutic foods

Food companies developing new, more nutritious foods or nutritional enhancement of existing food products (**Happy Cow**)

Working capital and trade finance to buy crops and purchase pre-mix

Quasi-equity to buy equipment and expand operations

Technology-enabled aggregation and distribution of fresh produce ( **Twiga Foods**)

Proximity-based retailers serving low income segments in affordable serving sizes and formats (**Maziwa King**)

Working capital to manage

Growth capital for retail

inventories

infrastructure

### TWIGA FOODS, KENYA



Twiga Foods aggregates fruits and vegetables from producers and distributes to vendors with the help of an online portal. The company, which started operations in January 2017, reached \$300,000 monthly turnover by October of the same year. Sales are expected to grow by 15% month-on-month. The company has received investment from a number of international private equity and venture capital funds. Over \$6 million in equity financing and \$4 million in debt have been acquired.<sup>22</sup>

### MAZIWA KING, KENYA



Maziwa King sells nutrient-rich pasteurized, full cream milk using coin-operated milk dispensers, which are located around low-income areas of Nairobi. It also supplies milk to other milkdispensing companies in and around Nairobi. The company grew from a single outlet in mid-2014 to 11 outlets in 2016, driven by strong demand for milk in small servings from low-income consumers.<sup>23</sup> Maziwa King has received technical assistance and a grant from GAIN's Marketplace for Nutritious Foods, which has been used to open new kiosks, purchase a refrigeration truck and hire more staff.



### HAPPY COW, KENYA

Established in 1996, Happy Cow is a dairy manufacturer producing a diverse portfolio of high quality milk, cheese, yogurt, and butter brands. It distributes to retailers, food and catering service companies across East Africa. The company has a strong commitment to product innovation and to making its products widely available to low income consumers. A recent addition to its nutritious product range is a low-cost fortified wheybased yogurt called Yogies, which is aimed at low income consumers and distributed in affordable serving sizes. Technical and grant assistance helped the company to secure a bank loan to fund working capital requirements and capital investment in new processing equipment required to produce fortified yoghurt. Since its launch in July 2017, sales of Yogies have increased by 89% and Happy Cow has expanded distribution from three to six regions in Kenya.

Sources: Global Alliance for Improved Nutrition. 2012. "Innovative Financing Opportunities for Nutrition." Presentation to GAIN Partnership Council, April 2012 and PATH. Forthcoming. "Where Business and Nutrition Meet." Report for the MQSUN+ program, funded by the UK Department for International Development.

### COLDHUBS, NIGERIA Cold Hubs

Founded in 2014, ColdHubs in Nigeria provides farmers with a "plug and play" modular, solarpowered walk-in cold room for 24/7 off-grid storage and preservation of perishable foods. Located on farms and in food markets, they extend the freshness and nutritional value of fruits, vegetables, and other perishable foods from two to about 21 days. Farmers are able to use the cold rooms on a flexible, pay-as-youstore basis. It is estimated that

small farmers and retailers lose 45% of their vegetable harvests, 35% of their fruit harvests, and 25% of their incomes due to post harvest losses every year;<sup>20</sup> ColdHubs enable farmers to sell more more produce and increase their incomes. The company has partnered with Factor[e], a venture capital firm focused on sustainable energy, which supports early stage entrepreneurs through access to risk capital and technical support.<sup>21</sup>

### INNOVATIVE APPROACHES TO INVESTMENT

While there are success cases, many SMEs that improve access to nutritious and safe foods do not qualify for traditional forms of financing. More innovative investment approaches can help investors balance risk and return in spite of the challenges.



As outlined in the introduction, SMEs can be hard to finance using traditional approaches. They tend to have modest needs, limited collateral, and uncertain growth prospects. Many SMEs also struggle to meet other requirements investors have, such as compliance with social, environmental, and ethical standards. As a result, nine million SMEs, 44% of all formal SMEs in developing countries, have unmet financing needs of \$4.5 trillion a year – and investors are leaving potential returns on the table.<sup>24</sup>

Of course, SMEs' financing needs vary considerably based on the nature of their businesses and their stages

of growth and maturity. For example, at the incubation stage, the emphasis is on understanding the market and developing business plans, with investment needed to fund business planning. At the next stage, the testing stage, seed funding is needed to facilitate market trials and refinement. The next stage of development often involves enhancing the conditions for scale. Investment for supply chain, fixed assets, inventory and marketing is required. The final stage is rolling out to reach scale and sustainability, and here, companies need funds to support expansion.

For SMEs in nutritious food value chains, debt may be more appropriate than equity. The food and agriculture sector is well-established and competitive, and it can be difficult for companies to generate the rapid growth that private equity investors need to generate attractive returns.<sup>25</sup> In any case, the owners of many SMEs prefer to retain control and seek debt financing.<sup>26</sup> However, many SMEs are looking for longer-term capital, and lending requirements can be difficult to meet. Shortterm working capital is typically available to some extent. But to grow faster than reinvesting their own profits would allow, companies need longer-term capital, and few local banks can afford to leave their limited resources tied up for longer periods. Lack of collateral and credit history can get in the way, and terms can be discouraging – including high interest rates, repayment terms independent of companies' performance or cash flows, and depending on the lender, foreign currency risk.<sup>27</sup>

Innovative approaches to investment are helping investors to meet the financing needs of SMEs in nutritious food value chains in ways that meet their return expectations. These include using, and in some cases bundling together, a range of financial instruments, such as invoice discounting and mezzanine finance; combining private capital with public and philanthropic capital through "blended finance"; and investing in improving the quality of the investment opportunity through technical assistance and business development services. Furthermore, combining some or all of these different approaches increases the scope to address risk, or perceptions of risk, to bring more SMEs that improve access to nutritious and safe foods into the realm of investability. It also helps to break down siloes within and between the investment and development sectors, which is currently holding back the scaling of these promising approaches.

### 2.1 Diverse Financial Instruments

Some investors are tapping into unmet demand for financing among SMEs that improve access to nutritious and safe foods through a diverse range of financial instruments that overcome obstacles to more traditional approaches. For example, invoice discounting is helping companies like FACTS and Umati Capital overcome a lack of collateral and credit history to meet agri-food SMEs' working capital needs in East Africa.<sup>28</sup> GAIN's Premix Facility offers a different kind of working capital to manufacturers seeking to fortify food products. Through effective risk management, it has kept its default rate at only 1% (see Box 2). And different types of mezzanine finance are helping to unlock longerterm capital for agri-food SMEs by creating additional upside for the investor compared to traditional debt. For example, a convertible loan to Shambani Milk in Tanzania offers the investor an opportunity to convert its investment into equity should the company grow significantly.<sup>29</sup> Injaro Agricultural Capital Holdings and other funds have been using mezzanine structures.30

### 2.2 Combining Different Sources of Financing

**Combining different sources of finance, increasingly known as "blended finance", is considered key not only to nutrition, but to the entire 2030 Sustainable Development Agenda**, an important mechanism for closing the \$2.4 trillion a year gap in funding required to achieve it.<sup>31</sup> Blended finance is the use of capital from public and philanthropic sources, such as bilateral donors and foundations, to de-risk investments that create social or environmental impact, enabling private investment to flow. Public and philanthropic capital can be provided at market rates or on concessional terms, and take the form of grants, debt, equity, mezzanine finance, and guarantees.

**Blended finance is in relatively early days.** According to the Blended Finance Taskforce, it can still be difficult for commercial investors to participate in, for reasons that include a lack of information and awareness, the need to develop custom deal structures each time, high transaction costs, and regulatory barriers.<sup>32</sup> There is movement toward

### Box 2 GAIN Premix Facility

Launched in 2009, the GAIN Premix Facility (GPF) helps producers of wheat flour, edible oils, and salt refiners to find and finance affordable, quality-certified vitamin and mineral premix to meet national food fortification requirements.

Financing premix purchases can be a challenge, as suppliers often require payment up front for large amount of stock, while it can take up to eight weeks for premix to be delivered and

many months before the product is utilized in processing. GPF therefore provides a Credit Facility Mechanism that provides qualifying companies with extended credit terms to smooth cash flows. Following a due diligence process, companies can apply for interest-free credit for up to 90 days.

Over nine years, the GPF has provided \$70 million in extended credit to buyers in 45 countries while maintaining a 1% default rate. The GPF also certifies premix suppliers and offers a Procurement Facility that enables buyers to competitively source premix and individual micronutrients from certified suppliers. Funding for the operations of the GPF has been provided by the Bill and Melinda Gates Foundation and the government of the Netherlands. principles and tools that would help address these barriers, though regulatory change and fiscal or other incentives may ultimately make the biggest difference. For example, the Sustainable Development Investment Partnership is working on "market-making" efforts to identify, scale, and replicate blended finance mechanisms and instruments. Its initial focus is infrastructure, a sector where blended finance is considered critical and already starting to make an impact, facilitated by the large deal sizes involved (see Box 4).

DFIs and development banks are working to overcome political, structural and capacity constraints to entering more risky markets. Regional Development Banks alongside multilateral and bilateral Development Finance Institutions are responding to growing demands to become

### Box 3 The Private Infrastructure Development Group

For over 15 years, the Private Sector Infrastructure Group (PIDG) has been helping to mobilize private sector investment into vital infrastructure in developing countries, providing specialized financing and project development expertise and using public funding from IFC and eight bilateral donors to de-risk investment opportunities.

PIDG operates through a group of subsidiary companies. For example, the Emerging Africa Infrastructure Fund (EAIF) was established in 2001 to provide long-term debt or mezzanine finance on commercial terms to finance the construction and development of private infrastructure in 47 countries across sub-Saharan Africa. It is capitalized by PIDG Trust, KFW, FMO, Standard Bank and Standard Chartered Bank. EAIF typically provides between \$10 million and \$36.5 million over 15 years. By 2014, it had committed \$951 million to 48 projects.

In another example, InfraCo Africa is an infrastructure development facility established to take on the risks and costs of early-stage project development in lower-income countries in Africa. It develops investment opportunities to the stage where risks and development costs have been reduced sufficiently to attract private finance. Where appropriate, targeted subsidies are included in the design of projects where there are affordability concerns for the poor. InfraCo Africa aims to recover its development costs, with profit where conditions allow, through the sale of its project ownership rights to incoming private investors. 100% of InfraCo's Africa's profits are recycled into new project development.<sup>33</sup> less risk averse and to adopt a more diverse set of investment instruments to help unlock more private commercial investment. The World Bank's recent IDA private sector window, which aims to mobilize increased private sector investment in IDA countries, especially in fragile and conflict states, is one such example. For regional development banks and DFIs to take on greater risk and to help open up more commercial investment, more work needs to be done to address the political, structural and capacity constraints they face.

There are signs of increasing interest in deploying blended finance into the agri-food sector. Relatively little blended finance has gone into the sector so far, at least directly.<sup>34</sup> For example, the Global Impact Investing Network's 2018 survey of impact investors, many of whom use blended finance, found that only 6% of assets under management are allocated to food and agriculture.<sup>35</sup> It is important to note that these figures represent direct investment into food and agriculture; it is likely that some additional blended finance is going into the sector indirectly via the financial sector, which captures the highest percentage of blended finance.<sup>36</sup> This is likely due at least in part to challenges related to deal size and transaction cost; local financial institutions are considered better positioned to identify, understand, and invest in local agri-food companies, many of which are SMEs. For instance, the Global Agriculture and Food Security Program (GAFSP), a donor facility set up to mobilize investment from IFC, has invested approximately half of funds to date in financial institutions for on-lending to smallholder farmers, cooperatives, and other SMEs.

Nevertheless, the GIIN survey finds evidence that the percentage of impact investing assets under management in the food and agriculture sector is set to increase. Among repeat respondents, impact investing into food and agriculture is growing faster than impact investing in general, at 23% to 13%. 37% of respondents reported that food and agriculture was among the top three sectors into which they allocated investment in the past year, and 49% say they plan to increase their investment in the sector in the coming year.<sup>37</sup> Existing blended agri-food funds could prove a valuable source of lessons for future funds focused on nutritious food value chains in particular. According to the Initiative for Smallholder Finance, there are already at least 80 impactoriented agribusiness funds with approximately \$19 billion at their disposal – many of them blended.<sup>38</sup> These funds typically have companies that improve access to nutritious and safe foods in their portfolios (see, for example, Box 5).

### Box 4 The Africa Agriculture and Trade Investment Fund

The Africa Agriculture and Trade Investment Fund (AATIF) is a \$146 million blended fund that invests across the entire agricultural value chain to support the growth of small, medium and large agricultural businesses, and in the process boost farmer incomes and improve food security in Africa.<sup>39</sup> To accommodate different investor risk appetites and encourage private investment in the fund, it uses a first-loss layer (capitalized by Germany's Federal Ministry for Economic Cooperation and Development) and a mezzanine layer (capitalized by KfW and Deutsche Bank).

AATIF makes direct investments in cooperatives, commercial farms, and processing companies, and indirect investments in financial and other intermediaries that on-lend predominantly to smallholder farmers for working capital and capital investments. Investments vary in size between \$5 million and \$30 million.<sup>40</sup> An independent technical assistance (TA) facility supports AATIF's investments.

AATIF's portfolio includes GADCO in Ghana, an agri-food company focused on the production, processing and marketing of fragrant rice. In Zambia, Chobe Agrivision received \$10 million to boost production of soya, maize and wheat across its various farms, in particular by installing irrigation systems. Chase Bank in Kenya received a \$10 million loan to on-lend to more than 200 producers and processors of fruits, vegetables, cereals, horticulture and/or dairy products.<sup>41</sup>

### **2.3** Technical Assistance and Business Development Services

Investors can also invest in improving the quality of the investment opportunity by providing technical assistance (TA) and business development services (BDS) that reduce risk and increase returns. This is another way donor funding – and in many cases NGO support – can be critical. Indeed, TA and BDS have become common parts of the offer for investment funds targeting food and agriculture in developing and emerging markets. For example, the African Agriculture Fund has a donor-funded Technical Assistance Facility managed by TechnoServe that has enabled portfolio companies to grow by an average of 53% (see Box 3; some would consider this a form of "blended finance," discussed in the next section).

There are also independent TA and BDS programs, also donor-funded, targeting agri-food SMEs that could help grow the pipeline for investors, provided the necessary links can be forged (these might be considered "catalytic," or intended to catalyze commercial investment). These programs can target companies that are already improving access to nutritious and safe foods among low-income consumers in developing and emerging markets, or they can "nudge" companies to do so, for example by supporting the development of more nutritious products GAIN's Marketplace for Nutritious Foods (MFN) is one example. MFN support enabled Happy Cow Ltd in Kenya to unlock local bank financing to roll out a new fortified yogurt that is selling well only 12 months into production, with distribution now expanded from three to six regions in Kenya (see Figure 3).

### 2

### Box 5 The African Agriculture Fund's Technical Assistance Facility

The African Agriculture Fund (AAF), managed by Phatisa, and its SME Fund, managed by Databank Agrifund Manager Limited (DAFML), invest in companies all along food value chains. AAF's Technical Assistance Facility, supported by the European Union and others, funds business development services designed to help portfolio companies succeed. These services include core business support, such as developing growth strategies, improving accounting standards and financial controls, obtaining quality certifications and conducting market research, as well as support to facilitate the uptake of new business models that extend their reach to poor consumers, producers or employees through inclusive business initiatives. The facility is managed by TechnoServe, which works with Phatisa and DAFML to identify their portfolio companies' needs, develop recommendations for support, competitively select business development service providers, and project manage their engagement.

To date, companies receiving business development services from the Technical Assistance Facility have grown an average of 53%.<sup>42</sup> With a budget of \$11 million over a seven year period, the facility had supported 10 AAF and AAF SME Fund portfolio companies by 2017, including Norish, an Ethiopian producer of fortified "supercereals" certified by the World Food Programme, and Moablaou, Burkina Faso's largest producer of table eggs. Support for Norish focused on business strategy, including an assessment of local baby food retail opportunities, which the company decided not to pursue. Support for Moablaou focused on recovery and preventive bio-security measures after an outbreak of avian flu.

#### To increase the use of innovative approaches to investment in nutritious food value chains, stakeholders could:

Develop standard indicators and metrics for assessing companies' contributions to nutrition.

These would help donors justify investing their nutrition dollars in TA, BDS, and blended finance, as opposed to traditional public sector approaches to nutrition, and enable them to compare investments across companies. At the same time, it would streamline monitoring and reporting requirements for investors and their portfolio companies, which will have limited resources to measure social impact and may receive capital from multiple donors. Such metrics could be incorporated into the GIIN Navigating Impact metrics.

Build a surrogate track record by highlighting existing success stories and mining the portfolios of blended finance facilities and funds in the agri-food sector for deals relevant to nutrition. This would demonstrate that there are attractive investment opportunities in nutritious food value chains, and possibly suggest some patterns in terms of what kind and how to capture them including the extent to which new financial instruments, TA and BDS, and blending have been needed. This could help pique investor interest and at the same time give donors confidence that their interventions would succeed in mobilizing commercial capital into this space.

Design and implement a facility dedicated to financing nutritious food value chains. The innovative investment approaches outlined in this section are still being developed, and just starting to be deployed with an eye to nutrition. With the necessary framework conditions in place, such a facility would enable different approaches to be used and tested depending on the market need and opportunity. Investments made would generate data and practical learning that could help attract a broader range of donors and investors in the future. GAIN is currently exploring this option among others.

### 3 AN ENABLING ENVIRONMENT

Consumer demand for nutritious and safe foods, supportive policies and regulations, and adequate infrastructure are also critical to attracting commercial investment into nutritious and safe food value chains.



While some do well in difficult circumstances, an enabling environment can enhance the profitability and growth prospects of companies that improve access to nutritious and safe foods in developing and emerging markets. It can be especially critical for SMEs, which have fewer resources and less influence to overcome barriers.

### 3.1 Consumer demand

For businesses of all sizes, marketing nutritious foods can be challenging when faced with deeply ingrained consumer preferences and routines, for example around taste and convenience. The benefits of nutritious foods are difficult to observe in the short term. And price points can be higher than for less nutritious foods, a real barrier in the absence of a compelling value proposition. Persuading consumers to pay more is especially hard in low-income markets. Niche low-income markets, like mothers, infants, and young children, are too small to offer realistic prospects for scale in any case.

An alternative to serving consumer markets is to serve institutional markets, such as government feeding programs and humanitarian agencies. However, those markets come with challenges of their own, such as dependence on one or a few large customers and fluctuating demand.

**Over the long term, consumer demand for nutritious foods may increase.** Nutrition and health are becoming lifestyle choices of the wealthy in developed countries,<sup>43</sup> and if this trend takes hold in developing countries and emerging markets, more nutritious foods may become aspirational for consumers further down the income pyramid – boosting demand and willingness to pay.

In the meantime, raising awareness and understanding of nutrition's benefits to drive demand for nutritious foods remains a challenge. Doubts persist about the effectiveness of government-led public education programs promoting health and nutrition messages. Large food companies possess the marketing skills and media channels to reach consumers with nutrition messages and encourage changes to consumption patterns, but product-specific campaigns are unlikely to succeed in the absence of broader public awareness-raising on the importance of good nutrition to health, cognitive development and productivity. SMEs selling nutritious products simply don't have the skills or resources to drive consumer demand creation.

One area of promise are hybrid demand creation programs that combine both public and private resources and capabilities. In Bangladesh, for example, 50 million sachets of Multi-Nutrient Powders (MNPs) produced by local pharmaceutical company Renata were sold to low-income consumers through a partnership with leading civil society organization BRAC between 2013 and 2016. BRAC's network of 40,000 community health volunteers, who sell the MNP sachets, also provide advice on good feeding practices for infants and young children. At the same time, mass consumer advertising and education campaigns, funded from both public and private sources, promote the benefits of home fortification and MNPs to millions of people.

Quality certification logos, kite marks and front of packet visual cues for nutritious infant foods can also influence consumer demand, and provide a bridge between public sector promotion and commercial marketing.<sup>44</sup>

### 3.2 Policy and regulation

Policies and regulations conducive to business and investing in general, and those that incentivize investment into agriculture, food, and nutrition specifically, are key to attracting more commercial investment into nutritious food value chains. General business enabling environment work has been going on for many years and must continue, supported by institutions like the World Bank, bilateral donors and private sector organizations including local business associations and industry sector organizations. Governments' progress is tracked annually through the World Bank's *Doing Business* program.

### 3

More specific policy and regulatory interventions by governments in support of nutrition, whether reforming existing frameworks or introducing new ones, could include:

- Clear and enforceable regulations and standards for food quality, through Good Manufacturing Practice (GMP), for food safety through aflatoxin level control for example, and for food marketing, through labeling and packaging rules;
- Regulations and incentives, such as duties and taxes, that promote affordable supplies of nutritious ingredients for both food manufacturers and consumers, whether imported premixes or local nutritious crops; and
- Credible monitoring and enforcement by government agencies or industry associations, or through audited self-regulation.

Governments are hampered in their efforts by competing priorities, limited resources, and a lack of coordination among relevant departments. Some relevant policy areas, such as local agricultural development, are incredibly complex, with numerous trade-offs to navigate. In other areas, it may be relatively easy to adopt the "right" regulations, but nearly impossible to enforce them. For instance, many governments have made the fortification of staple foods and condiments a requirement for food companies, but monitoring and enforcement are lagging behind. Analysis of external quality assurance and control activities among GAIN-supported staple food fortification programs in 25 countries suggests the average pass rate is around 40%.<sup>45</sup> Such a lack of effective monitoring and enforcement inhibits consumer trust in food companies' nutrition claims, and works as a disincentive among competing firms who doubt a level playing field.

### 3.3 Infrastructure

Having access to properly functioning physical infrastructure, including water, power and transportation, is essential for any business operation. It is important for producers of nutritious foods because they depend on access to reliable sources of water and power during the production process and effective transportation, storage and distribution to ensure food products reach market before they spoil, become unsafe to consume, or lose their nutritional value.

Infrastructure is one of the Sustainable Development Goals and efforts are underway to mobilize the \$3-5 trillion in additional financing needed each year to achieve it<sup>46</sup> – but there is a very long way to go. This contributes to the enormous levels of food waste described in the introduction to this paper. According to cross-country research conducted by the World Food Logistics Organization, many of these losses occur along the supply chain prior to reaching the consumer, indicating severe infrastructure deficiencies.<sup>47</sup>



#### To strengthen the enabling environment for investing in nutritious food value chains, stakeholders could:

Encourage more publicprivate collaboration around demand creation. Educating consumers on the importance of good nutrition and driving behavior change are essential for increasing demand for more nutritious foods. Governments should consider how to work with the food industry to harness their consumer insights, marketing expertise and communication channels to build public awareness and aspirations around diverse and nutritious diets.

Create more policy incentives for nutritious foods. Alongside the use of policy "sticks" to encourage companies to invest in making more nutritious and safe foods available and affordable and to discourage the marketing of unhealthy foods, governments also need to consider introducing more policy incentives for businesses. These could include, for example, a reduction in import taxes on vitamins and minerals for fortification premix used in everyday foods.<sup>48</sup> Governments could also consider subsidizing the use of biofortified seeds, funding extension services for nutritious crops, using government procurement to create a market for nutritious crops and waiving nutritious product registration fees.

Invest in strengthening government regulation, compliance and monitoring capacity. Governments need long-term financial support to establish effective regulation and credible monitoring and enforcement regimes that create a level playing field for business, ensure nutrition impact, and foster consumer trust and demand. To help SMEs keep up, governments and their donor partners should consider ways to reduce the cost and complexity of regulatory compliance without comprising food safety and quality, and emphasize capacity-building in addition to policing.

### An Agenda for Action

As more investment flows into food and agriculture and blended finance reaches scale, there is an opportunity to build on successes to date to fill the financing gap for SMEs that improve access to nutritious and safe foods.

Action across all three building blocks will be required. Experience attracting commercial investment into other emerging sectors supports the need for a multi-pronged approach and a long time horizon, albeit recognizing the urgent need for action now if the SDGs are going to be achieved:

For example, more than 30 years after Grameen Bank was founded, the practice of lending small amounts of money to low-income borrowers started off as a donor-funded activity of non-profit organizations and now reaches more than 130 million people around the world, often through sophisticated, full-service, commercial microfinance institutions (MFIs).<sup>49</sup> There are more than 120 microfinance investment vehicles in which private institutional investors represent approximately half of all capital outstanding.<sup>50</sup> This evolution has been driven by consumer demand, donor-funded capacity-building, concessional capital and other risk-sharing instruments such as guarantees from both public and private philanthropic sources, the development of credit bureaus and MFI rating agencies, and the creation of appropriate consumer protection policies by governments.

The off-grid solar industry has grown faster, now reaching 73 million rural households comprising over 360 million people with cumulative sales of \$3.9 billion and attracting increased interest from commercial investors.<sup>51</sup> This has been made possible by a combination of strong consumer demand for electricity, technological advances such as the declining costs of solar generation and battery storage, the emergence of specialist intermediaries that have developed differentiated investment products over time, and concessional capital for blending.<sup>52</sup>

When it comes to nutritious food value chains, the onus will be on donors and nutrition organizations to take the lead – but putting the building blocks in place will require many other stakeholders to play their parts. These include entrepreneurs and established companies, governments, civil society groups, and investors with a range of risk-return preferences. As a result, there is also a strong need for nutrition organizations to play a 'system leadership' role to help align their efforts, accelerate progress, and ensure that it leads to both improved nutritional and financial outcomes.<sup>53</sup>

The first step for system leaders is to foster dialogue and a common vision. Such dialogue could start by asking if the building blocks presented in this paper are even the right ones, whether there are any missing, how donors, investors, and other stakeholder groups understand the issues, and how to approach them. The suggestions presented for discussion in this paper, listed earlier by building block, are summarized in Figure 4. With actions like these to make the system more interesting for investors, we can begin to attract more commercial investment to meet the financing needs of the SMEs that help deliver nutritious foods from the farm to consumers' forks – in the process, improving nutrition status, health outcomes, economic opportunity, and overall quality of life.

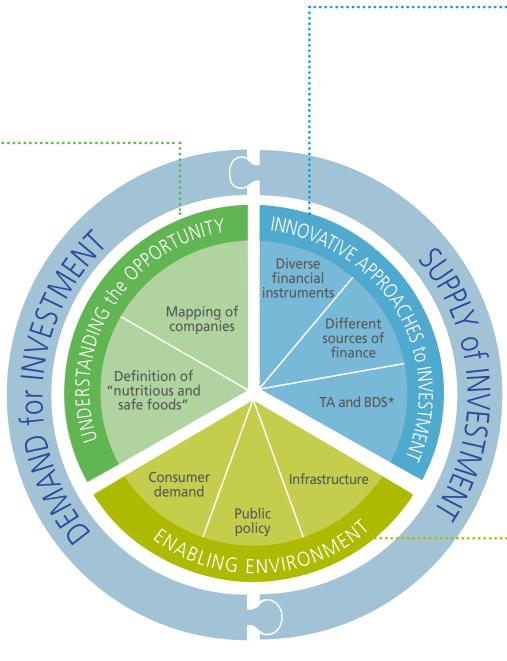
### Figure 5 Putting the Building Blocks in Place to Attract More Commercial Investment into SMEs that Improve Access to Nutritious and Safe Foods



### BUILDING A CLEAR UNDERSTANDING OF THE OPPORTUNITY SPACE

Develop an investor-friendly "nutritious food value chain" framework to identify and categorize companies that are already improving or poised to improve access to nutritious and safe foods. This is critical to defining the opportunity space and answering the first question that most investors will have: "What kinds of companies are we talking about?" This could involve deepening and refining Figure 3 above, using a minimum of technical nutrition or development language.

■ Generate market intelligence to interest and inform investors, helping to harness existing investment flows and unlock new ones. This could include information about market conditions and trends in particular sub-sectors along nutritious food value chains, as well as information identifying specific companies. Country platforms like those in the New Vision for Agriculture network and the SUN Business Network could contribute to this research, help communicate the results, and connect companies with investors.





### INCREASING INNOVATIVE APPROACHES TO INVESTMENT IN NUTRITIOUS FOOD VALUE CHAINS

Develop standard indicators and metrics for assessing companies' contributions to nutrition. These would help donors justify investing their nutrition dollars in TA, BDS, and blended finance, as opposed to traditional public sector approaches to nutrition, and enable them to compare investments across companies. At the same time, it would streamline monitoring and reporting requirements for investors and their portfolio companies, which will have limited resources to measure social impact and may receive capital from multiple donors. Such metrics could be incorporated into the GIIN Navigating Impact metrics.

Build a surrogate track record by highlighting existing success stories and mining the portfolios of blended finance facilities and funds in the agri-food sector for deals relevant to nutrition. This would demonstrate that there are attractive investment opportunities in nutritious food value chains, and possibly suggest some patterns in terms of what kind and how to capture them – including the extent to which new financial instruments, TA and BDS, and blending have been needed. This could help pique investor interest and at the same time give donors confidence that their interventions would succeed in mobilizing commercial capital into this space.

Design and implement a facility dedicated to financing nutritious food value chains. The innovative investment approaches outlined in this section are still being developed, and just starting to be deployed with an eye to nutrition. With the necessary framework conditions in place, such a facility would enable different approaches to be used and tested depending on the market need and opportunity. Investments made would generate data and practical learning that could help attract a broader range of donors and investors in the future.



### STRENGTHENING THE ENABLING ENVIRONMENT

### Encourage more public-private collaboration around demand

creation. Educating consumers on the importance of good nutrition and driving behavior change are essential for increasing demand for more nutritious foods. Governments consider how to work with the food industry to harness their consumer insights, marketing expertise and communication channels to build public awareness and aspirations around diverse and nutritious diets.

### Create more policy incentives for nutritious foods. Alongside the use of policy "sticks" to encourage companies to invest in making more nutritious and safe foods available and affordable and to discourage the marketing of unhealthy foods, governments also need to consider introducing more policy incentives for businesses. These could include, for example, a reduction in import taxes on nutritious ingredients for use in everyday foods.54 Governments can also consider subsidizing the use of biofortified seeds, funding extension services for nutritious crops, and using government procurement to create a market for nutritious crops.

### Invest in strengthening government regulation, compliance and monitoring capacity.

Governments need long-term financial support to establish effective regulation and credible monitoring and enforcement regimes that create a level playing field for business, ensure nutrition impact, and foster consumer trust and demand. To help SMEs keep up, governments and their donor partners should consider ways to reduce the cost and complexity of regulatory compliance without comprising food safety and quality, and emphasize capacity-building in addition to policing.

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- The Corporate Responsibility Initiative and others have written about the need for 'system leadership' to help solve complex, systemic challenges. A significant body of work demonstrates that such challenges cannot be addressed in a top-down, pre-planned, linear fashion, and that point solutions don't work on their own. Instead, stakeholders have to change the way they operate. Over time, they must develop new technologies, products, services, business models, public service delivery models, policy and regulatory innovations, industry standards, and cultural norms and behaviors that together deliver new results. System leadership can help align the efforts of diverse stakeholders in order to accelerate this process, and ensure that it delivers more sustainable, inclusive economic growth and human development. This involves cultivating a shared vision for change, empowering widespread innovation and action, and facilitating mutual learning and accountability for progress. For more on system leadership, please see Nelson, Jane and Beth Jenkins. 2016. "Tackling Global Challenges: Lessons in System Leadership from the World Economic Forum's New Vision for Agriculture Initiative." Cambridge, MA: Corporate Responsibility Initiative at the Harvard Kennedy School. Online at https:// www.hks.harvard.edu/sites/default/ files/centers/mrcbg/files/NVAReport. pdf (accessed May 14, 2018).
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### About the Corporate Responsibility Initiative (CRI)

The Corporate Responsibility Initiative (CRI) at the Harvard Kennedy School's Mossavar-Rahmani Center for Business and Government (M-RCBG) is a multidisciplinary and multi-stakeholder program that seeks to study and enhance the public contributions of private enterprise. The initiative explores the intersection of corporate responsibility, corporate governance, and public policy, with a focus on analyzing institutional innovations that help to implement the corporate responsibility to respect human rights, enhance governance and accountability and achieve key international development goals. It bridges theory and practice, builds leadership skills, and supports constructive dialogue and collaboration among business, government, civil society and academics. Founded in 2004, the CR Initiative works with and is funded by a small Corporate Leadership Group consisting of global companies that are leaders in the fields of corporate responsibility, sustainability or creating shared value. The Initiative also works with other leading corporate responsibility and sustainability organizations, government bodies, non-governmental organizations, foundations and companies to leverage innovative policy research and examples of good practice in this field.

CRInitiative.org www.hks.harvard.edu/centers/mrcbg/ programs/cri

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