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Reducing Hunger and Undernutrition

Business and its Role in Improving Nutrition: Opportunities, Challenges and Solutions for Nigeria. Case Studies and Key Messages from the Workshop

Kat Pittore and Philip Reed

February 2016

The IDS programme on Strengthening Evidence-based Policy works across seven key themes. Each theme works with partner institutions to co-construct policy-relevant knowledge and engage in policy-influencing processes. This material has been developed under the Reducing Hunger and Undernutrition theme.

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BUSINESS AND ITS ROLE IN IMPROVING NUTRITION: OPPORTUNITIES, CHALLENGES AND SOLUTIONS FOR NIGERIA. CASE STUDIES AND KEY MESSAGES FROM THE WORKSHOP

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Abbreviations

BCC DFID GAIN	behaviour change communication Department for International Development Global Alliance for Improved Nutrition
GMO	genetically modified organism
FAO	Food and Agricultural Organization
IDS	Institute of Development Studies
IFAD	International Fund for Agricultural Development
IFPRI	International Food Policy Research Institute
LGA	local government area
MNP	micronutrient powder
RUTF	ready-to-use therapeutic food
SAM	severe acute malnutrition
SME	small and medium-sized enterprise
SON	Standards Organisation of Nigeria
SUN	Scaling Up Nutrition movement
SUN-BN	Scaling Up Nutrition Business Network
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WHO	World Health Organization

Summary

This workshop report presents the findings from a workshop held by the Institute of Development Studies (IDS) in partnership with the Scaling Up Nutrition Business Network in Abuja, Nigeria, 14 October 2015. The workshop convened individuals from the private sector, civil society, the donor community and government to discuss the opportunities, challenges and potential impacts of using market-based solutions to improve nutrition.

The day began with an overview of IDS' research on market and private sector interventions for improving nutrition conducted in Tanzania, Nigeria and Ghana, which highlights key constraints when using markets, and potential options for addressing these constraints. Using a framework for understanding how market systems operate, and feeding the research findings into this framework, participants conducted an analysis of four real case studies from Nigeria. The key obstacles limiting the ability of market systems approaches to improve nutritional outcomes in Nigeria were identified by the participants as:

- 1. lack of consumer awareness, including knowledge of products and benefits as well as general awareness of human nutritional needs;
- 2. difficulty of creating demand for nutritious products, and distributing these products to vulnerable communities;
- 3. lack of consumer trust of packaged food and nutrition claims on foods, owing to the high prevalence of fake products and lack of enforcement of regulations.

Participants also came to the conclusion that these challenges were interlinked, and had to be tackled using a whole-systems approach; this reinforced the key theme found by the research that any specific project, product, programme or company's ability to improve nutrition must be considered within the entire market context in which it is operating.

The challenges that were identified through the mapping were brought forward to a second workshop, held on 15 October 2015, focusing on how the Scaling Up Nutrition Business Network (SUN-BN), Nigeria, might be able to address some of them and use this mapping to inform its strategy as it prepares to launch in early 2016. IDS will continue to work with the SUN-BN and consider how the evidence generated will be able to inform the network's focus in the coming years.

1 IDS work on markets, business and nutrition

The Institute of Development Studies (IDS) is a leading global institution for development research, teaching and learning, and impact and communications, based at the University of Sussex. Our vision is of equal and sustainable societies, locally and globally, where everyone can live secure, fulfilling lives free from poverty and injustice. We believe passionately that cutting-edge research, knowledge and evidence are crucial in shaping the changes needed for our broader vision to be realised, and to support people, societies and institutions to navigate the challenges ahead.

IDS leads a portfolio of work on the role of businesses and markets in reducing undernutrition, including the 'Strengthening Agri-food Value Chains for Nutrition' project. Since 2012, the IDS team has worked in Ghana, Nigeria and Tanzania. Activities have included assessing nutrition opportunities in various agri-food value chains, conducting case studies of business action on nutrition and providing policy advice and recommendations to stakeholders in governments, development agencies, civil society and the private sector.

For more information and a list of publications, visit: www.ids.ac.uk/project/strengthening-agri-food-value-chains-for-nutrition.

2 The Scaling Up Nutrition Business Network in Nigeria

This workshop was carried out in close collaboration with the Scaling Up Nutrition Business Network (SUN-BN) in Nigeria with inputs from the Global Alliance for Improved Nutrition (GAIN) London and Abuja offices. One of the key outputs of this workshop was to support the SUN-BN Nigeria through:

- sharing the evidence base on the impact of private sector and market-based programmes to address undernutrition in Nigeria;
- creating a platform for key actors to come together to identify, through the market systems analysis framework developed by IDS, the most pressing challenges, obstacles to deploying market and private sector solutions aimed at improving nutrition;
- identifying the key barriers, by referring to IDS research and analysing Nigerian examples, that SUN-BN might be able to address as it moves forward in Nigeria.

This workshop report focuses on the initial day of the workshop, when IDS research findings were presented and key case studies were discussed and analysed. The outcomes of this workshop were used to inform the discussions on day two, which sought to understand how the SUN-BN and business actors might be able to find solutions to the key problems identified. Some of the material from day two, including a mapping of what businesses are doing in terms of nutrition in Nigeria, is also included in this report.

3 Context for food markets and nutrition in Nigeria

Nigeria has the highest number of children who are stunted – a measure of chronic undernutrition – in Africa, and in the northern part of the country rates of stunting exceed 50 per cent in some states (UNICEF 2013; Visram *et al.* 2014). Additionally, there are high rates of micronutrient deficiencies among key groups, such as women of reproductive age, half of whom are anaemic (IFPRI 2014), and the poorest people, many of whom live in the northern states, where issues such as insurgency make delivering nutritious foods and nutrition programming particularly difficult. In addition to the problems posed by undernutrition, Nigeria is also having to deal with the double burden of malnutrition, with 25 per cent of women of reproductive age overweight or obese.

The federal government of Nigeria has shown commitment to improving the nutritional status of the population through a number of initiatives including introducing in 2002 mandatory fortification of wheat flour, maize flour, sugar and vegetable oil, and joining the Scaling Up Nutrition movement in November 2011. Nigeria is committed to adopting a National Health Strategic Development Plan, which includes nutrition as a key component (Scaling Up Nutrition 2015). Historically, the country's agricultural policy has focused on the production of nutrient-poor staples, with weak links to distribution channels; however, the national food and agricultural policy for Nigeria is currently being reviewed and a specific section that incorporates nutrition into this policy is being developed.

There is significant interest in market-based and private sector nutrition programmes. The preliminary findings from a mapping of what businesses are doing for nutrition in Nigeria conducted by Sahel Capital was presented on the second day of the workshop. Key findings from this presentation include:

- Those companies producing micronutrient powders for non-profit (and some for profit) distribution channels are vocal advocates for nutrition.
- Numerous companies are involved in voluntary fortification of products, including margarine and spreads, snacks such as sausage rolls, and bouillon cubes; however, many of these companies are aiming to sell premium products to wealthier consumers.
- Those that produce foodstuffs that must be fortified under Nigerian law, including sugar, cereal flours and vegetable oil, consider fortification an obligation but are not particularly interested in nutrition and will do the bare minimum to comply with the law.
- 'Bottom of the pyramid' packaging (small packages affordable to low-income groups) is being explored by a number of companies.
- Private sector firm Health Care Alliance is working on developing local production of ready-to-use therapeutic food (RUTF), with the support of UNICEF.

However, despite the significant interest of some businesses in improving nutrition, there remain many obstacles to implementing these approaches, especially in ways that reach the poorest and most vulnerable. For example, while the Mandatory Fortification of Flours Act was passed in 2002, a study conducted in 2012 found that only 10 per cent of cereal flours met the government-mandated level of vitamin A or iron (Robinson *et al.* 2014). Regulatory bodies such as the Standards Organisation of Nigeria (SON) and National Agency for Food and Drug Administration and Control (NAFDAC) lack the capacity to enforce government standards, and small and medium-sized enterprises (SMEs) and informal markets where the majority of the poor purchase their food are the hardest to regulate. Sustainability is another critical challenge. Products such as micronutrient powder, which are mainly delivered through non-profit distribution channels, require long-term and reliable funding.

For companies seeking to make a profit, selling to 'bottom of the pyramid' consumers in rural areas with high distribution costs presents a challenge.

Achieving an effective, sustainable and equitable approach to making nutritious foods available to all Nigerians is of crucial importance. Developing such an approach requires understanding the current challenges faced by programmes and companies and highlighting where market-based solutions can be most effective, and which of these challenges must be addressed in order to achieve a systemic change. The workshop was designed to achieve the following objectives:

- Identify key barriers faced by business and private sector interventions in improving nutrition and identify possible areas that the Scaling Up Nutrition Business Network (SUN-BN) could focus on as it prepares to launch.
- Contribute to the design and implementation of market-based approaches to nutrition by drawing on research from Nigeria through the lens of current programmes.
- Provide a better understanding of how various policy and business models can shape markets for nutritious foods and how they can achieve sustainability and scale.
- Inform IDS' future research strategy on the role of markers and the private sector in nutrition.

4 Methods



Diagramming impact pathways, Abuja workshop. Photographer. © Nsoedo O. Ndubuisi, Doxa Digital (2015).

The day started with an overview of IDS' research into food, markets and nutrition, situated within the Nigerian policy context. Once the key research findings had been presented, the large group was divided into four smaller groups (whose members were assigned on the basis of expertise) to employ the research findings in evaluating four Nigerian case studies of market and nutrition interventions aimed at improving nutrition outcomes. Each small group was tasked with diagramming the impact pathways, moving from the ultimate nutrition outcome backwards through the pathway to determine what intermediate steps are necessary to achieve the nutritional outcome, as well as identifying key actors and potential barriers to achieving these outcomes.

The four case studies, chosen to represent a number of different types of market-based programmes and the different challenges faced by different types of programmes, were:

- Group A: Bio-fortified cassava presented by HarvestPlus
- Group B: Small and medium-sized enterprises (SMEs) doing voluntary fortification presented by Lasabi Mills
- Group C: Non-profit distribution channels Benue State distributing micronutrient powders produced by Bio-Organics
- Group D: Regulation Standards Organisation of Nigeria (SON) and enforcement of flour fortification regulations

The case studies and discussions are presented in more detail later in this report. Each case study was presented by a key expert involved in the company/project/programme. After the case study was presented, a trained facilitator guided the group through a discussion to develop an impact pathway, thinking through the various factors that constrained or enabled a project/programme/company to be effective at addressing challenges concerning nutrition in Nigeria. Participants were assigned to the initial groups on the basis of their expertise and experience. Once the impact pathway for the project/programme/company was developed, groups were asked to rotate to the next case study, 'word café style', allowing each group to hear about the different projects and to add their input to the impact pathway that had been developed by the initial group.

After each group had had an opportunity to hear about each of the other projects/programmes/companies and add their input to the various impact pathways, they all returned to their 'home' case study and reviewed the additions that the other groups had made to their impact pathways. The group then worked to identify the two or three key issues/barriers that they felt were having a significant impact on the programme's ability to influence nutritional outcomes. Key challenges from each group were presented back to the whole group, and three that emerged as themes or cross-cutting issues were identified. These were brought forward to inform the discussions on the second day, which sought to start a dialogue around how the SUN-BN could contribute to developing solutions to some of the challenges that had been identified on day one.

The day concluded with a panel discussion between representatives from all of the SUN Networks in Nigeria (government, civil society, business, donor and UN) to share more about what the SUN movement as a whole is doing in Nigeria, specifically focusing on each network's ideas regarding thoughts on the possible role that business could play.

5 Introduction to the day

The initial session was introduced by Professor Olugbenga Ogunmoyela who thanked IDS and SUN-BN as well as the Department for International Development (DFID) for bringing everyone together into shared space to discuss the future role of markets and private sector involvement in improving nutrition in Nigeria.

The goal for the day was to figure out how to improve the lives of the poorest by providing nutrient-rich foods to the poor and mapping out future policy directions. However, Professor Ogunmoyela suggested that in order to understand where we are going, we need to look back to where we have come from. In the past, the focus was primarily on agriculture, trying to improve farming practices and prevent high levels of post-harvest losses. This focus has changed over time, partly owing to the work of development partners who have played a role in reframing the issue and redirecting efforts from simply focusing on agricultural outputs to a broader focus on achieving not just food security but nutrition security.

Professor Ogunmoyela identified the following as what he felt were key priorities, in terms of private sector involvement in improving nutrition:

- building capacity in terms of fortification;
- focusing on agri-nutrition value chains, looking at key issues of affordability, access, availability and nutrient quality, and thinking carefully about how and whether these projects are achieving the intended outcomes, and if not, how they can be altered and adjusted to ensure that they achieve these goals;
- tackling issues of sustainability; various private sector-based initiatives have failed because of problems concerning sustainability, including the Benue state micronutrient powder distribution project. (We will examine this project in more detail in the case study in Section 7.)

He presented the current Nigerian context, describing the challenges surrounding nutrition, and the additional challenge of insurgency, especially in the north. He also highlighted how, after ten years of large-scale fortification, the results are disappointing. How to get nutritious foods to those most at risk of undernutrition and ensure that people are educated about key nutrition issues still remains a problem. Consumer protection and activism is also weak: in the 1980s and 1990s there was a very active consumer protection group in Nigeria, but in recent years there has been no one ready to tackle these issues.

He concluded by reminding us that the overarching goal for the day was to look at the roles business can play in improving nutrition in Nigeria, and he highlighted key barriers identified by IDS' research, suggesting how these could inform the SUN-BN strategy and the policy and programmes it chooses to promote in order to address some of these challenges.

6 IDS research presentation and summary of research

The workshop started with a presentation by Kat Pittore of the research carried out by Dr John Humphrey and Ewan Robinson. A summary of the main points from the presentation and key research findings discussed at the workshop are presented here.

6.1 Factors not discussed today

Before I start discussing the research findings, I want to stress that this research is only examining one element of improving nutrition: food. Nutrition is a multi-sectoral issue, and achieving real improvements in nutrition requires access not just to nutritious foods, but also to clean water and sanitation to prevent disease, and to health care to treat illness. Care practices for infants and young children are also crucial, and are related to issues around female education, time and other factors linked more broadly to questions of gender equality. While the rest of the day will focus on food-based strategies for addressing undernutrition, it is critical that we understand that access to nutritious foods is only one element necessary for improved nutrition in Nigeria.

6.2 The challenge of maintaining an equity focus

One key challenge to keep in mind as we start to think more about market and private sector solutions to the problem of undernutrition is the difficultly of reaching the poorest and most vulnerable populations, or 'bottom of the pyramid' consumers. As Figure 6.1 demonstrates, rates of stunting in Nigeria in the poorest quintile of society are almost 30 per cent higher than in the wealthiest quintile. In Nigeria there are also huge disparities between the north and the south in terms of rates of stunting and wasting, with rates of stunting as high as 58 per cent found in one survey of four northern states (IFPRI 2014; Visram *et al.* 2014). However, these groups that are most affected by undernutrition are also the most difficult, and least profitable, to reach with private sector and market-based nutrition programmes.

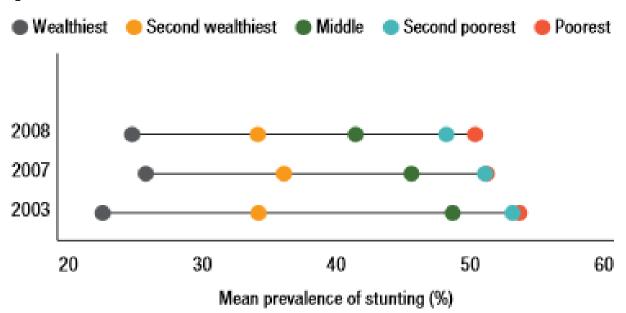


Figure 6.1 Variation in stunting prevalence in Nigeria over time, by wealth quintile

Source: DHS surveys 1990–2011 adapted from Bredenkamp *et al.* 2014. Source: IFPRI (2015). Reproduced with permission.

6.3 Major challenges facing markets and nutrition

The research found several key themes which were common to most market-based nutrition interventions and businesses that were studied, and to those we looked at as part of the case studies. The challenges that were identified affect all those who are attempting to influence nutrition through market-based solutions, and are beyond the control of specific projects or businesses. Businesses, which exist to make a profit, have no incentives to improve nutrition for vulnerable groups. Most approach the question of 'what is in it for us' by asking, 'will it improve sales or increase profits?' If the answer is no then businesses are not likely to comply with mandatory or voluntary regulations on nutritional content.

We illustrate these challenges by identifying four key nutrition conditions: these are the requirements we must meet in order for a particular food to contribute to better nutrition for the first 1,000 days (from the time a child is conceived until his/her second birthday) and for low-income populations. These conditions are about the food itself and about how it is used and who eats it. They are listed in Table 6.1. However, when we are seeking to provide foods through markets, these nutrition conditions also raise a second set of issues, which are specific to businesses. Businesses cannot simply deliver nutrient-rich foods; they need to do it in a way that enables them to earn profits and have a sustainable business model. Companies in Nigeria face intense competition over prices and operate in a difficult environment. Although they have the potential to meet each of the nutrition conditions, this increases their costs, threatening the viability of their business model. As a result, the incentives to businesses are not aligned with what we want in terms of nutrition.

Challenge	What is the problem?	Potential solution?	Limitations
Affordability	Individuals may recognise benefits of high nutrient-dense products, but be unable to frequently afford them	Mandatory fortification	Weak enforceability
Availability	High transportation costs for centrally produced foods, especially in rural areas (low population density and large distance between)	Use existing infrastructure aimed at wealthier consumers Invest in distribution	Reach is limited – especially in remote rural areas Higher price
	Market systems approaches often neglect the role the informal sector plays	Improve function of informal markets which are already in close proximity to the poor and for which costs are lower	Informal goods can fluctuate wildly in terms of quality and nutritional value
Acceptability	Products meet cultural and social norms	Invest in product placement/marketing goods to promote brand awareness	Higher price
		Products in informal sector tend to be aligned with cultural preferences of poorest, increasing acceptability	Informal goods can fluctuate wildly in terms of quality and nutritional value
Quality	Traditional diet is low in nutrients	Introduce more nutrient- dense foods Mandatory fortification	Lack of acceptability and higher price Weak enforceability
	Asymmetric information regarding nutritional benefits	Signalling mechanisms (branding, labelling, marketing, voluntary certification)	Higher price Difficulty in implementation Mislabelling and false claims weaken signalling mechanisms

Table 6.1 Delivering nutrient-rich foods: problems and possible solutions

6.4 Key challenges

Nutritional value. Nutrition has been identified as a credence good (Maestre *et al.* 2014). Nutritional value cannot be easily identified by consumers either before or after consumption. This creates information asymmetries between producers and consumers. Several 'signalling' mechanisms such as premium branding, labelling and marketing have been employed to highlight the benefits of nutrient-rich products. However, these mechanisms are insufficient if standards, laws and norms are unenforceable (Dulleck, Kerschbamer and Sutter 2011). As highlighted by Robinson *et al.* (2014), the low enforcement capacity regarding labelling and manufacturing practices of the two main regulators in Nigeria suggests that such signalling mechanisms cannot overcome the information disparities between consumers and producers. As a result, these nutrient-rich products will be underconsumed by the poorest, who cannot 'see' their nutritional value and so judge it to be not worth the additional cost.

Key populations. In order for nutritious foods to have the greatest impact, they need to be reaching the key populations most affected by undernutrition, including women of reproductive age, young children and the poor. The difficulty of reaching key groups is about affordability of products as well as accessibility. One study found that although poor consumers are willing to pay 5–8 times more for nutrient-dense foods than for traditional staples, many of the premium branded nutrient-dense foods are on average 12–26 times more expensive than traditional goods and, as a result, are out of reach for poor consumers (Kayser, Klarsfeld and Brossard 2014).

Accessibility. One of the main challenges of reaching key populations concerns accessibility. Stunting rates in Nigeria are 50 per cent higher in rural areas than in urban areas (National Population Commission and ICF International 2013); this is partly due to the difficulty of supplying nutritious foods to these areas. Longer distances between population centres, smaller population densities in rural areas combined with weak transport and other infrastructure mean higher transport costs for nutrient-rich products, which are usually centrally produced by large manufacturers (Bryueron *et al.* 2010). These increased costs can either raise the price of these goods or make it uneconomical for businesses to operate in thin markets.

Consumer motivation. The demand for nutritious foods is greatly influenced by their affordability and acceptability. Because of the higher manufacturing costs, together with branding and marketing costs, the price of nutrient-rich foods can be significantly higher than those that are not as nutritious. Consumers may be unable to afford them and, anyway, as the nutritional benefit is difficult to observe, may prefer to buy cheaper substitute goods. Even if nutrient-rich foods are not prohibitively expensive, consumers must have the ability and willingness to buy these products. Moreover, consumers will have preferences regarding food texture, taste, appearance and ease of use. These preferences are shaped by numerous factors; products that do not take into account cultural norms may be overlooked.

Consumer trust. As mentioned earlier, one of the key obstacles with food-based solutions for tackling undernutrition relates to the fact that nutrition is a credence good, meaning that consumers cannot easily tell the difference between a nutritious and non-nutritious product, and must rely on signalling mechanisms to differentiate between products. Additionally, consumers must trust the claims made for foods as to their nutritional content. In Nigeria, one company found that up to 50 per cent of products sold under its brand name were counterfeit (Robinson *et al.* 2014).

6.5 Key questions for market-based initiatives

In this workshop we are attempting to translate the research findings into a model that different stakeholders can use to better understand the ways in which various market-based

solutions for tackling undernutrition are thought to operate, and the potential external influences on the markets, including informal markets. We hope that this framework will help practitioners move beyond the specific activities involved in a project, and think about underlying assumptions regarding how various actors will behave, and what external factors are influencing a company, project or programme. We hope that throughout (and beyond) today, participants will be able to think about the wider market system in which a project or programme is operating and how this system, including both formal and informal channels, is influencing a project, programme or business. Please consider these five questions as we move forward into discussing today's case studies.

- Context matters. What are the motivations and incentives driving business action? How do market conditions affect these incentives? A project or programme that might work in one type of market – for example, mandatory fortification, which works well for products that are centrally produced – fails when there are many small-scale producers. Knowledge of the context in which a certain product is produced, transported, marketed and sold is critical to understanding whether a specific type of project or programme will be effective.
- 2. **Markets are diverse and interlinked.** There are different kinds of markets, including formal and informal, national and local. Consider the market in which an individual product is sold. How does it interact with other products? What are the value chains from which key populations and income groups purchase products at present? The poorest tend to purchase products more from the informal market and small and medium-sized enterprises, which are the hardest to regulate.
- 3. **Sustainability and stability.** If an intervention or business model depends on current market conditions (or policy conditions), what would happen if these conditions changed in the future? If a programme relies on donor or government funding, what happens if this funding is withdrawn or stops? What if regulations change the way in which a product must be fortified? What would happen if a competing product entered the market, or was imported? Would the genuine product be competitive? If a product depends on strict regulation to control pass-off products, how likely is it that this level of enforcement can be maintained? One of the case studies, looking at the distribution of micronutrient powders through state health systems, will examine the challenge of sustainability in more depth.
- 4. **Capacity of both public and private institutions.** The insufficient capacity of regulatory agencies and staff to undertake monitoring and enforcement can be a huge problem for fortification programmes. We will hear later from the Standards Organisation of Nigeria about some of the difficulties it faces with regard to flour fortification. What would strong institutional capacity look like? How can we ensure long-term commitment to monitoring and enforcement of fortification? What can enforcement bodies do to disincentivise copy-cat and pass-off products?
- 5. **Evidence.** What evidence do we use when we design and implement market-based programmes? Much of the existing evidence base refers to programmes and products under carefully controlled pilot or trial conditions. But market-based approaches are inherently difficult to control and their outcomes difficult to predict in the long term. Do we have evidence about what works under real-world conditions and in real markets? What do we need to know? Given the difficulty and cost of conducting full-scale trials and experiments, how can we measure the success of programmes?

We hope the ideas from today will be useful when you are thinking about your own programmes, policy and advocacy work. We also hope that the outcomes of today, especially the key challenges that are identified, are able to shape and inform SUN-BN in Nigeria, which could be well placed to help us move forward with solutions to some of these challenges. Thank you very much for your participation.

7 Nigeria case studies

Expert case study leaders presented four case studies of programmes and initiatives aiming to increase access to nutrient-rich foods in Nigeria using market-based approaches. Small groups then worked with the case study experts to develop a shared analysis of each project, and to produce visual representations of the causal logic ('impact pathway') through which the project contributes to reducing undernutrition (these diagrams can be found in Annex B). Each of the case studies is introduced below, followed by the key findings from the analysis.

Table 7.1	Nigeria case	e studies
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Case Study	Leader	Affiliation
Bio-fortified cassava	Paul Ilona	HarvestPlus
SMEs and voluntary fortification	Shex Oladipo	Lasabi Mills
Micronutrient-enriched food powders in Benue State	Dr Kenny Acholonu	Bio-Organics
Large-scale flour fortification	Ibrahim Yahaya	Standards Organisation of Nigeria

7.1 Group A: Vitamin A bio-fortification, HarvestPlus

It has been estimated that one-third of pre-school Nigerian children lack adequate intake of vitamin A (WHO 2009). The lack of this essential micronutrient is the leading cause of preventable blindness in children and also increases the risk of disease and death from severe infections. Vitamin A deficiency is also the leading cause of night blindness in women and increases the risk of maternal mortality.

HarvestPlus, an organisation that aims to improve nutrition and public health by developing and promoting bio-fortified food crops that are rich in vitamins and minerals, provides biofortified stems for a vitamin A-enriched cassava. This stem is targeted at farmers. HarvestPlus operates by identifying champions within local communities who understand the importance of providing micronutrient-enriched foods. These champions engage their local communities in order to increase awareness and sales of HarvestPlus goods. HarvestPlus works closely with 20 partners in four target states – Oyo, Benue, Imo and Akwa-Ibom – and plans to expand to 22 additional states to address a number of problems, including a lack of farmers choosing to grow the crops, a lack of consumer demand, and public fears about the crops related to the incorrect perception that the cassava has been genetically modified.

Activities

- **Providing farmers with vitamin A-enriched cassava stems.** HarvestPlus identifies 'community champions', individuals who will advocate for the benefits of vitamin Aenriched cassava within their communities.
- Increasing awareness among farmers. Using these community champions, HarvestPlus attempts to increase awareness by supporting these individuals and through sending low-cost or subsidised cassava stems by way of an introduction to the product.
- Increasing awareness among consumers about the benefits of increased vitamin A intake, by developing social marketing material, including a movie. This has included a partnership with top 'Nollywood' directors to produce four movies that feature the benefits of fortified cassava as part of their story, one in each of the four main languages (English, Yoruba, Ibo and Hausa) to ensure that all Nigerians have access to this material.

- Developing an ongoing relationship and communication with farmers who use the products, through sending SMSs on when best to harvest.
- Developing an online marketplace so that stems can be ordered and delivered through this web portal.

Challenges

- **Logistical challenges.** Cassava is a product that is produced in the south and transporting it is very problematic. This means that distribution costs more for rural locations as well as for locations in the north of the country.
- **Sustainability.** HarvestPlus is funded through three grants from DFID, USAID (United States Agency for International Development) and the Bill and Melinda Gates Foundation. This funding runs until 2017/18. HarvestPlus must become a sustainable business model by this time.
- Lack of data. Although HarvestPlus has recently entered partnerships to generate relevant data, currently there are no data about the project to enable an assessment of its impact. HarvestPlus is unsure as to what impact its products have had on nutrition outcomes.
- **Consumer awareness.** There is a lack of consumer understanding and awareness of the benefits of bio-fortified crops such as vitamin A-enriched cassava. There is also a misconception that bio-fortified crops are genetically modified crops. Within civil society there is strong resistance to any form of GMO (genetically modified organism) crops in Nigeria (Oladimeji 2014).

Successes

Anecdotally, there are several success stories, with HarvestPlus Nigerian country director Paul Ilona stating that there is strong demand for the product. However, as mentioned above, there is an insufficient amount of data to quantify this success.

Key challenges identified through the mapping

How do you define and measure the project's success and show that it works? In the case of HarvestPlus demand has skyrocketed. HarvestPlus has shown that, unlike with several other nutrition interventions, there are no demand-side barriers, and its products have continued to sell out. However, HarvestPlus is not sure what the impact has been on nutrition outcomes. The organisation has entered partnerships with research organisations in an attempt to measure this impact but the data will not be available until 2017.

Questions of cultural and consumer awareness – making the consumer aware that it is not a GMO product and making that distinction clear. One of the biggest difficulties that HarvestPlus has faced is the misconception that bio-fortification is a form of genetic modification. The organisation must continue its campaign of improving public awareness of what bio-fortification really is, to avoid the stigma attached to GMOs.

Making new products more relevant and making more resilient varieties of bio-fortified cassava. As discussed above, cassava is mainly grown in the south of the country; the further the product has to travel the less nutrient-rich it becomes. There are significant obstacles to providing this crop to the north of the country and therefore HarvestPlus is investigating new processes to make the crop more resilient, or the feasibility of using northern staples such as beans or millet.

Issue of sustainability. The programme currently has funding from three donors which runs up to 2017/18. How can the programme use the next two years to establish self-sufficiency to ensure long-term sustainability of the programme? Currently HarvestPlus does not make a profit, and in order for the programme to become a long-term solution to undernutrition the

organisation has to become financially independent. This would give HarvestPlus a window to develop a strategy for becoming profitable, to ensure long-term viability.

7.2 Group B: Low-cost, nutritious complementary foods, Lisabi Mills

Lisabi Mills is Nigeria's pioneer indigenous food processing company. Established in 1939, the company specialises in the production of convenience foods, to reduce the time spent by women preparing food at home. The company is the owner of the brands Lisabi Foods and Gold's; the latter is commonly used as a complementary food for young children. The company launched its first fortified product in around 1980 and was one of the first companies in Nigeria to start voluntary fortification of foods. Originally the company started voluntarily fortifying some of its products as a way to differentiate them from those of other food processors and to create a market niche for itself.

Activities

- Because the products are distributed exclusively through commercial channels, efforts to foster brand recognition and gain the attention and trust of consumers are crucial.
- The company's packaging is designed to draw consumers' attention to the benefits of the product. The consumer-friendly packaging design highlights the nutritional contents of the product and lists its ingredients as prescribed by law.
- Effective advertising and marketing of the product is also a key objective of the company, which wants to inform consumers about the benefits of the fortified products. With increased awareness, consumers now look out for products that will improve their personal wellbeing.
- The majority of products are distributed through major distributors spread throughout the country. These distributors are not known to push the nutrition agenda specifically, but rather they promote the products on the basis of the company's reputation as a leading food processor of good-quality products.
- The company is expanding its distribution mix to increase throughput in supermarkets, neighbourhood shops and other retail outlets. This could be an important development to help create a platform for interface with the more discerning consumers.
- In the past, the company has collaborated with international agencies and nongovernmental organisations that are interested in youth, infant and maternal health programmes.
- Government regulatory agencies continue to play a role in influencing the formulation of products, through their advocacy for improved nutrition of the populace in general. These regulatory agencies also have an influence on the products through their directives on nutritional mandates for local food products.
- Today, all of the company's products are fortified with vitamins and minerals, allowing the initiative to reach a much wider consumer group, especially the poorest populations, who are a key constituency and the target group for benefiting from fortified products.
- Formulations have evolved, over the years, to keep pace with scientific improvements and best practices.
- In order to reduce product costs, and allow the product to be sold at a lower price and capture more consumers at the bottom of the economic ladder, the company sought to develop more cost-effective packaging methods. This resulted in significantly reduced product costs and aided penetration into the local markets that are usually patronised by the less affluent consumers. Prior to this, products had tended to be restricted to supermarket clientele.

• Consequently, the company has witnessed higher demand for its products and it is therefore currently expanding its production capacity on many fronts. However, there is an urgent need to increase spending on advertising and promotion, in order to realise the full potential of the company's initiatives.

Key challenges identified through the mapping

The proliferation of copy-cat and fake products. For many years, this has been a major problem, resulting in a loss of over 50 per cent of the company's market share to companies producing counterfeit and pass-off products. Many of these products make spurious claims regarding their nutritional content. Only recently, NAFDAC was able to dismantle a major manufacturing operation producing fake Gold's custard in south-east Nigeria.

Signalling and how to draw consumers' attention to the benefits of fortification. The questions raised by group members focused on the issue of communicating nutritional benefits to consumers. Radio was highlighted as an important method of reaching the most vulnerable communities.

Affordability and bottom-of-the-pyramid packaging. One key issue that came up was that of affordability and the fact that it is the poorest and those most affected by undernutrition who are unable to afford packaged, fortified foods, which are much more expensive than traditional staples. Furthermore, the smallest packet of Gold's custard currently on the market is 500g, which again is not something the bottom-of-the-pyramid consumers can afford, although the company is considering introducing smaller, 100g or 50g packages. There is also a challenge concerning the trade-off between cheap packaging, which allows the products to be sold at lower prices to poor consumers, and more expensive packaging, which can better preserve the nutrients in the product.

Ensuring nutrient levels at point of sale and product stability. One problem that was highlighted was that the company had been unable to invest in product testing to ensure adequate levels of nutrients remained in the product after manufacture. Large international companies that are able to afford this level of testing have found that some micronutrients start to degrade after six months and levels of many fortificants may not have as much as the suggested two-year shelf life. The company would like to be able to invest in this additional level of testing, as well as looking at how the level of fortificants added is able to meet human nutrient needs, and identifying what percentage of daily intake can be met with a serving of the product. (This question of adequate levels of fortificants will have to be addressed by the company if it starts exporting, a possibility that it is currently exploring.)

The government and others such as UNICEF have a role to play in nutrition education. Companies cannot provide education about nutrition, since people will not trust them to give non-biased information. Greater effort needs to be made to harmonise the messages being put out via various channels, to prevent confusion around nutrition. This is something that should be government-led, with business contributing funding for more information channels (e.g. radio, text messages).

7.3 Group C: Micronutrient-enriched food powders in Benue State, Bio-Organics

Benue State procured 10 million micronutrient powders (MNPs) as part of a pilot programme for home food fortification launched during the state's maternal, newborn and child health week in December 2013. It was the first state in Nigeria to launch a home food fortification programme, the aim of which was to reduce anaemia and improve the nutrition status of more than 80,000 young children.

Bio-Organics Nutrient Systems Ltd produce Enrich MNPs, with the primary objective of providing essential micronutrients to vulnerable populations. The powders are an affordable and accessible means of delivering 100 per cent of the daily requirement for vital nutrients on a daily basis.

The MNPs are targeted at children of 6–59 months, and are designed to be added to homecooked complementary foods when these are introduced after the age of six months. Their soluble powder form makes it easy to mix them into the daily foods consumed by most of the target groups. Enrich contains 15 vitamins and minerals and trace elements, using the most bio-available form of each nutrient. The product aims to make up for the very poor nutrient density of most foods available to families at the bottom of the pyramid, whose children experience multiple-micronutrient deficiencies. Enrich MNPs provide vital nutrients to support children's optimal growth and development and improve overall nutrition status. It is packaged in an easy-to-use sachet and is affordably priced (~N7.00). Each 1g sachet can readily be added to food without affecting the taste.

Activities

- Bio-Organics worked in partnership with international agencies and government to produce MNPs for areas of Benue State, to be distributed through the health system.
- A campaign was launched to encourage uptake of MNPs by raising people's awareness and educating them about the important role that MNPs can play in improving child nutrition and health. Marketing agencies were engaged to further spread knowledge about MNPs.
- The Ministry of Health distributed the micronutrient powders through the health system and also conducted studies on the long-term impacts of using the powders.
- Global Alliance for Improved Nutrition (GAIN) provided technical assistance and financial assistance to the state for behaviour change communication and monitoring and evaluation, and helped develop the marketing and distribution strategy regarding the MNPs.
- As a result of scientific research and knowledge advances, the source of iron was changed in MNPs to improve the bio-availability of iron.
- The packaging of the product was changed: originally it came in packs of 60 sachets but later boxes of 30 sachets were introduced.

Data to determine success of the project

A substantial amount of research has been undertaken internationally on the efficacy and effectiveness of MNPs on children's nutrition status. Impact assessments have been undertaken in Bangladesh, Pakistan, India and Nigeria.

Key challenges identified through the mapping

Challenges of financial sustainability. The project has been discontinued because the state failed to pay Bio-Organics for its product: this is a serious problem, which must be tackled if the project is to be sustainable. What must be done to ensure that the government is committed to providing long-term financial support for a project relying on this one funding source? Also, what steps could be taken to ensure that national policies are translated into action at the level of local government?

Multiple distribution channels are essential. MNPs were distributed exclusively via the state and health centres. It is important to learn from the failure of this project that you cannot rely only on public distribution mechanisms, and that a commercial distribution network is required, offering consumer channels through which the product can be sold directly to consumers/caregivers. Multiple distribution systems are necessary and there is no single

'silver bullet' channel for distribution. Commercial distribution can help ensure the financial viability of the product.

Product demand must be generated. Creating consumer awareness of the importance of nutrition and of how various products can lead to improved nutrition is critical to generating demand for MNPs. Ensuring that products are available and affordable in the marketplace will also help to drive demand. Stronger demand will, in turn, lead to greater affordability and availability. Social marketing and behaviour change initiatives are also required, not only for demand generation, but also to ensure that MNPs are correctly utilised.

7.4 Group D: Mandatory fortification, Standards Organisation of Nigeria

The Standards Organisation of Nigeria (SON) introduced mandatory fortification of key staples including vegetable oils, cereal flours (composite flour, wheat flour, wheat semolina, maize flour and whole maize meal) and sugar. The ultimate aim of the programme is to eradicate micronutrient deficiencies (vitamin A, iron, zinc, folic acid) and reduce iron deficiency anaemia rates in the population, especially focusing on children, pregnant women, and others at high risk of micronutrient deficiencies.

The two key agencies responsible for ensuring that mandatory fortification of key staples is being carried out are SON and the National Agency for Food and Drug Administration and Control (NAFDAC). SON is in charge of developing the standards, running tests on new products, and inspecting factories to ensure that they are equipped to comply with regulations. NAFDAC is responsible for testing products already available on the market to ensure compliance.

Activities

- Ensuring that Nigerian standards for fortification are in line with current World Health Organization (WHO) guidelines for flour fortification.
- The process of actually developing the standards for fortification. This includes blind trials of multiple pre-mixes, in partnership with various companies. The companies used different pre-mixes to fortify flour and produce foods using the different flours, which were than sampled and analysed by the SON to check whether there were changes in nutrient availability after processing. Using this process the SON identified a better form of pre-mix.
- After running trials, the SON decided that there was a better form of iron, with greater bio-availability. The organisation then worked with industry to develop new standards using the new form of iron, which is more expensive, but reducing levels of vitamin A, which is also expensive, so that the overall cost of the fortificant remains the same.
- Inclusion of folic acid and zinc fortification. The standard has been developed but now a further effort is needed to roll out the standards, working together with industry.
- Visiting factories and ensuring that they have the equipment necessary to adequately fortify products.
- Expanding the market for fortified foods.

Key challenges identified though the mapping

Enforcing standards is challenging; how should non-complying companies be dealt with? Standards have been established and the food industry claims that it will adhere to these standards, but how can regulatory bodies such as the SON and NAFDAC actually enforce these or sanction those companies that do not comply? All regulatory agencies need to strengthen their ability to ensure industry does comply with the rules on standards, because in reality it is very difficult to punish those that fail to do so. The agencies' current

policy is to issue written warnings and to engage in dialogue with companies, in order to learn what particular problems they have and to understand why they are not fortifying their products. However, there is a sense that this approach has been going on for too long, with companies still not changing their practices. The penalties are not strong enough, and the fines too small to affect a large company's bottom line. Therefore the penalties for noncompliance need to be made more severe, and enforced more rigorously. There is also a role for civil society to raise awareness about the weak enforcement of regulations and encourage greater consumer action.

Ensuring small and medium-sized companies comply with fortification regulations is critical. SMEs are of crucial importance, as they produce cheap products for the bottom-of-the-pyramid consumers, and at the same time are the least likely to adhere to mandatory fortification regulations. Currently it is mainly the larger companies carrying out fortification. Many SMEs do carry out voluntary fortification but there needs to be greater effort to ensure that all SMEs are meeting the national fortification guidelines.

Consumer awareness of human nutrition needs. One critical issue is that companies make false claims about nutritional benefits of products; for example, one fortified product was advertised as containing 35 vitamins. Consumer awareness of human nutrition needs helps to drive demand for nutrition-rich foods and to ensure that regulations are enforced. However, this is only one piece of the puzzle, and making sure that companies do actually fortify their products, requires strong consumer protection measures.

Need to strengthen the National Fortification Alliance. The Alliance had met only once during the year, and before that had not met since 2012. Civil society needs to be brought on board, and a better way found to encourage SMEs to be included in this forum.

Porous borders and challenges around enforcing standards for imported goods. The authorities responsible for checking food products imported into Nigeria need to be aware of the fortification standards, and must enforce these standards. Currently, this is not happening, so products that do not meet national standards are being allowed into the country. The checks that are carried out at the border must done more thoroughly, so that the already overstretched internal regulatory bodies could then focus mainly on products made in Nigeria.

Waivers allowing some companies to sell unfortified products create problems for enforcement. Waivers allowing the sale of unfortified products have been granted to certain businesses – for example, some foreign supermarket chains – to encourage them to open in Nigeria. NAFDAC and the Federal Ministry of Finance can both issue these waivers, which make general enforcement of regulations on fortification more difficult.

8 Key lessons from the group work

After each group had presented their priorities for action, participants held a discussion to decide which issues were the most critical. They looked at those that featured in more than one case study, and at those that absolutely had to be addressed if business and markets were to make a meaningful contribution to nutrition. They identified the following as the three critical priority issues in Nigeria:

- 1. **Consumer awareness: knowledge of products, and general awareness of human nutritional needs, creates demand.** Consumer awareness emerged as a critical issue identified in all the case studies. This included consumers being aware of the nutritional value of products, trusting the signalling mechanisms used by companies to indicate that nutritional value, and choosing to spend extra money on more nutritious products. An additional important point raised was that consumer awareness is linked to demand generation, and participants welcomed the news from HarvestPlus that there was high demand for its fortified products. Consumers need to be aware not only of the nutritional value of particular products, but of nutrition in general. A sustainable, joined-up approach to educating consumers is needed, and it must be adopted by all actors government, private sector and civil society.
- 2. Increasing consumer demand is necessary if companies are to invest in distribution. Without consumer demand there is no market for these food products, as highlighted above. Linking consumer awareness and demand generation will help to overcome some of the barriers around distribution. By increasing national awareness of the benefits of these products businesses can continue to build a consumer base in rural, sparsely populated 'thin markets'. This would allow for organisations to overcome the increased costs entailed in reaching the most vulnerable rural communities.
- 3. **Counterfeit products: increased consumer trust will also increase consumer demand.** The fact that so many products on the market are fakes, or make false claims about their nutritional content, leads to low levels of consumer trust, and reduced demand for products claiming to be nutritious. Enforcement of standards and a crackdown on companies producing counterfeit products is critical in order to create a business environment where companies are willing to invest in brand promotion. Since evidence from both our research and the mapping found that companies selling products that the government requires them to fortify do not view fortification as a priority unless it affects the bottom line, strong enforcement mechanisms are crucial, so that all companies are operating on a level playing field.

However, all three of these issues are interlinked and in order to tackle them, we need to return to the idea that we started with, moving beyond individual projects to look at the wider system within which market and private sector interventions operate, and think about how the broader policy environment affects all market- and private sector-based interventions. Ultimately, all of these issues influence programme sustainability. We cannot achieve real impact and change without taking into account the whole system in which a project, programme or company operates.

9 The Scaling Up Nutrition movement in Nigeria: collaboration with SUN-BN



Panel discussing the role of SUN in Nigeria, Abuja workshop. *Photographer*. © Nsoedo O. Ndubuisi, Doxa Digital (2015). *Note*: Panellists (from left to right): **Dr Victor Ajieroh**, Special Adviser on Food Security and Nutrition, Federal Ministry of Agriculture; **Dr Philippa Momah**, SUN-CSO Coordinator; **Dr Angela Attah**, SUN-Business Network Coordinator, Nigeria; **Mr Arjan De Wagt**, Chief of Nutrition, UNICEF Nigeria; **Ms Melkamnesh Alemu**, Nutrition Adviser, DFID.

The final session of the day brought together a panel of individuals representing the five Scaling Up Nutrition (SUN) networks working in Nigeria, to discuss the broader role of SUN in improving nutrition outcomes, and specifically to hear from the various individuals on the panel what they felt the role should be for business involvement in nutrition. The panel was moderated by the lead facilitator, Professor Olugbenga Ogunmoyela.

For the initial round of questions, participants sought to answer the question, what is the role of their network within the broader SUN movement? The second round of questions sought to understand how and where the SUN-BN can feed into the broader SUN movement aims and objectives in the Nigerian context. The answers to both questions are presented together in the section below.

SUN government focal point

Dr Victor Ajieroh, representing Dr Chris Osa Isokpunwu, the SUN government focal point in Nigeria, spoke about the need for SUN in Nigeria, one of the countries with the highest burdens of malnutrition globally, and the overall aim of the movement. He highlighted the aims of the SUN movement, which seeks to:

- create a space to bring all relevant actors and key stakeholders together and address key issues holistically;
- bring people from multiple sectors together into a shared space to discuss nutrition;
- align nutrition activities around a common results framework;
- mobilise resources to track commitments to nutrition.

The movement and the common results frameworks need to be government-owned and country-led, but there is an important role for the other SUN networks including civil society, business, UN and a donor. In November 2011 Nigeria became a member of SUN.

Some of the key changes that have taken place since Nigeria joined SUN include updating the National Policy on Food and Nutrition. Additionally, for the first time the country has an agricultural policy with a chapter dedicated to nutrition and food security which aims to address some of the past problems, including that of having nutrition and agricultural policies that historically have not been well aligned. There are also ongoing efforts focusing on best practices in terms of integrating nutrition and agriculture – for example, the International Fund for Agricultural Development (IFAD) is looking at value chains and how they can be made more nutrition-sensitive. The Ministry of Agriculture is working with the Food and Agriculture Organization (FAO) to cost the draft food and nutrition strategy.

SUN-CSO Network

The SUN-CSO Network in Nigeria is made up of associations that have a shared vision about improving nutrition. It was inaugurated last year, and one year on, it has two main projects that focus on women, infants and young children. Dr Philippa Momah said that there were 'beautiful policies' in Nigeria that were never read, let alone implemented. The Network's initial focus is on women, infants and children, mobilising media and pushing them to help in efforts to increase awareness about infant and young child feeding and maternal nutrition requirements.

Dr Momah continued, saying: 'I would like to make a call to action: I like to watch football, but I can see when watching our football team how we are producing cohorts of stunted people. We need to own this problem at an LGA [local government area] level, why should one state have a 12 per cent stunting rate, the next state the stunting level is double. The civil society networks are there, can we stop just talking and take action. Let's own this problem – get out of a hotel in Abuja into the community where the major problems are, and where the key actions need to happen and the beautiful policies need to be implemented.'

SUN-BN Network

One issue that was raised during the day was that of communication, sharing ideas and advocacy. Dr Angela Attah said that to do this, everyone needed to be working together towards the same objectives. SUN-BN's role is to coordinate business activities and the private sector. The private sector in Nigeria has been highly involved in nutrition, some companies having suffered significant losses for their involvement. The SUN-BN would like to highlight these businesses and say 'well done' and thank them for doing what they have done, sometimes at great cost to their bottom line. Already 100 businesses have signed up to the SUN-BN globally, and it is worth looking at those companies that have signed up and that have a presence in Nigeria, and persuading them to help with getting SUN-BN set up in this country.

SUN-BN wants to work with everyone and wants to make sure that it is including all the key messages that need to be included. The organisation is very interested to see what other networks are doing and how it can add value to their work as well.

Key issues that the SUN-BN wants to take forward include improved nutrition for the 'base of the pyramid', and it is already possible to see synergies for partnering around base-of-the-pyramid products. Another issue concerns the workforce – how can its productivity be increased? A healthy and more engaged workforce is key to achieving long-term development in Nigeria.

SUN-UN Network, UNICEF

Mr Arjan De Wagt said that, while he was at the workshop to represent UNICEF, he also wanted to bring people's attention to the work that other UN bodies were doing for nutrition in Nigeria. The World Food Programme is giving food vouchers to displaced people in the north-east, UNESCO is providing education, which has a bearing on nutrition because the more educated the mother is, the less likely the child is to be malnourished, and the World Health Organization is promoting health. Mr De Wagt said that from his perspective, representing UNICEF, he felt the following were priorities for SUN and key issues that must be addressed in order to achieve improved nutrition outcomes:

- It is important to bring everyone into a shared space for action. UNICEF uses micronutrient powders as part of the emergency response. In Nigeria there are 1.7 million severely malnourished children every year; UNICEF, with the support of DFID, is able to reach 380,000 children, saving 70,000 lives. Some companies in Nigeria are looking into the possibility of producing ready-to-use therapeutic foods (RUTFs), which have the potential to reduce the death rate among children with severe acute malnutrition (SAM) from 20 per cent to 1 per cent, if the product is given correctly.
- Behaviour change communication (BCC) to promote best infant and young child feeding practices is crucial. This includes promoting exclusive breastfeeding in the first six months and educating the parents on what foods they should be introducing after six months to complement breastmilk. It is also important to promote the message around the need to feed young children regularly and, finally, the issue of good hygiene and practices such as handwashing. These are the four big issues that must be promoted, and it will be necessary to work together to make this happen. The government is not going to change behaviours that is where this shared space for action is necessary. Selling products at volume but at low profit margins will ensure equity. The private sector needs to be brought in, to become involved in Working to Improve Nutrition in Northern Nigeria and try to teach parents about key actions to improve nutrition.

Mr De Wagt said he felt there were many possible ways in which a business network could become involved. One key issue is fortification – why are there still problems around this issue after so many years? It is essential to find ways of achieving effective delivery of fortified foods, and of ensuring that products are getting to the most vulnerable.

Action must be taken to ensure that companies are complying with the International Code on the Marketing of breastmilk substitutes. Several companies violate the code or use the grey areas in the code to the maximum, which harms good infant feeding practices.

There are many articles in the printed media telling the government what it should do, but not enough articles giving guidance to mothers on how to give their children nutritional food. More use should be made of the fact that there are more than 100 million mobile phones in Nigeria – for example, recipes for preparing nutritious food could be made easily available via text messaging.

SUN Donor Network, DFID

Ms Melkamnesh Alemu said that the role of donors in SUN is to help countries to develop, monitor and implement programmes. Donors also have a role in contributing to the evidence base of what works, which can then be presented to government to illustrate examples of successful programmes. They can than support governments to scale up projects and programmes that have been proved to be effective. SUN must be country-led, and focus on results and effectiveness – paying special attention to the best use of limited resources, collaboration and inclusiveness – and on promoting accountability.

Throughout the day, the theme of needing to take a systems approach had come up again and again. To enable the private sector to make an impact on nutritional outcomes for the poorest and most vulnerable, it is essential to consider the entire system and how policies and programmes interact within that system. Ms Alemu said that the opportunity to hear from the entire SUN network in Nigeria had emphasised the need for a system-wide approach, and each member of that system had a critical role to play. She hoped that the workshop would inform the efforts of the SUN-BN as it developed its approach, enabling it to work with other members of the network to develop policies and programmes that create an environment where markets are better able to deliver nutritious foods to vulnerable populations.

Name Organisation Position DFID Melkamnesh Alemu Health Nutrition Adviser Yawar Naeem Private Sector Adviser DFID Dominic Schofield President, Gain Canada GAIN Dr Omo Ohiokpehai CEO CEHEND U.A. Bobboi Assistant Director NAFDAC Hannah Theobald Senior Associate Programme GAIN Development Uduak Igbeka Associate GAIN GAIN King-Harry Ibiso Ivy Consultant CS-SUNN Dr Philippa Momah Network Coordinator Ndidi Nwuneli Sahel Capital Director Market Manager Technoserve Mercy Mayaki Dr Kenny Acholonu CEO **Bio-Organics Nutrient** Dr Kabiru Ibrahim Director PHC Ministry of Health, Jigawa Sani Mohammed Yeldu (to be Director, Budget & Planning Ministry of Budget & Economic represented by H.M. Yelwa) Planning, Kebbi State Dr A.R. Oladipo Country Director **Micronutrient Initiative** Shex Oladipo Lisabi Foods Managing Director Professor Olugbenga Dean, College of Food Sciences Bells University of Technology Ogunmoyela Kat Pittore Nutrition Convener Institute of Development Studies Philip Reed Research Officer Institute of Development Studies CEO Duro Kuteyi Spectra Godwin Bamsa Research & Development Unilever Specialist Angela Attah Coordinator SUN Business SBN/GAIN Network Soyode Segun Market Manager DSM Nut. Programme Anthony Maliki Reporter **Daily Trust** Anjorin Ohujolakani Programme Officer Micronutrient Initiative Ibrahim Yahaya Standards Officer Standards Organisation of Nigeria Anyagwa Chiamaka Standards Officer Standards Organisation of Nigeria Dr Victor Ajieroh SA FBN **FMARD** John Telise Funta Services Paul Ilona HarvestPlus Manager MDGs Agboola Giwa Dr Vincent Ahonsi National Programme Manager DFID-ORIE Bukola Ogunsina Chief Correspondent Leadership Newspapers John Okeke Guardian Newspaper Correspondent Francis Gregory Editor Leadership Newspapers Nathan John National Peace Corps Coordinator

Coordinator

Annex A List of participants

Simon Samson

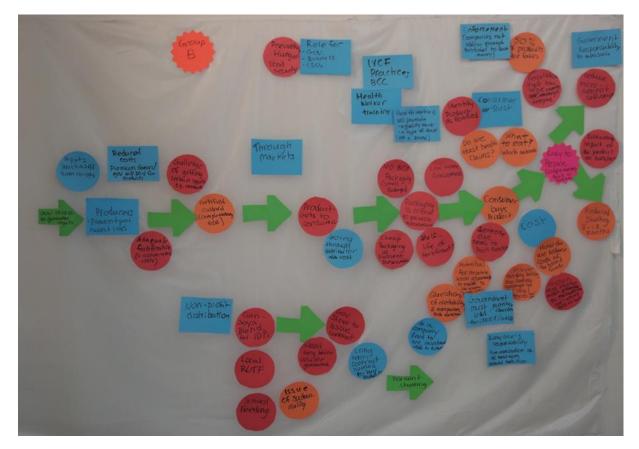
National Peace Ambassador

Annex B Impact pathway diagrams

Figure B.1: HarvestPlus and bio-fortified cassava impact pathway (Group A)



Figure B.2: Lasabi Mills impact pathway (Group B)



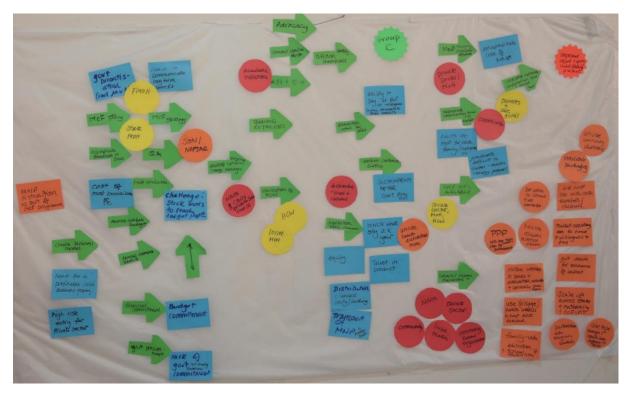
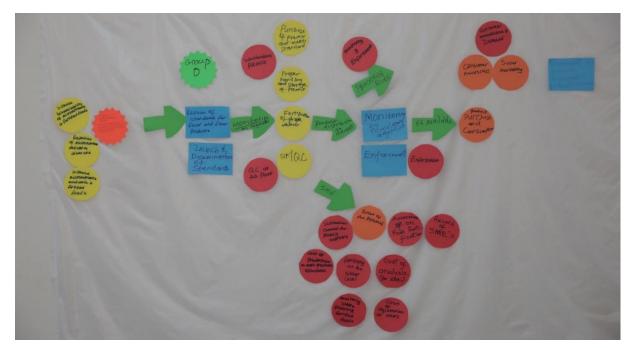


Figure B.3: Benue State and Bio-Organics impact pathway (Group C)

Figure B.4: Standards Organisation of Nigeria impact pathway (Group D)



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Brighton BN1 9RE

T +44 (0)1273 606261 F +44 (0)1273 621202 E ids@ids.ac.uk www.ids.ac.uk



