



# Policy Brief

## Food security

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Reducing malnutrition in urban areas: the challenge of identifying cost-effective and sustainable value chain interventions.

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### Urban nutrition

Scaling up of nutrition programmes has gained substantial support worldwide, including in many countries of Sub-Saharan Africa. But progress in decreasing undernutrition<sup>1</sup> is extremely slow. A sustained reduction in malnutrition, particularly stunting and micronutrient deficiencies, requires an integrated approach to ensuring access to an adequate diet. This policy brief argues for an increased focus on domestic value chain interventions to improve access to nutritious food by poor urban pregnant women and lactating mothers and their children in Sub-Saharan Africa. It also describes an approach for how this can be done.

<sup>1</sup> See page 2 for definitions used in this brief.

### SCALE AND SCOPE OF MALNUTRITION

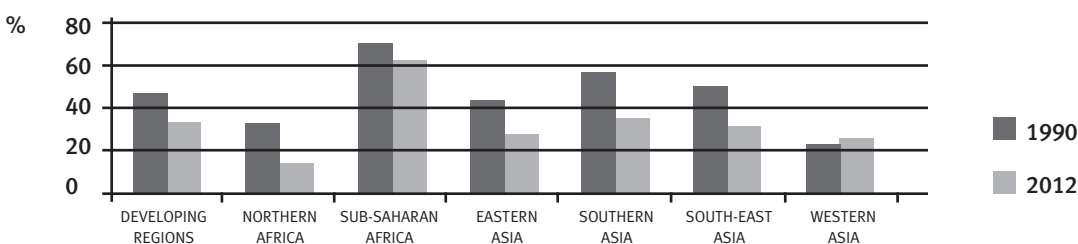
Nearly 900 million people worldwide suffer from undernutrition, over 95% of whom live in the developing world. In Sub-Saharan Africa (SSA), an estimated 27% of the population (240 million people) is chronically undernourished. While in Asia the prevalence of chronic undernutrition, manifested as stunting, in children under five years of age

decreased from 49% to 28% over the last two decades, the prevalence in Africa hardly changed. Modest progress in reducing stunting achieved in the period 1990-2005 was reversed over the last six years, mainly, it is believed, because of inadequate capacities to deal with shocks such as price increases and economic recession (IFAD/WFP/FAO, 2012).

At present, an estimated 40% of all children under five (about 55 million) in SSA suffer from stunting (de Onis, 2011).

Deficiencies in micronutrients, particularly vitamin A, iron, and iodine, in children under five years of age also remain a major problem, and progress in combating these deficiencies in SSA is slow.

Figure 1: Proportion of urban population living in slums by region



Source: State of the World's Cities, 2012/2013: prosperity of cities (UN-Habitat, 2012).

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## CONCEPTS AND DEFINITIONS

*Malnutrition* refers to an abnormal physiological condition caused by inadequate (undernutrition), excessive (overnutrition) or an imbalanced intake in macronutrients (carbohydrates, protein, fats) and / or micronutrients (vitamins and minerals).

*Undernutrition* is the result of insufficient food intake and repeated infectious disease which includes:

*Stunting or chronic malnutrition*, manifested as being too short for one's age, is due to a constant or recurrent lack of essential nutrients (macronutrients including protein as well as micronutrients (vitamins and / or minerals).

*Wasting or acute malnutrition*, manifested as extreme thinness, is due to short-term lack of food often caused when shocks such as drought or war affect vulnerable populations.

*Micronutrient malnutrition / micronutrient deficiencies* is due to a lack of essential micronutrients (vitamins and / or minerals).

*Hunger* is the result of insufficient food intake.

*Hidden hunger* is the result of a chronic lack of vitamins and / or minerals, that often has no visible warning signs.

Undernutrition in rural areas has attracted far more attention in past decades than undernutrition in urban areas. This is changing as a result of rapid urbanization and reports of urban poverty and associated undernutrition, particularly in SSA. During the period 1990-2012, the proportion of people living in urban areas in SSA increased from 28% to 38%. In absolute numbers, the urban population more than doubled from 146.6 million people to 345.6 million (UN-Habitat, 2012). Of these, more than 60%, or 213.1 million people, live in

slums. SSA at present has the highest proportion of urban slum dwellers in the world, twice the average (33%) in developing countries (see Figure 1).

While undernutrition among children under five in SSA is not decreasing, overnutrition, manifested as overweight and obesity, is increasing. Overnutrition is associated with changes in activity and consumption patterns known as the nutrition transition, characterized by a shift away from diets based on staples and plant protein sources, and an

increased intake of foods from animal sources and those rich in total fat and saturated fatty acids, as well as processed, calorie-dense, nutrient-poor foods and sweetened beverages (Vorster, 2011).

The prevalence of overweight and obese children in Africa has increased dramatically, from 4% in 1990 to 8.5% in 2010, and is expected to reach 12.7% in 2020 (de Onis, 2010).

## ADDRESSING MALNUTRITION

As a result of the SUN (Scaling-Up Nutrition) movement, the REACH (Renewed Efforts against Child Hunger and Undernutrition) initiative, GAIN (Global Alliance for Improved Nutrition) and other nutrition-focused actions, interest in nutrition has increased over the last ten years among the international community.

Although most initiatives advocate for a two-track strategic approach consisting of nutrition-specific interventions as well as the implementation of sectoral strategies that are nutrition-sensitive, the dominant response to fighting malnutrition has been through nutrition-specific programmes, in particular vitamin supplementation and changed behaviour (exclusive breastfeeding and other child-feeding habits). Coverage of nutrition-sensitive programming in sectors ranging from agriculture and food systems to health, water and employment has received far less attention. As a result, improvements in nutrition outcomes are often localized and limited to certain population groups and

have not yet resulted in sustained large-scale improvements, in particular in SSA. For example, dietary intake in terms of quantity and quality, an important determinant of nutrition outcomes, is not improving in SSA relative to other regions of the world. While over the last twenty years in Asia the per capita availability of fruits and vegetables doubled from 300 to 600 grams (gross) per day, availability in SSA only increased by 10 grams per person per day. Dietary diversity, which is associated with child nutritional status (Arimond and Ruel, 2004) and is also an indicator of micronutrient adequacy in the diet (Steyn, 2006) hardly improved during this period. The consumption of fat and oil, vegetables, fruits and animal products in SSA is the lowest in the world (IFAD/WFP/FAO, 2012).

At the same time however, a shift is taking place in the consumption pattern of carbohydrates and fat, particularly in urban areas. In the period 1975-2005, fat intake of urban African women increased from 21% of total energy to 30%,

while carbohydrate intake decreased from 65% to 56%, a consumption pattern associated with overnutrition and ultimately with non-communicable diseases. By comparison, the carbohydrate intake in rural areas decreased from 72% to 68%. The changing pattern of macronutrient intake in urban areas is one of the reasons that overnutrition and non-communicable nutrition-related diseases are emerging in SSA at a faster rate and in earlier stages of economic and social development than in industrialized countries (Vorster, 2011).

In urban areas there is therefore an increasing need for strategies that address the double burden of malnutrition, the persistence of undernutrition, especially among children, along with a rapid rise in overweight, obesity and diet-related chronic diseases. In conclusion, reducing malnutrition is a challenge and there is a need to re-think current intervention logic and approaches in fighting malnutrition, in particular in poor urban SSA areas.

## LINKING NUTRITION TO VALUE CHAIN INTERVENTIONS

According to the FAO/WHO, local food systems aimed at improving urban consumers' access to nutritious foods have a key role to play in making a shift towards healthier diets (FAO/WHO, 2004). To this end, according to FAO/WHO, we need to better understand how consumers' nutritional needs and demands are currently addressed, looking at all key players, starting with the consumer and working our way back to those involved in

marketing and distribution of food, processing and storage, production and natural resource management (FAO, 2012). One way of addressing this is to adopt value chain concepts, analyses and approaches as a tool to achieve nutrition goals. Value chain approaches to date have been mainly applied in the area of pro-poor economic and agricultural development. There have been a few attempts to apply value chain approaches in the field of nutrition, but not in

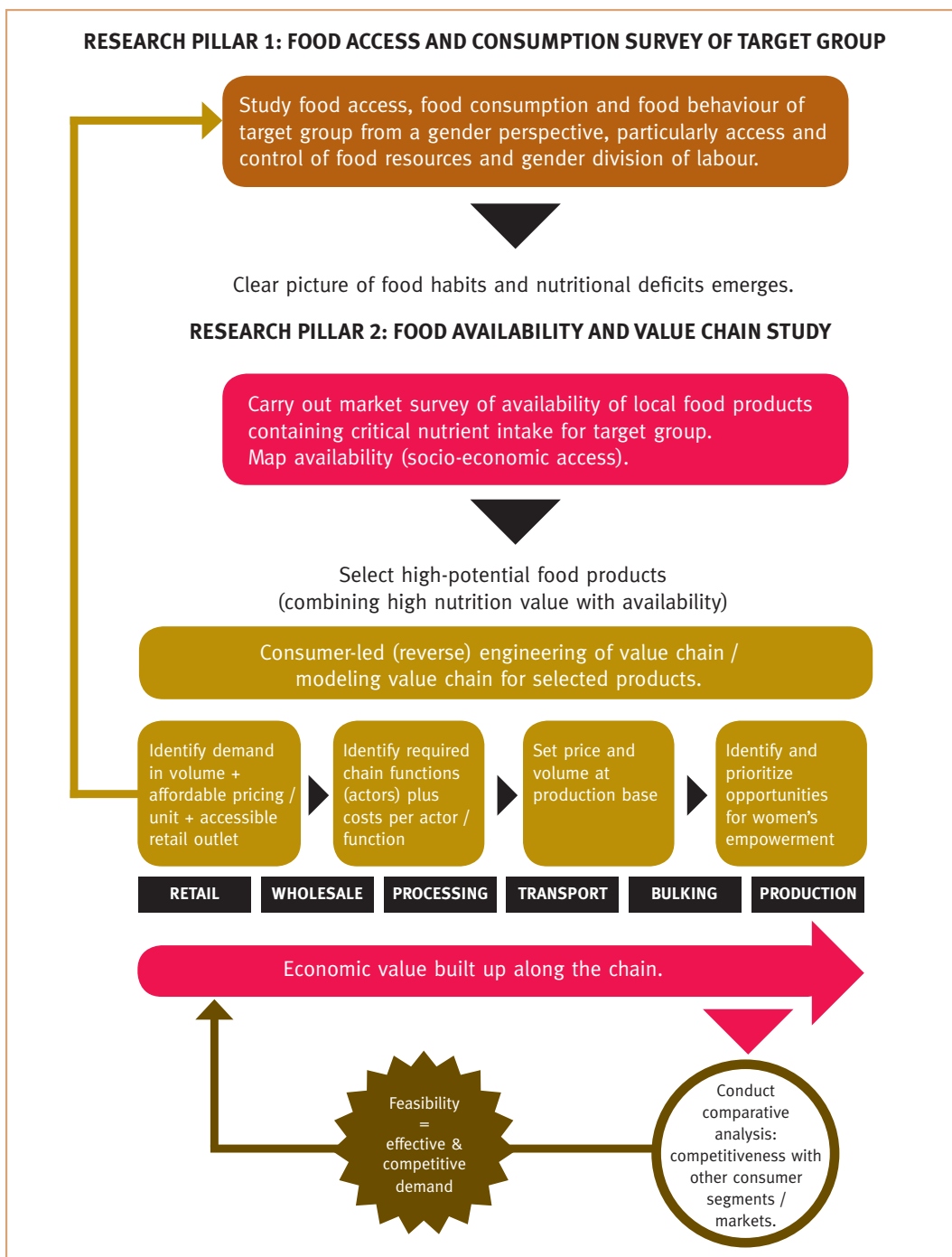
a consistent or comprehensive way (Hawkes and Ruel, 2011).

KIT has developed a model for improving nutrition using a gender-aware value chain approach. It is based on the following hypothesis: "Matching consumer demand to supply using a nutrition lens can lead to increased availability of nutritious and affordable food, improved access to nutritious food, more equitable consumption of nutritious food

and, ultimately, to an improved nutritional status".

The aim of the model is to provide tools to design value chain interventions that increase the availability and affordability of nutritious foods. This is a new way of looking at value chains, starting from the perspective of affordable and nutritious food, rather than profit. The model consists of a sequence of four inter-related steps as described below and pictured in Figure 2.

Figure 2: Research outline



### RESEARCH STEPS

1. Identify (a) most critical nutritional deficits in the diets of the target / beneficiary group(s); (b) barriers and opportunities within households to improve access to and utilization of nutritious food and; (c) food commodities which can help decrease nutritional deficits, taking into account preferences and affordability (methods: focus group discussions (FGD), household survey, in-depth interviews).
2. Assess opportunities in, and constraints to, the supply and availability of these food commodities (methods: market surveys, value chain mapping and analysis, FGD and in-depth interviews).
3. Map and analyse selected chains and design value chain interventions that address constraints in supply and affordability of those critical food categories (methods: modelling, opportunity matrix design).
4. Design relevant public-private partnerships in the form of a business proposition. This includes defining together the impact pathways, roles and investments and expected return on investments at target group and partner level (methods: multi-stakeholder mapping, workshop and visioning).

The first step focuses on the consumer. Because the environment (physical, political) and the context (cultural, infrastructure, human and social capital, policy, social relations of gender) of

consumers may be diverse and changing over time, these aspects are explored first. Next, in a reverse engineering fashion, the entirety of the food system in urban areas is explored with a focus on nutritious foods that

fulfil consumers' needs. The final step in the process is to translate findings into concrete action in the form of business propositions.

**THE ROLE OF WOMEN**  
In some countries, women are more food-insecure than men in terms of availability, access, utilisation and stability (FAO, 2008). Even in households that have enough food, women may experience scarcity because of an inequitable distribution of food and a lack access to, and control over, resources relative to men (Mudege and Verhart, forthcoming). To fully understand and be able to address issues of access and equitable consumption, we draw on a gender and rights approach. This implies, first, that we consider intra-household access to food as a decision-making process; making and acting upon decisions often occur in the context of social relations of gender, particularly the division of labour at household and community levels between women and men as well as boys and girls. Second, we are concerned with the right to adequate food as an outcome for women, first and foremost as rights-holders, and as mothers (University of Hohenheim, 2011). With this focus, work on value chains provides a form of accountability to rights-holders.

In formulating value chain strategies, we promote interventions that have the potential to enhance women's capacity, as individuals and collectively, to gain access to and control of economic resources, and to benefit from greater and more substantial involvement in the chain, particularly in the form of leadership or decision-making roles. And because women are in the majority at both ends of the chain – they are the ones purchasing food and to a large extent producing it – women's empowerment can also contribute to improving overall chain performance and economic development (KIT/Agri-ProFocus/IRRI, 2012).

## THE WAY FORWARD

Value chain work can be used as an approach to achieve both sustainable, gender-aware economic development and accessible, affordable and culturally-acceptable nutritious foods. To further contribute to reducing malnutrition through better access to an adequate diet, we make the following recommendations:

1. Complement the current focus on providing subsidized micronutrient supplements and food supplements with more structural and market-based

(thus sustainable) gender-aware strategies to fight malnutrition.

2. In adopting such market-based approaches, rely on evidence-based intervention strategies that optimize the supply of, and access to, locally-available resources through consumer-led interventions in the value chains of nutritious food products.

3. In agricultural and value chain programmes, foster a paradigm shift, away from

a pure productivity and profit orientation towards a focus on nutritional value and local availability and affordability of food.

4. Parallel to this, put more focus on women's empowerment and on providing women with greater access to, if not control of, economic and other resources at intra-household level and within the local food system. ■

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