



A woman in Ethiopia prepares bread from the leaves of false banana, a nutritious root crop. The country has developed its first-ever Nutrition-sensitive Agriculture Strategy, addressing malnutrition through food production, agricultural income, and women's empowerment. (Ann Porteus)

## 16

# Moving Towards Nutrition-sensitive Agriculture Strategies and Programming in Ethiopia

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## Introduction

Ethiopia is a low-income country with a rapidly growing population of about 107 million people (UN, 2018). Most people still live in rural areas, and agriculture accounts for almost 77% of employment in the country. Urbanization is slowly on the rise, with approximately 20% of Ethiopians living in cities in 2016, compared with 15% in 2000 (World Bank, 2016). The country is also experiencing other demographic transitions, owing to a rapid decline in mortality and fertility. The share of people between 15 and 49 years of age, for example, estimated at 53% in 2000, may reach 65% by 2030 (UN, 2018).

Ethiopia faces serious nutrition challenges. It is estimated that 68% of adults were stunted as children, impacting their current productivity (AUC, 2014). More than 5 million children under 5 years of age remain chronically malnourished (CSA and ICF, 2016), impacting future generations. The country is currently implementing its second Growth and Transformation Plan (GTP 2016–2020), which sets an ambitious goal to become a lower middle-income country by 2025 (FDRE, 2015). Hence, investing in the children of today will be critical to support the objectives of the GTP.

This chapter begins with a discussion of Ethiopia's various nutrition-related indicators, which show the persistence of child and adult malnutrition, despite some progress. It discusses the major programs and policies that have been launched during the past two decades within the nutrition and agriculture sectors, and at the global level too, and the synergies (and remaining gaps) between them. The sum of these developments reflect Ethiopia's slow but promising shift to a coordinated, multisectoral approach to improving nutrition.

## Remarkable Improvements Alongside Stagnation

Ethiopia has seen much improvement within health and nutrition during the past decade. Several health outcomes among women and children have vastly improved, including under-5 mortality which declined from 123 to 67 deaths

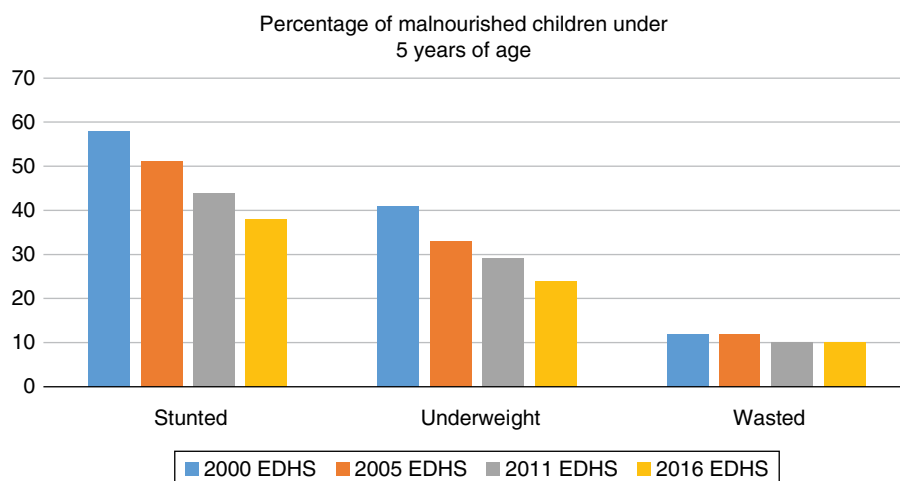
per 1000 live births between 2005 and 2016 (CSA and ICF, 2016). The country also experienced an impressive reduction in stunting rates, which dropped from 51% to 38% between 2005 and 2016. Exclusive breastfeeding among children under the age of 6 months has consistently improved over time, from 49% in 2005 to 58% in 2016 (CSA and ICF, 2016).

Despite this progress, child wasting persists, declining slowly from 12% in 2005 to 10% in 2016 (Fig. 16.1) (CSA and ICF, 2016). Children older than 6 months continue to receive a monotonous, low-nutrient diet. The proportion of children between 6 and 23 months who get a minimum acceptable diet (which relates to an adequate diversity in food groups and meal frequency) only rose from 4% to 7% between 2011 and 2016. Low child dietary diversity is a challenge, due to a combination of poor access to nutritious foods and limited knowledge about appropriate feeding practices (Hirvonen and Hoddinott, 2014; Stifel and Minten, 2015; Hirvonen *et al.*, 2016). Adult women also consume on average only 1.67 out of 10 food groups (EPHI, 2013). Nearly one-quarter of women are underweight (CSA and ICF, 2016).

Wide geographic disparities also exist. While most regions saw a reduction in stunting in 2011–2016, four regions (Afar, Amhara, Benishangul-Gumuz, and Dire Dawa) still have stunting rates higher than 40%. Stunting levels of rural children have been consistently higher than those in cities, while rural children also consume fewer food groups. Whether a rural district has a food surplus or shortage does not seem to make much difference in terms of nutrition outcomes (Berhane *et al.*, 2013, 2017a, b; UNICEF, 2018; EPHI, 2017; EDRI, 2017).

## The Health Extension Program, a Keystone Nutrition-specific Intervention

For many decades, nutrition in Ethiopia was addressed through ad hoc interventions, primarily designed to respond to emergencies and mainly implemented by the health sector. In 2003, the Ministry of Health reformed the delivery of basic health services with the launch of the



**Fig. 16.1.** Key nutrition outcomes, Ethiopia 2000–2016 (adapted from CSA and ICF, 2016).

Health Extension Program (HEP), leading to a quick roll-out of a set of basic preventive health services in rural communities. One year later, various large-scale nutrition programs were introduced nationally, allowing for more widespread access to vitamin A supplementation, deworming, and community outpatient therapeutic programs. In 2008, most of these nutrition programs were integrated as part of the HEP. Also in 2008, the HEP added a new Community Based Nutrition (CBN) program to its growing portfolio, focusing predominantly on maternal and adolescent nutrition counseling, monthly growth monitoring and promotion sessions for children, education on infant and young child feeding practices, treatment referrals, and the promotion of sanitation and hygiene. By this time, the services provided under the HEP included 16 interventions, spread across four thematic areas: (i) disease prevention and control; (ii) family health; (iii) hygiene and environmental sanitation; and (iv) health education and communication. Nutrition services were provided as part of the family health focus area. All of these HEP services were delivered by approximately 32,000 health extension workers, posted in pairs at the community level. The health extension workers receive a 1-year pre-service training, complemented by various on-the-job refresher trainings on specific topics (Lemma and Matji, 2013; Workie and Ramana, 2013; Wirth *et al.*, 2016).

HEP has made a wide variety of preventive health services in rural areas available, including those aimed at improving nutrition. The gradual expansion of its delivery model allowed for an increased uptake of nutrition services by rural women and children between 2005 and 2011 (Wirth *et al.*, 2016) and an increased access to maternity care (Buisman *et al.*, 2017), which may have contributed to improved child nutritional outcomes. The CBN included a focus on nutrition counseling, such as infant and child feeding practices. A survey showed that exposure to CBN's large-scale social and behavior change communication interventions was associated with improvements in infant and young child feeding practices, though it did not lead to significant differences in stunting, underweight, and wasting (Kim *et al.*, 2016). Recent evidence suggests that an increase in the median duration of exclusive breastfeeding, from 2.5 to 3.6 months between 2000 and 2016, may have led to reduced infection rates among young children (Hirvonen *et al.*, 2018).

Additionally, improved sanitation and piped water interventions carried out by the HEP in 2001–2011 were associated with better child growth outcomes, maternal nutrition, and birth size (Headey, 2014, 2015). Other factors, such as agricultural growth associated with income growth and improved food security, have also been identified as important drivers of nutritional change between 2000 and 2011 (Headey, 2014).

### Towards a systematic approach to nutrition

Nutrition was long considered by Ethiopian policy-makers as the mandate of the health sector. The results of the 2005 Demographic and Health Survey, however, triggered an important shift in perception that chronic undernutrition can coexist with agricultural surpluses and that increased food production is not a sufficient solution to hunger (Mokoro, 2015). This realization led to the development of the first National Nutrition Strategy (FDRE, 2008) and the National Nutrition Program (NNP 2008–2013), both of which embraced a shift from emergency response to a systematic preventive and promotive approach to malnutrition, and introduced the concept of multisectoral collaboration. Most of the interventions proposed under the NNP were still driven by the health sector but the program established modest linkages with other sectors, including water and sanitation, education, and agriculture. Although NNP's multisectoral components were implemented only at a small scale, and were not yet fully reflected in agriculture sector plans, the National Nutrition Strategy and NNP marked a first important step towards a more coordinated approach to addressing malnutrition (Mokoro, 2015).

The momentum to address malnutrition through agriculture policies, and scale up efforts, also owes much to Ethiopia's involvement in global initiatives. In September 2010, Ethiopia joined the Scaling Up Nutrition (SUN) movement, inspiring it to strengthen its multisectoral coordination mechanisms, and mobilizing its agriculture sector (Mokoro, 2015). Ethiopia's involvement in the Comprehensive Africa Agriculture Development Program (CAADP, 2013) also set off discussions about how nutrition could be better incorporated into the 2010–2020 Ethiopia Agricultural Sector Policy and Investment Framework (Hodge *et al.*, 2015; Beyero *et al.*, 2016). In addition, an assessment launched by the African Union Commission in 2013 on the social and economic impact of undernutrition in Africa has been influential for national policy formulation. It included an Ethiopia country case study, which demonstrated that the total losses in productivity due to stunting for 2009 were equivalent to 16% of Ethiopia's gross domestic product (GDP): manual intensive work,

such as agriculture activities, represents 24% of this loss. The availability of these data played a crucial role in encouraging the involvement of the agriculture sector in nutrition (AUC, 2014; Mokoro, 2015). Ethiopia also endorsed the UN General Assembly's 2015 Millennium Development Goals (MDGs) and the 2030 Sustainable Development Goals (SDGs), incorporating them into its national development frameworks.

As previously mentioned, the National Nutrition Strategy and NNP (2008–2013) represented a first step toward multisectorality, and Ethiopia's participation in various global initiatives created a nationwide and high-level consensus about the need for a multisector response to nutrition. Within this context, the revised NNP (2013–2015) was developed with the participation of many sectors, including agriculture. Contrary to the NNP 2008–2013, the revised program appeared as a federal government publication, signed not only by the state minister of Health, but also by eight other state ministers.

The NNP 2013–2015 used a life cycle approach, focusing on the 1000-day window (from conception to 2 years of age, the most critical time to make an impact on child nutrition), and extensively described the multisectoral nature of nutrition. To enhance implementation, sector interventions were well defined and linked with an accountability framework. The agriculture sector agreed to support the NNP by increasing the production and consumption of nutritious food, expanding research related to nutritious food, and mainstreaming gender and nutrition within its flagship programs. The Ministry of Agriculture was also assigned an important role in coordinating the NNP. The National Nutrition Coordination Body was notably co-chaired by the state Minister of Agriculture, who was also responsible for the Productive Safety Net Program (PSNP), discussed later in this chapter. The state minister's involvement in NNP 2013–2015 and in national nutrition coordination prompted him to promote the nutrition agenda during the redesign of the PSNP in 2014.

The Sequota Declaration (2015) marked another high-level political commitment to a multisectoral approach for nutrition. In line with the SDGs, this pledge aims to eliminate undernutrition by 2030. Its implementation

models involve the delivery of integrated community services by all sectors. As a result, Sequota will not create new interventions but instead promotes local coordination platforms that take stock of available interventions and encourages their complementarity, in order to ensure that households receive a comprehensive set of nutrition-sensitive and nutrition-specific services. The agriculture sector will support the Declaration through nutrition-sensitive initiatives under its existing programs, such as the Agriculture Growth Program (AGP) and the PSNP. The innovation phase of the Declaration's action plan is now operational in 34 food-insecure districts and marks a transition towards a highly integrated, decentralized approach. In contrast to other programs, the coordination of the Sequota Declaration Action plan is not being undertaken by line ministries but rather by units placed at the level of regional and district administration heads. By way of implementing Sequota, these structures establish 'community labs' at the district level, complemented by satellite demonstration sites at the community level. Lessons learned from this innovation phase will be used for further expansion toward other districts.

Shortly following the Sequota Declaration, the second NNP (NNP II 2016–2020) was being formulated (FDRE, 2016a). This NNP incorporates a nutrition-sensitive approach, following the conclusions of *The Lancet* 2013 series, and defines a set of nutrition-specific and sensitive interventions that can help Ethiopia meet the SDGs. The nutrition-sensitive interventions for the agriculture sector comprise agriculture, natural resources, livestock, forest, fisheries, and social protection. Key interventions relate to increasing the productivity and consumption of nutritious food, promoting adequate technologies for food processing, and strengthening the sector's nutrition-sensitive planning, capacities and research. The NNP II continues to apply a life cycle approach, but also includes a focus on adolescent girls and addresses overweight and emerging diet-related non-communicable diseases. It identifies a wide set of interventions across sectors, and emphasizes the importance of strengthening multisectoral nutrition coordination and capacity building. To facilitate implementation, the program includes strategic objectives and interventions across relevant

sectors, operational guidelines for multisector coordination, and a costed action plan.

The high-level commitment to nutrition was also reflected in the second Growth and Transformation Plan (GTP 2016–2020), which presents the national policy framework for becoming a lower-middle-income country by 2025 (FDRE, 2015). For the first time, addressing stunting was presented as a major factor that can help meet the country's development goal. The GTP 2016–2020 holds multiple sectors responsible for reducing stunting from 40% in 2016 to 26% in 2020, creating a space for high-level discussions on how to achieve this target. [Table 16.1](#) provides a non-exhaustive list of relevant programs and initiatives mentioned in this chapter.

### Nutrition Goals Within the Agriculture Sector

Ethiopia's national agriculture strategy has long prioritized increasing food security, with an emphasis on improving the productivity of major staples. This has led to many successes, but the focus on food security has given little incentive to implement nutrition-sensitive agriculture interventions (Taylor, 2012; Hodge *et al.*, 2015). Early agriculture policy and program documents, such as the Agriculture Sector Policy and Investment Framework 2010–2020 and early phases of PSNP and AGP, included nutrition-related indicators, but little operational guidance was provided on how to reach these targets and actual implementation was seldom monitored (Bossuyt, 2014; Chipeta *et al.*, 2015; Mayer and Baheru, 2015; FAO, 2017).

By 2015, nutrition-related capacity within the agriculture sector remained limited. Despite high-level political commitment, agriculture-sector technicians and implementers experienced many challenges in understanding how their sector can contribute to the NNP. Nutrition was still seen by many as a health and emergency issue (Hodge *et al.*, 2015; Beyero *et al.*, 2016).

As the NNP 2016–2020 was being designed, agriculture stakeholders were also beginning discussions on a National Nutrition Sensitive Agriculture Strategy, a process that took almost 2 years, but which allowed for different agricultural ministries to gain a better understanding of their responsibilities and tasks

**Table 16.1.** Select nutrition and agriculture interventions and policies in Ethiopia.

Program/Strategy	Years	Activities/Comments
Health Extension Program (HEP)	2003 – ongoing	<p>Comprises 16 interventions under four themes, one of which (family health) covers nutrition</p> <p>Gradual expansion of nutrition services (vitamin A supplementation, de-worming, and community outpatient therapeutic programs)</p> <p>2008: HEP includes Community Based Nutrition (CBN) Program, which focuses on maternal and adolescent nutrition counseling and education, child growth monitoring, and sanitation and hygiene. By 2013, CBN is operational in all PSNP woredas</p> <p>2017 onwards: CBN is being transitioned into the Comprehensive and Integrated Nutrition Services (CINUS), which promotes adolescent, maternal, infant and child feeding practices; and links social behavior change communication with PSNP and agriculture extension services</p>
National Nutrition Strategy	2008	Introduced the concept of multisectoral collaboration
National Nutrition Program	2008–2013	Implementation of the program was mainly led by the Health sector but multisectoral collaboration was introduced at modest levels
Revised National Nutrition Program	2013–2015	<p>Used life cycle approach and focused on 1000-day window</p> <p>Signed by nine ministries</p> <p>Sector interventions linked with accountability framework</p> <p>Develops coordination mechanism and assigns the Ministry of Agriculture with an important role in coordination</p>
Second National Nutrition Program (NNP II)	2016–2020	<p>Continues to apply a life cycle approach, but also includes focus on adolescent girls, and addresses overweight</p> <p>Defines nutrition-specific and nutrition-sensitive interventions that can help Ethiopia meet the SDGs</p> <p>Emphasizes multisectoral coordination and capacity building</p> <p>Signed by 13 ministries</p> <p>Expands further on the role which the agriculture sector can play</p>
Sequota Declaration	2015	<p>Marked high-level political commitment to address malnutrition, aiming to eliminate undernutrition by 2030</p> <p>Promotes implementation model which focuses on coordinating existing interventions, and brings multisectoral set of interventions at community level</p> <p>Implementation of the innovation phase is ongoing</p>
2nd Growth and Transformation Plan	2016–2020	National policy framework for making Ethiopia a lower-middle-income country by 2025
National Nutrition-sensitive Agriculture Strategy	2016	<p>Stunting reduction seen as crucial to country's development</p> <p>Calls on agriculture sector to address malnutrition through food production and productivity; agricultural income; and women's empowerment</p> <p>2018: Nutrition Case Team established under the state minister</p> <p>Nutrition mainstreamed in agricultural subsectoral strategies (e.g. extension, horticulture, post-harvest)</p>

Productive Safety Net Program (PSNP)	<p>Started in 2005</p> <p>Phase 3 (2009–2013)</p> <p>Phase 4 (2015–2020)</p>	<p>PSNP-3 includes some nutrition-sensitive interventions, but these are not systematically implemented</p> <p>PSNP-4 expands on nutrition-sensitive aspects, which are now part of the program. Linkages with HEP are enhanced. Promotes access to health and nutrition services for women and children, women’s empowerment and improved water, sanitation, and hygiene</p> <p>Nutrition outcomes-level indicators for children and mothers included in results framework and monitored (anthropometric indicators, diets of children and women)</p> <p>Multisectoral coordination guided by PSNP Nutrition Task Force, chaired by Agriculture and co-chaired by Health Ministry</p>
<p>Agriculture Growth Program (AGP)</p> <p>Sustainable Undernutrition Reduction (SURE) program</p>	<p>Phase 1: 2011–2015</p> <p>Phase 2: 2015–2020</p> <p>Launched in 2017</p>	<p>AGP-2 (2015–2020) integrates focus on increased production of nutritious foods, increased households’ dietary diversity, and gender</p> <p>First government-led multisectoral integrated health and agriculture sector program</p> <p>Enhances CBN by using existing health and agriculture extension platforms to improve complementary feeding and dietary diversity</p>

as they relate to nutrition. The National Nutrition Sensitive Agriculture Strategy was launched in November 2016 (FDRE, 2016b), linking CAADP, the initiatives of the three agricultural ministries, the NNP, and the Sequota Declaration. The strategy calls for the sector to address malnutrition through three pathways: food production and productivity, agricultural income, and women's empowerment, all aligned with six strategic objectives. The strategic plan includes an accountability matrix, but indicators relate mainly to activities and processes, not outcomes. The modalities to measure progress are still being defined (FDRE, 2016b). The strategy harnesses the full potential of the agriculture sector, including its subsectors and ministries, to support the NNP. Nutrition has been mainstreamed in some of the agricultural subsectoral strategies, such as the extension strategy, horticulture strategy, and the post-harvest strategy (MoANR, 2018). The strategy also includes provisions to strengthen multisectorial coordination within the agriculture sector. To support the implementation of the strategy, the agriculture ministries identified either nutrition focal points or a nutrition case team. By mid-2018, an overarching sectoral Food and Nutrition Coordination office was established at the ministry.

The government of Ethiopia is also currently in the process of adopting a National Food and Nutrition Policy which will provide an overall policy framework on food and nutrition, and will revise the respective coordination structures. This new policy was approved in November 2018.

### A Tale of Nutrition Sensitivity in Two Flagship Agricultural Programs

Since 2005, the Ministry of Agriculture has taken a particularly strong leadership position in the national response to food security and emergencies. It has managed a safety net, directed humanitarian food assistance, and coordinated the response to acute malnutrition in emergency situations. The ministry also introduced high-level objectives of improved nutrition outcomes into two of its major programs, the third phase of the PSNP (PSNP-3, 2009–2014) and the first Agriculture Growth Program (2011–2015). At first, these objectives were not translated into specific programmatic interventions, as it was

largely assumed that increased agricultural production and commercialization, or increased household income through the safety net, would lead to improved nutrition. Initially, progress in reaching these objectives was rarely measured (Bossuyt, 2014; Mayer and Baheru, 2015).

### Productive Safety Net Program (PSNP)

The government launched PSNP in 2005 in order to address food insecurity through a comprehensive approach. Coordinated by the Ministry of Agriculture, PSNP provides predictable community-level transfers to poor and food-insecure households in chronically food-insecure districts. The program's coverage and interventions have expanded gradually over time. A few nutrition-sensitive provisions were introduced in the PSNP-3 design, but their implementation was hampered by lack of training, little high-level buy-in, and minimal monitoring (Bossuyt, 2014). Consequently, evidence showed that PSNP had little impact on nutrition outcomes (Berhane *et al.*, 2017a).

Informed by these earlier experiences, PSNP-4 (2015–2020) took a new strategic direction, aiming to contribute systematically to the NNP by addressing various determinants of malnutrition, including maternal and child health, vaccination, infant and young child feeding practices, dietary diversity, women's empowerment and water, sanitation, and hygiene. Health seeking behavior of pregnant and lactating women is promoted through soft conditionalities which relate to antenatal care, vaccination, child health check-ups, and participation in the CBN. The community-level implementation of these provisions requires very close collaboration between agriculture- and health-extension workers. Nutrition-related outcomes, such as reduced child wasting and stunting, and improvements in children's diets, are now included as part of the monitoring and evaluation framework (FDRE, 2014).

Under PSNP-4, the program's coverage has expanded, now reaching 8 million chronically food insecure people across 329 districts. The rollout of a wide set of new provisions has required a significant number of start-up and capacity building activities. The launch of PSNP-4 also coincided with the El Niño drought, diverting

attention towards the emergency response, and delaying the program's implementation.

Many of the nutrition-sensitive provisions were new to PSNP implementers. During the first 2 years of PSNP-4, the program management therefore focused on creating tools and building capacity for multisectoral implementation. During this process, program stakeholders were guided by a PSNP Nutrition Task Force, chaired by the Ministry of Agriculture and co-chaired by the Ministry of Health. Delivering these tools from the regional to the community level has been challenging, mainly because of the program's large coverage, drought-related obstacles, and budget restrictions. By December 2017, most federal, regional, and zonal stakeholders knew about these new nutrition-sensitive provisions; in contrast, only in a limited number of districts had the agriculture and health extension workers been trained on the implementation modalities, delaying delivery of nutrition-sensitive interventions to the community (Bossuyt, 2017; World Bank, 2018a, b).

Currently, PSNP implementers are further focusing on training agriculture- and health-extension workers to deliver nutrition-sensitive provisions to PSNP clients (World Bank, 2018a, b). While the initial progress in implementation was lower than expected, the building blocks have been established and it is expected that most activities will roll out during the next year.

### **Agriculture Growth Program (AGP)**

The AGP was launched in 2011 to increase agricultural productivity and market access for key crop and livestock products in districts that have a high growth potential, primarily based on agroecological conditions and access to markets. These districts' nutrition outcomes are similar to those of food-insecure districts (Berhane *et al.*, 2013, 2017a, b; EDRI, 2017). The first phase of AGP (2011–2015) had no particular implementation focus on nutrition, though it did comprise a few nutrition-sensitive interventions (Mayer and Baheru, 2015). Some partners implemented complementary nutrition programs in AGP districts, such as the USAID-funded ENGINE program (2011–2016) (Empowering the New Generation to Improve Nutrition and Economic opportunities) which used multisectoral interventions to

improve the nutritional status of women and young children, but these project outcomes were not necessarily reflected in AGP programmatic planning and reviews.

Inspired by the NNP-2, the GTP, and the PSNP-4 design process, the government of Ethiopia designed the second phase of AGP (2015–2020) to be more nutrition and gender sensitive. AGP-2 focuses not only on increasing agricultural productivity and commercialization of smallholder farmers, but also on increased production of nutritious foods, increased households' dietary diversity, and gender. The results framework also allows program implementers to measure progress in the implementation of these nutrition-sensitive provisions. The implementation of nutrition-sensitive agriculture is a new concept for AGP stakeholders. Similar to PSNP, the AGP leadership spent the first year of implementation creating capacities and tools to help operationalize the program's nutrition-sensitive provisions, and it is expected that actual implementation of the nutrition- and gender-sensitive provisions will expand in the near future.

Ethiopia's newfound commitment to nutrition is reflected in its funding: nutrition budgeting more than doubled between mid-2013 and mid-2016. The increase in funding was largely driven by investments in nutrition-sensitive programs; in 2015–2016, nearly US\$455 million was allocated to nutrition, 73% of which was for nutrition-sensitive interventions, including the One WaSH National Program (OWNP) and nutrition-sensitive provisions of the PSNP (FDRE, 2017). The roll-out of the nutrition-sensitive interventions under AGP-2 is expected to increase these expenditures even more.

### **Linking Health and Agriculture Front Line Workers: Toward More Integrated Government-led Implementation Models**

The 2016 Demographic and Health Surveys (DHS) demonstrated an encouraging downward trend in stunting rates, but also showed that more needed to be done in order to reach the NNP objective of reducing stunting from 40% to 26% by the year 2020. In response, several interventions were initiated in 2017 to apply a

more integrated approach at the community level, linking CBN with nutrition-specific and nutrition-sensitive interventions provided by agriculture- and health-extension agents. While in the past, various projects had successfully applied a multisectoral approach, most of them were limited to specific geographic areas. Lessons from these programs are now being considered by the ministries, informing some interesting government-led programs that seek to bring the frontline workers of these two sectors together.

For example, in 2017, the Ministry of Health redesigned and expanded the CBN into the Comprehensive and Integrated Nutrition Services (CINUS), which uses a life cycle approach to promote optimal adolescent, maternal, infant and child feeding practices, and link social behavior change communication with PSNP and agriculture extension services. Health extension and agriculture development agents are trained together and are expected to provide complementary services. In early 2018, CINUS was being rolled out in 100 PSNP districts (Bossuyt, 2017; UNICEF, 2018).

The Sustainable Undernutrition Reduction (SURE) program was also launched in 2017, and is the first government-led multisectoral integrated health and agriculture sector program. SURE enhances the CBN by using existing health and agriculture extension platforms to provide additional services that aim to improve complementary feeding and dietary diversity. The program, currently implemented in 50 districts, promotes joint home visits by health extension and agriculture development agents, and provides inputs and capacity development for homestead gardening and consumption of a diverse diet (EPHI, 2017).

Both CINUS and SURE use community-based farmer training centers and health posts as entry points, but also work with schools, saving associations, livelihood groups, and various other community groups, applying a wide set of communication approaches to promote nutrition messaging. Where geographic coverage overlaps, they also take advantage of PSNP gatherings to deliver nutrition behavior change communication to PSNP clients.

## Evidence Matters

Another factor that has helped raise the profile of nutrition in multisectoral policies and

programs and engaged the Ministry of Agriculture is the availability and use of evidence. Ethiopia has been very receptive to using global evidence to inform dialogue on and design of multisectoral nutrition interventions and policies. The 2013 *The Lancet* series and various studies undertaken by the International Food Policy Research Institute (IFPRI) were used as reference materials by policy-makers seeking to understand agriculture–nutrition linkages during the design and implementation of the NNP 2013–2015 (Mokoro, 2015; Beyero *et al.*, 2016; Pelletier *et al.*, 2018). Evidence from the 2005 DHS helped policy-makers realize that increased food production is not a sufficient solution to hunger (Mokoro, 2015). The application of the PROFILES model in 2012 was a key element in convincing initially skeptical sectors about the need to apply a multisectoral approach through a wide range of interventions (FDRE, 2012). The *Cost of Hunger* study commissioned by the African Union Commission, which concluded that a 10% reduction in stunting and 5% reduction in underweight by 2025 could yield annual average savings of US\$784 million, resonated with the Ministry of Finance and influenced policy formulation (AUC, 2014).

During the design phase of PSNP-4, IFPRI shared the results of three rounds of anthropometric surveys carried out in PSNP districts, which showed that PSNP had had no impact on nutrition outcomes (Berhane *et al.*, 2017a, b). These results swayed stakeholders to support the nutrition-sensitive design of PSNP-4 (Bossuyt, 2017). Furthermore, the *Cost of a Healthy Diet in Rural Ethiopia* series carried out by Save the Children, which concluded that most rural households cannot afford a nutritious diet (STC, 2014), was used as supporting evidence to add pulses to the PSNP-4 transfer to households.

Evaluations of PSNP and AGP, which include information on nutrition outcomes in various settings, are considered credible sources for policy-making processes because of their large geographic coverage (Beyero *et al.*, 2016). The implementation of CINUS, SURE, and the Sequota Declaration are also being accompanied by rigorous monitoring and evaluation, which will inform future expansion.

Despite the elevated role of evidence, there does not exist a national harmonized nutrition-sensitive agriculture research agenda. The Ethiopian

Institute of Agricultural Research focuses mainly on food production, food characterization, and food processing technologies, although it has undertaken work on biofortification. CGIAR's Agriculture for Nutrition and Health program recently identified research streams that can support the implementation of sustainable food systems approaches for improved nutrition, as guided by the NNP and the Nutrition Sensitive Agriculture Strategy (Gebru *et al.*, 2018). The program is currently also undertaking research that will guide the development of food-based dietary guidelines, another research priority of the NNP.

### The Way Forward: Addressing the Challenges

Global and national nutrition policies have influenced the design of large nutrition-sensitive agriculture programs in Ethiopia. The mainstreaming of nutrition in these flagship programs has created a better understanding of the potential but also the challenges facing the agriculture sector's nutrition-sensitive approach. These discussions have in turn influenced the

development of the first-ever national Nutrition Sensitive Agriculture Strategy. While there is now general policy and strategic consensus on how the sector can support the national nutrition agenda at the federal level, the next step will be to implement this approach at the decentralized and community levels, where there is still limited understanding on how agriculture can contribute to nutrition. Setting up a high-level sector coordination system and building relevant sectoral capacities for nutrition will be necessary in order to move from a fragmented to a comprehensive implementation approach for nutrition-sensitive agriculture. Predictable funding for nutrition in the sector's budget is also key, as are sectoral accountability and monitoring of nutrition indicators.

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