



United Nations  
System

Standing Committee on  
Nutrition

# The Nutrition Sensitivity of Agriculture and Food Policies

## Summaries of eight Country Case Studies

Presented at the first Meeting of the UN System Network for SUN

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# Acknowledgements and Contributions

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The findings, interpretations, and conclusions expressed in this work do not necessarily reflect the views of UNSCN or the governments they represent. The UNSCN does not guarantee the accuracy of the data included in this work.

## Contributions

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## Acronyms

<b>ACF</b>	Action Against Hunger
<b>ADS</b>	Agriculture Development Strategy
<b>ANCAR</b>	Agence Nationale de Conseil Agricole et Rural (National Agency for Rural Agricultural Counseling)
<b>FAO</b>	Food and Agriculture Organization
<b>FISP</b>	Farm Input Subsidy Program
<b>FNSP</b>	Food and Nutrition Security Plan
<b>FSP</b>	Food Security Policy
<b>GDP</b>	Gross Domestic Product
<b>HANCI</b>	Hunger and Nutrition Commitment Index
<b>ICN2</b>	International Conference on Nutrition
<b>LMIC</b>	Low and Middle Income Countries
<b>MNI</b>	Mainstreaming Nutrition Initiative
<b>MSNP</b>	Multi-sectoral Nutrition Plan
<b>NAP</b>	National Agriculture Plan
<b>NCD</b>	Noncommunicable Disease
<b>NFP</b>	National Food Plan
<b>NNPSP</b>	National Nutrition Policy and Strategic Plan
<b>PARP</b>	Plan of Action for Poverty Reduction
<b>PRSP</b>	Poverty Reduction Strategic Plan
<b>REACH</b>	United Nations Renewed Efforts Against Child Hunger
<b>SUN</b>	Scaling Up Nutrition Initiative
<b>UNDAF</b>	United Nations Development Action Framework
<b>UNSCN</b>	United Nations System Standing Committee on Nutrition
<b>WHO</b>	World Health Organization

# Country case studies on the nutrition sensitivity of agriculture and food policies

## Synthesis of Findings

### 1. Background and Purpose

Agricultural and food systems throughout the world have evolved to become more complex and globalized. The quality of food production, processing, and consumption – as determined by the food system – is intrinsically related to the World Summit goal for all people to have the opportunity to lead a healthy and active life. Nutrition-sensitive agriculture aims to maximize the positive impact of the food system on nutrition outcomes while minimizing any unintended, negative consequences of agricultural policies and interventions for the consumer. It is placing a nutrition lens on the food and agricultural sector as a whole without detracting from the agriculture sector's own goals, which historically focus on increasing production and improving income.

#### Key Messages

- Food and nutrition security includes achieving sufficient dietary diversity and quality as well as sufficient caloric quantity.
- Food and agriculture policies and programmes have a major role to play in improving a country's nutritional outcomes.
- Many of the case studies demonstrated increased awareness of the multi-sectoral nature of nutrition and political will to address the problems of undernutrition and overweight and obesity.
- Many of the policies analyzed in the case studies incorporated nutrition objectives, and indicators to measure progress, targeted the vulnerable and women and focused on a diversified food production. However, some policies did not emphasize interventions to improve processing, storage, marketing and utilization of foods. Very few have assessed impact of their policies on nutrition outcomes.
- Major policies often include nutrition objectives, but there is a tendency to prioritize explicit sector priorities within ministries at the expense of nutrition.
- Developing increased nutrition-focused human resources capacity is a critical component of implementing multi-sectoral approaches to achieving food and nutrition security.
- Robust monitoring and evaluation and innovative monitoring tools are essential to understanding the impact and effectiveness of nutrition-focused policies and programmes.
- The rising levels of overweight and obesity, which often exist alongside undernutrition, are a challenge that must be addressed moving forward.

The complex role of how agricultural policies can effectively address nutrition is not yet well understood. There is considerable conceptual knowledge on this topic, but little understanding of how to carry concepts and policy objectives into effective implementation and delivery of food-based approaches that impact nutritional status of populations. Policies and programmes are clearly relevant, but the tangible impact of food processing, storage, and transformation, into improvements in dietary patterns and nutritional outcomes is fragmented. Debate continues between those who argue that agricultural policy should play a large role in producing nutritious food and those who believe that it is more important for agricultural policy to focus on economic development and “feeding the planet” in the form of bulk calories. The purpose of this study is to contribute to the on-going dialogue of the gaps in our understanding of effective nutrition-sensitive agriculture and food policies and commitments, and the food-based solutions that help inform countries in their efforts to scale up nutrition.

This report presents summaries of a series of case studies that were commissioned by the UNSCN and examined the nutrition sensitivity of agriculture and food policies in eight countries, as well as how the policies influence dietary, nutritional and health outcomes. The eight countries studied include Brazil, Malawi, Mozambique, Nepal, Senegal, Sierra Leone, South Africa, and Thailand. The major objectives were as follows:

- (i) Identify and describe food and agriculture strategies, policies, and investments that incorporate nutrition-sensitive actions and recommendations.
- (ii) Describe policy processes and the political environment of nutrition-sensitive food and agriculture policymaking and identify factors contributing or impeding collaboration and cooperation between relevant ministries.

Data collection and analysis included secondary data analysis, review of policies, in-country consultations, stakeholder focus groups and interviews. Food and agriculture policy documents (n=73), were scored against the key recommendations on agriculture programming for nutrition<sup>1</sup>. In depth interviews were conducted with 165 national stakeholders in national agriculture and nutrition programming in the countries and questionnaires were administered to 31. Specific thematic areas were assigned to each country’s study. These included engagement with the broader food supply chain; the food, agricultural, and trade policies of the country; and the potential link of these policies to nutrition and health outcomes in the country. More detailed specifications and analysis frameworks were elaborated with a group of experts during the UNSCN [Meeting of the Minds](#)<sup>2</sup> in Geneva in early 2013. During this meeting, there was agreement on the common methodological approach for the case studies, a detailed framework of analysis, and a list of research questions to be answered.

Preliminary findings of these studies were presented at the one day workshop entitled ‘towards a harmonized approach on nutrition-sensitive development’, that took place during the first meeting of the UN System Network for Scaling Up Nutrition (SUN) in Nairobi, Kenya, in August 2013. The narrative report of the meeting is available for download at [www.unscn.org](http://www.unscn.org).

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<sup>1</sup> <http://www.fao.org/docrep/017/aq194e/aq194e00.htm>

<sup>2</sup> [http://www.unscn.org/en/sessions/unscn\\_meetings\\_2013/](http://www.unscn.org/en/sessions/unscn_meetings_2013/)

Preliminary findings were also presented at the Annual Session of the Committee on World Food Security CFS40 in October 2013 and at the second International Conference on Nutrition Preparatory Technical Meeting (ICN2 PTM) in Rome, Italy, in November 2013.

## 2. Findings

Most of the country case studies performed a qualitative assessment on the food, agriculture, and nutrition policies and plans using the Key Recommendations for Improving Nutrition through Agriculture (Herforth and Dufour 2014). These country cases assessed the degree to which each policy or plan took the elements of the Key Recommendations into consideration. The Key Recommendations are divided into recommendations for programmes and those for policies. In assuming that agriculture programmes and investments need to be supported by an enabling policy environment if they are to contribute to improving nutrition, the 8 countries as part of this report, were ranked in their progress towards achieving the 5 Key Recommendations oriented towards policy. The ranking is a composite of all the food and agriculture policies analysed in each of the 8 individual country case studies. Rankings are shown in **the figure below** with green equaling on track; yellow equaling somewhat on track; and red equaling not on track. The country case studies provide a more thorough analysis of policies that were considered primary to nutrition, and others considered secondary.

Examining the 5 policy Key Recommendations, the countries have done a fair job in increasing incentives to diversify production access and consumption of nutritious foods but more can be done. Most countries lack the ability to measure and monitor consumption patterns and dietary diversity. One reason is due to disjointed information systems across ministries, but there is also a lack of tested, validated indicators to measure diverse, quality consumption and food composition databases are often outdated or non-existent. Most countries have done well in empowering women through their agriculture and social protection policies and investments. Capacity remains a gap – from community to university levels-- in almost all the countries. Multi-sectoral strategies and true integration across sectors is a mixed bag. Some countries have good intent to coordinate but intent and action are world apart. A few countries are doing actual work across sectors, whereas a very few, engage very little across sectors.

Almost all of the policies focus on increasing food production, which is the mainstay of modern agriculture. Throughout most of the policies there is also an emphasis on women-led and -engaged agriculture. Bolstering the engagement of women on an economic and developmental level within agriculture is increasingly recognized as an important investment for countries, and targeting women has strong evidence for improving nutrition outcomes at the household level. Some countries' policies did not emphasize post-harvest storage, processing and attainment of nutritional quality of commodities and nutrition-sensitive value chains are not well framed.

The contexts of the eight countries are very different and yet common patterns across the studies demonstrate underlying dynamics that fundamentally link nutrition to agriculture. Strong government commitment to improving nutrition outcomes is a crucial first step, and all of the countries studied demonstrate this commitment to some degree. However, efficient systems, institutional capacity, incentives for multi-sectoral collaboration and dialogue, and monitoring and evaluation systems are the mechanisms through which these commitments can be realized.

We are just beginning to understand the concrete factors that link agriculture and nutrition within these mechanisms. It is clear that better capacity and understanding would benefit every country studied. Governments that achieve significant gains in nutritional outcomes through improving agricultural policies and programs will be at the vanguard of a new methodology and have the opportunity to significantly contribute to learning in this area. These countries have already demonstrated valuable lessons, both in terms of successes and opportunities.

	Incentivising	Monitoring	Empowering	Developing capacity	Multi-sectorality
Brazil	●	●	●	●	●
Malawi	●	●	●	●	●
Mozambique	●	●	●	●	●
Nepal	●	●	●	●	●
Senegal	●	●	●	●	●
Sierra Leone	●	●	●	●	●
South Africa	●	●	●	●	●
Thailand	●	●	●	●	●

**Food and agriculture policies can have a better impact on nutrition if they:**

1. Increase incentives for availability, access, and consumption of diverse, nutritious and safe foods through environmentally sustainable production, trade, and distribution.
2. Monitor dietary consumption and access to safe, diverse, and nutritious foods. The data could include food prices of diverse foods, and dietary consumption indicators for vulnerable groups.
3. Include measures that protect and empower the poor and women. Safety nets that allow people to access nutritious food during shocks or seasonal times when income is low; land tenure rights; equitable access to productive resources; market access for vulnerable producers. Recognizing that a majority of the poor are women, ensure equitable access to all of the above for women.
4. Develop capacity in human resources and institutions to improve nutrition through the food and agriculture sector, supported with adequate financing.
5. Support multi-sectoral strategies to improve nutrition within national, regional, and local government structures.

Nutrition is often considered an institutional orphan that does not fit neatly into the defined scope of work of any one ministry. Many of the policies and programmes analysed address pieces of the nutrition challenge, but the policymaking structure has been traditionally isolated within distinct ministries under the assumption that their goals are sector-specific. Nutrition is a complex, multi-sectoral challenge and current policy responses do not necessarily reflect those complexities.

The eight countries demonstrated that there is a tendency to prioritize more explicit sector priorities among ministries at the expense of nutrition objectives. Many of the food and nutrition security policies analysed incorporate agricultural objectives, but this was not generally reciprocated. Most of the agricultural policies focus primarily on economic productivity (through increased production of cash crops) and poverty alleviation (through sale of agricultural



products) and lack explicit nutrition-focused objectives. A concerted effort should be made to ensure that nutrition is a defined priority and responsibility of the agriculture sector, and ultimately the health and education sectors as well.

Among the countries analysed, challenges related to fostering a “supportive environment” were among the most pervasive barriers to achieving positive nutrition outcomes. Most of the agriculture policies analysed concentrate on increasing production of cash crops and economic growth. These priorities do not naturally coexist with those of nutrition-sensitive agriculture, such as increasing production of foods, improving food processing and storage to retain nutritional value, and targeting populations that are vulnerable to malnutrition.

The lack of expertise and coordination between ministries is another challenge to achieving a supportive environment in the countries, with perhaps the exception of Brazil and Thailand. Effective nutrition-sensitive agriculture requires expertise not only in nutrition, but also in food systems, agricultural production, enterprise, community engagement, and health. Many of the countries’ key stakeholders recognized that there are few to no agricultural policy-makers or programme personnel who also have expertise in health and nutrition, nor do they include or appoint experts during policy development. The objectives of nutrition, agriculture and health are intrinsically related and often mutually reinforcing. A clear understanding of those relationships among policymakers, achieved through improved education in nutrition-sensitive approaches and a mutual language for engagement, can break down many of the barriers to collaboration. The multi-sectoral nature of nutrition provides an opportunity to be innovative in policy approaches and incentives. For example, given the importance of proper nutrition on the economic productivity of the population, there is a strong economic justification for using fiscal, trade, and regulatory instruments to support the production and consumption of nutritious foods.

Finally, effective monitoring and evaluation systems are essential for policymakers to achieve substantive gains in nutrition-sensitive agriculture. Each of the major food and agriculture policies had some issue with their monitoring and evaluation Frameworks. Some of the issues are due to a lack of evidence that still exists between agriculture, nutrition and health, so collection of objective data is key. Clear and defined metrics should be developed to guide operational programmes in agriculture and health toward common goals, and governments should measure and evaluate the contributions of agriculture and food to diet and health. Rigorous monitoring and evaluation systems will equip policymakers to be targeted and data-driven in their response to nutrition challenges and facilitate a more productive dialogue among relevant stakeholders. In addition, the growing ubiquity of real-time data collection allows for rapid assessment of implementation needs, advancing the conversation about the challenges, successes, and lessons learned in implementation and impact of nutrition-sensitive agriculture interventions.

### **3. Conclusions and Recommendations**

The relationship between nutrition outcomes and broader agriculture and food systems is undeniable, as is its potential to combat hunger and malnutrition. It is clear that the policy priorities for agriculture should include explicit nutrition objectives. What remains unclear is the

best path for translating policy into effective programmatic action to achieve the desired impact. More analysis is needed specifically around:

- The challenges of operationalising nutrition-sensitive agriculture policies;
- Identifying metrics that effectively measure and evaluate the contributions of agriculture to diets and health, and provide feedback to policies and programmes;
- Assessing gaps in skills and required competencies, and making plans to close those gaps; and
- Understanding long-term implications of nutrition-sensitive agriculture in the context of the increasing global pressures of population growth, urbanisation, and climate variability.

Operationalising policies require a new way of working. Ministries must create systems to engage in policy dialogue about nutrition, allocate sufficient funding for sector-specific nutrition activities and hold themselves accountable for achieving positive nutrition outcomes. Donors should be a part of that collaborative process, facilitating cross-sectoral planning and implementation of nutrition-sensitive agriculture activities. Clear implementation plans are challenging, even when there is collaborative, inter-ministerial effort and policies are well structured and coherent.

Many of the countries studied have taken steps to include nutrition within other ministries' policies, but they have yet to monitor the operational progress at a national, centralised level. As countries begin to implement programs, they will have the opportunity to undertake analysis at the baseline that will elucidate the factors that hinder and/or advance implementation and best practices for mitigating any challenges. The inclusion of concrete and robust metrics will help assess process, impact, and relevant externalities. Thus far, no consensus has been reached on what a comprehensive set of indicators should look like. There have been a few proposed indicators, but they do not fully capture a holistic and nuanced view of nutrition-sensitive agriculture and its impacts. The full set of indicators must include specific vulnerable populations, such as women; the relative effect of policies on both undernutrition and overweight and obesity status; the geographic distribution of impact, particularly between rural and urban populations; the macroeconomic impacts of such policies, particularly on food prices and trade; and the effect on a range of environmental factors and vulnerability to severe climate events on sustainable diets. It will be essential to create a set of widely accepted and applicable metrics and figure out how to effectively collect them.

There are also a number of externalities and components that “we don't know what we don't know” with respect to nutrition-sensitive agriculture. External drivers such as climate variability, food price volatility, and urban migration will have less predictable effects on food and nutrition security and complicate efforts to develop nutrition-sensitive policies and programmes. Researchers and policy makers can use effective metrics and systems for monitoring to identify and be responsive to these unknown or unintended outcomes and consequently advance the dialogue about what works in nutrition-sensitive agriculture.

Implementation of nutrition-sensitive agriculture also relies on a workforce educated in the relevant skills and understanding the competencies required to carry out a multi-sectoral plan.

As discussed, there is a lack of expertise in nutrition in most countries included in the analysis and even fewer people with substantive cross-sectoral knowledge. An effective implementation plan must include a human resources strategy to assess the existing skill gap and to build the required expertise. Best practices should be further analysed to assess the human resource structures of successful (and unsuccessful) projects across relevant ministries.

Even the most effective nutrition-sensitive agriculture strategies analysed in this report are in nascent stages of implementation and resulting impact. The baseline period of these projects is the opportune time to establish long-term research and monitoring of nutrition-sensitive agriculture.

Demographic and environmental shifts will play a large role in food systems, deeply affecting patterns of production and consumption of nutritious foods. The pressures of population growth, urban migration, and environmental risk and climate volatility, as well as the movement of ideas and technology freely across borders in an increasingly globalized planet will all play a role in those production and consumption patterns. The international community needs to collectively endeavor to understand the resulting impact on nutrition outcomes. Policies need a longer-term horizon that internalises these shifts, as well as the monitoring systems and metrics to interpret the long-term effects and changes.

It is also unclear how middle-income countries – including Brazil, South Africa and Thailand — will effectively address the dietary and nutrition transition that is increasing the overweight and obesity burden and risk of noncommunicable disease. This remains a central unresolved issue for all countries. Globalisation, trade, food industry, and urbanisation will only become more intertwined with each other and with food systems across countries, regions and the globe. It is unclear how to mitigate the “globesity” trend of increasing overweight and obesity through the food and agriculture sector. Very few countries at the moment have effectively tackled this issue.



Credit: Jess Fanzo

#### 4. The Post 2015 Agenda

We are rapidly approaching 2015 and the shift to a post-2015 agenda. The Millennium Development Goals (MDGs) have brought much-needed attention to a number of priority areas in sustainable development policy, but the experience of the MDGs has also highlighted a number of shortcomings and gaps in their coverage. While food security was prioritised by the MDGs, efforts for achieving food security have been overwhelmingly characterised by agriculture-driven interventions that focus on increasing caloric intake through increased food production, primarily of staple foods.

Food security will deservedly be a major focus of the post-2015 agenda, and with the experience of the MDGs, it has become clear that nutrition must be central to the post-2015 goals and the strategies put forward to achieve food security. This will require countries to position nutrition objectives explicitly within their broader agriculture agenda. The latest series on nutrition in the Lancet journal<sup>3</sup> emphasised chronic undernutrition (also called stunting which leads to not achieving full genetic potential in cognitive and immune development) over acute undernutrition (also called wasting or starvation). It is particularly relevant for changing agricultural systems to meet not only caloric needs, but also the micronutrient and quality needs of populations.

All of the country case studies demonstrated that there is some level of commitment to achieving positive nutrition outcomes, as well as an understanding, to varying degrees, that the agricultural sector has a pivotal role in achieving nutrition objectives. As we move forward into the post-2015 era, good practices and transferable lessons can be drawn from each country case study. The studies collectively highlight the importance of a supportive policy environment, well-developed human resources, and effective systems for planning, implementation, and monitoring impact for creating successful, nutrition-sensitive agriculture policies and programmes.



Credit: Wikicommons

<sup>3</sup> <http://www.thelancet.com/series/maternal-and-child-nutrition>

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## Summaries of country case studies

### BRAZIL



Credit: Divulgação/MDS

#### 1. Country Overview

Brazil is an upper middle-income South American country with a population of 190 million and a rapidly growing economy. On average, per capita income increased by 22% between 2004 and 2008 and roughly 30 million people have entered the middle class. Brazil is moving through the second stage of the nutrition transition, meaning that most people have access to adequate calories, but not adequate amounts of micronutrients. The typical diet in Brazil is transitioning away from traditional and minimally processed foods – such as the combination of rice and beans – to energy-dense processed foods that are low in micronutrients.

Brazil has made significant progress in combating chronic undernutrition. Between 1989 and 2006, the prevalence of stunting of children under five years of age fell from 19.6% to 6.7% and the prevalence of underweight amongst children under five years of age decreased from 5.4% to 1.8%. However, prevalence of undernutrition is higher among low-income groups and among traditional peoples and communities.

As is typical for a country moving through the second stage of the nutrition transition, the decrease in the prevalence of undernutrition has been accompanied by an increase in the prevalence of overweight and obesity. Between 1989 and 2006, the prevalence of overweight adults and adolescent males increased from 29.9% to 50.1% and that of obesity increased from 5.4% to 12.4%. Over the same time period, the prevalence of overweight females increased from 41.4% to 48.0% and the prevalence of obesity increased from 13.2% to 16.9%.

## 2. Policies and Programmes Analysed

An UNSCN analysis of the nutrition sensitivity of food and agriculture policies and programmes in Brazil reviewed nine policies, plans, and programs in various administrative sectors. The seven primary policies are listed in the table below.

<b>POLICY<sup>4</sup></b>	<b>NUTRITIONAL FOCUS</b>	<b>MULTI-SECTORAL LINKS</b>
<b>1</b> National Food and Nutrition Security Policy and National Food and Nutrition Security Plan 2012-2015	Access to nutritious food, sustainable agriculture systems, nutrition education, food access for minority groups, access to clean water	20 ministries in the Interministerial Chamber for Food and Nutrition Security
<b>2</b> National Agroecology and Organic Production Policy and Plan 2013-2015	Access to organic food, sustainability, reducing gender inequalities	Ministry of Agrarian Development (MDA), Ministry of Finance (MF), Ministry of Agriculture Livestock and Supply (MAPA), Ministry of Environment (MMA), Ministry of Social Development (MDS), Ministry of Education (MEC), Ministry of Health (MS), Ministry of Fisheries and Aquaculture (MPA)
<b>3</b> Agriculture and Livestock Plans 2012/13 and 2013/14	Increase food production, improve food processing and storage	No multi-sectoral links
<b>4</b> Harvest Plan for Family Farming 2012-2013 and Harvest Plan for Fisheries and Aquaculture 2012-2013-2014	Increase production, income, and technology within family farming model	MDA, MPA, MDS, MEC
<b>5</b> National Programme for Strengthening of Family Farming	Income generation for most vulnerable groups, no specific nutrition focus	MDA, MDS
<b>6</b> Food Purchase Programme	Availability of and Access to food, Access to Markets	MDS, MDA, MAPA, MP, MF
<b>7</b> National School Feeding Programme	Access to nutritious food, nutrition education, targeting most vulnerable	FNDE/MEC, MDA, MDS, MS

<sup>4</sup> The case study also analysed two secondary policies, the Bolsa Familia Programme and the Brazil without Extreme Poverty Plan.

### 3. Areas of Focus

There are two distinct and often contradictory models of agriculture in Brazil – the agribusiness model and the ‘family farming’ model. The agribusiness model accounts for 26.9% of Brazil’s GDP, and enjoys substantial political and financial support. The family farming model only accounts for 33% of agrarian production, but it employs 74.4% of rural workers and is responsible for 70% of the food consumed in Brazil. In general, policies and programmes focused on the agribusiness model are much less nutrition sensitive than policies and programmes focused on the family farming model. Except for the Agriculture and Livestock Plans, all of the policies analysed for this case study are associated with the family farming model.

#### *National Food and Nutrition Security Policy and Plan*

The National Food and Nutrition Security Policy and the accompanying implementation plan take a comprehensive approach to improving food and nutrition Security in Brazil. The policy recognises adequate food as a human right and seeks to sustainably improve access to food, especially among the most vulnerable. Other policy objectives include: the creation of nutrition education processes, development and promotion of sustainable food systems, and increased integration of food and nutrition in all levels of health care. The plan includes interventions targeting food production and supply, healthy eating education, and strengthening of family farming.

#### *The Harvest Plan for Family Farming*

The Harvest Plan for Family Farming is the overarching plan for the implementation of agricultural policy through the Ministry of Agriculture and Development. Its goal is to increase production, income, and use of technology within the family farming model. There are a number of nutritionally sensitive programs within the Harvest Plan for Family Farming, including the National Program for Strengthening Family Farming (PRONAF) and the Food Purchase Programme (PAA).

While all of the above programs meet many of the nutrition-sensitive criteria, the PAA in particular is an innovative program that simultaneously achieves improved food security for family farmer food producers and food insecure individuals while also securing additional funding for further food sensitive interventions. The PAA facilitates government purchase of nutritious food from family farms outside of the administrative procurement protocol typical for government purchases. This creates a source of dependable income for small-scale family farmers and improves food security through poverty reduction. The purchased food is then distributed to food insecure households and individuals as well as government institutions including hospitals, health care centers, and schools (where the food is used in the National School Feeding Programme). The programme also stipulates that any income generated from the sale of food purchased through the PAA must be used solely for programmes that combat hunger and improve FNS.

### 4. Successes, Challenges and the Way Forward

#### *Successes*

Brazil has made great progress towards combating chronic malnutrition and promoting food and nutrition security. The right to adequate food is recognised in the Brazilian Constitution, and it is

clear that there is substantial will to see this right fulfilled both on the part of the government and that of civil society.

### *Challenges*

Even still, the current environment in Brazil poses substantial challenges to the advancement of food and nutrition security and efforts to reduce the prevalence of overweight and obesity. Three such challenges are the apparent dichotomy between the agribusiness and family farming models, the struggle to achieve meaningful land reform, and the powerful lobby and legislative forces opposing some food and nutrition initiatives. In the face of these challenges, however, the policies and programmes analysed are generally nutrition sensitive and provide an excellent roadmap for improving nutrition in Brazil.

- *Agribusiness vs. Family Farming*

Stakeholders interviewed assert that the agribusiness model – which is dependent on monocultures and the extensive use of pesticides and genetically modified organism seeds – does not coexist harmoniously with the family farming model. Agribusiness has had large positive effects on Brazil's economic growth and is powerful and well-funded. Many stakeholders see the decision to prioritise agribusiness as diametrically opposed to promoting food and nutrition security.

- *Land Reform*

Many stakeholders identified land concentration as a major hurdle to guaranteeing food and nutrition security among the most vulnerable groups in Brazil. While traditional and indigenous groups have access to social support programmes, the right to land is critical for them to ensure long-term, sustainable food security. There has been progress toward family farming and settling of landless families since 2003, but the agribusiness model favors land concentration and in recent years land reform has been removed from the government's agenda.

- *Regulation and Legislative Challenges*

Civil society plays a very important role in Brazil, and is in part responsible for many of the food and nutrition security advancements in the country, for example through the National Food and Nutrition Security Council (CONSEA). However, agriculture, food and nutrition policies and regulations sometimes face powerful opposition from pro-agribusiness lobbyists and politicians as well as wealthy national and transnational corporations. This is evidenced by the successful derailment of a regulation that intended to set limits on the advertisement of foods with low nutritional values to children.

### *Moving Forward Toward Nutrition-Sensitive Agriculture*

All of the food and agriculture policies analysed are nutrition sensitive to some degree. The plans that are related to promotion of the family farming model are especially nutrition sensitive. As a group, the policies and plans are strongest when it comes to taking a sustainable approach to improved food and nutrition security, increasing food production, targeting the most vulnerable, expanding access to markets, and improving food processing and storage. The current policies and plans lack sufficient emphasis on increasing production of nutrient rich foods, improving processing to retain nutritional value, reducing post-harvest losses, and the integration of nutrition education.



# MALAWI



Credit: Jess Fanzo

## 1. Country Overview

Malawi is one of the most densely populated countries in Southern Africa, and ranks 170/186 on the Human Development Index however the country ranks second (out of 45) in the Hunger and Nutrition Commitment Index (HANCI). Malawi has shown improvements in many areas: life expectancy is now 55 years in 2013, and poverty has declined from 65% in 2004 to 39% in 2010. UNICEF predicts that Malawi will reach the child mortality Millennium Development Goal target of 76 per 1000 live births by 2015. The country has already met its target of reducing underweight amongst children under five years of age (12.8% in 2011), and stunting has slightly reduced to 47%. Maternal mortality, despite reductions, remains high. Only 20% of breastfed children achieve dietary adequacy. Surveys reveal very high levels of anemia. Malawi is in an early stage of Nutrition Transition. Overweight status in adult women is twice as prevalent as underweight status (17.1%, 8.8% respectively), which indicates a trend towards the increasing burden of obesity.

Within agriculture, maize is the main staple crop in Malawi, cultivated by 97% of the households and comprising 60% of energy intake, followed by groundnuts, beans, tobacco, potatoes and cassava. Moreover, 85% of the households depend on agriculture as their major source of income. Subsidy programs have prioritized maize production, moving the country away from traditional diversified agriculture. Malawi uses six food groups in its policies and promotional materials: fruits, vegetables, legumes, animal foods, fats and starchy staples. The Malawi Food Security Vulnerability Assessment showed that half of households have poor or borderline food security.

## 2. Policies and Programmes Analysed

A UNSCN supported analysis of the nutrition sensitivity of food and agriculture policies in Malawi reviewed nine policies in various administrative sectors. Five of the policies are listed in the table below.

POLICY <sup>5</sup>	NUTRITIONAL FOCUS	MULTI-SECTORAL LINKS
1 Malawi Growth and Development Strategy II (2011-2016)	General poverty alleviation, general nutrition improvement	Agriculture, Rural Development, Education, Finance, Planning, Water, Industry & Trade & others
2 Presidential Initiative on Legumes (2013)	Economic growth/diversification through legumes, no nutrition focus	No multi-sectoral links.
3 Presidential Initiative on small stock production (2013)	Livelihoods/diversification, meat production, some consumption, especially for women	No multi-sectoral links.
4 Malawi Agriculture Sector Wide Approach/ASWAp (2005/2006 -- )	CAADP pillars 1-4, especially 3: food supply and hunger, general poverty alleviation	Agriculture, Climate change, Water, Health, Education, Finance, Planning, Rural Development, Nutrition & others
5 National SUN Nutrition Education & Communication Strategy/NECS (2011)	Nutrition: stunting in children >2; school feeding; food safety and quality; noncommunicable disease	Education, Health, Nutrition

## 3. Areas of Focus

Most of the Malawi policies aim to improve economic performance and reduce poverty. The agricultural sector is a major proportion of the total economy targeted in these policies. The underlying assumption of these economic development policies is that Malawi can ‘achieve human capital development and economic growth and prosperity through a better nourished population’ (NNPSP). All of the policies, except the Economic Recovery Plan, include several of the key recommendations for nutrition-sensitive agriculture. Especially prominent in the policies are issues of gender mainstreaming, targeting the vulnerable, increasing food production, and diversifying food production. It is clear from the policies reviewed that there is a high, multi-sectoral commitment to include nutrition in the national agriculture plan, reflected by Malawi being ranked second on the HANCI index. The emphasis, however, has been on farm income, diversification and enhancement as opposed to nutrition. In most policies, nutrition is not necessarily prioritized above more straightforward economic interventions, and therefore can be left out in implementation. The stakeholders interviewed for this case study commonly stated “Focus on agricultural sector growth will NOT inevitably lead to improving nutrition outcomes.” They agreed in large part that Malawi must “start with nutritional needs of the population and then work back to agriculture.”

<sup>5</sup> Other policies not included in the table are the National Agricultural Policy/NAP (2011), which was never ratified or implemented, the Economic Recovery Plan (2012 – ), which contains no nutritional objectives, the Food Security Policy/FSP (2006 – 2012), which was rolled into the ASWAp, and the National Nutrition Policy Strategic Plan/NNPSP (2007-2012), which was incorporated into the NECS strategy.

One strategy recently instituted in Malawi is the National Nutrition Education and Communication Strategy (NECS), which aims to reduce child stunting among children under two years of age to less than 20% through behavior change and awareness raising at the community level by 2017. The focus of the NECS is very much on the first 1000 days of a child's life, often called, the "window of opportunity."

The ASWAp and the NECS are by far the most comprehensive and well funded of the policies and strategies reviewed. There are monitoring systems in place, and data collected, but the dissemination and use of these data is minimal at best. Funding from Comprehensive Africa Agriculture Development Programme (CAADP) and the SUN movement, as well as NGO support, has enabled Malawi to emerge as an 'Early Riser' country and move more into nutrition prevention activities. Within the ASWAp, 50% of the budget is allocated for Food Security and Risk Management. Maize self-sufficiency is by far the largest portion of the entire ASWAp allocation at 39%. Diversification and nutrition are allocated 10% of total ASWAp funds, while Risk Management for Sustainable food availability is allocated 1%. Twenty-six percent of funds go to sustainable land and water management. As diversity and nutrition are grouped together, it is unclear how funds are directly used for nutrition.

The Presidential Initiatives on small livestock production and legumes focus on diversified diets indirectly, but through a lens of production for livelihood and economic purposes. One of the concerns highlighted by stakeholders was that "agricultural diversity does not necessarily result in improved dietary diversity. When farmers are poor they cannot afford to give high value crops to their children, they need to sell them for income or grow maize for their own security before diversifying into other crops." Data are available for agricultural production but not for consumption, meaning that the relationship between the two is unclear.

The largest donors of 'nutrition' in 2013 are CIDA, World Bank and the EU. The Nutrition Resource Tracking Tool (NRT) shows that as much as 98% of nutrition funding is provided by donors and only 2% from Malawi's own resources (2010-2012). Clearly donors are interested in funding nutrition, but the NECS is not an agricultural policy, and the ASWAp is primarily focused on maize security. The policy vehicle may not exist yet to properly focus on nutrition-sensitive agriculture.

#### **4. Successes, Challenges and the Way Forward**

##### *Successes*

Nutrition and health indicators in Malawi have improved since 1995, although it is unclear which policies and programmes contributed to these successes. Commitment from the Government of Malawi, in partnership with CAADP, the SUN movement and the NGOs is high, and nutrition is already written in to many national policies. National policies have clearly pushed towards diversified production, especially of leguminous crops. Access to seed, knowledge of growing practices and consumption were traditional barriers that are being addressed by ministry and NGO partners.

Many smaller programmes, jointly funded and implemented by Malawi government ministries and NGOs, are not explicitly linked to the national policies but nevertheless uphold and promote the aims of the policies. Knowledge and emerging practices using indigenous crops, cooking and preparation exists at a local level, which can contribute to nutrition-sensitive agriculture.

Seed supply for indigenous plants is one of the challenges to diversifying agriculture raised by key informants. Conservation agriculture, including zero-tillage techniques and intercropping with legumes to maintain soil nitrogen are increasingly popular. Agroforestry and permaculture are also gaining traction in Malawi, mostly independent of government policies and funding. The private sector helps to promote some of these practices.

Agricultural diversity is recognized to improve livelihoods, diets and ecological impacts, although funding allocations are minimal compared to maize production. There are growing initiatives on school feeding that have been linked to local agriculture production in small farms and household growers. Nutritionists have been appointed to Ministries of Agriculture, Health, Education, Information, Defense, Home Affairs, Works, Gender, Local Government, Environmental Affairs, Energy and Mining. Nutrition has been mainstreamed into all these sectors.

### *Challenges*

The concept of nutrition-sensitive agriculture has not been introduced into the language of the policies in Malawi. The policies have sophisticated and well planned systems of monitoring, but reports and linkages between policies and programmes are sparse. It is difficult to discern the impact of these policies without processing and disseminating the data. Dietary data from intervention sites would be particularly useful in determining how well agricultural practices are meeting nutritional needs. The international body of evidence on nutrition-sensitive agriculture is still forming, so Malawi could contribute valuable lessons if the policies and programmes were measured sufficiently.

Coordination was highlighted as a major barrier to effective planning and action. Stakeholders acknowledged gaps in reporting from programmes on the ground, and how they link to policies. Coordination will need to be improved between actors, sectors, and levels. Perhaps having nutrition focal points in the various sectors will aid in this process. The upcoming mapping and coordination exercise of the 'Support for Nutrition Improvement in Malawi' project will also highlight pathways for nutrition actions.

Increased funding specifically for nutrition-sensitive agriculture, and nutrition capacity at all levels could strengthen existing policies. Access to diversified seed supply and focus on nutrient content within foods, especially those other than maize, was also highlighted as an area for growth. Some of the policies mention improved processing and storage, but do not include aspects of nutritional retention during these processes. Also, there needs to be consensus among all stakeholders about the meaning of nutrition-sensitive agriculture in the Malawian context.

### *Moving Forward Toward Nutrition-Sensitive Agriculture*

Since 1995, a surge in activities has led to improved nutrition outcomes in Malawi, many of which link to developments in the agricultural sector. There is a high level of commitment to improve nutritional status through agriculture, and clear ways to incorporate nutrition into agricultural planning. Existing practices and programmes can be monitored and evaluated for impact and directly built into policy and implementation strategy.



Credit: Jess Fanzo



Credit: Wikicommons

# MOZAMBIQUE



Credit: Glenn Denning

## 1. Country Overview

Mozambique has the second lowest human development index (HDI), ranking 185/186 in 2013. Undernutrition is the main nutritional problem in the country, and the proportion of children under five years of age suffering from stunting is 43% in 2011, concentrated in the Northern provinces of Nampula and Cabo Delgado. In 2011, 69% of children 6 to 59 months were anaemic (39% moderate and 4% severe anaemic) and in 2002 69% of children from 6 to 59 months had vitamin A deficiency. At the same time, the country is experiencing the nutrition transition with increasing prevalence of overweight, obesity and noncommunicable diseases. In 2005, 21.2% of the population was overweight (13.5% men, 27.1% women) and 7.5% obese. A 2006 study indicated that 34% of the households in the country are vulnerable to food insecurity, out of which 20.3% are highly vulnerable. Fruit and vegetables consumption is known to be very low, and most of the processed foods consumed are products rich in fats and sugars, such as biscuits and sweetened beverages, mostly imported.

The Mozambican economy is essentially agricultural. This sector contributed to 24% of the GDP in 2009, and currently employs 80% of the total active population. However, subsistence agriculture with very low production levels is predominant. The country is also extremely vulnerable to extreme weather events. Factors that contribute to poor agricultural and nutrition outcomes are low productivity, fragile and insufficient storage, problems with processing, as well as distribution and commercialization networks. Transportation is a key structural problem in Mozambique, as road conditions are extremely poor the cost of distribution to internal markets is so high that a great part of the production is commercialized in neighboring countries such as Malawi. HIV/AIDS is one of the many factors that affect productivity. There are also important issues arising regarding Mozambique's recently found natural resources and the associated extractive industries (which are expected to attract increasing numbers of wage laborers), as well as the move from traditional cultures to cash crops, such as cotton and tobacco, processes which can lead to increased food insecurity.

## 2. Policies and Programmes Analysed

A UNSCN supported analysis of the nutrition sensitivity of food and agriculture policies, plans and programmes in Mozambique reviewed seven policies in various administrative sectors, which are listed in the table below.

	<b>POLICY</b>	<b>NUTRITIONAL FOCUS</b>	<b>MULTI-SECTORAL LINKS<sup>6</sup></b>
1	Government's Five-Year Programme (PQG) 2010-2014	Agriculture, poverty alleviation; chronic malnutrition., Vitamin A, breastfeeding	Agriculture, Gender, Food & nutrition security, Environment, HIV/AIDS, Finance/planning, etc.
2	Plan of Action for Poverty Reduction (PARP) 2011-2014	Poverty reduction through agriculture, employment, and social/human development	Agriculture, Employment, Housing, public financing & governance, Health, Food and Nutrition
3	Food and Nutrition Security Strategy and Plan of Action (ESAN II/PASAN) 2008-2015	Food and nutrition security, Right to Food approach	Agriculture, Women/Social Affairs, and Health, civil society, private sector, academia and others
4	Strategic Plan For Agricultural Development (PEDSA) 2011-2020	CAADP, Food/nutrition security, income of farmers, social & gender equity	Agriculture, Commerce, Industry, Public Health, Planning/Dev.
5	National Agrarian Investment Plan (PNISA) 2013-2017	Economic growth, chronic malnutrition, hunger, food production/agriculture	Agriculture, Commerce, Industry, Public Health, Planning/Dev.
6	Multi-sectoral Plan for Chronic Malnutrition Reduction (PAMRDC) 2011-2014	Chronic child malnutrition, especially >5	Health, Agriculture, Women and Social Affairs, UN agencies, and others
7	Programme Accelerate progress towards MDG1c in Mozambique	Agricultural/fisheries; food access; nutritional status of vulnerable groups	Agriculture, Technical Secretariat for Food and Nutrition Security (SETSAN)

<sup>6</sup> While multi-sectoral links are suggested, very few are explicit, coordinated or implemented. .



### 3. Areas of Focus

The most present criteria of the key recommendations for nutrition-sensitive agriculture in the policies are nutrition objectives, women's empowerment, increased food production, improved processing, improved storage, and multi-sectoral collaboration. These components were present in all seven policies analysed, even if partially. Expanding markets access to the most vulnerable was present in five of the seven policies; however none of policies analysed focused on increasing markets access to nutrient-rich foods. The components that are less present in the policies are nutrition indicators (only in four policies), increase food production of nutrient-rich foods (three policies), promoting diversification of food production (three policies), improving processing to retain nutritional value (two policies) and basing the goals and activities in an assessment of the nutrition context (two policies).

The policy with the greatest degree of nutrition-sensitivity is ESAN II/PASAN (15/17), which serves as the guiding policy on food and nutrition security since there is no national nutrition policy. However, the ESAN II/PASAN has relatively few links to the agricultural sector and the nutrition indicators are vague and open to interpretation. The policy that scored the lowest is the key strategic document of the agricultural sector, PEDSA (9/17). PEDSA is chronologically followed by its investment plan, PNISA, where a clear evolution can be seen as PNISA has the second highest score, along with EU-MDG1c (both 13/17). PAMRDC scored 12/17, which is mostly due to the lack of criteria related to agriculture.

The key government actor for food and nutrition security in Mozambique is the Technical Secretariat for Food and Nutrition Security (SETSAN), which was formerly a low-profile group under the Ministry of Agriculture. In 2010 it became an independent body responsible for coordinating all Food and Nutrition Security actions. Mozambique became a lead member of the Scaling Up Nutrition Movement (SUN) in August 2001. Mozambique is also part of the New Alliance for Food and Nutrition Security, a G8 initiative to support the implementation of the Comprehensive Africa Agriculture Development Programme (CAADP). The country's commitment with the New Alliance includes the full implementation of PAMRDC. In addition, in 2012 the Renewed Efforts Against Child Hunger Initiative (REACH) started in the country, giving support to the implementation of PAMRDC.

Several international development donors, such as the United States Agency for International Development (USAID), the European Union, the World Bank and UN agencies play an important role in setting the agenda for nutrition in the country, advocating for multi-sectoral coordination and action, funding and implementing projects. The only policy reviewed that included specific funding allocations was PNISA, since it was required as part of CAADP. The global value of investment proposed by PNISA in all its actions is 4,254.1 million USD (with 9% contingency). Seventy-nine percent is allocated to agrarian production, and 0.6% to food and nutrition security. Of that amount, only 21% are currently covered, secured through cooperation partners with activities that already exist in the agrarian sector for the period of PNISA. The remaining 79% constitute a financial gap that has not yet been addressed.

#### 4. Successes, Challenges and the Way Forward

##### *Successes*

All the policies analysed incorporate at least some of the criteria of nutrition-sensitive programming. The role of inter-sectoral and inter-agency/governmental collaboration has clearly influenced the inclusion of nutrition strategies, although some components are weaker than others. Several policies and action plans are strong strategies that are contributing to the right to food, multi-sectoral coordination and nutrition indicators at all levels. There is a willingness to collaborate further and move agendas forward within and across sectors. The new independence of SETSAN has been positive in terms of donor trust for funding and legitimacy, and shows increased capacity and visibility. The capacity to coordinate and build nutrition capacity within various other sectors is promising. Women's empowerment has been clearly emphasized in many sectors, and lessons for nutrition could be learned from gender mainstreaming.

##### *Challenges*

Agricultural policies analysed are not based on nutritional criteria, even if they include some aspects of nutritional programming. For example, there is no prioritization of crops that have a higher nutritional value. The focus is on cash crops and on starchy staple foods. The ongoing initiatives to promote dietary diversification are still insufficient, and not reflected in most of the broader strategic documents. Sectoral policies are not necessarily based on the types and causes of malnutrition, even when they have the explicit goal of promoting food and nutrition security or contributing to reducing chronic malnutrition. Food and nutrition security is not a strong theme within the national development policy papers. Even those that mention food and nutrition security do not always carry through to implementation strategies and actions. Other priorities, such as increasing agricultural wages or yields, often prevail over nutritional concerns.

Coordination and accountability is a barrier to effective multi-sectoral action. The barrier is compounded by the complex and evolving role of nutrition in various sectors as well as new efforts to increase coordination in general. Monitoring and evaluation efforts are still not comprehensive or regular, and nutrition indicators are often left out. SETSAN could benefit from even more autonomy in order to influence high-level policies. SETSAN could be a leader in capacity-building efforts that would strengthen nutritional capacity at the highest levels. The SUN movement has helped in this regard, and yet understanding of nutrition priorities and programming from leaders will help sectors build nutrition sensitivity into programmes. There are still gaps between forming policy and implementation of programmes.

Lastly, current policies and strategies reflect the priorities of the current government and have a specific timeframe in which they are valid, rather than a perennial vision of what the State wants to achieve, promote and protect continuously with the support of specific legal frameworks.

##### *Moving Forward Toward Nutrition-Sensitive Agriculture*

The evidence gathered in this study suggests that nutrition has gained more momentum in the country with the creation of SETSAN to coordinate FNS as a transversal issue, with ESAN II and PAMRDC, and also the participation in the SUN movement. However, this is not yet enough to promote full mainstreaming of nutrition in all key policies and strategies in the country, and

nutrition is not as much of a national government priority as other issues such as reducing poverty, promoting economic development and increasing food production and productivity. The study suggests that nutrition-sensitive agriculture would benefit from prioritizing the production of food crops relating to nutritional needs, targeting vulnerable groups, including nutrition indicators in non-nutrition interventions/programmes, and building explicit nutrition objectives into policies and hold them as overall goals rather than health-specific goals. Additionally, there is an opportunity to use agriculture services as delivery platforms for nutrition interventions.

In terms of broad policy issues, civil society could be engaged to progressively empower people at the local level on the right to food and on how to participate in the FNS discussions to orient policy making. The decentralization process and the structuring of district advisory councils are important ongoing processes in this regard. A national food and nutrition security law could replace time-sensitive plans, to ensure that food and nutrition security is a state policy assured by law, and a national priority beyond political interests. Lastly, there is a window to establish a robust multi-sectoral M&E system while parallel collaboration is developing.



Credit: Jess Fanzo

# NEPAL



Credit: Derek White

## 1. Country Overview

Nepal is a low-income country with a population of about 27 million. It is located in southern Asia and is bordered by China on the north and India on the east, south, and west. Agriculture dominates Nepal's economy, accounting for 34% of the GDP and employing 70% of the workforce. Nepal is currently in the first stage of the nutrition transition, meaning that the typical diet is low in calories and micronutrients and undernutrition is prevalent. Staple foods – grains including rice, wheat and maize which are high in energy but low in micronutrients – account for 72% of the caloric intake of the typical Nepalese diet.

Nepal has made significant strides in improving the nutrition situation over the past decade, reducing the prevalence of stunting for children under five years of age from 57% to 41%, the prevalence of underweight for children under five years of age from 43% to 29%, and the prevalence of maternal anaemia by 50% to 23%. However, the Government of Nepal (GoN) recognizes that chronic malnutrition is still a serious problem. The major policies analysed in the

UNSCN case study seek to address this problem through a variety of nutrition-specific and nutrition-sensitive interventions.

## 2. Policies and Programmes Analysed

A UNSCN analysis of the nutrition sensitivity of food and agriculture policies and programmes in Nepal reviewed ten policies and programmes in various administrative sectors. The major food and agriculture policies are listed below.

POLICY <sup>7</sup>	NUTRITIONAL FOCUS	MULTI-SECTORAL LINKS
1 Multi-sectoral Nutrition Plan for Nepal	Increased availability of and access to micronutrient foods, promotion of Infant and Young Child Feeding (IYCF) practices, expansion of immunization and micronutrient supplement programs	Ministry Links: Agriculture and Development, Education, Federal Affairs and Local Development, Physical Planning and Works, Health and Population
2 Agriculture Development Strategy	Increased productivity and availability of food, increased household income	No multi-sectoral links.
3 Food and Nutrition Security Plan of Action	Increased availability and consumption of nutritiously diverse foods.	No multi-sectoral links.

## 3. Areas of Focus

The National Planning Commission (NPC) – the advisory body for formulating development plans in Nepal – is responsible for leading the coordination of the three main plans: (1) the Multi-sectoral Nutrition Plan for Nepal (MSNP), (2) the Agriculture Development Strategy (ADS), and (3) the Food and Nutrition Security Plan of Action (FNSP).

### *Multi-sectoral Nutrition Plan for Nepal*

The MSNP sets specific reduction goals for the prevalence of stunting, underweight, and wasting among children under five and undernutrition among women ages 15-49. The plan intends to accomplish these goals through interventions that focus on, among other topics, reducing diarrhoeal and other diseases that inhibit nutrition absorption, providing nutrition-focused maternal education, increasing the availability and consumption of nutrient-dense foods, and expanding capacity of national and local government to improve maternal and child nutrition.

Under the MSNP, the Ministry of Agriculture and Development is responsible for increasing “consumption of diversified foods, especially animal source foods, particularly among pregnant women, adolescent girls, and young children” (MSNP, 2012). They intend to increase production of foods rich in micronutrients, promote ideal Infant and Young Child Feeding (IYCF)

<sup>7</sup> In addition to the three primary policies listed on the table, the report also analysed seven secondary policies: the Nepal Interim Constitution, the National Planning Commission Three-Year-Plan, the Strategic Vision for Agricultural Research, the Nepal Biodiversity Strategy, the Nepal Environment Management Framework, the National School Health and Nutrition Strategy, and nutrition-relevant legislation on flour fortification.

practices, expand the percentage of children receiving immunizations and micronutrient supplements, and improve the distribution systems to reach subsistence farmers in rural areas.

The MSNP could be stronger, from an agricultural perspective, if it focused more on consumption and utilization activities of food security, indigenous food's role in improving nutrition, integration of food technology in improving IYCF practices through nutrient-dense complementary foods, and working toward food-based dietary guidelines and the introduction of a food labeling system.

#### *Agriculture Development Strategy*

The ADS is long-term strategy to increase agricultural sector growth over the next 20 years. It focuses on four strategic components – governance, productivity, profitable commercialization, and competitiveness – while promoting inclusiveness, sustainability, multi-sector development, and market connectivity infrastructure.

The ADS assessment report demonstrates a clear understanding of the difference between food sufficiency and food and nutrition security. Nutrition sits as one of the 12 thematic focuses of the ADS, and improving food and nutrition security is included in the ADS vision statement. The four strategic components of the ADS are supposed to improve food and nutrition security both directly as well as indirectly through poverty reduction, agricultural trade surplus, and higher income for rural households.

The focus on profitable commercialization within the ADS is cause for concern, as the commercialization of rice directly contradicts efforts within the FNSP to diversify diets. Also, the budget for agriculture in Nepal has historically been low and it is unclear if this plan can be accomplished without a significant increase in funding.

#### *Food and Nutrition Security Plan of Action*

The FNSP was developed as a collaborative effort between the GoN and the Food and Agriculture Organization to ensure that food and nutrition security was a part of the ADS. The FNSP is a 10-year plan that is intended to be the Government's primary document for food security interventions. It will serve as a complement to the ADS and eventually become an entity of the ADS.

The FNSP seeks to reduce hunger and poverty by improving sustainable agriculture-based livelihoods, especially among Nepal's poorest households. The nine components of the FNSP focus mainly on increasing food availability. The nine components are 1) Agriculture Crops, 2) Fisheries, 3) Food Quality and Safety, 4) Forestry, 5) Gender Equity and Social Inclusion, 6) Horticulture, 7) Human Nutrition, 8) Legislation, and 9) Animal Health and Production.

The FNSP fills in gaps in the ADS by focusing on the most vulnerable and promoting diversification of production systems. However, the FNSP would benefit from additional focus on access to and utilization of foods at the household level. The focus on production ignores consumer-side factors that affect nutrition such as affordability, purchasing power, and consumption and behavior change.

#### 4. Successes, Challenges and the Way Forward

##### *Successes*

The GoN has aggressively pursued ambitious policies to address chronic malnutrition in the country. Political will to improve the nutrition situation is critical to success, and the GoN has showed the commitment necessary to make a positive impact on chronic malnutrition. One demonstration of this success was the recently drafted Multi-sectoral Nutrition Plan for Nepal that truly represents multiple sectors of the GoN.

##### *Challenges*

All three major policies have explicit nutrition objectives, nutritional impact measurements within the monitoring and evaluation systems, and opportunities for multi-sectoral collaboration. The plans all include activities or interventions that increase food access by diversifying production and income, increasing production of nutritious foods (with a focus on local foods rich in micronutrients and protein), improving processing and reducing post-harvest losses, increasing market access, and improving storage and preservation of food. The plans could be strengthened by a greater focus on incorporating nutrition education into interventions, long-term management of natural resources, and empowering women through increasing income, improving labor technologies and supporting their right to land, education, and employment. The plans are also weak in assessing the causes and context of malnutrition at the local level to maximize the effectiveness of interventions within the heterogeneous localities in Nepal and increasing equitable access to resources.

While the three major policies and plans analysed have nutrition-sensitive elements, Nepal faces challenges in implementation including a lack of capacity and insufficient coordination between plans and ministries. There is a lack of nutrition-related human resources at all levels of government in Nepal, which is a major obstacle to effective implementation of nutrition-sensitive interventions. The Government of Nepal is aware of this scarcity and is working with NGOs and the donor community to build the necessary capacity at the local and central levels. The MSNP and the ADS also have built-in capacity objectives to help address this gap.

There is a large potential for collaboration within the plans, but it is not immediately evident that this potential is being fulfilled. Many stakeholders are unaware of their role in the MSNP and the ADS. The plans also do not take advantage of many opportunities for multi-sectoral coordination. Ministries such as Education; Local Development; and Women, Children, and Social Welfare are seen as secondary and are underutilized. For example, the Ministry of Education is not engaged in the nutrition education initiatives of the FNSP.

##### *Way Forward Toward Nutrition-Sensitive Agriculture*

All of the plans are ambitious with many outcome measures and target groups. To make substantive improvements, Nepal must focus on several key populations –children under two, pregnant and lactating women and the landless. If nutrition actions focus on these three populations within Nepal, coordination and impact of the plans will be optimized.

High-level government officials play a decisive role in these plans. They must coordinate all actions across ministries and government offices, channeling donor and civil society efforts, and



developing compelling narratives around nutrition as a poverty reduction priority. However, issues that repeatedly emerge include transient government and mandates which prove challenging for Nepal. Without a constitution and a stable government and long-term positions in ministries, priorities shift. If Nepal can make a measurable impact in a short time with these new plans, it is in the best interest for Presidents to continue the work. It is also important for food and nutrition security to be embraced as a major objective of long-term national development strategies.

Finally, long lasting change takes time. Nepal's current food and agriculture plans are ambitious, and commendable. At the same time, Nepal is a young country, and faces a long path towards development and economic security. Undernutrition reductions take time. With that said, nutrition goals and targets should be aggressive, but also realistic and achievable in the appropriate time scales.



Credit: Millennium Promise

# SENEGAL



Credit: Kyu Lee

## 1. Country Overview

Senegal has followed many African neighbors by steadily improving life expectancy and health outcomes since 1995. Mortality for children under five years of age has decreased on average 6.4% annually since 2000. Disparities exist particularly between rural and urban populations in Senegal. For instance, Senegalese children in rural areas face a 2.4-fold increased risk of dying compared to children who are living in an urban environment.

Malnutrition underlies approximately one third of all child mortality. Overall, undernutrition has decreased, from 28.5% stunted and 16.4% wasted in 1986 to 15.5% stunted and 8.7% wasted in 2012 in children under five years of age. Both wasting and stunting are much more prevalent in rural areas than near Dakar and other cities, where overweight and obesity is rising. A study from a rural, central region showed that 15% of surveyed children were severely deficient in iodine, showing a lack in coverage or consumption of iodized salt. Vitamin A coverage is very high across Senegal, reaching 97% of children under five years of age in 2009. Anaemia was estimated to be higher than 40% in 2005 with more than 80% of children under five years of age,

almost 60% of women and more than 70% of pregnant women being affected. Anaemia rates improved to 34% of women in reproductive age in 2012. Senegal has a traditionally diverse diet, including several forms of grains (millet, sorghum, rice), proteins (fish, goat, beef, ox), vegetables (carrots, lettuces, leaves), and starches (sweet and regular potatoes, cassava). Soil fertility and water issues are major barriers to agriculture in Senegal.

## 2. Policies and Programmes Analysed

A UNSCN supported analysis of the nutrition sensitivity of food and agriculture policies in Senegal reviewed 13 policies in various administrative sectors. Eight policies are listed in the table below.

	<b>POLICY<sup>8</sup></b>	<b>NUTRITIONAL FOCUS</b>	<b>MULTI-SECTORAL LINKS</b>
1	National Policy Paper on Nutrition (2001)	Multi-sectoral efforts on malnutrition; Decrease in underweight of 45% in 10 years (2001-2011)	Health, Education, Agriculture and Livestock/Fisheries, Family, Early Childhood, Trade, Water.
2	Agricultural Pastoral Orientation Law 2004 – 2016	Food security & food independence, Climate change, economy, sanitation, Rural populations.	No multi-sectoral links.
3	National Agriculture Investment Plan ( <i>PNIA</i> ): 2011-2015	Investing in agriculture for economic growth, food security, poverty reduction by 2015	No multi-sectoral links.
4	Nutrition enhancement program: phase II strategic plan 2007-2011	MDGs: extreme poverty, hunger, children U5, women. Phase II: esp. >2 in urban or poor rural zones; institutional capacity	Cell Against Malnutrition (CLM), which intersects with many ministries
5	National Strategy for Food Security in Senegal (1999 -)	Food Security, general poverty reduction, reducing malnutrition in general	Agriculture, Women and Children
6	National Strategy & Priority Programmes for Food Security (2002 – 2015)	Food Security: availability, accessibility, stability and utilization of high-quality foods for all people at all times.	Agriculture
7	Proposed Operational Strategy for the Agriculture (2001-2005)	Poverty alleviation, Coordination, mobilization and communication for agricultural development	Agriculture and Livestock, Development
8	Special Programme for Food Security (1995-1996)	Food security, food shortages, irrigation, rain-fed agriculture, meat and milk production	Agriculture

## 3. Areas of Focus

Senegalese agricultural policies and programmes have a strong emphasis on food security. Nutrition objectives are largely absent in agricultural policies, even though there are several elements of the key recommendations on nutrition-sensitive agriculture built in to policy papers

<sup>8</sup> Policies reviewed for the assessment but not listed in the table were the National Strategy for Economic and Social Development (*SNDES*) (2013- 2017), the National Strategic Plan for Infant Survival (2007 – 2015), the National Plan for Sanitation (2009 – 2018), the National Nutrition Policy and Action Plan (1997 – 2002), the HNP Discussion Paper: Understanding the Political Factors and Institutional Capacity for Changing Nutrition Policies,

on food security. On average, the policies incorporated many of the key recommendations. The item that was best covered across policies was a sustainability approach, referring to the maintenance or improvement of the natural resource base i.e. water, soil, air, climate and biodiversity. The highest scoring policies were the Food Security Programmes. For instance, the National Strategy and Priority Programmes for Food Security and the National Strategy for Food Security is rich in nutrition-sensitive approaches with a few exceptions (such as a focus on production of nutrient-rich foods and expanding markets and access of nutrient rich foods).

The main agricultural programme is the Agricultural Pastoral Orientation Law. The law is by far the most robust national policy paper on Agriculture in Senegal, but it does not include key nutrition components or objectives. The main objective of the current agricultural programmes is to ensure availability of food. They also aim to diversify food production in the country. Key informants noted that the current agricultural programmes in which they were involved had no explicit nutritional goals. The main objective of the current agricultural programmes is to ensure availability of food, with a first level of post harvest transformation. In addition to this, the programmes aim to diversify food production in the country. The respondents generally perceived food security or dietary diversity as the finality of their work, but essentially looked at this from an angle of food production and food availability.

The administrative organization of the government of Senegal at present is not conducive to joint nutrition and agriculture programming and policy implementation. Agriculture in the large sense falls under the Ministries of (i) Agriculture and Rural Equipment, (ii) Livestock and (iii) Fisheries and Maritime Affairs, while human nutrition is a matter of the Ministry of Health and Social Action. The current agricultural programmes generally do not target on the basis of nutritional vulnerability or nutritional profile of the community. A formal structure called the Cell Against Malnutrition (CLM) was established in 2001 that reports directly to the Prime Minister's Office and was tasked with nutrition coordination at the national level. The CLM coordinates its activities with seven Ministries (Health, Education, Economy and Finance, Decentralization, Trade, Industry and Agriculture), National Association of Rural Advisors and the Civil Society. Senegal signed up to the Scaling Up Nutrition Movement in 2011 and aims to accelerate investment in nutrition, especially through the involvement of the Agricultural sectors. Senegal has begun to development of a new national nutrition policy as of 2013.

The government has pledged in 2011 to increase funding for nutrition annually to 2.8 billion FCFA per year in 2015. This direct investment will be strengthened to ensure full coverage of children and women in effective nutrition interventions. Following the National Policy Paper on Nutrition in 2001, the country is currently initiating the development of a multi-sectoral strategic plan for nutrition, called "*Lettre de Politique de Nutrition*" for 2013-2018. Some of the policies have specific monitoring and evaluation systems.

#### **4. Successes, Challenges and the Way Forward**

##### *Successes*

There is a clear recognition from the highest levels of government in Senegal that nutrition is important for the development of a healthy nation. Stakeholders understand that nutritional goals can be built into agricultural plans at a national level, and they are willing to fund proven

interventions. Overall the nutrition sensitivity of the agricultural policy documents integrated several key recommendations but missed out on others. Targeting the vulnerable population groups, empowerment of women, the increase of the production, the diversification and improvement of processing of agricultural products, collaboration between sectors and sustainability approaches were present in the large majority of the policy documents. Current agricultural programs are reported to engage and target women in terms of wellbeing, empowerment and livelihoods.

### *Challenges*

Current agricultural programmes do not have explicit nutritional goals and are not monitored using nutritional indicators. Technical agencies collaborate typically at the implementation level and there is little joint thinking to share experiences and inform policy development upstream. Stakeholder interviews showed a misunderstanding of what nutrition is within the agricultural sector. Most of the respondents stated that they incorporated nutrition in their programmes, as they (i) worked with food scientists for primary transformation of agriculture produce, (ii) simply produced the food that people eat, or (iii) looked at food safety e.g. postharvest reduction of aflatoxins in peanuts. Most of the programmes poorly considered how agricultural production was used in dietary intake. Although interviewees reported that data were collected on this, these were information on national food consumption levels not individual food consumption data. In terms of dietary quality, the concerns of the respondents were mainly focused on (i) ensuring enough protein in the diet, (ii) dietary diversification or (iii) increasing food availability.

Senegalese agricultural policies lacked aspects of incorporating nutrient-rich foods, nutrient value preservation and preservation of nutritional quality of produce. Areas that were also weak within policies were reduction of post-harvest losses, nutrition education and promotion, improving storage and expanding markets and market access—these components were missing in more than half of the policies reviewed. Various regions of the country suffer from persistent high rates of malnutrition despite a significant increase in agricultural productivity and income. Current agricultural programmes insufficiently consider nutritional aspects and utilization of crops. Food availability at macro level (regional – national level) has received the bulk of the attention of the agricultural sector but food availability at the individual level has received much less.

### *Moving Forward Towards Nutrition-Sensitive Agriculture*

There are a number of experiences with value chain approaches (i.e. fruit and vegetable value chain or innovation platform for the incorporation of local cereals in bread) within the food system in Senegal. The selection of choice of seeds and varieties is done on the basis of commercial (e.g. yield, pest resistance and appearance) indicators only. Promoting varieties on the basis of micronutrient composition of the crops is therefore considered a promising strategy to address micronutrient deficiencies and promote local foods.

There is willingness and enthusiasm to incorporate nutrition objectives into the overarching agricultural framework for Senegal. Nutrition can be built into the Agricultural Pastoral Orientation Law as a formative direction towards nutrition-sensitive agriculture. The initiative to develop a Policy Letter on Nutrition and the upcoming revision of the Orientation Law are opportunities to institutionalize nutrition-agricultural linkages in Senegal. Building nutrition

capacity among government leaders in various sectors, particularly agriculture will address the knowledge gap and confusion that exists around nutrition-sensitive agriculture. Nutrition is too poorly understood by the various professionals at the agricultural ministries to enable dialogue at the moment. The University of Dakar also offers a key resource for strengthening nutritional capacity in Senegal in the MSc and PhD programs in nutrition, and short training options.



Credit: Wikicommons



# SIERRA LEONE



Credit: FAO

## 1. Country Overview

Sierra Leone has made significant strides towards improving global indicators on poverty, education and health since the end of the decade-long civil war in 2002. Maternal and child mortality remain high (MM: 857 per 100,000 live births; CM: 140 per 1,000 live births). The Global Hunger Index has declined steadily, but the rates of malnutrition are still far beyond the Millennium Development Goals (MDGs) and globally acceptable levels. The proportion of people who consume less than 1,809 kcal/day is 28%, which will not meet the MDG of 21%. Twenty-seven per cent of children under five years of age were underweight in 2005, and 40% were stunted. In 2010 the prevalence reduced to 18.7% for underweight and 34% stunted. The 2015 MDG for underweight status is 12%, which will not be achieved. Micronutrient deficiencies are prevalent, and overweight status is rising. In 2011 about 45% of the population representing 2.5 million people did not access sufficient food. Rural areas are most affected by food insecurity (54.1%) compared to urban areas (29.1%). Rural and urban populations also show different vulnerabilities to food insecurity—urban areas experience more hunger after the festival season and during extreme price volatility while rural areas experience hunger as stores of crops dwindle before new harvests arrive.

Sierra Leone is primarily an agricultural country, which has developed a focus on high-value crops and natural resources. Two-thirds of the population depends on mainly subsistence agriculture, which accounts for 46% of the country's GDP. Economic recovery is still in process. About half of government revenue comes from donors. Sierra Leone depends on rice imports to supplement domestic production, but has great agricultural potential. Soil fertility and rainfall are high and there is access to surface water and coastline. Currently 12% of land is cropped, but 74% of the land is estimated to be suitable for cultivation.

## 2. Policies and Programmes Analysed

A UNSCN supported analysis of the nutrition sensitivity of food and agriculture policies and plans in Sierra Leone reviewed four policies in various administrative sectors, which are listed in the table below.

	<b>POLICY</b>	<b>NUTRITIONAL FOCUS</b>	<b>MULTI-SECTORAL LINKS</b>
<b>1</b>	National Food and Nutrition Security Policy/Implementation Plan (NFNSP, 2012-2016)	Food Security, multi-sectoral integration of nutrition activities	Agriculture, Forestry, Fisheries (MAFFS), Health and Sanitation, UN agencies
<b>2</b>	National Sustainable Agriculture Development Plan (NSADP, 2010 – 2030)	Agriculture	Women, commerce, climate change
<b>3</b>	National Health sector Strategic Plan (2010-2015)	Healthcare information systems; General health improvement	WASH, nutrition
<b>4</b>	National Policy on the Advancement of Women	Commercial agricultural opportunities for women	Agriculture, Economic development, Women & others

## 3. Areas of Focus

Overall, the NFNSP addressed, at least partially, many of the key recommendations on nutrition-sensitive agriculture. The NSADP only included seven of the key recommendations. Indicators and action plans as to how to achieve these two policy statements were sometimes missing. The National Health Sector Strategic Plan and National Policy on Advancement of Women scores are low in nutrition sensitivity. None of the policies address the following key recommendations: Improving processing of foods to retain nutrients, expanding markets and market access of most nutrient rich foods, and maintaining/improving the natural resource base (sustainability approach).

*NFNSP:* The NFNSP has several different components, cutting across major themes of food security. The main purpose of the policy aims to address nutrition and food security by:

- Ensuring that all relevant sectors (including agriculture) integrate nutrition into their programming. The budget of the NFNSP is still being finalized.
- Supporting small-scale farmers, especially by expanding 'Operation Feed the Nation Programme', integrating nutrition activities into farmer field schools, establishing partnerships with consumer protection organisations and strengthening and

implementing community-based agriculture extension services. Improving storage, processing, markets and distribution systems, improving food safety laws, diversifying agricultural crops, creating sustainable income generation for rural women, and cash transfers and food assistance.

- Promoting exclusive breastfeeding of infants, especially HIV positive mothers and children, improving complementary feeding. The NFNSP discussed to achieve this goal is disseminating nutrition messages to household decision makers.
- Promoting appropriate feeding practices especially for vulnerable groups such as pregnant and lactating women at health facilities and within communities. Providing micronutrient interventions such as vitamin A and iron supplementation, deworming, micronutrient powders, zinc and oral rehydration solution. The policy also aims to build a national biofortification effort.
- Building a robust monitoring and evaluation system for programmes and research institutions.

The NFNSP budgets 605 million USD. Food production and value addition, which somewhat includes nutrition-sensitive agriculture, has been allocated 15.4% of the total NFNSP budget. While the government of Sierra Leone expressed a commitment to contribute, it expects development partners, civil society organizations and the private sector to contribute the majority of funding.

*NSADP*: The overriding goal of the national sustainable agriculture development plan (NSADP, 2010-2030) is to increase agricultural productivity. NSADP is based on a number of objectives:

- Intensification of agricultural production
- Commercialisation of agriculture through smallholder commercialization programme
- Agricultural improvements through research and extension services
- Mainstreaming cross-cutting issues such as gender, youth employment, farmer health care issues and climate change

Nutrition sensitivity is captured indirectly in the agriculture policy under a number of distinct policy statements, namely; crop and dietary diversification, gender issues, farmer health and food processing. However, nutrition is clearly not an explicit goal of agricultural policies in Sierra Leone. The NSADP budgets 333.5 million USD the first five years of implementation. There is no explicit funding for nutrition-sensitive agriculture, and only 104.5 million USD was accounted for at the time of the study, leaving a 229 million USD gap.

#### **4. Successes, Challenges and the Way Forward**

##### *Successes*

The NFNSP is built on the fact that the nutrition sector alone cannot lead to changes in nutrition outcomes. Other sectors and disciplines (agriculture and livestock, health, environment, gender and trade, among others) have been asked to build nutrition into their indicators and outcomes. Although there are gaps described below, one positive effort is that the food and nutrition technical committee meetings currently are chaired and co-chaired by ministries of health/agriculture.

One effort to implement the NSADP is the Smallholder Commercialization Programme (SCP). Small-scale farmers constitute the largest share of agricultural production. The programme aims to influence food and nutrition security through enabling smallholder farmers to access inputs, seeds, credit facilities and links them to advisory services and markets through infrastructures and inclusive value chains. UN agencies have expressed a joint vision to support integration of nutrition into smallholder commercialization programs. Other strategies exist such as efforts to integrate nutrition activities into the Farmer Field School programs, which are designed to decentralize community-based market organizations and Agricultural Business Centres'. These programmes support policy goals such as increasing availability of micronutrient rich foods. There is however no indication of dietary guidelines prescribed in the policy.

In general, agricultural production has been on the rise, and there are nascent efforts to diversify crop choices and inputs. For instance, parboiled rice is gaining traction in markets and consumption. There is also a strong focus on gender issues and promoting women's business and production. Women participate in most of the agricultural production, but rarely own land or have any say in agricultural or commercial decisions.

### *Challenges*

The NFNSP is a robust policy with admirable aims, but there are large gaps between policy objectives and implementation, especially in defining specific indicators and reporting within and between sectors. For instance, there are few explicit recommendations for improved processing and storage for nutrient retention. Although the NFNSP is an overarching policy conducive to multi-sectoral approach to tackling nutrition, there is no guarantee that the sectors will make commitments to integrating nutrition or follow through in their programming.

Agriculturally, as addressed by the NSADP, the main focus has been on rice production, which does not satisfy the national caloric requirements, and requires Sierra Leone to import additional rice. The focus on rice has made it particularly difficult to diversify to production of other crops, which could address both caloric and nutrient value deficits, and promote trade domestically and internationally. The NSADP also has weak nutrition sensitivity in general.

Funding for nutrition in general constitutes a small fraction of other allocations, and efforts are mostly being led by UN agencies and international cooperation. The food and nutrition security budget is still awaiting approval by the Bureau of Agriculture. The nutrition budget of the Ministry of Health allocation remains dismal. In 2010, 7% of the national budget went to the MOHS, only 0.01% of which was allocated to the Food and Nutrition unit. In 2011, out of the same 7%, only 0.47% was allocated to the Food and Nutrition unit. Even if policies express commitments to nutrition, it is unlikely that the nutrition situation will improve without specific and sufficient budgetary allocations.

Agriculture and health are the only sectors that integrate any nutrition objectives. Education, social protection, gender, environment and others have the opportunity to build explicit nutrition components into their policies and programs, and measure them. The nutrition division is housed within the Ministry of Health, and thus has little autonomy or multi-sectoral capacity. There are also weak M&E systems described in the two major policies. The Planning,

Evaluation, Monitoring and Statistics Division (PEMSD) of the Ministry of Agriculture is charged with monitoring the NSADP, but no specific indicators are described.

Capacity remains an issue in Sierra Leone, coming out of conflict, as it does in many countries working towards scaling up nutrition and particularly, in the context of agriculture. Building upon the university systems and strengthening extension systems are needed to strengthen food system approaches in the country.

*Moving Forward Towards Nutrition-Sensitive Agriculture*

The key national agricultural policy in Sierra Leone does not contain specific nutrition objectives or funding channels. There is a growing interest from initiatives and advocates such as REACH, the SUN movement, and CAADP to integrate nutrition, and international funding is available. In order to achieve nutrition sensitivity in agriculture, a policy conduit will have to be created or amended, with the appropriate coordination, capacity and monitoring at the highest level of government. All sectors have the opportunity to have nutrition objectives and indicators built into their frameworks.



Credit: Jess Fanzo

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# SOUTH AFRICA



Credit: Jess Fanzo

## 1. Country Overview

South Africa is an upper-middle income country with a population of nearly 53 million with 57% living in poverty. South Africa is moving through the second stage of the nutrition transition, meaning that most people have access to adequate calories, but not adequate amounts of micronutrients. The dietary patterns of the increasingly urban population have shifted, with a decreased intake of legumes and vegetables combined with an increased intake of energy dense foods that are low in micronutrients and contain added sugars and fats. This transition is further reflected by the prevalence of obesity in South Africa, especially among females. A 2013 study found that 23.6% of girls and 16.2% of boys between the ages of 2-14 were overweight or obese. The prevalence of overweight and obesity was substantially higher for adults; 54.9% of adult women and a 29.8% of adult men were overweight or obese.

South Africa is simultaneously struggling with the remnants of the first stage of the nutrition transition (when the typical diet is low in calories and micronutrients and undernutrition is prevalent). Currently, 22.7% of people in South Africa have insufficient access to food. A 2013 study found that 26.5% of children under three years of age are stunted and 6.1% are underweight. The same study found that 43.6% of children under five years of age are deficient in vitamin A.

## 2. Policies and Programmes Analysed

A UNSCN supported analysis of the nutrition sensitivity of food and agriculture policies and programmes in South Africa reviewed 17 policies and programmes in various administrative sectors. The policies headed by the Department of Agriculture are listed in the table below.

	<b>POLICY<sup>9</sup></b>	<b>NUTRITIONAL FOCUS</b>	<b>MULTI-SECTORAL LINKS</b>
<b>1</b>	Food Security and Nutrition Policy	Nutrition Education, Food Access, Economic Development, Access to Markets, Food Assistance	Health, Rural Development and Land Reform, Basic Education, Social Development, and others
<b>2</b>	Integrated Food Security Strategy	Production, Access, Income Generation, Nutrition and Food Safety	Health, Trade and Industry, Rural Development and Land Reform, Public Works, StatsSA and others
<b>3</b>	Zero Hunger Programme	Production, Access, Nutrition Security, and Access to Markets	Agricultural Research Council, Rural Development and Land Reform, Economic Development and others
<b>4</b>	Aquaculture Programme	Availability of Food	Trade and Industry
<b>5</b>	Biofortification	Micronutrients	Agricultural Research Council
<b>6</b>	Agro-Processing	Job Creation	Trade and Industry
<b>7</b>	Food Price Monitoring	Availability of Food, Access to Markets	StatsSA, National Agricultural Marketing Council

## 3. Areas of Focus

Through a combination of production and importation, South Africa is theoretically able to provide sufficient caloric intake for all of its citizens. However, many households – primarily in rural areas – suffer from inadequate access to food. Many of the policies analysed seek to address this problem by increasing food production or increasing household income. Agriculture programmes and policies in particular embrace this strategy with six of the seven agriculture policies and programmes (and 10 of the 17 analysed in total) seeking to improve access to food through increased production or increased household buying power.

The Food Security and Nutrition Policy – a multi-sectoral initiative headed by the Department of Agriculture – highlights the use of this strategy. The policy incorporates multiple approaches to ensure availability of and access to sufficient nutritious food. It plans to expand nutritional safety nets; increase nutrition-based consumer literacy; and make agricultural investments in rural

<sup>9</sup> The case study also reviewed policies headed by the Department of Health (Roadmap for Nutrition and Integrated Nutrition Program), the Department of Education (National School Nutrition Program), the Department of Land Reform (Recapitalization and Establishment of Farms, and Land Redistribution for Agricultural Development) the Department of Social Development (Comprehensive Social Security, Community Development: Food Banks and Child Support Grants), the South African Revenue Services (Tax Exemption of Basic Foodstuffs).



areas to improve food production, storage, and distribution. The draft focuses on anthropometric measurements and the Hunger Index as indicators for success.

The Integrated Food Security Strategy (IFSS) is another multi-sectoral policy headed by the Department of Agriculture. IFSS was designed to integrate food security policies from multiple sectors including health, public works, and rural development. The multiple programmes within the IFSS seek to increase household food production, improve income generation and job opportunities, expand safety nets, and improve nutrition and food security. The Zero Hunger Programme was created in 2007 to strengthen the implementation of the IFSS, but has since been defunded.

The biofortification pilot, which is testing a newly developed breed of sweet potato that is high in iron and vitamin A, is the only agricultural programme that primarily focuses on existing micronutrient deficiencies in South Africa. Other agricultural policies do not primarily focus on topics that are critical to addressing malnutrition, such as increased dietary diversity, maternal and neonatal micronutrient deficiencies and infant and young child feeding practices.

In general, these topics fall under the purview of the Department of Health. The Integrated Nutrition Programme (INP) prioritizes improved infant and young child feeding practices and addresses micronutrient deficiencies through fortification of staple foods. The emergent Roadmap for Nutrition is a multi-faceted nutrition strategy that seeks to improve the quality, coverage, and intensity of nutrition interventions to reduce maternal and neonatal mortality. The roadmap also intends to reduce future prevalence of obesity by focusing on optimal infant and young child nutrition and feeding practices.

#### **4. Successes, Challenges and the Way Forward**

##### *Successes*

It is reasonable to conclude that South Africa has a strong political will to improve food security and nutrition. The country's well-funded comprehensive social welfare programmes providing an important safety net., could be used to build on food security and nutrition interventions.

##### *Challenges*

Political will is critical to the successful implementation of nutrition-sensitive interventions. While the right to adequate food is guaranteed by the Bill of Rights in the Constitution of South Africa, interviews of key stakeholders revealed a lack of understanding of the critical role that agriculture plays in improving food and nutrition security and the need to focus on the promotion of nutritionally diverse foods. Some particularly dissonant stakeholder comments include:

- “Why should agriculture be responsible for nutrition?”
- “Agriculture has become a business and its main purpose is (and should remain) profitability and increased production.”
- “Agriculture is not a charity and should not be seen as a soup kitchen to feed the needy.”

The constitutional mandate to provide sufficient and nutritious food cannot be completely fulfilled unless key stakeholders across all sectors are willing to make a sustained commitment to

nutrition-sensitive interventions. The fact that the Food Security and Nutrition Policy is championed by the presidency evidences an increased awareness of the importance of nutrition, and it is vital to harness this political will moving forward.

In addition to the need for better understanding of the role of nutrition in agriculture, other gaps in the nutrition sensitivity of agriculture policies in South Africa include the lack of promotion of dietary and agricultural diversification, the lack of effective implementation of policies and programs, and the lack of effective nutrition-based monitoring.

- *Lack of Promotion of Dietary and Agricultural Diversity*  
Currently, adequate daily energy intake is used as the comparative baseline for food security. This baseline fails to account for the critical importance of nutritional diversity for long-term health and productivity. While most stakeholders agreed that it was important to produce more nutritious foods, many associated increasing nutrition with an increase in production of staple foods.
- *Lack of Effective Implementation of Policies and Programmes*  
The history of nutrition-focused policies in South Africa demonstrates the challenge of turning ambitious policies into effective interventions. Examples of South Africa's struggle to successfully implement policies and strategies include the complete defunding of the Zero Hunger Program five years after initial implementation and the failure of the INP fortification programme to significantly improve the anthropometric or micronutrient status of children.
- *Lack of Effective Nutrition-based Monitoring*  
It is difficult to obtain a clear understanding of the Food and Nutrition Security situation in South Africa due to the lack of baseline data and the lack of nutrition-based indicators in agricultural interventions. The only national food consumption survey focused primarily on children and was conducted over 10 years ago. The effectiveness and impact of agricultural interventions cannot be ascertained without indicators that measure household consumption and dietary diversity.

#### *Moving Forward Towards Nutrition-Sensitive Agriculture*

Nutrition-sensitive food and agriculture policies are fundamental to fighting the double burden of malnutrition. Food and agriculture policies in South Africa focus primarily on increasing agricultural productivity, increasing access to markets, and increasing household buying power. There is need for a greater focus on educating key stakeholders on the value of investing in nutrition, increasing agricultural diversity, and including more nutrition-based indicators in programme monitoring and evaluation.

## THAILAND



Credit: Jess Fanzo

### 1. Country Overview

Thailand is an upper middle-income country located in Southeast Asia with a population of 64.6 million people. Thailand is moving through the second stage of the nutrition transition, meaning that most people have access to adequate calories, but not always adequate amounts of micronutrients. Over the past two decades, Thailand has seen a rise in incomes combined with lifestyle changes including a more sedentary lifestyle and increased consumption of foods high in sugar, fat, and salt.

Thailand has made substantial progress toward eliminating hunger and chronic malnutrition since the 1980s. Between 1995 and 2009, the prevalence of stunting for children under five fell from 9.7% to 6.3% and the prevalence of underweight decreased from 12.8% to 5.4%. The percentage of the population suffering from hunger and malnutrition fell from 44% between 1990-1992 to 7% between 2010 and 2012.

However, Thailand has seen a simultaneous increase in the prevalence of overweight, obesity, and NCDs. The prevalence of overweight and obesity for children under five has risen from 5.8% in 1995 to 8.5% in 2009. During the same time period, the prevalence for obesity in adults has risen from 26.1% to 37.4%. The rise in overweight and obesity has been accompanied by a

dramatic increase in the rate of occurrence of NCDs. The prevalence rate per 100,000 of cardiovascular disease has risen from 57 in 1985 to 793 in 2009. Similarly, the prevalence rate per 100,000 of hypertension has risen from 54 in 1987 to 981 in 2009 and that of diabetes has risen from 33 in 1985 to 736 in 2009.

## 2. Policies and Programmes Analysed

A UNSCN supported analysis of the nutrition sensitivity of food and agriculture policies and programmes in Thailand reviewed 12 policies and programmes in various administrative sectors. Eight of these policies are described below.

	<b>POLICY<sup>10</sup></b>	<b>NUTRITIONAL FOCUS</b>	<b>MULTI-SECTORAL LINKS</b>
1	National Economic and Social Development Plan	Food security through implementation of the SFFM	Many agencies
2	Strategic Framework for Food Management in Thailand	Increased production, Increased access, increase food safety infrastructure, nutrition education, improved food management	Many agencies
3	The 11th Agricultural Development Plan 2012-2016	Increased production, nutrition education, sustainability, access to markets	No multi-sectoral links.
4	Strategic Framework for Food Security 2013-2016	Increased production of safe and nutritious food, nutrition education, increased food safety, increased nutrition utilization, promotion of sustainable food production	No multi-sectoral links.
5	Agricultural Commodity and Food Safety Standards Strategy 2010-2013	Increase quality of produced food, increased food safety, increased research and development, nutrition and food safety education	No multi-sectoral links.
6	Agriculture for School Lunch	Access to food for most vulnerable, nutrition education	Agriculture, Education, Private Sectors
7	School Lunch Programme	Availability of and access to food	Agriculture, Education, Local Administrative Organizations
8	School Milk Programme	Availability of and access to milk	Agriculture, Education, Private Sectors

## 3. Areas of Focus

Nutrition-sensitive agriculture has played an important role in the reductions of malnutrition in Thailand over the past 30 years. Intervention strategies have included promoting and supporting

<sup>10</sup>In addition to those listed on the table, the following programs were also analysed: The Eleventh Health Development Plan 2012-2016, Thailand Healthy Lifestyle Strategic Plan, 2011-2020, National Nutrition Plan, 2013, Food Safety Strategy, 2012-2016

the production of plant and animal foods, promoting appropriate complementary food for pregnant women, and producing and disseminating community-based complementary foods for infants and young children. These interventions have typically been included in the cyclical National Economic and Social Development plans.

The Strategic Framework for Food Management (SFFM) was approved in 2010 as part of the eleventh National Economic and Social Development plan. The SFFM serves as the national framework to guide individual agencies in the formation of their workplans. The SFFM encourages multi-sectoral collaboration between agencies and focuses on the use of evidence-based approaches. It is centered on four main themes: food security, food quality and safety, food education, and food management.

The Ministry of Agriculture and Cooperatives (MOAC) has integrated the national SFFM into its own strategies and action plans. These plans include the Eleventh Agricultural Development Plan (2012-2016), the Strategic Framework for Food Security (2013-2016), and the Agricultural Commodity and Food Safety Standards Strategy (2010-2013).

Among these strategies, the Strategic Framework for Food Security is particularly nutrition-sensitive. It seeks to do the following:

- Sustainably produce adequate food to meet domestic demand by increasing productivity, minimizing the effects of climate change, and enhancing the role of farmers' organizations in food production.
- Encourage people to access high quality nutritious food by facilitating local production of foods, providing a social safety net to vulnerable groups, and improving in-country food logistics.
- Enhance safe production of high quality food and reduce food waste by promoting food safety and food standards throughout the value chain, enhancing access to nutritious foods, and reducing post-production loss and waste.
- Promote sustainable use of natural resources for food production by allocating farmer ownership and land tenure rights for sustainable use.

Another nutrition-sensitive programme that involves multiple sectors is the Agriculture for School Lunch Project championed by HRH Princess Maha Chakri Sirindhorn. The project began in 1980 with the goal of improving education and combating child malnutrition in remote rural areas. The project established school farms and provided training to school staff on proper preparation of nutritious meals. This project was a resounding success, and has grown to reach over 100,000 children in remote and rural areas. The project has also expanded its scope to provide nutritious food to mothers, children under the age of three, and the elderly. Over the past 30 years, the average prevalence of malnutrition in remote areas has decreased from nearly 50% to less than 10%.

The Agriculture for School Lunch Project has been adapted to simultaneously address malnutrition and the current challenge of increasing prevalence of overweight and obesity in Thailand. Teachers monitor student nutrition status four times a year. Children who are underweight or stunted are given extra portions of healthy food, while children who are

overweight or obese are given increased physical activity and provided with nutrition counselling to reduce intake of foods high in fat, sugar and salt.

#### **4. Successes, Challenges and the Way Forward**

##### *Successes*

After making great progress in reducing the prevalence of malnutrition over the past 30 years, the current national priority for Thailand is reducing prevalence of overweight, obesity, and the accompanying NCDs. Thailand hopes to use approaches to reduce overweight, obesity, and NCDs that are similar to those that proved so effective in the effort to reduce malnutrition. These methods included raising public awareness of malnutrition as a major obstacle to health and economic development, incorporating explicit nutrition indicators into policies and strategies of a variety of relevant ministries, having effective collaboration between government service providers and community leadership, and incorporating nutrition education into policies and programmes at the central and community levels.

##### *Challenges*

In Asia, there are very few cases where countries have effectively tackled the obesity epidemic. Although Thailand has had strong nutrition engagement at the highest levels as well as effective community-based nutrition through a strong workforce, the obesity surge requires a new approach. New partnerships with the private sector and behavior modifications will be important for Thailand in tackling the nutrition transition and shifting dietary patterns.

##### *Way Forward Towards Nutrition-Sensitive Agriculture*

As Thailand continues to work to eliminate undernutrition while also stepping up interventions to address the increasing rates of overweight and obesity, it is critical for the country to continue to build capacity at all levels of the process. Additionally, further inter-sectoral coordination – for example, creating and managing shared nutrition relevant databases – would be of great benefit. The current plans and strategies are nutrition-sensitive, but effective implementation and assessment are critical to addressing the double burden of malnutrition in Thailand.



UNITED NATIONS SYSTEM

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ON NUTRITION**

**The United Nations System Standing Committee on Nutrition (UNSCN) is the food and nutrition policy harmonization forum of the United Nations.** Its vision is a world free from hunger and malnutrition, where there are no longer impediments to human development.

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