Country Policy Analysis

Nutrition Impact of Agriculture and Food Systems

Brazil

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UN System Standing Committee on Nutrition country study for the second International Conference on Nutrition
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<tr>
<th>Acronym</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>ANVISA</td>
<td>National Health Surveillance Agency</td>
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<tr>
<td>ASBRAN</td>
<td>Brazilian Nutrition Society</td>
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<td>CAISAN</td>
<td>Interministerial Chamber on Food and Nutrition Security</td>
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<td>CGAN</td>
<td>General Coordination for Food and Nutrition</td>
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<td>CNSAN</td>
<td>National Conference on Food and Nutrition Security</td>
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<td>CONAB</td>
<td>National Food Supply Company</td>
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<td>CONSEA</td>
<td>National Council for Food and Nutrition Security</td>
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<td>EBIAS</td>
<td>Brazilian Scale of Food Insecurity</td>
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<td>FAO</td>
<td>Food and Agriculture Organization of the United Nations</td>
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<td>FNS</td>
<td>Food and Nutrition Security</td>
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<td>FNDE</td>
<td>National Fund for the Development of Education</td>
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<td>GDP</td>
<td>Gross Domestic Product</td>
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<td>IBASE</td>
<td>Brazilian Institute of Social and Economic Analysis</td>
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<td>IBGE</td>
<td>National Institute of Geography and Statistics</td>
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<td>IDEC</td>
<td>Brazilian Institute for Consumer Defense</td>
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<td>IPEA</td>
<td>Institute for Applied Economic Research</td>
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<td>LOSAN</td>
<td>Organic Law on Food and Nutrition Security</td>
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<td>MAPA</td>
<td>Ministry of Agriculture, Livestock and Supply</td>
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<td>MDA</td>
<td>Ministry of Agrarian Development</td>
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<td>MDS</td>
<td>Ministry of Social Development and Fight against Hunger</td>
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<td>Food Purchase Programme</td>
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<td>PNDS</td>
<td>National Demographic and Health Survey</td>
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<td>National Food and Nutrition Security Policy</td>
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<td>POF</td>
<td>National Budget Survey</td>
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<td>PRONAF</td>
<td>National Program for Strengthening of Family Farming</td>
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<td>SISAN</td>
<td>National System for Food and Nutrition Security</td>
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<td>SISVAN</td>
<td>Food and Nutrition Surveillance System</td>
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<td>SUS</td>
<td>Unified Health System (National Health System)</td>
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I. EXECUTIVE SUMMARY

Brazil is a country with continental proportions, with a population of over 190 million people who live predominantly in urban areas. The number of Brazilians living in extreme poverty has systematically decreased and the country has already achieved the MDG target 1A of halving the proportion of people whose income is less than one dollar a day. On average, there has been a 22% growth in per capita income in the country between 2004 and 2008, and economic development has been directed to the poorest groups of the population. Approximately 30 million people have migrated to ‘middle class’ status, a social stratum which now comprises about 55% of the country’s overall population. Nevertheless, Brazil still faces challenges in what regards social development and income distribution, and in 2013 the country ranked 85th place in the Human Development Index, with a HDI of 0.730.

The country has experienced great progress in reduction of child mortality. A recent UNICEF report indicated a decrease of 77% in child mortality in Brazil from 1990 to 2012, with a current under-five mortality rate of 14/1000. This reduction is mainly due to the decrease in infectious diseases, increase in maternal schooling, and improvements in health and sanitation services. With this, Brazil has achieved MDG target 4A to reduce by two-thirds the under-five mortality rate.

In 2009, 69.8% of the population was considered food secure, and severe food insecurity affected 5% of households. Geographic inequalities, along with income and education levels, are also reflected in the food security status of the population, as the regions Northeast and North presented the worst food insecurity rates.

The nutrition transition is a process clearly perceived in the country. From 1988 to 2010, there was notable reduction in rates of undernutrition, accompanied by increases in overweight and obesity rates and a high prevalence of noncommunicable diseases. The main factors contributing to this transition are changes in lifestyle, urbanization, reduction in daily caloric use through physical activity and labor, and dietary changes that favor processed foods rich in salt, sugar and fat. Stunting rates in children under 5 years of age decreased from 19.6% in 1989 to 6.7% in 2006, and underweight decreased from 5.4% to 1.8% in the same years. Among the key causes for reduction of child undernutrition are the increases in mother education, increase in income and purchasing power of families, and increase in health and sanitation services coverage. Nonetheless, undernutrition continues to be a problem in the north of the country, among lower income group, and mainly among traditional peoples and communities such as indigenous peoples and quilombolas. Regarding micronutrient deficiencies, iron deficiency affected 21% of children under 5 years of age and 29.4% of women of reproductive age in 2006, and vitamin A deficiency affected 17.4% of children and 12.3% of women in the country in the same year.

According to the national survey Vigител 2012, 51% of the population is overweight and 17% is obese, showing in increase in relation to previous years. Regarding children 5 to 9 years-old, in 2008-09 the prevalence of overweight was 34.8% and obesity 16.6%. The cost of obesity to the national health system was estimated in 220 million USD in the year 2011 alone. Noncommunicable diseases were responsible for 72% of deaths in 2007, and the impact is reportedly greater in the poorest populations. The diet of the Brazilian population is shifting from traditional, minimally processed foods and freshly prepared meals to ultraprocessed foods rich that are energy-dense and rich in salt, sugar and fat. There is a reduction in the consumption of foods that are considered traditionally Brazilian, such as the
combination of rice and beans, as well as roots such as cassava. The consumption of rice between 1974-75 and 2002-03 decreased 23%, of beans 30% and of roots 31%. At the same time, there has been remarkable increase in the consumption of unhealthy foods such as soft drinks (393%), biscuits (207%), sausages (190%) and ready meals (82%). There has also been remarkable decrease in fish consumption (41%), eggs (84%) and vegetables (19%).

Brazil has natural conditions that are very favorable for agriculture and livestock, including land, a diverse climate, abundant and regular rainfall in most parts of the country, fertile soils, solar energy and abundant fresh water. Agriculture in Brazil is composed of two contrasting models of production that evoke two different development models: the agribusiness model based on large-scale monocultures mainly for export, and the family farming model, based on smallholder farming with diversified food production and aimed primarily at the domestic market. While the first one is predominant in the country in terms of political and financial support, the second model has gained more space in the past 10 years and is the one that contributes most to the diet of the Brazilian population.

Agribusiness in Brazil accounts for 26% of the GDP and the country is the top producer and exporter of coffee, sugar and orange juice. It also leads the ranking of foreign sales of beef, chicken, soy (oil, grains and chaff), and tobacco. In 2011, 65% of the country's food production (through both models) was consumed domestically and 35% exported. However, the production of food commodities grows at higher rates than of foods for domestic consumption. From 1990 to 2008, the production of sugar cane grew 146% and soybeans, 201%, while growth in production of beans was 55% and rice, 63%. Family farming represents 33% of the gross agrarian production in the country and 10% of GDP, and is responsible for 70% of the foods consumed in the country. It employs 74.4% of rural workers and uses less than one fourth of arable land in the country.

Analysis of the nutrition sensitivity of policies

Brazil has seen significant progress in the food and nutrition security situation, mainly in what regards access to food. Now the country is moving towards a new challenge regarding the quality of the diet and the full implementation of the right to adequate food. The quality of the diet is still problematic in the country, endangered by issues such as the predominant agricultural model (agribusiness) with the abusive use of pesticides and uncontrolled genetically modified crops, changing dietary habits away from traditional and native foods towards processed foods, high prices of healthy foods, concentration of production chains and of land ownership, difficulties in moving regulatory agendas forward (including the marketing of unhealthy foods), and the current scenario of the double burden of malnutrition.

The participation of nutrition considerations in agricultural policies is also subject to the two different models present in agricultural policy in Brazil. In general, the agribusiness model is much less nutrition-sensitive then policies and programmes based on the family farming model.

The National School Feeding Programme (PNAE) is the initiative with the highest score in the nutrition sensitivity policy scoring, including 15 out of 17 criteria considered in the analysis. PNAE is followed by the National Food and Nutrition Security Policy and Plan (PNSAN and PLANSAN), with a score of 14, and the Food Purchase Programme (PAA), with a score of 12. These three policies and programmes present very high and high
degrees of nutrition sensitivity. It is important to note, however, that PNAE is one programme within PNSAN/PLANSAN.

The policies and programmes that present medium nutrition sensitivity are the National Agroecology and Organic Production Policy and Plan (PNAPO / PLANAPO), with a score of 9; the Harvest Plan for Family Farming 2013-2014 and Harvest Plan for Fisheries and Aquaculture 2012-2013-2014, with a score of 8; and the National Programme for Strengthening of Family Farming (PRONAF), also with a score of 8. The lowest scoring policy is the Agriculture and Livestock Plan 2012/2013 and 2013/2014, which had a score of 4, which represents low nutrition sensitivity. The latter is the strategy of the agribusiness sector.

The criteria that contribute the most to the nutrition sensitivity of the policies and plans are:

- A sustainability approach, to maintain or improve the natural resource base (water, soil, air, climate, biodiversity).
- Promoting increase food production, as well as better storage and processing facilities and technologies, with increased dietary diversity.
- Targeting the most vulnerable groups to improve social equity and participation.
- Expand markets access to the most vulnerable
- Empowering women by improving access to productive resources, income opportunities, extension services and information, credit, and others.
- Explicit nutrition objectives and indicators, especially for the FNS and family farming policies.

Two policies that constitute an enabling environment for food and nutrition security policies were also identified: the Bolsa Familia Programme (PBF) and the Brazil without Extreme Poverty Plan (Brasil Sem Miséria – BSM). They have directly contributed to improved access to food, decrease in child mortality and stunting, and promoting a more diversified diet.

The policies and programmes analysed display important features of convergence, and can impact nutrition through a variety of pathways. Among the issues that promote good nutritional outcomes are:

- the strengthening of a rights-based approach and its recognition in the national Constitution;
- the consolidated understanding of food and nutrition security as one, in other words, not separating food security from nutrition security;
- policies that promote social inclusion, access to income and access to food;
- women empowerment and inclusion and gender mainstreaming in the policies and programmes;
- structuring of sustainable production systems, mainly through family farming and agroecological models;
Multisectoral action, institutional arrangements and legal frameworks in place, such as the FNS Organic Law (LOSAN), the National FNS System (SISAN), the National FNS Policy (PNSAN) and plan (PLANSAN), as well as the Interministerial Chamber for FNS (CAISAN), the local, regional and national FNS conferences, and the National Council for FNS (CONSEA); and

- increasing opportunities for promotion of healthy eating habits through important efforts such as the Intersectoral Strategy for Obesity Prevention and Control.

On the other hand, some aspects that can impact negatively on nutrition were also identified. The high use of pesticides and GM crops, the concentration of productive chains, the increased consumption of ultraprocessed foods associated with the lack of a good regulatory framework, and political challenges at the legislative level of the government are important barriers to the full realization of the right to food and to improved nutrition and health outcomes. These issues affect the entire population, but disproportionately affect traditional peoples and communities such as indigenous and quilombolas.

Opportunities for future action

Regarding the agribusiness and family farming models

An important step forward would be to promote discussion to achieve better understanding on how these two models can be better harmonized and coexist in a way that promotes food and nutrition security and the right to food, minimally considering a do no harm approach and the mitigation of potential negative impacts on nutrition. For that, an increased dialogue with MAPA, not only via CONAB, would be beneficial. Institutional spaces such as CAISAN and CONSEA have great potential to promote this debate. In addition, future studies showing the direct impact of the agribusiness model on nutrition would be important steps to qualify this discussion and identify future steps.

Regarding the key challenges for the food system in the country

Many of the challenges identified have important barriers in the legislative, due to factors such as lobby of strong private forces and the private funding of political campaigns. In that sense, a civil society movement to promote a reform in the political system is a crucial step to move forward agendas such as land reform, demarcation of indigenous territories, and regulation of pesticides, GMs and marketing of foods, among others. This, however, requires the involvement of multiple society sectors beyond nutrition, FNS and agriculture.

While such structural changes are not possible in the short term, there is the opportunity to make progress in such agendas through the involvement of high-level policy makers in the executive, taking the leadership in such challenging issues. For example, taking the regulatory agenda forward and giving support to the already existing commitment of civil society and government representatives at technical level. In the case of the marketing of foods, such commitment would be crucial to combat the current problem with overweight and obesity. In the case of land reform, putting this issue back in the political agenda is a
The foremost condition to promote food and nutrition security of those groups still affected by food insecurity, such as traditional peoples and communities.

Another important opportunity is to address the current concentration of productive chains, which can be strengthened by a consistent food supply policy that is designed with a rights-based approach. A National Food Supply Policy is being drafted and discussed, and this constitutes an opportunity for action in that regard.

Regarding the policies and plans analysed

This study indicates many opportunities to make the policies and programmes analysed more nutrition-sensitive, by having examined them against a set of criteria that can be used to identify strengths and weaknesses of each policy and programme. For example, only three policies analyzed (PNSAN/PLANSAN, PAA and PNAE) considered addressing the types and causes of malnutrition based on an assessment of the context at the local level. This issue could be improved in strategies where such considerations are absent.

In addition, almost all policies would benefit from: (i) including more explicitly nutrition education components transversally in sectoral programmes as a strategic axis to promote food and nutrition security; (ii) adding an explicit focus on the quality of foods and on nutrient-rich / nutritious foods, for example when fomenting food production, increasing access to markets or promoting dietary diversification, or selecting priority food items for institutional purchase.

The inclusion of such aspects could be done in the occasion of the elaboration of the next PLANSAN, and through the elaboration of specific guidelines and manuals for PAA. Credit lines through PAA or PRONAF could be increased (or created) to focus on desired food items, including a range of healthy foods such as fish, fruits and vegetables, or specific fruits and vegetables in specific geographic areas where there are nutritional deficiencies, following the example of what is currently done with organic and agroecological products. In addition, the per capita of PNAE for organic and agroecological products could be adjusted, so that local programme managers feel motivated to buy those products from family farmers.

Through PAA, two additional opportunities were identified. First, to establish national guidelines detailing how to systematically identify the nutritional and dietary needs of the consumer beneficiaries. This includes existing information from the monitoring systems that are in place, and the identification of monitoring gaps that should be addressed. The programme could liaise with family farmers and influence the foods produced based on such identification of dietary needs and regional preferences. This would represent an important move forward for dietary diversification, beyond including only what is currently produced in the region, but also demanding specific products to family farmers.

Second, to conduct specific evaluations of the impact of the programme on the nutrition situation of beneficiary consumes, mainly for those who are not currently covered through the existing M&E frameworks like SISVAN (for example, those beneficiaries of other assistance programmes, popular restaurants and others).
II. PURPOSE OF STUDY AND RESEARCH

This case study is part of the ongoing effort of the United Nations Standing Committee on Nutrition (UNSCN) to contribute to a better understanding of how food systems, and especially agriculture, can impact nutrition outcomes, and how a nutrition lens can be used to improve food and nutrition security and combat the multiple burden of malnutrition through food and agriculture, and other relevant sectors.

Eight countries at different stages of the nutrition transition (Mozambique, Brazil, Thailand, Nepal, South Africa, Malawi, Sierra Leone and Senegal) were selected for in-depth review of specific ways through which nutrition and agriculture are (or can be) linked. This report is the outcome of the study in Brazil.

The key objectives of the case study were to identify the key challenges of food systems in the country and to review to what extent food and agricultural policies are sensitive to nutrition issues, with a view to contributing to the progression of the discussions on nutrition-sensitive agriculture in the country and internationally. The specific objectives were to:

- Perform a situation analysis, describing the current nutrition and agriculture situation; the current food system from food consumption to food supply, diets and stage of the nutrition transition; existing problems that are being prioritized by national policies and strategies; and main policy frameworks of the current agriculture and food policies.
- Analyze the nutrition sensitivity of the specific agriculture and food policies/action plans/programmes chosen by the country representatives, investigating to what extent they consider the guiding principles for nutrition-sensitive agriculture.
- Describe the relevant policy processes and alignments, including M&E systems and indicators, implementation, coordination systems, funding and terminology.
- Identify opportunities on how to make the selected policies/action plans/programmes more nutrition-sensitive, identifying gaps that prevent them from being more nutrition-sensitive and points of entry for nutrition on sectoral policies to facilitate the effective implementation of nutrition-sensitive actions.

A number of policies, action plans and programmes, as well as the existing multisectoral coordinating mechanisms, were analyzed according to these specific objectives. The key issues to be investigated were discussed during the Meeting of the Minds on nutrition impact of agricultural policies, held in WHO Headquarters in Geneva from 25-28 March 2013. On that occasion, important stakeholders of different sectors related to nutrition, agriculture, food security and economy were gathered to discuss the nutritional impact of policies shaping the food systems of countries at different stages of the nutrition transition, as well as different frameworks to describe and analyze national policies in the area of agriculture, trade and related sectors. The issues identified during the Meeting of the Minds supported the elaboration of a Guideline for the country case studies (Annex 1), which constituted the methodological starting point for the study (a detailed description of the methods used is provided on chapter IV).

The results and opportunities identified in this study are expected to contribute to the ongoing discussions to progress the food and nutrition security agenda in Brazil, and to support and strengthen current efforts to mainstream nutrition in other sectoral policies that are prioritized in the country.
III. INTRODUCTION

3.1 Background

Agriculture, nutrition and health have clear linkages: adequate levels of food production are the first necessary step to ensure the availability of nutritious foods for consumption, which in turn will influence the health and nutrition status of individuals and populations. While closely related, these three areas converse very little. There is a big disconnect between the priorities for production and the needs for consumption.

In many parts of the world, the need to increase food production is still a reality, where food produced is not enough in terms of energy or macro/micronutrients to feed the entire population. However, it is well known that increased food production is not in itself a sufficient condition to achieve food and nutrition security, nor does it ensure the human right to adequate food. While relevant for economic growth, employment generation and food access, increased agricultural productivity may not be sufficient to rapidly reduce the levels of undernutrition and micronutrient deficiencies (FAO 2013).

Potential consequences (positive or negative) of agricultural policies or interventions on health and nutrition status are seldom considered. In practice, the different sectors operate in silos with their own sectoral priorities, and the apparently clear linkages between them are lost (Hoddinott 2012). The need for an intersectoral approach to address malnutrition in all its forms (from undernutrition and micronutrient deficiencies to overweight and obesity) is being increasingly discussed, and so is the need to promote more nutrition-sensitive food systems. It is also increasingly recognized that interventions that consider food systems as a whole are more likely to achieve positive nutritional outcomes (FAO 2013).

A food systems approach is crucial to better understanding and addressing the nutrition transition. Food systems have been through important transformations in the last two decades: globalized distribution of technology related to food production, transportation and marketing; centralized food-processing facilities; large-scale wholesale and retail companies; international flow of capital and services; modern food technology; among others (Popkin, Adair and Ng 2012). Such transformations have changed the ways food is produced, harvested, stored, processed, distributed, commercialized, prepared and consumed.

The recent FAO report State of Food and Agriculture 2013 noticeably states that enhanced productivity should continue, but accompanied by a greater attention to nutrient-dense foods such as fruits, vegetables, legumes and animal products. This, in addition to considering gender roles and empowering women, as well as combining agriculture interventions with nutrition education activities, seems to be an effective way of strengthening the linkages between nutrition and agriculture. Understanding the synergies and the potential for collaboration between all the actors that are part of food systems will enable us to minimize the possible negative consequences and maximize the positive effects of agriculture on the nutrition situation of populations (Fan, Pandya-Lorch and Fritschel 2012).

1 According to FAO, food systems encompass all the people, institutions and processes by which agricultural products are produced, processed and brought to consumers. Every aspect of the food system influences the availability and accessibility of diverse, nutritious foods and thus the ability of consumers to choose healthy diets (FAO 2013).
Nutrition-sensitive agriculture and food systems have been discussed in the past years as the way forward to overcome the focus on agricultural productivity and the challenges to world nutrition, as they are in position to influence what foods are produced and available for consumption. For the purpose of the UNSCN case studies, nutrition-sensitive is defined as:

“a term that refers to interventions or development efforts that, within the context of sector-specific objectives, also aim to improve the underlying determinants of nutrition (adequate food access, healthy environments, adequate health services, and care practices), or aim at least to avoid harm to the underlying or immediate causes, especially among the most nutritionally vulnerable populations and individuals”. (WB 2013, p. 25)

Agriculture strategies can be more nutrition-sensitive if they:

1. Incorporate explicit nutrition objectives and indicators into their design, and track and mitigate potential harms;
2. Assess the context at the local level, to design appropriate activities to address the types and causes of malnutrition;
3. Target the vulnerable and improve equity through participation, access to resources, and decent employment;
4. Collaborate and coordinate with other sectors through joint strategies with common goals to address the multiple underlying causes of malnutrition;
5. Maintain or improve the natural resource base (water, soil, air, climate, biodiversity);
6. Empower women by ensuring access to productive resources, income opportunities, extension services and information, credit, labor and time-saving technologies, and supporting their voice in household and farming decisions;
7. Facilitate production diversification, and increase production of nutrient-dense crops and small-scale livestock (for example, horticultural products, legumes, livestock and fish at a small scale, underutilized crops, and biofortified crops);
8. Improve processing, storage and preservation to retain nutritional value, shelf-life, and food safety, to reduce seasonality of food insecurity and post-harvest losses, and to make healthy foods convenient to prepare;
9. Expand markets and market access for vulnerable groups, particularly for marketing nutritious foods or products vulnerable groups have a comparative advantage in producing; and
10. Incorporate nutrition promotion and education around food and sustainable food systems that builds on existing local knowledge, attitudes and practices (Herforth 2013).

This set of 10 guiding principles indicates concrete ways in which agriculture–nutrition linkages can be strengthened. The increasing international attention to nutrition through initiatives such as the UN Zero Hunger Challenge, the Scaling Up Nutrition (SUN) Movement, and the development of Comprehensive African Agriculture Development Programme country plans (CAADP) with a component in nutrition, among others, constitute a key opportunity to further explore these linkages in the development context, and generate lessons learned and practical guidance for countries to implement nutrition-sensitive actions.
3.2 Situation analysis

Brazil is a federative republic with a presidential system of government. It has a heterogeneous territory of 8.5 million km$^2$ (fifth largest in the world), 27 federation units (26 states and a Federal District) and over 5500 municipalities. The population estimated by the last census in 2010 is over 190 million, which represents a 12.3% increase since 2000 (1.17% average annual growth). Such population is distributed in an estimated 67.5 million households in the country, and tends to be concentrated along the coast (IBGE 2011).

Since the 1950s, Brazil became a country with a predominantly urban population, and the trend of migration from rural to urban continued to be observed in the last decade. In 2010, 84.4% of the population was settled in urban areas. The Southeast region is the most urbanized, with 92.9% of its population living in urban and peri-urban areas (IBGE 2011).

The country is the 7th biggest economy in the world, with an average economic growth of 4.5% from 2007 to 2011. The economic activities are very diverse, ranging from production goods like steel and petrochemicals to consumer goods such as automobiles, textile and food. Brazil is also a great exporter of footwear, airplanes, automobiles, biofuels (ethanol), coffee, orange juice, soybeans, among others. The country is self-sufficient in oil production.
and the service sector already accounts for almost 71% of the GDP. The total amount of exports rose from 58.2 billion USD in 2001 to 201.9 billion USD in 2010 (Brasil 2011).

The number of Brazilians living in extreme poverty has systematically decreased, and the country has already achieved the MDG target 1A of halving, between 1990 and 2015, the proportion of people whose income is less than one dollar a day. It has also achieved the additional goal to reduce that number by a fourth. On average, there has been a 22% growth in per capita income in the country between 2004 and 2008 (CONSEA 2010), and economic development has been directed to the poorest groups of the population. Approximately 30 million people have migrated to ‘middle class’ status, a social stratum which now comprises about 55% of the country’s overall population (Brasil 2011).

Nevertheless, Brazil still faces challenges in what regards social development and income distribution. In 2013, Brazil ranked 85th place in the Human Development Index, with a HDI of 0.730 (UNDP 2013). The latest GINI index calculated by the World Bank for the country was of 54.7, indicating poor income distribution\(^2\) (WB 2013).

Brazil has the largest population of African descent outside of Africa, with the following distribution of ethnic groups: 47.3% whites, 43.1% mestizos, 7.6% blacks, 2.1% Asians, and 0.3% indigenous (IBGE 2011). In 2008, 10% of the population over 15 years old was illiterate, being 25.7% among the black and mestizo populations (PNAD 2008). Life expectancy is 73.7 years for the overall population, being 70 years for men and 77.5 years for women (IBGE 2011).

A recent UNICEF report released in September 2013 indicated a decrease of 77% in child mortality in Brazil from 1990 to 2012, with a current under-five mortality rate of 14/1000 (UNICEF 2013). This reduction is mainly due to the decrease in infectious diseases, increase in maternal schooling, and improvements in health and sanitation services. With this, Brazil has achieved MDG target 4A to reduce by two-thirds, between 1990 and 2015, the under-five mortality rate.

### 3.2.1 National nutrition situation\(^3\)

Brazil is clearly undergoing the nutrition transition. From 1988 to 2010, there was notable reduction in rates of undernutrition, accompanied by increases in overweight and obesity rates and a high prevalence of noncommunicable diseases (CONSEA 2010, Souza 2010, Filho and Rissin 2003). The main factors contributing to this transition are changes in lifestyle, urbanization, reduction in daily caloric use through physical activity and labor, and dietary changes that favor processed foods rich in salt, sugar and fat.

**Stunting rates** in children under 5 years of age decreased from 19.6% in 1989 to 6.7% in 2006, and **underweight** decreased from 5.4% to 1.8% in the same years (Figure 2). Among

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\(^2\) A Gini index of 0 represents perfect equality, while an index of 100 implies perfect inequality.

\(^3\) Unless stated otherwise, data from this section is based on the 2010 CONSEA Monitoring Report (CONSEA 2010), which compiled national data on the most relevant nutrition indicators using the most recent data available. The sources include national surveys such as ENDEF 1974-75, PNSN 1989, PNDS 1996, PNDS 2006, Inquerito Nacional de Saude e Nutricao de Populacoes Indigenas 2008-2009, Chamada Nutricional de Populacoes Quilombolas 2006, POF 2002-03, POF 2008-09, PNAD 2004 and PNAD 2009, as well as data from the Food and Nutrition Surveillance System (SISVAN). The original source of the data can easily be identified by year, and has been specified in graphs, tables and figures included in this section.
the key causes for reduction of child undernutrition are the increases in mother education, increase in income and purchasing power of families, and increase in health and sanitation services coverage (Monteiro et al, 2009). Undernutrition reduction in children under 5 was more accentuated in lower income groups. There are still important gaps regarding health services and sanitation coverage. The Northeast region had the sharpest decrease in child undernutrition rates, with a reduction from 32.9% to 5.8% stunting rates in the indicated period.

![Figure 2. Evolution of nutritional status of children under 5, 1989 – 2006. Sources: PNSN 1989, PNDS 1996, PNDS 2006, compiled in CONSEA 2010.](image)

Furthermore, geographical, ethnic and income inequalities can be perceived (Figure 3). Undernutrition continues to be a problem in the north of the country, among lower income groups, and mainly among traditional peoples and communities⁴ such as indigenous peoples and the quilombolas⁵. The North region is the one most affected by stunting, with 14.8% prevalence in 2006, against a national average of 6.7%.

Despite undernutrition rates having decreased more significantly in the lower income groups, they are still among the most affected. The prevalence of stunting among children in the lowest income families⁶ in 2009 is higher than the national average. For this group,

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⁴ Traditional peoples and communities are defined by the National Policy for the Sustainable Development of Traditional Peoples and Communities (Decree 6.040 of 7 February 2007) as culturally diverse groups, who recognize themselves as such, who have their own forms of social organization, who occupy and use territories and natural resources as a condition for their cultural, social, religious, ancestral and economic reproduction, using knowledge, innovations and practices generated and transmitted through traditions. As examples, there are various indigenous tribes, the quilombolas, artisanal fisher folk, roma folk, the ribeirinhos (who lives near rivers), among many others.

⁵ Quilombolas are descendents of African or afro-Brazilian slaves who escaped from slave labour and formed their own settlements, called quilombos.

⁶ Low income families were identified through the Bolsa Familia Programme, the conditional cash transfer programme aimed at the most vulnerable population groups in the country.
underweight rates reached 5%, while stunting rates reached 15.9% in 2009. Black and mestizo children are also more vulnerable to undernutrition in the country. Data from 2009 indicated that stunting prevalence for this group was 16%, compared to 11.1% of white children; and for underweight, 5.1%, against 3.5% in white children.

![Graph showing stunting rates]

*Figure 3. Stunting rates in children under 5 years of age for different population group, geographical location and income group. Sources: PNDS 2006, Inquerito Nacional de Saude e Nutricao de populacoes Indigenas 2008-2009, Chamada Nutritional de Populacoes Quilombolas 2006, SISVAN, compiled in CONSEA 2010.*

The proportion of children 2-3 months under exclusive breastfeeding is low, at 48.2% in 2006, however this represents a progress from the 26.4% measured in 1996. For indigenous communities, breastfeeding until 6 months was estimated at over 90% in 2009, but not necessarily exclusive. Children are still vulnerable in this respect, and also in terms of complementary feeding practices.

Regarding micronutrient deficiencies, iron deficiency affected 21% of children under 5 years of age and 29.4% of women of reproductive age in 2006. The situation was worse in the Northeast region of the country for both for children (25.5%) and women (40%). High prevalence is also observed in indigenous populations (51.3% children, 32.7% women), according to 2009 data. In 2006, black and mestizo women were also more affected (32.2%) than white women (26.3%).

In 2006, vitamin A deficiency affected 17.4% of children and 12.3% of women in the country, with the highest prevalence in children in the Northeast region (19%) and the Southeast region (21.6%).
Iodization of salt and fortification of wheat and corn flours with iron and folic acid are national laws. Monitoring carried out in 2009 indicated that 95.9% of salt samples were adequately iodized, and from 2006 to 2008 89% of wheat flour and 91% of corn flour were adequately fortified according to the established criteria.

Concerning overweight and obesity, the trend is the increase in the prevalence for the entire population, regardless of ethnicity, age group and gender. Women are more affected than men, but the increase is more accentuated in men. Between 1974-75 and 2008-09, the prevalence of obesity increased by more than four times in men (from 2.8% to 12.4%) and doubled for women (from 8.0% to 16.9%). Figures 4 and 5 show the differences in the prevalence of underweight, overweight and obesity in males and females and the evolution from 1989 to 2008-09.

According to the National Household Budget Survey (POF) 2008-2009, 50% of the population is overweight and 14.8% is obese. A more recent survey, Vigitel 2012, conducted by telephone interviews and published in 2013 (MS 2013) revealed that 51% of the population is overweight and 17% is obese, indicating the continuous increase. Among women, 48% are overweight. This survey also indicates a trend to decrease physical activity levels as age increases, as 47% of participants aged 18-24 exercise regularly, against 31% of those aged 35 to 44.

Regarding children 5 to 9 years-old, in 2008-09 the prevalence of overweight was 34.8% and obesity 16.6%. In adolescents (10 to 19 years-old) the prevalence was 20.5% and 4.9% respectively.


A study by Monteiro, Conde e Popkin (2007) indicated that the increase in obesity rates in the country in the period from 1975 and 2003 was more accentuated in the lower income groups. From 1989 to 2003 specifically, the study revealed that obesity rates among women
increased 26% among women of the two lowest income quintiles, while decreased 10% among women of the 3 highest income quintiles. Among men the opposite was found.

Figure 5. Nutritional status of adult and adolescents, females, 1898, 2002-3 and 2008-09. Sources: PNSN 1989, POF 2002-03, POF 2008-09, compiled in CONSEA 2010.

Overweight and obesity in the country is mainly caused due to the increased consumption of high-energy density foods with low nutritional value and reduction in the consumption of fruits and vegetables and traditional and local foods. A recent study by Oliveira (2013) estimated the cost of obesity to the national health system in around 220 million USD in the year 2011 alone. Morbid obesity now affects 1.5 million Brazilian adults and its proportional cost is 4.3 times greater than that of overall obesity. Even though morbid obesity prevalence is still low in the population (0.81% in 2008-09), its costs already represent one fourth of all costs attributed to obesity in the national health system7(Oliveira 2013). Bahia et al. (2012) estimated that the annual cost of all diseases associated with overweight and obesity among 2009 and 2011 was approximately 2.1 billion USD. Noncommunicable diseases were responsible for 72% of deaths in 2007, and the impact is reportedly greater in the poorest populations. The prevalence of diabetes and high blood pressure is increasing, along with overweight and obesity (Schmidt et al., 2011). A study by Oliveira, Valente and Leite (2010) indicated that 61.8% of diabetes in females and 52.8% in males were directly attributable to overweight.

7 These values are estimated based on the costs of medium and high complexity interventions for obesity treatment in adults, as well as the proportion of the cost attributed to obesity in the treatment of 26 associated diseases.
3.2.2 Dietary transition

The diet of the Brazilian population is shifting from traditional, minimally processed foods and freshly prepared meals to ultraprocessed foods rich that are energy-dense and rich in salt, sugar and fat. Table 1 shows the evolution of macronutrient distribution in the diet, from 1974-75 to 2002-03. There has been a reduction in the total carbohydrates in the diet, but the levels are within the recommended WHO guidelines. However, for sugar, the consumption levels are above the recommendation of 10% (12.63% in 2002-03). For protein, the consumption is within the recommendation of 10-15%. Regarding fats, there has been an increase, and in 2002-03 the consumption was above the WHO recommendations. Diets in rural areas tend to be more adequate in relation to the recommendations than those in urban areas, especially in what regards the consumption of complex carbohydrates and fats, indicating an increased risk for urban populations mainly if associated with lower physical activity levels, as commonly found in cities.

Table 1. Participation of macronutrients in the diet in metropolitan regions, determined by food purchase, 1974 to 2003.

<table>
<thead>
<tr>
<th>Macronutrients</th>
<th>WHO recommendations [%]</th>
<th>Evolution of the participation in the diet [%]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1974-75</td>
</tr>
<tr>
<td>Carbohydrates</td>
<td>55-75</td>
<td>61,66</td>
</tr>
<tr>
<td>Sugar</td>
<td>&lt;10</td>
<td>14,04</td>
</tr>
<tr>
<td>Other carbohydrates</td>
<td>45-65</td>
<td>47,62</td>
</tr>
<tr>
<td>Protein</td>
<td>10-15</td>
<td>12,57</td>
</tr>
<tr>
<td>Animal</td>
<td></td>
<td>6,00</td>
</tr>
<tr>
<td>Vegetable</td>
<td></td>
<td>6,57</td>
</tr>
<tr>
<td>Fats</td>
<td>15-30</td>
<td>25,77</td>
</tr>
<tr>
<td>Saturated fat</td>
<td>&lt;10</td>
<td>7,47</td>
</tr>
</tbody>
</table>


The trend currently observed in the country is the reduction in the consumption of foods that are considered traditionally Brazilian, such as the combination of rice and beans, as well as roots such as cassava. The consumption of rice between 1974-75 and 2002-03 decreased 23%, of beans 30% and of roots 31%. The reduced consumption of beans is directly associated with the observed lower participation of protein from vegetarian sources in the

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8 Unless stated otherwise, data from this section is based on the 2010 CONSEA Monitoring Report (CONSEA 2010), which compiled national data on the most relevant nutrition indicators using the most recent data available. The sources include national surveys such as ENDEF 1974-75, PNSN 1989, PNDS 1996, PNDS 2006, Inquerito Nacional de Saude e Nutricao de Populacoes Indigenas 2008-2009, Chamada Nutritional de Populacoes Quilombolas 2006, POF 2002-03, POF 2008-09, PNAD 2004 and PNAD 2009, as well as data from the Food and Nutrition Surveillance System (SISVAN). The original source of the data can easily be identified by year, and has been specified in graphs, tables and figures included in this section.
diet, as seen in table 1. At the same time, there has been remarkable increase in the consumption of unhealthy foods such as soft drinks (393%), biscuits (207%), sausages (190%) and ready meals (82%). The consumption of alcoholic beverages has also increased substantially (107%). There has also been remarkable decrease in fish consumption (41%), eggs (84%) and vegetables (19%)(Figure 6).

![Figure 6. Evolution of consumption of food products, 1974-75 to 2002-03. Source: ENDEF 1974-75, POF 2002-03.](image)

Important differences were found in different income groups in 2002-03. Regarding complex carbohydrates, the higher the income, the lower the consumption, which indicates a transition to increased consumption of refined and ultraprocessed foods. The consumption of sugar is above the WHO recommendation in all income levels. Regarding protein, the consumption of animal protein increases as income increases, but the consumption of vegetable protein (mainly beans) decrease as income increases. Comparing the highest and lowest income quintiles in the same year, in the first group the participation of meat products is 1.5 times higher, of milk and dairy 3 times higher, of fruit 6 times higher, and of vegetables 3 times higher. The higher income group also consumes more ready meals and alcoholic drinks.

This national data is consistent with that collected through SISVAN in health units (which is not nationally representative, as it only considers users of the national health system). Data
from SISVAN in 2009 indicates that only 68.3% of children 6 to 59 months old eat vegetables regularly, and 78% eat fruits. For children 5 to 10 years of age, only 12% of those followed up by the nutrition surveillance service eat vegetables regularly, and only 23% eat fruits.

According to Vigitel 2012 (MS 2013), only 22.7% of the population eats the adequate amount of fruits and vegetables as recommended by WHO, while 31.5% eats meat products with fat and 53.8% drink whole milk regularly. The survey indicated that 26% of the population consumes soft drinks at least five days a week. Fruits and vegetables are consumed regularly by 45% of those with over 12 years of formal education, while for those who have up to 8 years of formal education the percentage decreases to 29%.

Regarding food expenditure outside of the household, from 2002-03 to 2008-09 families increased by 24% the percentage of spending on food away from home (from 5% to 6.2% of total food expenditure). This is one of the factors that increase the consumption of foods high in fat, sodium and sugar.

3.2.3. Agriculture and food and nutrition security situation in the country

Food and agriculture

Brazil has natural conditions that are very favorable for agriculture and livestock, including a diverse climate, abundant and regular rainfall in most parts of the country, fertile soils, solar energy and abundant fresh water. Land is also available, and the country has potential to multiply by three its current grain production without resorting to deforestation (Brasil 2011).

Agriculture in Brazil is composed of two contrasting models of agricultural production that evoke two different development models: the agribusiness model based on large-scale monocultures mainly for export, and the family farming model, based on smallholder farming with diversified food production and aimed primarily at the domestic market. While the first one is predominant in the country in terms of political and financial support, the second model has gained more space in the past years and is the one that contributes most to the diet of the Brazilian population.

In Brazil, the agribusiness model is characterized by production based on monocultures (especially products with high economic value dictated by the rules of the international market), by the intensive use of chemical inputs and agricultural machinery and other advanced productive technologies including genetically modified seeds, by the standardization and uniformization of production systems, by the artificialization of the environment and by the consolidation of large agribusiness companies (Santili 2009).

In 2011, 65% of the country’s food production (through both models) was consumed domestically and 35% exported (Brasil 2011). However, the production of food commodities grows at higher rates than of foods for domestic consumption. From 1990 to 2008, the production of sugar cane grew 146% and soybeans, 201%, while growth in production of beans was 55% and rice, 63% (CONSEA 2010).

Family farming represents 33% of the gross agrarian production in the country and 10% of GDP, and is responsible for 70% of the foods consumed in the country. It employs 74.4% of
rural workers and uses less than one fourth of arable land in the country. Over 84% of all rural establishments in the country are family farms (MDA 2013). Family farming and related productive chains account for 10% of national GDP (Brasil 2011).

Agribusiness in Brazil accounts for 26% of the GDP and 37.9% of exports, and the country is the top producer and exporter of coffee, sugar and orange juice. It also leads the ranking of foreign sales of beef, chicken, soy (oil, grains and chaff), and tobacco. Exports by the sector increased from US$ 30.6 billion in 2003 to US$ 76.4 billion in 2010 (Brasil 2011). Figure 7 shows the growth rates of the production of large-scale monocultures, which demonstrates the growth mostly in export products. The exports of main commodities are expected to increase from 9% up to 1000% from 2012-13 to 2022-23 (Table 2). The products that indicate the most growth potential for the period are cotton, poultry, cellulose, paper, sugar, meat, soy beans, milk, pork and maize. Despite the increase in exports projected for the next years, the domestic market is also expected to play an important role for the increased production of the main agricultural commodities (MAPA 2013).

![Figure 7. Changes in large-scale crop production 1990-2008. Source: Adapted from CONSEA 2010.](image)

China is currently the main destination for Brazilian agricultural products, representing 40% of the total agricultural export sales in 2010. Other countries now have a smaller share of Brazilian agricultural exports, being 6.1% to the USA, 6.7% to Germany, 5.6% to Spain, 6% to Japan, and 4.5% to the Netherlands (Pires and Santos 2013).
The planted area of large monocultures increased considerably compared to the area occupied by family farming. In 1990, four large-scale crops (corn, soybeans, sugarcane and cotton) occupied almost double the total area occupied by other 21 crops focused at domestic markets (avocado, banana, fig, guava, lemon, apple, papaya, mango, passion fruit, pear, pineapple, rice, oatmeal, sweet potatoes, potatoes, onions, beans, watermelon, cantaloupe, tomatoes and wheat) (CONSEA 2010).

Agribusiness occupies an area 3 times bigger than that of family farming, and generates a greater financial output. However, the value of family farming production per hectare is higher than that of agribusiness (301 USD per hectare, against 160 USD for agribusiness). In terms of revenues, family farming generates 230 USD per hectare, while agribusiness generates 144 USD (IBGE 2007).

The agribusiness model in Brazil faces important challenges regarding the high use of pesticides and the increasing use of genetically modified seeds (including terminator seeds). Since 2009, Brazil has been the world leading pesticide consumer (Augusto et al 2012). The leading crops in pesticide use are soy, corn, sugarcane, cotton and citrus fruits. According to Faria et al (2007), pesticide imports in the country increased 207% from 2000 and 2007. In addition, Brazil is the second largest cultivator of GM seeds in the world and the largest payer of royalties from the use of genetically modified soybean seeds (CONSEA 2010).

Table 2. Agribusiness export projections 2012-13 to 2022-23

<table>
<thead>
<tr>
<th>Product</th>
<th>Variation (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cotton</td>
<td>up to 117.9</td>
</tr>
<tr>
<td>Maize</td>
<td>up to 115.2</td>
</tr>
<tr>
<td>Soy beans</td>
<td>up to 53.3</td>
</tr>
<tr>
<td>Soy oil</td>
<td>up to 122.9</td>
</tr>
<tr>
<td>Coffee</td>
<td>up to 85.8</td>
</tr>
<tr>
<td>Sugar</td>
<td>up to 61.7</td>
</tr>
<tr>
<td>Milk</td>
<td>up to 1.078</td>
</tr>
<tr>
<td>Poultry</td>
<td>up to 59.5</td>
</tr>
<tr>
<td>Pork</td>
<td>up to 87.3</td>
</tr>
<tr>
<td>Paper</td>
<td>up to 57.1</td>
</tr>
<tr>
<td>Cellulose</td>
<td>up to 77.1</td>
</tr>
</tbody>
</table>

Source: MAPA 2013.

Despite the acknowledged economic contribution of agribusiness to the country’s economy and development, according to CONSEA (2007) agribusiness has contributed to accentuate the already high concentration of land ownership in the country, which can pose threats to the development and consolidation of fair farming systems in Brazil to promote food and nutrition security.

Brazil has a large and diversified production of fruits and vegetables, based mainly in family farms. Some fruits, such as watermelon and banana, are produced widely across the country, while others are concentrated to certain regions, such as apple in the South, orange
in the Southeast, papaya in the Northeast and açaí berries in the North. The volume of fruits and vegetables commercialized per year has increased from 1995 to 2009. The Southeast region is the greatest consumer of these products, which is also related to the high population density of this geographical area (CONSEA 2010).

According to the latest Agriculture Census (2006), family farming was responsible for 87% of the cassava produced in the country, 70% of beans, 63% of horticultural products, 46% maize, 38% of coffee, 34% of rice, 21% of wheat, 58% of milk, 59% of the pig herds, 50% of poultry and 30% of cattle herds (IBGE 2007) (Table 3).

Table 3. Participation of family agriculture in the production of selected food products (2006).

<table>
<thead>
<tr>
<th>Product</th>
<th>Quantity produced (total)</th>
<th>% through family farming</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cassava</td>
<td>16,093,941.608 tons</td>
<td>86.7%</td>
</tr>
<tr>
<td>Fradinho beans</td>
<td>1,122,139.467 tons</td>
<td>83.8%</td>
</tr>
<tr>
<td>Black beans</td>
<td>692,536,879 tons</td>
<td>76.8%</td>
</tr>
<tr>
<td>Goat milk</td>
<td>35,740,188 liters</td>
<td>67.1%</td>
</tr>
<tr>
<td>Cow milk</td>
<td>20,157,681.528 liters</td>
<td>58.2%</td>
</tr>
<tr>
<td>Maize</td>
<td>42,281,799.675 tons</td>
<td>45.9%</td>
</tr>
<tr>
<td>Rice</td>
<td>9,447,256.712 tons</td>
<td>33.9%</td>
</tr>
<tr>
<td>Soy beans</td>
<td>40,712,683.088 tons</td>
<td>15.7%</td>
</tr>
</tbody>
</table>

Source: Agriculture Census 2006 (IBGE 2007)

In terms of organic food production, in 2006 only 1.8% of the farms used organic production techniques, mostly for livestock and small animals (41.7%), temporary crops (33.5%), and horticulture/floriculture (9.9%). Only 10.4% of the organic production was for permanent crops (IBGE 2007).

Regarding fisheries, Brazil produced in 2011 1,431,975 tons of fish, which represents an increase of 13.2% from the previous year. The most productive region is the Northeast, and that is also reflected in the region’s dietary habits. For aquiculture, production was of 628,704 tons in the same year, an increase of 31% since 2010. Currently the country imports more fish than it exports (MPA 2011).

**Food and nutrition security situation**

Food insecurity is measured in the country by a number of indicators related to 7 different dimensions and consolidated in a national monitoring system, which is further described in section 5.7. Among those indicators is the Brazilian Food Insecurity Measurement Scale (Escala Brasileira de Medida da Insegurança Alimentar - EBIA), which is an adaptation of the Household Food Security Survey Module (HFSSM) from the United States, validated and adapted for the Brazilian context. EBIA categorizes households in four different degrees of

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9 Food production and availability, income and expenditure with food, access to healthy food, access to health services, education, and public policies, budgeting and human rights.
food security/insecurity: food security, mild food insecurity, moderate food insecurity, and severe food insecurity.

This scale was applied in two recent national surveys, the National Household Sample Survey (PNAD) in the years 2004 and 2009 (Figures 8 and 9). Data from PNAD 2004 indicated that 72 million people lived in food insecure households, representing 35% of households. Only 65% of households in the country were considered food secure, where there was no lack of food or the concern that food would be lacking in the past 3 months. Severe food insecurity affected 7% of households, being noticeably higher in rural households (9.6%). In 2009, 69.8% of the population was considered food secure, representing an increase of 4.8% in the period. Severe food insecurity in 2009 affected 5% of households, a decrease of 2% from 2004.

In 2004, all types of food insecurity were more prevalent in rural areas, where only 56.4% of households were food secure. In 2009, the proportion of food secure households in rural areas was estimated in 64.9%, representing an increase of 8.5%.

Geographic inequalities, along with income and education levels, are also reflected in the food security status of the population. In 2004, regions Northeast and North presented the worst food insecurity rates, with only 46% and 53% of households being food secure, respectively. The number of families in the Northeast with severe food insecurity was 3.5 times higher than those in the South region of the country. Such geographic differences persisted in 2009, as over 40% of households presented some degree of food insecurity in these two regions.

Such inequalities are much the result of the unequal distribution of income in the country and have impacts in the access to adequate food. In 2004, for households with an income up to 1-4 of minimum wage per capita per month, 72% were food insecure. With increased income, the access to food increases in all regions (PNAD 2004). There was a real growth of average income per capita of 22% between 2004 and 2008. This phenomenon occurred in
all regions of Brazil, and the Northeast region of lower income, grew above the national average of 28%. There is a significant difference in income between blacks and whites. The average per capita income of households headed by black individuals was half of those households headed by white individuals (CONSEA 2010).

In addition to income, among the issues that diminish access to food is for example female headed households, ethnicity, and education level.

Figure 9. Household food insecurity 2009. Source: PNAD 2009.
3.3 Priorities in the current national nutrition policy and action plans

The Brazilian constitution recognizes health as a right of citizens. The country has a national healthcare system, the National Health System (SUS), that is public and free and that seeks to provide universal preventive and curative care through management at several governmental levels (federal, 26 states and 5,570 municipalities) and to provide decentralized healthcare services with community participation in and social control over system decision-making. The issue of nutrition has been a concern in Brazilian health policies since the publication in 1999 of the National Food and Nutrition Policy (PNAN), which is integrated with the National Health Policy.

The priorities for nutrition in the country are established in the National Food and Nutrition Policy (PNAN) was first approved in 1999, and has since been through different review processes. The current edition of PNAN was approved and published in 2011 by the Ministry of Health, and is organized into 9 guidelines. The policy has as overall goal to ‘improve the diet, the nutrition and the health of the Brazilian population by promoting healthy and adequate eating habits, food and nutrition surveillance, and the prevention and comprehensive care of diseases related to food and nutrition’ (p. 20).

The nine guidelines of the National Food and Nutrition Policy are:

1. Organization of nutritional Care
2. Promotion of adequate and healthy eating
3. Food and nutrition surveillance
4. Management of food and nutrition actions
5. Social participation and control\(^{10}\)
6. Qualification of the workforce
7. Food control and regulation
8. Research, innovation and knowledge in food and nutrition
9. Cooperation and articulation for food and nutrition security.

The revision of the policy was undertaken through a collaborative process that included civil society participation through the Committee for Food and Nutrition of the National Health Council (CIAN/CNS), and also through regional and national seminars. The key goals of the revision were: (i) to reflect the changes in the epidemiological and nutritional profile of the population, due to the nutrition transition, and also the socio-economic changes from the past decade; (ii) to constitute a timely and specific answer from National Health System (SUS) to cope with the current Brazilian nutrition scenario and to organize, qualify and improve initiatives related to nutritional care as part of an integrated, resolvent, humanized health care network; and (iii) to harmonize the 1999 policy with the country developments regarding food and nutrition security since 2003, including the establishment of the National Food and Nutrition Security System (SISAN).

As a sectoral health policy, PNAN is managed and implemented by the General Coordination for Food and Nutrition of the Ministry of Health (CGAN/MS), and follows the principles of the Unified Health System and establishes responsibilities for the health sector at the three government levels (municipal, regional and national) and collaborates and

\(^{10}\) Importantly, social control is an expression used in Brazil to the action of civil society organisations holding the government to account in its actions, rather than control of the State over citizens.
supports the current intersectoral food and nutrition security agenda in the country. It also serves as part of the legal framework for the regulatory role of National Health Surveillance Agency (ANVISA) in what concerns nutrition. The policy includes important elements regarding the food system as a whole, including a value chain approach from production (including traditional and family farming), processing, manufacturing, commercialization, supply, distribution and consumption. It also considers some of the key concerns with agricultural production in the country, such as the use of pesticides and genetically modified seeds, and an environment sustainability approach.

Detailed dietary recommendations are present in the Food Guide for the Brazilian Population (2006), which is currently under review. Among the key direct nutrition interventions implemented in the country, coordinated by the Ministry of Health, are: health promotion activities, micronutrient supplementation (vitamin A, iron and folic acid), food fortification with iron and folic acid, iodization of salt, and surveillance of food and nutrition status and their determinants, including monitoring of food consumption. CGAN/MS also has an active role in advocating for the mainstreaming of nutrition in other sectoral policies.

Also of importance for the national nutrition arena is the explicit mention of food as a human right in the Brazilian Constitution, since a 2010 constitutional amendment. Among the instruments to guarantee the right to adequate food in the country are the National Food and Nutrition Security System (SISAN) and the National Food and Nutrition Security Policy (PNSAN). PNSAN, implemented through SISAN, aim at promoting intersectoral programming and social participation for the achievement of a situation of food and nutrition security and the realization of the right to food. Since 2003, with the Zero Hunger Programme, food and nutrition security has been in the political agenda in the country with two main priorities for action: to increase the access to food for the most socially and economically vulnerable populations, and to strengthen family farming as a strategy to supply internal markets and promote sustainable development.

The National Council for Food and Nutrition Security (CONSEA), composed of 1/3 government representation and 2/3 civil society representation, is part of the National FNS System. The legal framework for FNS in Brazil includes the Organic Law for Food and Nutrition Security (LOSAN, Law 11346/2006), established the SISAN and determined the formulation of PNSAN. The law was elaborated within CONSEA, with wide participation of representatives from the government and civil society. Another important part of the system is the Interministerial Chamber on Food and Nutrition Security (CAISAN), a government body linked to the Chief of Staff’s Office of the Minister of Social Development and Fight Against Hunger. These institutional and legal frameworks are the most important coordination mechanisms for multisectoral action in the country, and will be later detailed in this report.

Another important instrument in the national nutrition context is the Intersectoral Strategy for Obesity Prevention and Control. The strategy was prepared by CAISAN and all line ministries there represented (including Social Development, Health, Education, Cities, Agriculture, Agrarian Development, Finance, Fisheries and others), as well as CONSEA and the Pan American Health Organization (PAHO). The key goal of the strategy is to organize a coordinated strategy to combat overweight and obesity and its determinants in the country, considering existing policies and programmes. Among the actions included in the plan are: increase access (physical and economic) to adequate and healthy foods; promote nutrition education and communication; promote healthy environments in schools, workplaces, cities
and public services such as health; promote and strengthen nutritional surveillance; provide health support for people who are overweight and obese; and regulation regarding the quality and safety of food. The strategy presupposes the organization of a Steering Committee with representatives of all line ministries that are part of CAISAN, which will soon meet for the first time, to discuss priorities agenda, monitor the implementation of planned actions, as well as encourage, guide and support the implementation of intersectoral actions in states and municipalities.

Finally, the Workers Food Programme (PAT) is one of the oldest FNS strategies in the country, contributing to improve nutrition not only of workers but also of their households. PAT aims at improving the nutritional status of low income workers, to promote positive effects on quality of life, reducing accidents and increasing productivity. It was established by law No. 6,321, of April 14 1976 and targets workers that earn up to five times the minimum wage.

PAT can be implemented through three modalities: the provision of ready meals during work hours (catering), the provision of food baskets, or through vouchers/magnetic cards through which workers can purchase foods of their preference in the market. PAT follows nutritional recommendations established by Interministerial Ordinance 66 of 25 August 2006, which also state that the programme must be implemented with a rights-based approach and respect regional and cultural preferences and food habits. While applying most for the modality of catering, these recommendations must be followed for the three modalities. Interministerial Ordinance 66 also states that nutrition education initiatives must be conducted in the work place, and that a nutrition professional must be responsible for the implementation of the programme. The programme is implemented in partnership with the government, workers associations and employers, which meet regularly in a Tripartite Commission. While implemented sectorally, through the Ministry of Labor and Employment, the programme has a national commission that promotes the discussion with other line ministries including health and social development.
IV. METHODS

This study consisted of a literature review, documentary analysis, face-to-face semi-structured interviews, online structured interviews via e-mail, and a workshop for discussion with key stakeholders. A mission to the country with the duration of 21 days was conducted from 6 July to 27 July 2013, during which face-to-face interviews and the workshop took place. A preparatory meeting was also held at PAHO at the start of the mission to prepare for the workshop and upcoming activities of the mission. This meeting was organized by the Ministry of Social Development acting as Executive Secretariat for the Interministerial Chamber for Food and Nutrition Security (CAISAN).

The Guideline for country case studies prepared by the UNSCN (Annex 1) constitutes the starting point for the methods used, which were refined and are presented in detail here.

Theoretical framework

The theoretical framework used for the analysis of relevant policies was that proposed by Menon et al (2011). The framework (Figure 10) recognizes 3 domains for policy assessment: epidemiologic, sociopolitical and operational. The epidemiologic domain includes issues regarding the nutrition situation in the country, such as the prevalence of all forms of malnutrition and its causes, who are the most vulnerable and the most affected (in terms of geographical location, stage of the lifecycle, etc), and the current available evidence about what types of interventions are most appropriate in terms of effectiveness and efficacy. The operational domain is concerned with delivery and implementation aspects, such as coverage, quality and utilization of key services, as well as the capacity to deliver. And the sociopolitical domain relates to the social and political issues that may help or hinder the efforts in nutrition policies and programmes, for example coordination among key stakeholders, participatory mechanisms, sectoral and/or shared aspirations and interests, political incentives and agendas, institutional arrangements (formal and informal), among many others.

![Figure 10. Assessment framework for nutrition policies. Source: adapted from Menon et al 2011.](image-url)
By exploring each domain individually as well as the interconnection between the three, this theoretical framework is useful to identify critical gaps and in which policy stage the gaps are, which facilitates the identification of potential solutions. It also highlights how vital the sociopolitical domain is, and how it can influence (positively or negatively) the epidemiologic and operational issues that are more commonly and easily mapped. For this study, focus was given to policy formulation and management at national level and the operational domain was not investigated in depth. Nevertheless, key issues regarding implementation emerged during documentary analysis and interviews.

Scope of the study
The scope of the study was defined through discussion with government representatives in the workshop that happened on 10 July 2013. The list of workshop participants is available on Annex 2).

The analysis includes policies, action plans and programmes. For the purpose of this study, and according to WHO (2013), a policy is a written statement of commitment (generally in broad terms) by a nation state. An action plan (e.g. a national plan of action on nutrition) arises from policy; it contains detailed operational plans, including budgets, and goals and targets that are specific, measurable, attainable, relevant and time-bound. A programme provides details for implementation of the action plan; specific projects are defined within a programme. The following policies, action plans and programmes were identified for analysis.

Primary policies and programmes to be analyzed against nutrition-sensitivity criteria:

- National Food and Nutrition Security Policy (PNSAN) and National Food and Nutrition Security Plan 2012 – 2015 (PLANSAN)\(^\text{11}\)
- National Agroecology and Organic Production Policy (PNAPO) and National Agroecology and Organic Production Plan 2013-2015 (PLANAPO)\(^\text{12}\)
- Agriculture and Livestock Plans 2012/2013 and 2013/2014
- National Programme for Strengthening of Family Farming (PRONAF)
- Food Purchase Programme (PAA)
- National School Feeding Programme (PNAE)

\(^{11}\) The policy and its action plan were analyzed together because they are complementary, and if analyzed separately it could lead to false negative results. For example, many of the strategic guidelines mentioned in the policy are not explicit regarding the criteria for nutrition-sensitivity, but it becomes evident that such criteria are present once the same strategic guideline is further described in detail in the action plan.

Secondary policies to be analyzed as part of the enabling context for food and nutrition security:

- Bolsa Familia Programme (PBF)
- Brazil without Extreme Poverty Plan (Brasil Sem Miséria – BSM)

The selection of primary policies and programmes for analysis was based in two main criteria: 1) being a priority in the national policy agenda; 2) having a component related to the agriculture sector, even if the overall focus of the policy, strategy of programme is different. Due to the timeframe of the consultancy, it was not possible to analyze all relevant policies and programmes. The policies and programmes identified as secondary are not analyzed in terms of the nutrition-sensitivity criteria, because even though they represent national political priorities in the country (especially PBF and BSM), the nutrition-sensitivity criteria for agricultural policies do not apply to them. For PBF, there is no agriculture component, and for BSM the agriculture component is implemented through existing initiatives that were analyzed on the group of primary policies. These were included in the report as stakeholders identified them as crucial for the current FNS and nutrition policies in the country.

The workshop also identified other elements that are relevant for the analysis of the sociopolitical domain, including current institutional arrangements, coordination mechanisms and legal framework (LOSAN, PNAN, PNSAN, PLANSAN, CAISAN, CONSEA, among others).

Data collection

The data used in this study includes secondary data from existing sources and primary data collected from face-to-face semi-structured interviews, online structured interviews via e-mail and a workshop. In addition, the consultant participated in an event organized by CONSEA\textsuperscript{13} to discuss food systems and the use of genetically modified crops, which also contributed with the views of different stakeholders and sectors regarding the ongoing challenge with GM foods in the country.

A literature review was conducted (in English and Portuguese) to gather information regarding the epidemiological domain described above. It aimed at broadly mapping and describing the current food and nutrition security situation in the country, as well as to characterize the agriculture system. It was conducted partly online, using available international databases and country statistics, as well as international scientific databases such as PubMed. In addition, during the country mission relevant country information was collected from national databases. Data collected includes reports, scientific articles, national laws and other relevant legislation, consultant reports, official brochures, and others.

\textsuperscript{13} The event was called Mesa de Controvérsias sobre Transgênicos (Controversy Round Table about GMs), which took place in Brasilia on 11 and 12 July 2013. The event had the participation of civil society representatives from different regions of the country, government from various line ministries, indigenous populations, academics and environmentalists to discuss the main issues around the use of GM crops and propose recommendations of measures to be taken by the government.
The country visit was an opportunity for more in-depth semi-structured interviews with national stakeholders and experts. The sampling process for interviews was snowball sampling, a process through which the researcher makes an initial contact with people identified as relevant to the research, and through this first contact other potential interviewees can be identified and contacted (Bryman 2004). The initial identification of interviewees happened in the workshop on July 10, and the invitations were sent by CAISAN/MDS, followed up by telephone contact from the consultant.

The semi-structured interviews happened in Portuguese and followed an interview guide developed for this case study (Annex 3), which was adapted by the consultant depending on the area of expertise of the interviewee and the focus of the interview. By conducting semi-structured interviews with only a broad group of topics rather than pre-defined questions, the interviewees were allowed to be spontaneous and bring issues that are more relevant in their own perceptions. Interviews covered issues regarding the sociopolitical, operational and epidemiological domains of the policy analysis framework, with a focus on the first domain. The key topics were: the link between nutrition and agriculture in the country (policy goals, challenges, potential impact); relation with trade and taxation, subsidies in the country; implementation capacity and challenges; M&E systems in place and their limitations; policy processes and alignment, cross-sectional coordination, stakeholder participation, institutional arrangements and capacities, political commitment to nutrition, capacity needs for nutrition-sensitive agriculture, funding and investments, terminology used and its implication for policy-making; lessons learned and knowledge gaps.

All face to face interviews were conducted face-to-face, between 12 and 26 July 2013. Interview duration ranged from 30 to 120 minutes. Some interviews were recorded for further consultation and eventual transcription, with the oral consent of interviewees, while some participants preferred not to have them recorded. In some cases, due to operational constraints an informal meeting took place instead of a formal interview. Both formal interviews and meetings followed the interview guide, and contributed with important data and insights for the study. All participants were informed about the anonymity and confidentiality of the meetings/interviews, and about the case study objectives. They were given an information sheet with a brief summary of the case study and the contacts of the consultant and the UNSCN Secretariat.

In addition to the face to face interviews, a number of key stakeholders that are not located in Brasilia were approached electronically with a questionnaire to be answered either via skype or via email. These include mainly representatives of civil society organizations and CONSEA. The questionnaire was also sent to government representatives who did not have availability to meet with the consultant during the mission. The questionnaire is available on Annex 4 (in Portuguese).

In total, 22 persons participated at this stage of the study, including 16 interviews in person and 6 online (see Annex 5 for list of participants). Participants included the following organizations: CONSEA; Ministry of Fisheries and Aquaculture; National Fund for the Development of Education/Ministry of Education; Ministry of Agrarian Development; National Food Supply Company/Ministry of Agriculture, Livestock and Supply; Ministry of Social Development and Fight against Hunger; Ministry of External Relations; Ministry of Health; University of Brasilia; Federal University of Pernambuco; ActionAid Brasil; the Office of the District Attorney; Brazilian Institute of Social and Economic Analysis (IBASE), the Brazilian Nutrition Society (ASBRAN) and the Brazilian Institute for Consumer Defense (IDEC).
Data analysis

The selected policies, action plans and programmes were analyzed in regards to their epidemiological, sociopolitical and, to a lesser extent, operational aspects. The analysis investigated the nutrition-sensitivity of each individual policy, convergence aspects of the policies and the existing institutional arrangements and their potential impact on nutrition.

The nutrition-sensitivity of each policy, strategy and programme was assessed using a set of criteria (Table 4), based on the Guiding principles for improving nutrition through agriculture as presented by Herforth (2013), and the ways to enhance nutrition-sensitivity of programmes described by Ruel et al (2013) (Box 1). Four of the criteria are specific for agriculture-related policies and programmes, and are therefore used only for the agriculture component of the policies analyzed.

These criteria of nutrition-sensitivity are appropriate for the analysis of policies, actions plans and programmes, as they represent issues that can be present in the three categories of policy documents. Importantly, the criteria do not indicate whether one policy is better than another. They only show to what extent this set of principles have been considered in the documents.

Table 4. Criteria for assessing the nutrition-sensitivity of policies, action plans and programmes

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Yes / Partially / No</th>
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</thead>
<tbody>
<tr>
<td><strong>For all policies / programmes</strong></td>
<td></td>
</tr>
<tr>
<td>Contain nutrition objectives and indicators into their design</td>
<td></td>
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<tr>
<td>Designed to address the types and causes of malnutrition based on assessment of the context at the local level</td>
<td></td>
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<tr>
<td>Target the most vulnerable groups, properly identified (also on the basis of nutrition and FNS vulnerability)</td>
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<tr>
<td>Collaborate and coordinate with other sectors</td>
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<tr>
<td>Empower women</td>
<td></td>
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<tr>
<td>Act as a delivery platform for direct nutrition interventions (if appropriate)</td>
<td></td>
</tr>
<tr>
<td>Incorporate nutrition promotion and education around food and sustainable food systems that builds on existing local knowledge, attitudes and practices</td>
<td></td>
</tr>
<tr>
<td><strong>For agriculture component of policies / programmes</strong></td>
<td></td>
</tr>
<tr>
<td>Facilitate production diversification, and increase production of nutrient-dense crops and small-scale livestock</td>
<td></td>
</tr>
<tr>
<td>Improve processing, storage and preservation to retain nutritional value, shelf-life, and food safety, to reduce seasonality of food insecurity and post-harvest losses</td>
<td></td>
</tr>
<tr>
<td>Promote markets expansion and access for vulnerable groups, particularly for nutritious foods</td>
<td></td>
</tr>
<tr>
<td>Considers environmental sustainability, conservation of natural resources and climate change</td>
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</table>

A policy scoring was also used, based on the presence or absence of the nutrition-sensitive criteria, adapted from those on Table 3 (see Annex 6). This scoring grid was a common tool
used for other country case studies, and categorized policy documents into 5 categories of nutrition-sensitivity: low, very low, medium, high, and very high.

The presence of convergence elements was investigated using the framework proposed by Ved and Menon (2012). While the framework includes convergence in all policy stages (as identified in Figure 10 above), for this analysis the focus was on the convergence at policy formulation and national management levels. To understand whether or not the policy process and outcomes display features of convergence, the framework suggests specific questions regarding actors, decisions and actions (Box 2), which were used to frame interview questions and also to guide the identification of key issues during data analysis.

The documentary analysis was conducted through qualitative content analysis. Importantly, only what was explicitly mentioned in policy documents (including legislation, official publications and information available on official websites) was taken into account, due to the methodological challenges in assessing what is ‘implicitly mentioned’. In addition, for an issue to be considered present in the policy or programme it had to be mentioned as a clear objective, a clear expected result or an activity to be implemented. If the issue was only mentioned in the introduction or characterization of the situation, and therefore not reflected in the strategic parts of the document, it was considered as not present.

As the documentary analysis, interview notes and partial transcripts were analyzed using qualitative content analysis. The analysis was done by identifying features of convergence as previously described, and the most recurrent themes and dynamics in interviewee’s discourses, including conceptual and policy issues.

<table>
<thead>
<tr>
<th>Box 1. Ways to enhance nutrition-sensitivity of programmes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Improve targeting</td>
</tr>
<tr>
<td>2. Use conditions to stimulate participation</td>
</tr>
<tr>
<td>3. Strengthen nutrition goals and actions</td>
</tr>
<tr>
<td>4. Optimize women’s nutrition, time, physical and mental health, and empowerment.</td>
</tr>
</tbody>
</table>

In addition, key features that make programmes potentially nutrition-sensitive are:

5. they address crucial underlying determinants of nutrition
6. they are often implemented at large scale and can be effective at reaching poor populations who have high malnutrition rates
7. they can be leveraged to serve as delivery platforms for nutrition-specific interventions


<table>
<thead>
<tr>
<th>Box 2. Convergence in Policy Formulation and Planning Policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Based on an understanding of the key sectors that are important for a given policy goal, the context of the policy-making process (whether central, state, or district), and the various issues related to convergence that are described above, the following questions under the domains of actors, decisions, and actions need to be considered to assess the extent to which the policy-making process and the policy outcomes and instruments display features of convergence:</td>
</tr>
</tbody>
</table>

**Actors**

• What were pre-policy debates like? Did they draw on an intersectoral set of actors? Which sectors had greater representation? Did the actors involved include government, external donors, civil society, and media?
• Who were the key actors in policy formulation? And in decentralized policy formulation mechanisms, which actors were included at which level?
• What features of the policy and the resultant policy instruments might shift power relationships and hierarchies?
• To what extent does the inclusion of convergent action disturb status quo? Who wins and who loses?
• What is the nature of leadership that drives policy convergence and what is the level of engagement of high-level leaders?

Decisions and actions
• What components need alignment or harmonization of policies?
• Does the policy envisage the establishment of a high-level committee for guidance, oversight, and review of implementation?
• Is there a recognition and articulated commitment in the policy to the desired outcome of the convergent action?
• Does the vision statement of an overall policy or strategy document related to the issue reflect the fact that convergence with other agencies is an integral part of achieving the goals of the particular objective under consideration?
• Do the goals of the sectoral policies also include goals related to the convergence issue?
• Are there specific strategies with the objective of harmonizing the policy toward the objective(s) under consideration?
• Budgetary commitment: To what extent are policies that need convergent action supported by financial commitments for actions related to convergence?
• How has each sectoral policy been modified to accommodate the interest of the outcome for which convergence is critical?

Source: Ved and Menon (2012)
V. FINDINGS

5.1 Main challenges identified for the Brazilian food system

According to country stakeholders, Brazil has seen significant progress in the food and nutrition security situation, mainly in what regards access to food. Even though there are still challenges in access to food, mainly for some specific population groups (such as indigenous and quilombola communities), now the country is moving towards a new challenge. The new challenge regards the quality of the diet and the full implementation of the right to adequate food.

The quality of the diet is still problematic in the country, endangered by issues such as the predominant agricultural model (agribusiness) with the abusive use of pesticides and uncontrolled genetically modified crops, changing dietary habits away from traditional and native foods towards processed foods, high prices of healthy foods, concentration of production chains and of land ownership, difficulties in moving regulatory agendas forward, and the current scenario of the double burden of malnutrition.

Land reform

Land concentration is perceived by many interviewees as a major factor that supports the persistence of extreme poverty in the country, therefore access to land is of foremost importance to guarantee FNS and food sovereignty. Interviewees indicated that there has been, since 2003, progress in policies and programmes towards family farming and settlement of landless families, as well as initiatives for qualification of settlements, reaffirming the importance of this agenda in the context of social and economic development of the country. However, in recent years the land reform agenda has been removed from the government’s agenda.

This is particularly relevant in the context of food and nutrition security of rural populations and traditional communities such as indigenous and quilombolas. Today, many of these families have access to social benefits, such as conditional cash transfers or support to small enterprises and extension trainings, which minimize their food insecurity. However, they need effective policies to ensure the right to land to promote sustainable results over time and their independence from direct social assistance. Participants reiterated that there can be no right to adequate food without the right to land.

For key stakeholders, one of the greatest barriers for land reform in Brazil is the fact that it requires a revision of the current model of production and consumption of food, which favors land concentration. In that sense, growing investments on family farming policies have had a positive effect into changing this paradigm, but some interviewees expressed the efforts have not yet been enough to promote a systemic change. Land concentration and the slow agrarian reform process were indicated as important obstacles to the full consolidation of family production systems in Brazil.
Predominance of the agribusiness model

Stakeholders expressed that agriculture policy in the country is dominated by the agribusiness model, institutionally represented by the Ministry of Agriculture, Livestock and Supply (MAPA). On the other hand, there is the family farming model, which has been strengthened in the past 10 years but continues having a secondary role in the agricultural policy in the country. This second model is represented by the Ministry of Agrarian Development (MDA) in partnership with secretariats in other ministries.

This division has its origins in 1996 with the creation of the National Program for Strengthening of Family Farming (PRONAF). The idea with the programme was to set aside a part of the rural credit budget specifically for smallholder farmers and settled farmers. In 2003, the management of the programme was transferred to the Ministry responsible for the land reform, MDA. Some stakeholders indicated that this division enhanced the differences and separation of the two sectors.

Although they are not worlds apart, given the various interfaces between them, such models suggest different conceptions of agrarian space occupation, social organization and relationship with nature. Most stakeholders agreed that these two agricultural models do not coexist harmonically, as the agribusiness is much stronger, more competitive and more powerful.

The focus of agricultural policy in the agro-export model has positive outcomes for the country’s GDP and economic growth. The increase in exports was pointed out as one of the pillars for Brazilian economic growth, which helps explain the high governmental investment in activities for this sector, including not only direct investment but also construction of infrastructure, debt relief, and tax exemptions, among others.

Nonetheless, the agribusiness model is criticized for the intensive use of chemical fertilizers, pesticides and genetically modified crops, as well as the prioritization of commercial interests rather than the promotion of food as a human right. This model represents serious problems in the distribution of agricultural inputs such as land, water and seeds, increases land concentration, promotes genetic contamination, and reduces autonomy of small farmers, particularly those from traditional peoples and communities. There are constant and severe territorial disputes between rural communities / traditional populations and the large-scale farmers.

Even though the available data reviewed for this report indicates that family agriculture is responsible for 70% of what is internally consumed in the country, there is a great disparity concerning government funding for the agribusiness and for family farming. Most of country’s investment in agriculture is still destined to agribusiness, which indicates a priority for export commodities rather than internal consumption.

Stakeholders expressed that large-scale production goes in the opposite direction of biodiversity promotion, which is a constant threat to food and nutrition security in the country. Many governmental agriculture initiatives are supported by the existing FNS policy guidelines and institutional frameworks. Yet the hegemonic policies for agriculture and livestock are not based in FNS principles. On the contrary, the logic aims to balance the foreign trade and incentivize the production of commodities for export, not for domestic supply. In addition, the beneficiaries of these policies are not the most vulnerable, but large scale farmers and agricultural conglomerates that favour the concentration of land and
resources. The programmes developed by MAPA consider very little issues regarding food and nutrition security, only to respond to international phytosanitary standards.

The option of prioritizing agribusiness is seen as completely opposite to the possibility of producing foods to ensure good health and nutrition of the population. The predominance of the paradigm of food as a commodity favours speculation and price vulnerability, which contributes to the disrupting of traditional food production systems and does not promote FNS. While it is known that family farming does not have the capacity to substitute agribusiness in terms of income generation and contribution for the GDP, the effort being made is towards ensuring that there is more support of this type of agriculture for the domestic markets and to provide healthier, more sustainable foods to the country’s population.

**Intensive use of pesticides**

Interviewees indicated that another great concern is that agricultural production in the country is increasingly dependent on pesticides and chemical fertilizers. In 2008, Brazil beat the United States and assumed the position of the largest world market for pesticides. The world market for agrochemicals has grown 93% in the past 10 years, while the Brazilian market has grown 190% (Carneiro et al 2012). The use of pesticides has increased in total volume and also per hectare, and is related to expansion of transgenic soybean (which intensely uses glyphosate) and the growing resistance of pests (fungi and insects) requiring greater use of pesticides. Lower prices and big tax exemptions for pesticides were also indicated as factors contributing to the abusive use of such substances.

As previously stated, the agribusiness model was pointed out as a heavy promoter of the use of pesticides. According to Carneiro et al (2012), 27% of farms 0-10 hectares use pesticides, compared to 36% of those 10 to 100 hectares and 80% of those bigger than 100 hectares. The concerns with the increased use of pesticides is also due to the dominance of transnational corporations which act without commitment to promote the human right to food. Stakeholders indicated that some of these corporations have cooperation agreements with public implementing agencies and research institutes, which can lead to actual or perceived conflicts of interest and undermine the credibility in their work.

One of the main obstacles for addressing the challenge with pesticides is the lack of or weakness of current regulatory mechanisms. For example, current regulations regarding limits for pesticide residues do not consider the effects of combining different pesticides in one same crop, and how their different ingredients can have health effects when combined. In addition, the cost for registration of new pesticides is ridiculously low. According to Augusto et al (2012), it costs in Brazil approximately 40 USD to register a new pesticide, compared to 600,000 USD in the United States.

It was indicated that the National Health Surveillance Agency (ANVISA) needs to advance in the process of regulation of pesticides, for example banning pesticides that are already banned in other countries, and forbidding the use through pulverization. CONSEA also informed that they are on the process of proposing to the government a draft National Plan for the Reduction of Pesticide Use.
Genetically modified (GM) crops

The use of genetically modified crops, which accompanies the large-scale monoculture and the use of pesticides as previously mentioned, is a current concern indicated by government representatives, civil society and researchers interviewed for this study.

The greatest criticism to the use of GMs is based on the fact that the precautionary principle is not being followed. The current knowledge about the effects and risks of GM crops on health and nutrition and on the environment is not enough, and there are varieties being approved for use without enough certainty that they will not be damaging in the long term. Consistent evidence on the risks posed to FNS, health and the environment are lacking, but so is more evidence that the risks do not exist. And in that case, the precautionary principle should always be followed.

During the consultant's mission to the country there was an event14 organized by CONSEA with the participation of civil society representatives from different regions of the country, government from various line ministries, indigenous populations, academics and environmentalists to discuss the main issues around the use of GM crops and propose recommendations of measures to be taken by the government. In that occasion the following challenges and issues with GMs were identified in the country:

- There is decreasing availability of non-GM seeds, and the transgenic seeds are so predominant in the market that farmers have difficulty in purchasing non-GM seeds. The farmer must pay royalties in the purchase of seeds, and in the case of terminator seeds they must always buy the seeds for every harvest, creating a dependency and threatening food and nutrition security and food sovereignty.
- GM seeds need more pesticides, which are absorbed by the plants and can be passed on to the consumer depending on the stage in which the plant is harvested, if the substance has not been completely metabolized by the plant.
- When combining GMs with normal crops, GMs tend to dominate the others varieties and contaminate the environment. There have been reported cases of contamination of crops due to the natural pollination process. The set up limits for distance between GMs and non-GM plantations is, in practice, not enough to avoid cross-contamination.
- The promised productivity increases with GM crops has not been observed, and the increased productivity that is experience cannot be attributed to the GM seeds, but to other natural processes that had already started to be implemented before.
- The use of GMs that are resistant to specific pests is stimulating the growth of other pests that were not relevant before, since the pests that were relevant disappear, creating an imbalance in the environment.
- There is also the case of pests becoming resistant to both the GM technology that should eliminate them and to pesticides, which requires the use of new pesticides with higher levels of toxicity. There are reported cases in the South and Central-West regions of the country of plantations of GM maize, which should be resistant to worms such as Spodoptera frugiperda, being devastated by this pest.
- Confidentiality in the process of evaluation for liberation of new varieties is questioned by civil society, which claims more transparent processes.

14 The event was called Mesa de Controvérsias sobre Transgênicos (Controversy Round Table about GMs), which took place in Brasília on 11 and 12 July 2013.
• There is a big knowledge gap about how GMs and normal crops will coexist and how issues arising will be handled. For example, in the case of damages and losses, who should be held responsible? The farmer, the government, or the GM seed company?

Interviewees and participants of the above mentioned event indicated great concern regarding CNTBio, the National Technical Commission on Biosafety, composed of government representatives and national experts who evaluate requests from companies to the introduction of new GM crops in Brazil. The criticism that has been presented is that the commission evaluates studies provided by the companies themselves stating that the products are safe, and in most cases consider them valid, without independent studies. Some line ministries, such as the Ministries of Health, of Environment and of Agrarian Development, have expressed concerns and that these studies are not sufficient, requiring more investments, research and time before new GMs are approved for use. On the other hand, other line ministries that are more directly related to the agribusiness model have defended that such studies are enough. The requests for more studies are disregarded as the majority votes in favor of the liberation of new GM crops based on these limited studies.

The studies presented by the companies are minimal and of short duration, with reduced number of characteristics evaluated. More tests of the impacts on health and nutrition in the medium and long terms are needed. Most tests presented by companies attesting that there is no risk to health were conducted in controlled environments, for example without the use of pesticides. However, this type of study is criticized because such seeds have been genetically modified to endure high levels of pesticides that will be used in the real world, and studies that do not consider the use of such products do not evaluate all potential risks to health and the environment. For example, studies for the approval of some soybean varieties were conducted without the use of glyphosate, a pesticide largely used in its production.

Stakeholders also expressed that instruments and institutional arrangements (such as CONSEA) did not exist when the debate around GMs started, but at present such instruments represent a good opportunity for the voices of farmers and other interested civil society movements to be heard and strengthen government action. They also informed about ongoing initiatives to control the use of GMs, such as a draft bill to regulate the use of terminator seeds currently being discussed.

Gaps in the value chain

Concentration of productive chains: Interviewees indicated the increasing concern with the concentration of productive chains, from the agricultural inputs industry to food retail chains, in the hands of few, transnational groups. These groups play a very influential role in the establishment of prices, in the foods that are available for sale and consequently in defining what is consumed and in determining the nutritional status of the population.

Storage and supply: stakeholders informed that the concentration of storage facilities (centralized system), along with the current transportation system which is predominantly by road in a country with continental proportions, increases the cost of foods and food waste. The food value chain in Brazil has high waste levels, at many points of the chain. This is for example due to the lack of storage infrastructure for highly perishable products such as fruits, vegetables and fish. This affects mainly family farming produce. A National Food
Supply Policy is currently being elaborated to address such challenges, including actions to revitalize the old local shops.

**Commercialization:** it was also identified that food producers are dependent on commercialization chains that are not sufficiently regulated and that include intermediaries and large retail chains, which receive most of the profit from food commercialization and dictate market rules that are commonly unfair to the most vulnerable groups. There is increasing emphasis on processed foods, and fresh foods are commercialized with very high standards that are more aesthetic than related to food safety, generating increased prices for healthy products and more food waste.

**Processing:** there is great worry about the consumption of ultraprocessed foods and the big participation of transnational food corporations in the Brazilian food market, without good regulatory mechanisms, accompanied by the fact that traditional and regional foods have increasingly lost its value among different population groups. In Brazil a great part of what is consumed is processed, which contributes to the lower cost of the diet but also to overweight, obesity and NCDs. Processed foods occupies a place in the market that was previously occupied by artisanal or minimally processed foods which retain more nutritional value and use less conservatives and other substances, as well as salt, sugar and fat. Such artisanal products suffer from the current regulation, which present inadequate requirements to the small producers in terms of quality control. Sanitary legislation represents a barrier, as it favors large-scale production, and not the small producers. For example, certain types of cheese made of uncooked milk (such as *serrado* cheese, *minas* cheese, *coalho* cheese) are traditional products and an important part of Brazilian culture and biodiversity. However, the obligation to pasteurize the milk removes key characteristics of such traditional products, and to continue producing them the small farmers need to work clandestinely.

**Regulation**

Interviewees informed that the regulatory agenda is one of the most difficult to take forward in the country. Regulation is a challenge in the country in different aspects, for example regarding the regulation of the use of pesticides, of GM crops, of land ownership and also of marketing of foods.

Brazil is one of the countries that have advanced the most on the discussions about regulation and the participation of the private sector in public policy. There are permanent debates in the government, in the academia and in the civil society. The Brazilian government has, through the Ministry of Health, funded the *World Nutrition Rio2012* congress, an event which happened without the participation of the conflicted food industry mainly due to this political and financial support, and that constituted an important space for discussions on the public-private relationship and conflicts of interest. However, regulation is one of the key challenges still in the country.

One of the measures defended as key to prevention and control of obesity in the country is the regulation of food advertising to children. There have been several attempts by the National Health Surveillance Agency (ANVISA), but none came to be implemented successfully. The most emblematic example is that of ANVISA Resolution 24 of 15 June 2010 (known as RDC 24). RDC 24 regulates the offer, advertising, publicity, information and other related practices whose purpose is the dissemination and promotion of commercial foods considered with high amounts of sugar, saturated fat, trans fat, sodium and beverages.
of low nutritional value. The resolution also contains the requirement that the advertising of these products is accompanied by warnings about possible health risks in the event of excessive consumption.

The first problem in the process of elaboration of RDC was that the version published in 2010 was considerably different from that which was put out for public consultation in 2006. For example, the text published did not consider the restriction of marketing of foods to children. A recent research report (Baird 2012) indicated that the lobby from the food industry was the greatest force behind this revision of the text, and was able to mitigate ANVISA’s action in regulating marketing of unhealthy foods to children. This perception is shared by many of the stakeholders interviewed. In any case, even though weakened, RDC 24 was welcomed by many stakeholders as an important step forward for the promotion of healthier environments and the combat of the current overweight and obesity problem in the country.

Nonetheless, RDC 24 was suspended some months after its publication. The food industry, through its representative organization ABIA (Brazilian Association of Food Industries), filled a lawsuit against RDC 24 due to its allegedly unconstitutionality. ABIA defends that ANVISA has no authority to issue rules on advertising of food and non-alcoholic drinks, as such rules go against constitutional clauses that regulate marketing and publicity more generally, and ANVISA is trying to regulate something that goes beyond its mandate. Until now there has been no judicial decision about RDC, and the process has stopped somewhere at the Attorney General’s Office, who emitted an informal note recommending the suspension of RDC but never a formal final position. The current status is that the RDC is valid but suspended due to this impasse.

The positive outcome of this situation was the creation of the civil society movement called Front for Regulating Advertising of Food in 2010, due to the mobilization created in this context. Civil society is trying different mechanisms to promote a resolution about the impasse, and another important measure was the creation of a working group within CONSEA in 2012 (GT Publicidade dos Alimentos/WG Food Marketing). The goal of the working group is to deepen the discussions on the regulation of food advertising, facilitating dialogue between government and society in this sense and seeking action strategies. The working group has promoted a series of thematic meetings to promote discussion between different stakeholders and identify action taken and action needed by each sector.

Within the government, there is understanding and support at technical level of the need for regulation. This appears in important policy documents such as the National Food and Nutrition Policy (PNAN), the Intersectoral Strategy for Obesity Prevention and Control, and in the strategic planning of the Ministry of Health, among others. However, stakeholders identified that this is not a government agenda. At higher political level the issue is not discussed due to its very sensitive nature and the pressures suffered from the food industry. As two of the interviewees mentioned, “the politician who takes the lead on this issue will face terrible opposition from the food industry and the media, which is dominated by the marketing of food”; “nobody wants this fight. They focus on the positive, and there is nobody willing to say don’t buy, don’t eat”.

So in practice what is done is soft opposition, through actions such as nutrition education and physical activity promotion, which do not take a stand against the most powerful players.
Stakeholders pointed out that the industry defends self-regulation, and argues that regulating publicity of foods is a form of censorship, which will decrease employment levels and delay economic development. The discussion is based on legal issues, but what is really needed is political will and a better understanding in the judiciary about food and nutrition issues.

Unfortunately, the social forces that defend regulation are not strong enough to move the agenda forward. This is also seen as a problem by government representatives that defend the cause inside the government at technical level. They would benefit from greater involvement of such groups in policy processes and stronger movement to demand action at the highest level.

**Legislative struggles**

Interviewees indicated that one of the greatest barriers for progress with policies that promote food and nutrition security and more nutrition-sensitive food systems are struggles within the legislative. There are difference forces at the Chamber of Deputies and the Senate, and while some projects are trying to improve the biosafety law with food and nutrition security and human rights principles, others are trying to approve terminator seeds.

Unequal power relations between agribusiness and family farming is evident in the National Congress, where the Parliamentary Group for Agriculture (the so-called “ruralists”), composed of 162 deputies (31,6% of total) and 11 senators (13,6% of the total), defends the interests of the agribusiness and proposes projects and laws that reduce the rights of indigenous communities, quilombolas and other traditional groups, and undermine current efforts from civil society and the executive government to promote FNS. The ruralists represent one of the most powerful economic elites in the country and are closely related to international tradings and transnational groups related to food and agriculture.

This parliamentary group is one of the most important impediments for governmental action on rights for the landless and other vulnerable rural groups. For example, there is the proposal of a constitutional amendment regarding slave labour, which gives new wording of Article 243 of the Constitution to include the expropriation of lands where labor analogous to slavery is identified, with the subsequent allocation of such lands for agrarian reform and social use, without compensation for the owner. This proposal is never approved by the ruralists, because this would have impacts in the large-scale producers that still use this type of work, and many of the congressmen are themselves (or their families) large-scale farmers.

The same situation is observed in relation to nutrition and regulation of marketing of unhealthy foods. Interviewees expressed that the food industry lobby with Brazilian legislators is enormous, and it is very difficult to move the agendas forward at the executive level with constant impediments from the legislative, such as legislation that is not approved or that is modified to suit different interests, as happened with RDC 24.

Besides lobby, another mechanism that is commonly used to promote private interests is the private funding of political campaigns, which is not regulated and was pointed out by stakeholders as one the main sources of conflicts of interest that undermine FNS efforts in the legislative. Agribusiness and the food industry are among the biggest donors to political campaigns in Brazil.
5.2 Analysis of the nutrition sensitivity of primary policies

5.2.1 Overview and policy scoring

The participation of nutrition considerations in agricultural policies is also subject to the two different models present in agricultural policy in Brazil. According to interviewees, in general agricultural policy considers very little nutrition concerns. There has been increased attention to food and nutrition security in the country since 2003, however agricultural policy also plays an important role to the trade balance and the formation of monetary reserves, and it was indicated that there is no openness for the review of such strategy in the light of the food and nutrition security guidelines developed in the country in the past 10 years.

Stakeholders pointed out that the agribusiness priorities of the Ministry of Agriculture, Livestock and Supply are not structured with a basis on food sovereignty and FNS. They also indicated that the key macroeconomic discussions, including those related to agriculture, are dealt with in the Economic and Social Development Council, and not CONSEA, and that the discussions focus on the agribusiness model.

However, there are some elements of the national agriculture policies that consider nutrition and food and nutrition security, mainly those related to the family farming model. For example, the Food Purchase Programme (PAA, analysed in section 5.2.7), promotes dietary diversity and regional food products, as well as organic and agroecological food production.

In this section, the selected policies and programmes were analyzed according to the established nutrition-sensitivity criteria (see chapter IV). The criteria for policy scoring are detailed in Annex 6, and a detailed description of each policy based on such criteria is presented in chapters 5.2.2 to 5.2.8.

Importantly, the policy scoring does not indicate which policy or programme is better in comparison to another. It only indicates the presence or absence of the set of principles used in the analysis (see table 5). It is possible, therefore, that a programme that is narrower in scope scores more points than the overarching strategic policy of which it is part, but this does not imply any kind of value judgment.

The policy scoring (Figure 11) shows that the National School Feeding Programme (PNAE) is the initiative with the highest score, including 15 out of 17 criteria considered in the analysis. PNAE is followed by the National Food and Nutrition Security Policy and Plan (PNSAN and PLANSAN), with a score of 14, and the Food Purchase Programme (PAA), with a score of 12. These three policies and programmes present very high and high degrees of nutrition sensitivity.

The policies and programmes that present medium nutrition sensitivity are the National Agroecology and Organic Production Policy and Plan (PNAPO / PLANAPo), with a score of 9; the Harvest Plan for Family Farming 2013-2014 and Harvest Plan for Fisheries and Aquaculture 2012-2013-2014, with a score of 8; and the National Programme for Strengthening of Family Farming (PRONAF), also with a score of 8.

The lowest scoring policy is the Agriculture and Livestock Plan 2012/2013 and 2013/2014, which had a score of 4, which represents low nutrition sensitivity. This is compatible with interviewees’ perceptions that the agribusiness model is much less nutrition-sensitive then policies and programmes based on the family farming model.
Figure 11. Results of policy scoring according to nutrition-sensitivity criteria

Figure 12. Aspects discussed by the national policy documents (n=7).
Figure 12 shows that the most present criteria in the policies are environmental considerations (sustainability approach) and increased food production, issues that are present in all 7 policies and programmes analyzed. The policies also take high consideration to targeting the most vulnerable, improving processing and storage of foods, and expanding markets access to the most vulnerable, issues present in 6 of the 7 policies analyzed. The presence and absence of the criteria in each policy is summarized in Table 5, and is further described in sections 5.2.2 to 5.2.8.

Four of the policies had explicit nutrition objectives and were monitored with nutrition indicators, and five of them have components to promote women empowerment and cross-sectoral collaboration to achieve common food and nutrition security goals.

Nevertheless, only one policy considered expanding markets access to nutrient-rich foods, and only one considered increasing food production of nutrient-rich foods. Only two incorporated nutrition education components, and reduction of post-harvest losses. And only three considered addressing the types and causes of malnutrition based on an assessment of the context at the local level.

5.2.2 National Food and Nutrition Security Policy (PNSAN) and National Food and Nutrition Security Plan 2012 – 2015 (PLANSAN)

The National Food and Nutrition Security Policy (PNSAN) was established in 2010 through Decree 7.272, which also determined the initial parameters for the elaboration of an implementation plan (PLANSAN). The goal of PNSAN is to promote food and nutrition security and ensure the right to adequate food in the country, based on the following guidelines:

1. Promotion of universal access to adequate and healthy eating, prioritizing families and people in situation of food insecurity.
2. Promotion and structuring of sustainable, decentralized, agroecological systems for food supply, production, extraction, processing and distribution.
3. Creation of permanent nutrition education processes, as well as research and capacity building in food and nutrition security and on the human right to adequate food.
4. Promotion, universalization and coordination of food and nutrition security actions for quilombola communities and other traditional peoples and communities, indigenous peoples and agrarian reform settlers.
5. Strengthening of food and nutrition actions in all levels of health care, coordinated with other food and nutrition security actions.
6. Promotion of universal access to quality water in sufficient quantity, prioritizing families in situation of water insecurity and the production of foods through family farming, fisheries and aquaculture.
7. Support to initiatives to promote food sovereignty, food and nutrition security and the right to adequate food internationally.
8. Monitoring of the realization of the human right to adequate food.

One action taken as part of the implementation of PNSAN was the elaboration of PLANSAN. It was prepared by the Interministerial Chamber for Food and Nutrition Security (CAISAN) and the 20 ministries there represented, including a process of consultation with CONSEA.
Table 5. Summary of nutrition-sensitivity of policies according to the established criteria

<table>
<thead>
<tr>
<th>Criteria</th>
<th>PNSAN/PLANSAN</th>
<th>PNAPO/PLANAPO</th>
<th>Agric. &amp; Livestock Plans</th>
<th>Harvest Plans</th>
<th>PRONAF</th>
<th>PAA</th>
<th>PNAE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regarding the entire policy/programme</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contain nutrition objectives and indicators into their design</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Designed to address the types and causes of malnutrition based on assessment of the context at the local level</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Partially</td>
<td>Yes</td>
</tr>
<tr>
<td>Target the most vulnerable groups, properly identified (also on the basis of nutrition and FNS vulnerability)</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Collaborate and coordinate with other sectors</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Empower women</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Act as a delivery platform for direct nutrition interventions</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Partially</td>
</tr>
<tr>
<td>Incorporate nutrition promotion and education around food and sustainable food systems that builds on existing local knowledge, attitudes and practices</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Regarding the agriculture component of the policy/programme</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facilitate production diversification, and increase production of nutrient-dense crops and small-scale livestock</td>
<td>Partially</td>
<td>Partially</td>
<td>Partially</td>
<td>Partially</td>
<td>Partially</td>
<td>Partially</td>
<td>Yes</td>
</tr>
<tr>
<td>Improve processing, storage and preservation to retain nutritional value, shelf-life, and food safety, to reduce seasonality of food insecurity and post-harvest losses</td>
<td>Partially</td>
<td>Partially</td>
<td>Partially</td>
<td>Partially</td>
<td>Partially</td>
<td>Partially</td>
<td>Partially</td>
</tr>
<tr>
<td>Promote markets expansion and access for vulnerable groups, particularly for nutritious foods</td>
<td>Partially</td>
<td>Partially</td>
<td>No</td>
<td>Partially</td>
<td>Partially</td>
<td>Partially</td>
<td>Yes</td>
</tr>
<tr>
<td>Considers environmental sustainability, conservation of natural resources and climate change</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Partially</td>
</tr>
</tbody>
</table>
The plan includes actions regarding food production, strengthening of family farming, food supply and healthy eating promotion for all the sectors involved. It is based on the goals and objectives of the Multiyear Plan (PPA) for the period of 2012-2015, which facilitates its implementation as it follows the already existing administrative structure (including funding lines determined at PPA) but with a focus on multisectoral action. It is also an instrument for monitoring and evaluation, as it consolidates the food and nutrition security actions of all sectors in one place. The plan defines responsibilities for implementation through each of these sectors.

Table 6 presents an analysis of PNSAN and PLANSAN according to the nutrition-sensitivity criteria defined for this study. The policy and the plan contain explicit nutrition objectives, and indicators for monitoring of its progress are established, including not only anthropometric indicators but also others related to food production and availability, access to adequate food, food security situation and the realization of the right to food, as well as health and education services. This monitoring is done through the system established and described in chapter 5.7.

PNSAN/PLANSAN clearly targets the most vulnerable groups, with explicit guidelines to focus on the most affected by food and nutrition insecurity. For example, in relation to Guideline 1 (Promotion of universal access to adequate and healthy eating, prioritizing families and people in situation of food insecurity), there are concrete objectives and goals established to the poorest communities, to the elderly and the disabled, and those affected by emergencies such as drought and floods. And Guideline 4, who is entirely directed quilombola communities and other traditional peoples and communities, indigenous peoples and agrarian reform settlers and includes actions from land demarcation to sustainable food production and health and nutrition promotion. Importantly, these groups are included as a priority throughout the actions of all guidelines.

In addition, with its decentralized implementation through the National Food and Nutrition Security System (SISAN), it allows for more tailored actions to the local causes of malnutrition and food insecurity, and have this as an explicit recommendation in Decree 7.272 (Article 4: identify, analyse, disseminate and act on the factors that influence food and nutrition insecurity).

The policy and the plan are very collaborative and multisectoral, with explicit actions and goals for each sector, and with the clear identification of budget lines in each of the line ministries from where the budget will be allocated to the achievement of the common goals. In many cases, different line ministries have shared responsibility in implementing actions.

PLANSAN has as a specific objective to promote the economic empowerment of rural women, through their inclusion in economic management and access to natural resources and income, as well as through the expansion and qualification of FNS policies for this specific public. Goals include, for example, to increase support to women through technical assistance and rural extension, agricultural credit, social organization and organization for food production and also participation in the land reform. The policy and the plan also act as delivery platforms for direct nutrition interventions, by including Guideline 5 and specific actions regarding control and prevention of health conditions associated to malnutrition and food insecurity, such as vitamin A and iron supplementation, control of overweight and obesity, regulation of foods (labeling, marketing), reduction of salt, fat and sugar in processed foods, among others.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Yes / Partially / No</th>
</tr>
</thead>
<tbody>
<tr>
<td>For all policies / programmes</td>
<td></td>
</tr>
<tr>
<td>Contain nutrition objectives and indicators into their design</td>
<td>Yes</td>
</tr>
<tr>
<td>Designed to address the types and causes of malnutrition based on</td>
<td>Yes</td>
</tr>
<tr>
<td>assessment of the context at the local level</td>
<td></td>
</tr>
<tr>
<td>Target the most vulnerable groups, properly identified (also on the</td>
<td>Yes</td>
</tr>
<tr>
<td>basis of nutrition and FNS vulnerability)</td>
<td></td>
</tr>
<tr>
<td>Collaborate and coordinate with other sectors</td>
<td>Yes</td>
</tr>
<tr>
<td>Empower women</td>
<td>Yes</td>
</tr>
<tr>
<td>Act as a delivery platform for direct nutrition interventions (if</td>
<td>Yes</td>
</tr>
<tr>
<td>appropriate)</td>
<td></td>
</tr>
<tr>
<td>Incorporate nutrition promotion and education around food and</td>
<td>Yes</td>
</tr>
<tr>
<td>sustainable food systems that builds on existing local knowledge,</td>
<td></td>
</tr>
<tr>
<td>attitudes and practices</td>
<td></td>
</tr>
<tr>
<td>For agriculture component of policies / programmes</td>
<td></td>
</tr>
<tr>
<td>Facilitate production diversification, and increase production of</td>
<td>Partially</td>
</tr>
<tr>
<td>nutrient-dense crops and small-scale livestock</td>
<td></td>
</tr>
<tr>
<td>Improve processing, storage and preservation to retain nutritional</td>
<td>Partially</td>
</tr>
<tr>
<td>value, shelf-life, and food safety, to reduce seasonality of food</td>
<td></td>
</tr>
<tr>
<td>insecurity and post-harvest losses</td>
<td></td>
</tr>
<tr>
<td>Promote markets expansion and access for vulnerable groups, particularly</td>
<td>Partially</td>
</tr>
<tr>
<td>for nutritious foods</td>
<td></td>
</tr>
<tr>
<td>Considers environmental sustainability, conservation of natural</td>
<td>Yes</td>
</tr>
<tr>
<td>resources and climate change</td>
<td></td>
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</tbody>
</table>

Regarding nutrition education, the component is strongly present through Guideline 3 and its specific objectives and actions such the integration of nutrition education actions in public services of health, education, social assistance and food and nutrition security.

Regarding the more agriculture-related components of PNSAN and PLANSAN, Guideline 2 includes specific objectives and actions related to the processing, storage and preservation of foods, as well as infrastructure to reduce post-harvest losses and food waste, such as Food Banks and others. There is a special focus on agroecological products and organics, as well as the promotion of the local agrobiodiversity as important environmental considerations.

The focus on strengthening family farming and local products is an important strategy for dietary diversification in the documents, including regional/traditional foods and small-scale livestock for own consumption and for local markets. Markets structuring, expansion and access is promoted for the most vulnerable groups, through different actions such as cash transfers, support to low income wage earners through the Workers Food Programme and also structuring of food farming supply and commercialization systems. These issues were considered in the context of promoting healthy eating and FNS, however they were considered partially present in the policy and plan mainly because there is no explicit approach to nutrient-dense crops or the prioritization of nutritious foods such as fruits and vegetables, or processing to retain nutritional value. While this may be a reality in the
implementation of the programme in some areas, it is not an explicit guideline and this is an aspect that could be strengthened.

5.2.3 National Agroecology and Organic Production Policy (PNAPO) and National Agroecology and Organic Production Plan 2013-2015 (PLANAPO)

The need for the elaboration of a National Agroecology and Organic Production Policy (PNAPO) was identified in PLANSAN (guideline 2, objective 10), as a key strategy to promote agroecological and organic models to food production, extraction and processing, as well as protecting the agrobiodiversity of the country.

PNAPO was instituted in August 2012 through Decree 7.794, and has as a goal to integrate, articulate and adjust policies, programs and actions that can promote the transition to agroecological and organic production models, contributing for more sustainable development and quality of life of the population, through the sustainable use of natural resources and the availability and consumption healthy foods. The policy has the following guidelines:

1. To promote food sovereignty, food and nutrition security and the right to adequate and healthy food, through the availability of organic and agroecological food products, free from contaminants that may endanger health.
2. Promotion of the sustainable use of natural resources, according to the provisions governing labor relations and that promote the welfare of owners and workers.
3. Conservation of natural ecosystems and recuperation of modified ecosystems, through agricultural production and forest extraction systems based on renewable resources, with the adoption of cultural, biological and mechanical methods and practices, to reduce polluting waste and the dependence on external inputs for production.
4. Promotion of fair and sustainable systems of production, distribution and consumption of food that improve the economic, social and environmental functions of agriculture and forest extraction, and prioritize institutional support to beneficiaries of the Organic Law for Food and Nutrition Security (LOSAN).
5. Valorization of agro-biodiversity and socio-biodiversity products and encouragement of local experiences regarding the conservation and use of animal and plant genetic resources, especially those involving the handling of local, native and traditional breeds and varieties.
6. Increased participation of rural youth in the production of organic and agroecological products.
7. Contribution to reducing gender inequalities, through actions and programs that promote the economic empowerment and autonomy of women.

PNAPO is seen by some interviewees as an innovation in the Brazilian context, with high hopes and expectations that it will disseminate experiences that have been, until now, mostly supported by civil society movements, and to promote a broad process of agroecological transition. The very formulation of the policy is seen as a victory and product of long-term advocacy by civil society organizations that support this approach to agriculture.

PLANAPO 2013-2015 is the main instrument for the implementation of PNAPO's guidelines and was elaborated through a consultative and collaborative process, together with civil society representatives and the 10 different line ministries that have responsibilities in its
implementation. Such actions compose a total of 134 initiatives organized in 4 strategic axes: production; use and conservation of natural resources; knowledge; and commercialization and consumption. Among the actions to be implemented are agricultural credit, technical assistance and rural extension, social technologies for access to water, support to social organization of producers, access to inputs such as native seeds, seed banks, institutional purchase and also research.

Regarding the nutrition-sensitivity criteria, PNAPO and PLANAPo include nutrition objectives, as they include the availability and consumption of healthy foods. They also include nutrition indicators, as the monitoring and evaluation mechanisms will follow the structure of the national M&E system described in chapter 5.7, which monitors nutrition and FNS in many dimensions, including nutrition indicators.


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<td>particularly for nutritious foods</td>
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The beneficiaries of the policy and plan are those most vulnerable to food insecurity as defined in LOSAN, farmers and settled farmers in agrarian reform settlements, traditional peoples and communities, rural youth, and their economic organizations that want to build or modify their practices for productive agroecological systems or organic production. The policy also supports products of the so-called socio-biodiversity, which are those goods and services generated from biodiversity resources, for the development of productive chains of interest of the beneficiaries of LOSAN, to promote and enhance their knowledge and
practices, and ensuring the rights, to promote income generation and to improve their quality of life and their environment (Decree 7.794, Art.2). However, there was no mention to addressing the local context, types and causes of malnutrition.

The policy promotes intersectoral collaboration, as its implementation and management are coordinated through an interministerial body, the Interministerial Chamber on Agroecology and Organic Production (CIAPAO), composed of 10 line ministries (MDA, MF, MAPA, MMA, MDS, MEC, MS, MCT, MPA and the General Secretariat of the Presidency). It is also followed up by the National Commission on Agroecology and Organic Production (CNAPO), which includes representatives of government and civil society organizations.

Women empowerment is promoted through actions under Guideline 7, which include specific credit and support to women’s productive structuring and other actions. The policy is also clearly based on a sustainability approach for the conservation of natural resources.

The policy and plan do not, however, act as delivery platforms for direct nutrition interventions, nor incorporate nutrition education components. And while they include important elements regarding food production and contribute to the diversification of foods available, with quality to promote health, as with PNSAN/PLANSAN, there is no explicit focus on nutritious foods, processing to retain nutritional value, or improving markets access to nutrient-rich foods.

5.2.4 Agriculture and Livestock Plans 2012/2013 and 2013/2014

This is the investment plan for the implementation of the agricultural policy in Brazil through the Ministry of Agriculture, Livestock and Supply (MAPA), which is focused on the agribusiness model and large and medium-scale farmers. It follows the Ministry’s mission statement to ‘promote agribusiness sustainable development and competitiveness for the benefit of the Brazilian society’ (2012-2013 plan, cover).

The analysis includes both plans from 2012/2013 and 2013/2014, as for the latest one only the key priorities and budget lines were released by the time this study was being conducted, not the detailed version of the plan. The goals of the 2012-2013 plan are to:

- Harvest 170 million tons of grains, oilseeds and fibers;
- Establish and implement regionalized agricultural policies, with focus on local realities;
- Ensure an adequate volume of funds from the National System of Rural Credit (SNCR), mainly at controlled interest rates;
- Ensure adequate levels of support for the commercialization of agricultural production;
- Improve access conditions to financing resources within the scope of official rural credit, through finance limit increase and financial costs reduction for the producer, raising its liquidity;
- Expand the coverage of rural insurance and Proagro (Agriculture Activity Guarantee Programme);
- Ensure the continuity of support to the medium-sized rural producer;
- Encourage good farming and livestock practices.
- Strengthen cooperatives in the agricultural sector;
• Encourage low carbon agriculture, strengthening the support to agronomic practices that ensure the mitigation of greenhouse gases;
• Strengthen the production of biofuels.

For the 2013-2014 plan the goals are to: expand credit; increase credit for cooperatives; expand storage; expand support to medium-scale farmers; expand coverage of rural insurance; expand irrigation; promote technological innovation; promote low carbon emission agriculture; and modernize agricultural and livestock defense. The plan includes 61.5 billion USD in rural credit, which represents an 18% increase in comparison to the previous year, and expects a production of 190 million tons of grains in the period.


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The plans present very low nutrition-sensitivity. The only criteria present are: increase food production, improve processing and storage, and environmental considerations. All other issues are lacking (see Table 8). The focus is on increased production and productivity of cash crops and livestock such as coffee, sugar, sugarcane (ethanol), orange and poultry. There is support to commercialization structures, but not improving markets and markets access for the most vulnerable. There are no nutrition considerations whatsoever in the plans, nor of food and nutrition security and right to food issues.

The plans were discussed through thematic chambers with the participation of representatives of producers, consumers, workers, business entities and non-governmental
organizations, government representatives, however they only include the Agriculture sector with no or little dialogue with other line ministries.

5.2.5 Harvest Plan for Family Farming 2013-2014 and Harvest Plan for Fisheries and Aquaculture 2012-2013-2014

The Harvest Plan for Family Farming 2013-2014 is the investment plan for the implementation of the agricultural policy in Brazil through the Ministry of Agrarian Development (MDA), which is focused on the family farming model. It has as the main goal to promote growth in income, innovation and technology, and increased food production with income protection.

The plan includes a number of programmes such as the National Programme for Strengthening of Family Farming (PRONAF), the Food Purchase Programme (PAA), the School Feeding Programme (PNAE), the Family Farming Insurance (SEAF), the Price Guarantee Programme for Family Farming (PGPAF) and the Minimum Price Guarantee Programme (PGPM), among others. PRONAF, PNAE and PAA will be analyzed in detail later in this report.

The Harvest Plan for Fisheries and Aquaculture 2012-2013-2014 is the investment plan for the implementation of the fisheries and aquaculture policies in Brazil through the Ministry of Fisheries and Aquaculture (MPA), which also relates mostly to the family farming and internal consumption model. It includes actions such as credit for fishers and fish farmers, creation of new fish farms in lakes and reservoirs, fish trade and promotion of investment in new structures, equipment and boats, including fish processing, community kitchens and storage facilities.

This analysis considers both investment plans as overarching instruments that provide the strategic view of the sectors for the implementation of the programmes in the next period.

Regarding the nutrition-sensitivity criteria, the plans do not include explicit nutrition objectives as a key strategic orientation. There is also no indication of how the plans will be monitored, and whether or not this will be done through the national FNS M&E system, which would then include nutrition indicators. The plan also does not act as a delivery platform for nutrition, nor incorporates nutrition education components and a right to food approach.

Specifically regarding the Harvest Plan for Fisheries and Aquaculture, there is mention of promoting fish consumption as way to promote healthy eating, through increased participation of fish products in public institutions such as schools, hospitals, prisons and military bases, through the Food Purchase Programme (PAA), and also into the market. It was also identified through interviews that nutrition concerns are more present in the debates and discourse of the Ministry of Fisheries and Aquaculture.

The plans are also not designed to address the types and causes of malnutrition based on assessment of the context at the local level. However, they focus on the small scale farmers and fishers and targets the most vulnerable considering also gender issues, for example with special credit lines and assistance for women, youth, and beneficiaries of social programmes such as the Brazil without Extreme Poverty Plan (Brasil Sem Miséria - BSM) and others.
They can be considered collaborative intersectoral plans, as they include programmes to be implemented in articulation with different line ministries such as MDA, MPA, MDS, MEC/FNDE, among others. And it includes aspects such as increased production, production diversification through family farming and local products, and improved processing and storage. They include partially the preoccupation with nutrient-rich foods, for promoting the production and consumption of fish. However, there is no strategic orientation to guide the programme towards nutritious foods or foods to promote FNS, for example in the prioritization of crops or through incentives (such as more credit for specific food items).


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5.2.6 National Programme for Strengthening of Family Farming (PRONAF)

The National Program for Strengthening Family Farming (PRONAF) funds individual and group projects that generate income to farmers and agrarian reform settlers. The programme has the lowest interest rates of rural financing in addition to the lower rates of non-payment among credit systems in the country.

The programme is managed by the Ministry of Agrarian Development and funds the cost of the crop or agro-industrial activity, whether for investment in machinery, equipment and
production infrastructure and agricultural services. Families interested in applying for funding need to obtain a Declaration of Fitness for PRONAF (Declaração de Aptidão ao Pronaf - DAP), which will be issued according to the annual income and activities explored, targeting the farmers to specific credit lines to which they are entitled according to the entry criteria and their activities. The amounts for funding, payment forms and interest rates are set annually for each modality of PRONAF and published in the Harvest Plan for Family Farming.

The credit lines available include, among others:

- **PRONAF Working Capital**: to fund agricultural activities, processing, manufacture and marketing of own production.
- **PRONAF More Food**: to fund the construction, expansion or modernization of production infrastructure and services, agricultural or non-agricultural, in rural establishment or nearby rural community areas. This includes acquisition of equipment, for example.
- **PRONAF Agroindustry**: to fund investments, including infrastructure, aimed at processing and marketing of agricultural and non-agricultural production, forest products and extraction, handmade products and rural tourism.
- **PRONAF Agroecology**: to fund investments in agroecological or organic production systems, including the costs of implementation and maintenance of the projects.
- **PRONAF Eco**: to fund techniques that minimize the impact of rural activities to the environment, as well as to allow farmers to better interaction with the biome in which their property is located.
- **PRONAF Forest**: to fund projects to agroforestry, extractive exploration, ecologically sustainable forest management, restoration and maintenance of permanent preservation areas and legal reserves and recovery of degraded areas.
- **PRONAF Semiarid**: to fund projects in the semi-arid region of the country, focused on the sustainability of agro-ecosystems, prioritizing water infrastructure and deployment, expansion, renovation or modernization of other infrastructures.
- **PRONAF Women**: to fund credit proposals from women farmers.
- **PRONAF Young**: to fund credit proposals from young men and women farmers.
- **PRONAF Rural Microcredit**: to fund farmers at the lowest quintiles of income, allowing agricultural and non-agricultural activities, and use of the credits in any activity that can generate income for the household.

PRONAF includes a special attention to the most vulnerable farmers, mainly those in situation of socio-economic vulnerability and those from indigenous or traditional communities. Eligibility criteria to the programme include conditions to target the intervention to the most vulnerable, such the size of the farm, the number of people employed, production, and the income of the farmer. Through these criteria, PRONAF beneficiaries are divided into five different groups, listed below. PRONAF credit lines, modalities and interest rates are defined according to the beneficiary group.

- **Group A**: agrarian reform settlers
- **Group B**: small subsistence farmers who are eligible for microcredit
Group C: increasing degree of commercial production, but with intensive use of family labor (minimum 60% of income must come from agriculture)

Group D: increasing degree of commercial production with use of family labor plus some additional contracted labor (minimum 70% of income must come from agriculture)

Group E: same as for Group D, but with at least 80% of income from agriculture

Regarding the nutrition-sensitivity criteria, as shown in Table 10 the programme does not include nutrition objectives or nutrition indicators, or nutrition education activities. It also does not act as a delivery platform for direct nutrition intervention, and is not designed to address the types and causes of malnutrition based on assessment of the context at the local level.

Table 10. Nutrition-sensitivity of PRONAF

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PRONAF targets the most vulnerable as mentioned above, through different entry criteria and different interest rates for each group according to their vulnerability. In addition, the programme empowers women farmers, particularly through the modality PRONAF Women.

The programme supports credit for different agrarian activities such as increase production and productivity, develop and maintain needed infrastructure including at different stages of the value chain, including storage, distribution and processing, and structuring of markets for
commercialization of the production (for example through the modality PRONAF Working Capital, PRONAF More Food and PRONAF Agroindustry).

These criteria were considered partially present, as while the programme stimulates increased food production, it does not have a clear guideline to increase the diversification of foods produced to contribute to a healthy diet both for farmers’ families and consumers that benefit from sales in markets. It also does not indicate the need for measures to improve processing to retain nutritional value, or the focus on nutrient-rich foods. It is not clear if and how the programme coordinates with sectors other than agriculture.

Regarding environmental sustainability, the programme has specific credit lines for investments that promote more sustainable models of production such as agroecological or organic production systems (PRONAF Agroecology), the use of techniques that minimizes the impact of rural activities to the environment (PRONAF Eco), and projects for restoration and maintenance of permanent preservation areas and legal reserves and recovery of degraded areas (PRONAF Forest).

### 5.2.7 Food Purchase Programme (PAA)

The Food Purchase Program (PAA) was established by law 10.696 of 2 July 2003, with the following goals (updated through law 12.512 of 14 October 2011):

1. Stimulate family farming, promoting the economic and social inclusion and family farmers to support sustainable production, food processing, industrialization and income generation.
2. Stimulate the consumption and valorization of food produced by family farms.
3. To promote access to food, in the necessary quantity, quality and regularity, for people in a situation of food and nutrition insecurity, based on a human right to adequate food approach.
4. Support food supply, which comprises governmental food purchases, including for school feeding purposes.
5. Establish public stocks of food produced by family farmers.
6. Support the creation of stocks by cooperatives and other formal family farming organizations.
7. Strengthen local and regional marketing networks.

To achieve these goals, the programme buys food produced by family farms without bidding. Bidding is the formal administrative procedure for hiring services or purchasing products with public funds, regulated by law, which requires a number of administrative procedures and competitive prices that smallholder farmers usually cannot fully comply with.

There are two types of programme beneficiaries: suppliers (from whom the food is bought through the programme) and consumers (to whom the food is directed for consumption). The supplier beneficiaries are family farmers, agrarian reform settlers, foresters, fish farmers, fishers, indigenous community members, *quilombolas* and other traditional peoples and communities that meet the vulnerability requirements established in the LOSAN. These beneficiaries can be individuals, or organized through cooperatives.

On the other hand, the consumer beneficiaries are institutions, households and individuals in a situation of food and nutritional insecurity, and those served by the social assistance and
food and nutrition security networks. This includes the School Feeding Programme (which will be later analyzed in detail) and also other assistance networks. Recent legislation (Resolution 64 of 24 October 2013) included as consumer beneficiaries institutions that are part of the National Healthy System (SUS), such as hospitals, health care centers and others.

The law that created the programme also establishes that all income generated through the sales of governmental strategic stocks composed through PAA must be used exclusively for actions and programmes to combat hunger and promote food and nutrition security.

The programme is implemented multisectorally, with the participation of MDS, MDA and MAPA (via the National Food Supply Company, CONAB\textsuperscript{15}), as well as states and municipalities. In addition, the rules of the programme are defined by a Steering Group (GGPAA), a joint deliberative committee formed by representatives of MDS, MDA, MAPA (CONAB), MP, MF and FNDE/MEC. The CONSEAs at regional and local levels are responsible for social accountability and follow up of the programme, and can be replaced by the sustainable rural development councils or social assistance councils in case there is no CONSEA. However, such mechanism for civil society participation must be in place for the programme to happen.

The programme operates in different modalities, described as follows.

**Purchase with Simultaneous Donation:** aims at providing food to fulfill local food and nutrition security needs. It encourages local family farming production focused on foods needed by social assistance institutions to supply or complement the diet that is provided, promoting healthy eating of those assisted by the institution.

Foods to be purchased in this modality can be fresh products or processed foods from family farming or family small agroindustry, but must follow local eating habits and current food safety regulations. Farmers deliver the foods to a distribution central, where they will be weighed, separated and prepared for donation. In some cases, farmers can deliver directly to the beneficiary institutions. Payment to farmers can happen either through a bank card (straight from MDS, individual payments), or through CONAB (in the case of cooperatives, bank deposit in the cooperative’s bank account). The purchase limit is 2.000 USD/year for individual farmers, and 2.200 USD/year per farmer, in the case of cooperatives.

**Direct Purchase:** this modality aims to support the price of a specific product set defined by GGPAA, the establishment of public stocks of these products and the fulfillment of demands of access to food programmes. Food purchases through this modality focus on staple foods such as rice, beans, corn, wheat, sorghum flour, cassava, wheat flour, milk powder, in addition to cashew nuts, Brazil nuts. Other foods can be added at the discretion of the Steering Group.

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\textsuperscript{15}The National Food Supply Company (CONAB) is a public company under the Ministry of Agriculture, Livestock and Food Supply (MAPA), responsible for managing and implementation of policies and programmes related to food and agriculture supply.
Part of these foods are intended to the formation of national stocks, which can be sold if needed, and other part is destined exclusively to food baskets that are distributed to the most vulnerable population groups and in emergency situations. The purchase limit is 3600 USD/year per farmer.

**Support to the creation of stocks:** aims to financially support the establishment of food stocks from family farm organizations in order add value to the production and maintain prices. Subsequently, these foods are intended for public stocks or sold by organized farmers to return the funds to the State. This modality includes purchase of any food products that are in harvest season. The purchase limit is 3600 USD/year per farmer.

**PAA Milk:** aims to contribute to the increased consumption of milk by families in a situation of food and nutrition insecurity and also stimulate milk production by family farmers. It includes cow and goat milk, and is mainly focused on the Northeast region of the country, the most vulnerable to food insecurity. Families who receive the milk purchased follow these criteria: (i) per capita income of up to half the minimum wage; and (ii) have children 2-7 years of age, nursing mothers up to six months after childbirth, pregnant women or the elderly (over 60 years of age) among the household members. The purchase limit is 2,000 USD/year per farmer.

**Institutional purchase:** aims at ensuring that states and municipalities, as well as federal agencies, can also buy food from family farming, with its own resources, dispensing the bidding process, to supply food demands in institutions such as hospitals, barracks, prisons, university restaurants, philanthropic cafeterias, kindergartens and schools, among others. Foods to be purchased in this modality can be fresh products or processed foods from family farming or family small agroindustry, but must follow local eating habits and current food safety regulations. The purchase limit is 3600 USD/year per farmer.

Farmers can simultaneously participate in different PAA modalities (following specific rules), and the total amount paid per year can be up to 10,000 USD per farmer. Agroecological and organic products are purchased through the programme with prices up to 30% higher than conventional food products, which is a clear and practical incentive to more sustainable food production models, and a good way to promote environmental sustainability.

Regarding the nutrition-sensitivity criteria, the programme has nutrition objectives (mainly through objectives 2 and 3), and is followed up by indicators in DataSAN, which include agricultural and nutritional indicators. The programme beneficiaries, mainly the consumer beneficiaries, are followed up through the existing monitoring mechanisms such as SISVAN and national surveys (see section 5.7).

The programme targets the most vulnerable as it is aimed at people in a situation of food and nutritional insecurity, those served by social assistance network and the public facilities of food and nutrition and smallholder farmers. The programme is not entirely designed to address the local causes of malnutrition, however it does target the local nutrition context mainly through the modalities of institutional purchase and simultaneous donation (this modality must take into consideration the specific demands and needs from beneficiary institutions and the characteristics of the public they assist, according to Resolution 59 of 10 July 2013).
<table>
<thead>
<tr>
<th>Criteria</th>
<th>Yes / Partially / No</th>
</tr>
</thead>
<tbody>
<tr>
<td>For all policies / programmes</td>
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<td>Partially</td>
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<td>Target the most vulnerable groups, properly identified (also on the basis of nutrition and FNS vulnerability)</td>
<td>Yes</td>
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<tr>
<td>Collaborate and coordinate with other sectors</td>
<td>Yes</td>
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<td>Act as a delivery platform for direct nutrition interventions (if appropriate)</td>
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<tr>
<td>For agriculture component of policies / programmes</td>
<td></td>
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<tr>
<td>Facilitate production diversification, and increase production of nutrient-dense crops and small-scale livestock</td>
<td>Partially</td>
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<tr>
<td>Improve processing, storage and preservation to retain nutritional value, shelf-life, and food safety, to reduce seasonality of food insecurity and post-harvest losses</td>
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<tr>
<td>Promote markets expansion and access for vulnerable groups, particularly for nutritious foods</td>
<td>Partially</td>
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<tr>
<td>Considers environmental sustainability, conservation of natural resources and climate change</td>
<td>Yes</td>
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</tbody>
</table>

The programme supports increased food production and diversification of production, as well as promotes the food supply through government procurement of food; strengthens local and regional circuits and also marketing networks; enhances biodiversity and production agroecological and organic food; encourages healthy eating habits and encourages associations.

The programme is missing specific guidelines regarding the nutrition quality of foods, and the identification and prioritization of nutritious foods. There are also no nutrition education components, and it does not serve as a delivery platform for direct nutrition interventions at this stage. However, interviewees informed that there are ongoing efforts to focus on healthier products according to the local context, and to promote nutrition education initiatives as well.

Women participation in the programme is a guideline established for example through Art. 4 of Law 7.775 (4 July 2012), which states that their participation as supplier beneficiaries should be incentivized, and that the participation of women organizations are a programme priority; and through Resolution 44 of 16 August 2011, which establishes criteria to improve the participation of women in PAA. For example, women have priority in the selection of proposals submitted, and at least 5% of the overall PAA budget must be used for organization composed 100% of women (or mixed organizations composed of 70% or more of women), among others.
5.2.8 National School Feeding Programme (PNAE)

The National School Feeding Programme was created in the 1950s, and is managed by the National Fund for Educational Development (FNDE) of the Ministry of Education (MEC). It is funded by the national budget and, since 1994 with Law 8.913, operationalized through decentralized mechanisms, where the states and municipalities have implementation responsibilities. The right to school meals is assured through the National Constitution in Articles 205 and 208, which state that the State’s duties with education are fulfilled through ensuring support to students with supplementary programmes of school books, transportation, food and health services.

The main goal of PNAE is to contribute to child growth and biological, psychological and social development, as well as learning, school performance and the promotion of healthy dietary habits, through both nutrition education activities and the provision school meals to fulfill nutritional needs of pupils during the school year. In 2012, the programme reached approximately 45 million students in the country, in almost 250,000 schools (Brasil, FAO 2013). The principles of the programme are:

- **Universality**: all students of basic education, including nurseries and preschools (children 0 to 5 years-old), primary schools (6 to 14 years-old) and high schools (15 to 17 years-old) that have been registered in the School Census have the right to school feeding, regardless of socioeconomic background, race, ethnicity or color.

- **Equity**: it proposes standards for students that are considered healthy, but also differentiated treatment for special needs, such as malnutrition, celiac disease, disabilities, diabetics, among others, through menus that are developed by nutritionists.

- **Continuity**: the provision of school meals happens throughout the school year.

- **Decentralization**: financial resources from the federal government are sent to states and municipalities, who have the responsibility to implement the programme.

- **Social participation**: it promotes the participation of organized civil society in the follow up and monitoring of the programme implementation, through the local School Feeding Councils (CAEs).

The programme is implemented through collaboration of different actors. As mentioned, FNDE has national coordination and financial responsibilities, as well as monitoring, evaluation and regulation. The Education Secretariats of states, the city councils of municipalities and federal schools have the responsibility to receive the funds, implement the programme according to established guidelines, and be accountable to FNDE with the existing mechanisms, which include follow up through judiciary institutions. The Health Secretariats in states and municipalities are responsible for the monitoring of food safety and hygiene issues. The Office of the District Attorney investigates complaints and irregularities regarding the fulfillment of the legislation. The Federal Council of Nutritionists establishes norms and guidelines for the nutritionists that work in PNAE, and monitor their work.

The School Feeding Councils (CAEs) monitor the implementation of the programme and the application of the financial resources received of the Federal Government, to ensure the programme guidelines are followed. This is a deliberative and autonomous institution, formally part of the Programme by law, with representatives of the government, society, education workers, students and parents. They have a mandate for 4 years, which can be renewed.
The programme budget for 2013 was of 1.6 billion USD, of which 30% must be used for the purchase of local products through family farms (as established in law 11.947 of 16 June 2009). This promotes markets expansion and more access to nutritious foods to vulnerable groups. In addition, Provisional Executive Order 2.178 of 27 June 2001 determines that a minimum of 70% of the budget must be used to staple foods that respect the national dietary habits and the agricultural characteristic of the community, promoting the development of local economy. This lead to an increased diversification of the school meals, previously based predominantly on processed and canned foods. Unhealthy foods such as candy and soft drinks are forbidden in school meals, and processed foods are not prohibited but the use is restricted. The nutritional information of the menus in schools must be visible at the school.

By law the nutritionist is the professional that carries technical responsibility for the programme execution, and must prepare menus using food items that respect nutritional guidelines, food habits, culture and traditions of each place, focusing on the sustainability of the local food system and the diversification of the local agrarian production to compose healthy meals in schools (Art. 12, Law 11.947). The specific roles and responsibilities of nutritionists in the programme are detailed in CFN Resolution 358/2005, by the Federal Council of Nutritionists (see Box 3).

The programme fulfills almost all nutrition-sensitivity criteria for this study (Table 12). Its main goal is to contribute to the fulfillment of nutritional needs, and the monitoring of the nutritional status of children in schools is an activity shared responsibilities of the Ministries of Health and Education through the Food and Nutrition Surveillance System (SISVAN), as determined by the Interministerial Ordinance 1.010 of 8 May 2006. Assessment of nutritional status of pupils is also an attribution of the nutritionists of the programme (see Box 3).

PNAE is a universal programme, but has differentiated treatment to the most vulnerable groups. Law 11.947 states that the programme must ‘respect biological differences between age groups and health status of students that need specific care and those who are socially vulnerable’ (art. 2). The budget that is transferred to the implementing parties is calculated according to the number of students, using per capita established through legislation (FNDE Resolutions 42 of 10 August 2009 and 67 of 28 December 2009), and varies according to vulnerability. For example, schools in indigenous and quilombola communities, as well as beneficiaries of other social programmes, receive a higher per capita value.

Women empowerment is an issue that is not present in the programme, which could be explained by the fact that it is focused on children of both sexes. The programme partially acts as a delivery platform for direct nutrition interventions, as it includes nutrition education activities and also related to SISVAN. It was considered partially present because the articulation with some direct nutrition interventions with this public, such as food fortification with micronutrients, is done by another programme, the Health in Schools Programme (Programa Saúde na Escola), a joint effort of the ministries of Education and Health, and not directly through PNAE.

Nutrition education is included throughout the legislation currently in force for the programme. For example, Law 11.947 of 16 June 2009, art. 2, establishes nutrition education as a guideline of the programme, and should be included throughout the school curriculum to promote a healthy life and food and nutrition security. Additionally, article 15 states that the Ministry of Education must include in the school curricula nutrition education actions that promote the development of healthy habits and food and nutrition security.
Healthy eating as part of the school curriculum is also included as one of the 4 eligibility criteria for all-day schools, along with having adequate infrastructure to provide 3 meals a day and not outsourcing the provision of meals to other parties.

Table 12. *Nutrition-sensitivity of PNAE*

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Yes / Partially / No</th>
</tr>
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<tbody>
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<td>Facilitate production diversification, and increase production of nutrient-dense crops and small-scale livestock</td>
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</table>

PNAE promotes food production and diversification, and has specific guidelines for the inclusion of local varieties and fruits and vegetables specifically. There are also important initiatives related to improving processing and storage, not at the harvest point but between purchase and consumption, which is an important step.

The programme does not directly promote beneficiaries access to the markets themselves, but the programme accesses the market for the benefit of the most vulnerable, with clear nutritional criteria (Resolution 38 19 August 2008), groups that otherwise could not access the market to buy such foods.

It partially considers the environment, in promoting nutrition education with a sustainability view and giving preference to organic products, but an environmental approach is not present strongly throughout the programme. One challenge identified by interviewees is the fact that even though PAA states that organic and agroecological products can be paid 30% more, in practice PNAE managers do not receive extra funds from FNDE to pay 30% more. They receive the same *per capita* as for other food items, so it becomes more expensive for them to buy organic products and this is a disincentive for the purchase and consumption of such food items.
Finally, interviewees highlighted that the focus of the programme in previous years was to end hunger and keep children in schools, but today the focus has shifted towards a rights-based and food and nutrition security approaches, which mean a shift from an assistance programme to an educational programme that contributes to the formation of healthy dietary habits. This perception is consistent with what is observed in the most recent legal instruments of PNAE.

**Box 3. Responsibilities of nutritionists in PNAE**

The Federal Council of Nutritionists (CFN) is the official body who regulates the exercise of nutrition profession in Brazil. Through its Resolution 358/2005, CFN specifies the attributions and responsibilities of nutritionists in PNAE. Such responsibilities include:

- Plan, implement and evaluate the menus for the school meals of PNAE, considering:
  - adequacy to different age groups and epidemiological profile of the beneficiaries;
  - respect to the food habits of each place and its agricultural aptitude;
  - utilization of local food products, with preference given to fresh foods and minimally processed products (as opposed to processed foods);

To achieve this, the resolution states that nutritionists must conduct nutritional status evaluations and calculate the nutritional needs of each specific population group according to national nutrition recommendations. The professional must also obey high quality standards for food products (including food safety standards), including special care in the selection, purchase, storage, preparation and distribution of foods. Nutrition education activities and the promotion of ecological and environmental awareness is also part of their responsibilities. For the inclusion of new foods that are not the local habit, they need to perform sensorial tests of acceptability.

The technical responsibility of the nutrition professionals with the PNAE means that they respond before the law to any misconduct. Implementing organizations also respond legally in case there is no nutritionist in the programme. There have been cases where the municipality has had to pay a high fine for not having a nutritionist.

PNAE has today over 6800 nutritionists. The resolution states the minimal number of nutritionists according to the number of students. For example, for nurseries and preschools, one nutritionist for 500 students; and for primary schools, one nutritionist for each 3000 students.
5.3 Analysis of secondary policies

Secondary policies are those that constitute an enabling environment for food and nutrition security policies, but that would not be adequately analyzed through the nutrition sensitivity criteria designed for agricultural policies. This is not an analysis of their nutrition sensitivity, but rather a brief description of the policies and examples of their contributions to nutrition in the country.

Stakeholders identified two important initiatives to be included in this category: the Bolsa Familia Programme (PBF) and the Brazil without Extreme Poverty Plan (Brasil Sem Miséria – BSM).

5.3.1 Bolsa Familia Programme (PBF)

The Bolsa Familia Programme is a conditional cash transfer programme created in 2003 to tackle hunger and poverty, and promote the empowerment of families living in situation of poverty in the country. It combined previously existing cash transfer initiatives that were targeted at specific publics in one national strategy. The beneficiaries of the programme are those in situation of extreme poverty (families with a monthly per capita income up to 32 USD) and poverty (families with a monthly per capita income up to 62 USD). Currently, the programme pays benefits to almost 14 million families.

The benefit is paid through a bank card, which is issued preferably on behalf of women, even for male-headed households. Every month the beneficiaries collect the benefit in a number of collection points that includes banks, post offices, and others. The funds are transferred directly from the federal government to the beneficiaries' accounts, and calculated based on family size, age of household members and their income. Extreme poor families receive a basic benefit (at the level of 32 USD per month), independently of their composition. Extreme poor and poor families also receive benefits for each child (up to 15 years old) or pregnant and nursing woman (at the level of 15 USD per month); and for adolescents (up to 17 years old, at the level of 17 USD per month). An additional top up benefit is paid to all families whose per capita income after benefits does not reach at least 32 USD per month.

The selection of families and calculation of benefit levels are based on information registered in a national database (Cadastro Único para Programas Sociais, or Single Registry for Social Programmes), which is based on local input. Local managers identify low income families and feed the information to the system to trigger the payments (and/or other services) accordingly. However, for the household to receive the benefit the following conditions need to be continuously fulfilled: (i) maintain children’s school enrollment; (ii) attend nutritional and prenatal counseling; (iii) monitor health through health centers, and (iv) keep vaccinations up to date. In addition, the nutritional status of beneficiaries is also monitored in health centers through the National Food and Nutrition Surveillance System (SISVAN), as well as coverage of supplementation with vitamin A and iron.

Bolsa Familia has been identified through interviewees as of foremost importance for the progress with food and nutrition security in the country in recent years. It represents a focus shifts towards public policy investment for social inclusion, as opposed to the previous predominant paradigm of minimal participation of the state and the ability of the free market
to self-regulate and to resolve inequality problems. Bolsa Familia is one of the main programmes that contributed to improving access to food in Brazil.

Regarding the contribution to nutrition, data from SISVAN indicates that the prevalence of stunting among children beneficiaries of Bolsa Familia reduced from 16.8% in 2008 to 14.5% in 2012, with greater reduction being verified in the North and Northeast regions (Lima 2013). In addition, a study by Martins (2013) indicated that Bolsa Familia beneficiary households spend more with food, have a greater caloric availability and more availability of fresh products and culinary ingredients for the preparation of meals at home when compared to non-PBF beneficiaries. Meat products, roots and vegetables are more frequently purchased by beneficiaries, but no difference was identified for staple foods such as rice and beans. In that sense, Bolsa Familia has contributed to the dietary diversification and to the availability of more adequate food for its beneficiaries. The effects were higher for those considered poor when compared to those considered extremely poor.

Similar results have been found in previous studies, some which also identified that Bolsa Familia contributes to greater households expenditure with food items (Baptistella 2012, Duarte et al 2009, MDS 2007) and others that indicated that the programme contributes to greater dietary diversity, promoting increased consumption of fruits and vegetables but also of candy, soft drinks and other foods high in fat, sugar and salt (Lignani et al 2011, Saldiva et al 2010, Baptistella 2012). However, income increase is not enough to promote adequate eating or better knowledge on nutrition (Uchimura et al 2012), and nutrition education activities to accompany the programme need to be strengthened.

Furthermore, a recent nationwide study published in The Lancet by Rasella et al (2013) indicated that the Bolsa Familia Programme has contributed to child mortality decreases in the period from 2004 to 2009, in particular for deaths attributable to poverty-related causes such as undernutrition and diarrhea, even when controlled for socioeconomic covariables and the effect of other care programmes. PBF also substantially reduced the rates of under-5 admission to hospital and increased vaccination coverage and prenatal visits. The effect of the programme was stronger when full coverage of the target population of poor families was maintained for 4 years or more.

### 5.3.2 Brazil without Extreme Poverty Plan (Brasil Sem Miséria – BSM)

Brazil without Extreme Poverty (Brasil Sem Miséria – BSM) is a plan launched in 2011 with a goal to eradicate extreme poverty by the end of 2014 through 3 different axes for action: access to income, access to services, and productive inclusion. The plan targets households with a per capita income lower than 32 USD per month.

Access to income is provided through Bolsa Familia. Through BSM, the benefits that households in extreme poverty receive from PBF were increased, giving priority to children, pregnant and lactating women. There have also been active efforts to identify families that are entitled to PBF but that have never claimed the benefit. Access to services is focusing on expanding the coverage of basic services to the most vulnerable, including access to personal documentation, electricity, education, health, medication, dentists, and others. And the productive inclusion component refers to increasing the access of the population in extreme poverty to employment and income opportunities, both in rural and urban areas. In rural areas, the plan has been supporting increased productive capacity of low income family
farmers, providing technical assistance and infrastructure such as access to water and agricultural inputs such as seeds.

The Plan works mainly through existing programmes, which receive top up funding and political priority in implementation. Interviewees have identified this plan as an important part of ongoing food and nutrition security efforts in the country, as it targets the most vulnerable among the vulnerable in a national effort to promote inclusion, without which FNS cannot be achieved. Stakeholders from government and civil society have highlighted that the plan is based on a broad conceptual understanding of food and nutrition security, linking strategies from different sectors together. It also represents important strengthening of programmes such as PAA, which is an attempt to link directly the incentive to food production and the food access of vulnerable groups, through direct donation from producer to consumer (among other programme modalities).

Interviewees have indicated that the inclusion of the most vulnerable and the strengthening of existing programmes with an impact of nutrition (such as PAA and PBF) can contribute to better nutrition. In addition, BSM includes an action called Brasil Carinhoso, focused at early childhood, which has strengthened the efforts on prevention and control of vitamin A deficiency and anemia, as well as the promotion of healthy eating in children and actions in schools and preschools. However it is still early to identify and quantify direct impacts of this plan on nutrition.
5.5 Funding and implementation

5.5.1 Implementation

Implementation of programmes in the country is mostly decentralized. Brazil has made a choice to implement policies through unified systems, such as the Unified Health System (SUS), the Unified Social Assistance System (SUAS) and now the National Food and Nutrition Security System (SISAN). Implementation of the policies and programmes through such systems follow the logic of the so-called Federative Pact, by which the Federal (national), the State (regional) and the Municipal (local) governments have different and complementary roles and responsibilities. This model is defined in the Brazilian Constitution as an entrenched clause, which cannot be altered by regular constitutional amendments. The three levels of the government have the right of self-rule, meaning that they can edit their own laws and elect their own legislative and executive representatives, without interference of the Federal government. However, all must follow what is established by national law, and this applies to specific law that created programmes and criteria for participation.

This is an important issue for the implementation of programmes. In the case of PAA, for example, the programme is funded by the federal government, who does not directly implement it with beneficiaries. States and municipalities, as independent entities according to the federative pact, need to manifest their interest in joining the programme, and to sign a terms of agreement with the national implementation agency (depending on the modality, it could be MDS or CONAB). In the case of PNAE, federal funds (through FNDE) are transferred to states and municipalities according to the number of students that need to be assisted, and the calculation of the amounts is based on the School Census from the previous year.

In the case of SISAN, the institutionalization process also follows this logic, and states and municipalities must apply to be a part of the system. This decentralization presupposes that states and municipalities need to have state/municipal CONSEAs (FNS councils), state/municipal FNS laws, and state/municipal intersectoral chambers with a structure similar to CAISAN (described in detail in section 5.6).

This approach presents difficulties, as managing and monitoring such decentralized implementation requires refined mechanisms that are not always in place. Another difficulty is that states and municipalities have different implementation capacities, which affect the quality of the implementation of programmes. Nevertheless, this models has been positive to favors diversity, local autonomy, and the targeting of the most vulnerable populations according to local causes of food insecurity.

Another important characteristic of the implementation of policies in Brazil is the participation of civil society, through mechanisms formally established such as councils and committees. For programmes such as PAA, having project proposals approved by the local food and nutrition security councils is an entry requirement for the programme, and a mechanism that promotes coordination and organization of farmers at the local level. In the case of PNAE, through the school feeding councils (CAEs), the effective and adequate application of resources is encouraged, as well as accountability and definition of local priorities for the programme.
5.5.2 Funding

The policies and programmes analyzed are funded with the national budget, with the eventual support from international agencies such as FAO, UNDP and others to the implementation of specific activities, such as consultancies for the elaboration of diagnostics, studies and project proposals.

According to CONSEA (2010), the total budget for FNS programmes was of approximately 11.9 billion USD in 2010, including all line ministries that constitute the FNS system in the country. This represents an increase of 98% since 2004 (See Figure 13). Among the programmes included in what is considered the FNS budget are the Bolsa Familia, food production and supply, family farming, land reform and school feeding. These programmes are the ones who receive the biggest share of resources, as indicated in Table 13. Bolsa Familia alone received 49.6% of the FNS budget. Healthy eating promotion, on the other hand, has a share of 0.17% only.

![Figure 13. Evolution of the FNS national budget 2004 – 2010. Source: CONSEA 2010](image)

Funding is a good indicator of what the government priorities are, and the increase in the overall FNS budget are remarkable. However, the dichotomy and competition between the agribusiness and the family farming models is also evident in terms of budgeting. While there has been remarkable increased investment in family agriculture in the past 10 years, there has also been increased support to the agribusiness sector.

Financially, this simultaneous support has been disproportionate, with unequivocal priority to the agribusiness. For example, for the Harvest Plan for Family Farming 2013-2014, the government has made available 17.2 billion USD for family farming, which corresponds to over 84% of rural establishments in the country. However, the Agriculture and Livestock Plan 2013/2014, for non-family farmers (15.6% of establishments) has received 60 billion USD. In addition, in the previous year the funding destined to large-scale farmers was 6 times bigger than that for family farming. According to Junior and Grisa (2012) family farming investment has increased 233% from 2003 to 2012, while the investment for agribusiness increased 325% in the same period.
Table 13. Distribution of FNS budget by thematic area

<table>
<thead>
<tr>
<th>Thematic area</th>
<th>% of the 2010 FNS budget</th>
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<tbody>
<tr>
<td>Cash transfers</td>
<td>49.6%</td>
</tr>
<tr>
<td>Family farming</td>
<td>12.5%</td>
</tr>
<tr>
<td>School feeding</td>
<td>11.59%</td>
</tr>
<tr>
<td>Land reform</td>
<td>9.84%</td>
</tr>
<tr>
<td>Food production and supply</td>
<td>8.6%</td>
</tr>
<tr>
<td>FNS of indigenous populations</td>
<td>1.64%</td>
</tr>
<tr>
<td>Fisheries and aquaculture</td>
<td>1.27%</td>
</tr>
<tr>
<td>Health and FNS surveillance</td>
<td>1.01%</td>
</tr>
<tr>
<td>Access to food</td>
<td>0.43%</td>
</tr>
<tr>
<td>Promotion of healthy eating</td>
<td>0.17%</td>
</tr>
<tr>
<td>Biodiversity and traditional communities</td>
<td>0.17%</td>
</tr>
</tbody>
</table>

Source: CONSEA 2010
5.6 Policy processes and alignments

5.6.1 Coordination mechanisms and institutional arrangements

Legal framework

The right to adequate food is recognized in the National Constitution since 2010, with constitutional amendment (CA) 064/2010. Article 6 of the Constitution, after the CA 064/2010, reads as follows:

‘Are social rights: education, health, food, work, housing, leisure, security, social security, protection for mothers and children, and assistance to the needy, under this Constitution.’

To guarantee social rights, the Constitution defines individual and collective rights that must be attended to through public systems such as the Unified Health System (SUS), the Unified Social Assistance System (SUAS) and, more recently, the National Food and Nutrition Security System (SISAN).

The Organic Law on Food and Nutrition Security, law 11.346 of 15 September 2006, establishes the Brazilian definition of food and nutrition security (see section 5.6.2), institutes SISAN and determines the formulation of an intersectoral National Food and Nutrition Security Policy (PNSAN) to assure the human right to adequate food. This is the main national law on the subject, and was elaborated within CONSEA, with wide participation of representatives from the government and civil society.

The law is followed by Decree 7.272 of 25 August 2010, which regulates Law 11.346 of 15 September 2006 and establishes the goals and guiding principles for the National Policy for Food and Nutrition Security (PNSAN), as well as the parameters for the elaboration of the National Plan for Food and Nutrition Security (PLANSAN). There is also specific legislation for different programmes, as previously mentioned.

This legal framework helps ensure food and nutrition security as a state policy rather than a government policy, through sustainable and permanent mechanisms for the implementation of FNS programmes and actions. It also helps ensure the continuous participation of civil society in policy formulation processes.

National Food and Nutrition Security System (SISAN)

This is the most important current institutional arrangement for FNS in the country. The objective of SISAN is to formulate and implement food and nutrition policies and plans, encourage the integration of efforts among the several sectors of government and civil society, as well as promote the management, monitoring and evaluation of FNS programmes. The system is composed of the following bodies (Figure 14):

- The National Council for Food and Nutrition Security (CONSEA), an advisory body directly linked to the President of the Republic, and composed of one third of government representatives and two thirds of representatives from the civil society.
• The National Conference on Food and Nutrition Security (CNSAN), where guidelines and priorities for action on FNS are set and communicated to CONSEA to inform policy making. CNSAN is also responsible for the evaluation of SISAN and is preceded by state and municipal conferences, which also send delegates to the national conference. The conferences are held every four years.

• The Interministerial Chamber on Food and Nutrition Security (CAISAN), which coordinates the implementation of PNSAN and PLANSAN. It is composed of the Ministers and Secretaries of State responsible for areas related to FNS, comprising all 19 ministries that take part in CONSEA, under the coordination of the Ministry of Social Development and Fight Against Hunger (MDS).

• Organizations and entities of food and nutritional security of the Union, States, Federal District and Municipalities.

• Private institutions, with or without profit, which express interest in membership and that meet pre-established criteria, principles and guidelines of SISAN.

Figure 14. Structure of SISAN. Source: Maluf et al 2013.
As seen in Figure 14, the system presupposes similar structures at the national, regional and local levels. The implementation of SISAN follows the Federative Pact described in section 5.5, and states and municipalities must apply to be a part of the system. To be part of the system, states and municipalities must have a state/municipal FNS council (also composed of 1/3 government and 2/3 civil society), have a intersectoral FNS chamber and the commitment to develop a state/municipal FNS plan within one year from the signature of the Term of Adhesion. The system is funded with public funds from the federal, state and municipal budgets. Participating in the system means a commitment of states and municipalities also in financial terms.

As of June 2013, councils are already established in all the 26 states and in the Federal District, and 24 states and the Federal District have applied to be part of SISAN. Inter-sectoral chambers in states and municipalities (equivalents to CAISAN) have been created by law or decree in all 24 states that have adhered to the system, but they are still in different stages of implementation. Three states have already published their FNS plans, and the other 21 are currently preparing theirs (CAISAN 2013).

At the municipal level (Brazil has over 5500 municipalities) the implementation of the system is still at an initial stage. Some municipalities are ready to join the system, having the minimum requirements such as legal framework (local FNS laws) and institutional arrangements in place (FNS council, conference and inter-sectoral secretariats). But it is expected that most will follow the adhesion of states and the consequent activities for full implementation of SISAN. Such activities will include financial resources from the Ministry of Social Development, capacity building workshops and trainings, and other mobilization and coordination activities.

Social participation

Civil society participation in policy formulation and monitoring is a fundamental characteristic of Brazilian policies of many sectors since the 1988 Constitution. Social participation mechanisms are ensured by law and other regulatory frameworks of the existing social service systems, including health, social assistance, food and nutrition security and others. For example, CONSEA (with 2/3 civil society representation) is formally a part of SISAN. Social participation is also seen in the different programmes and policies implemented in the country, as is the example of PAA and PNAE.

The process of participatory democracy is very demanding for the policy formulation process, as it demands a proactive attitude and the capacity of stakeholders at all levels to make propositions to fully participate in the existing mechanisms. It requires that at the local level community leaders are empowered to know their rights and their communities’ rights, that they know how the system works, that they know how to identify local priorities, discuss them together, participate in local councils and conferences to make propositions that will be taken from the municipal to the state level, and from the state level to the national level. It also requires willingness from governments to be exposed, criticized and held accountable, as well as government investment to provide and support such mechanisms and to build local capacity. Nevertheless, stakeholders have identified this as one of the most important features of current institutional arrangement and policy processes in Brazil, and have indicated that there is the overall perception that such investment has been positive for FNS policy in the country.
5.6.2 Terminology

Food and Nutrition Security in Brazil is defined by the Organic Law on FNS (law 11.346 of 15 September 2006) as:

"... the realization of the right of all to the regular and permanent access to foods in adequate quality and quantity, without compromising the access to other essential needs, having as a basis health promoting dietary practices that respect the cultural diversity and that are environmentally, culturally, economically and socially sustainable."

This concept is the result of joint construction of social movements and representatives of Government, adopted at the Second National Conference on Food and Nutrition Security in 2004 (to later inform the process of elaboration of the law). Throughout the primary policies analyzed, it was observed that the term food and nutrition security is used consistently, despite being absent in some documents (see Table 14). There is no variation of the terminology in different government policies, plans or laws among those analyzed, which indicates that the concept has been internalized and is being put into practice.

Some stakeholders expressed that the concept of FNS in the country has a crucial role, due to three main aspects that it brings. The first is its comprehensiveness, moving away from the restrictive and previously predominant view that healthy eating depends exclusively on food production and agriculture. For conveying a comprehensive approach, the concept requires that public policies formulated consider the various other elements that ensure food and nutritional security: the quality of the diet, cultural preferences, nutrition, sustainability, among others.

The second is that the concept implies multisectoral work as a principle. Rather than a combination of sectoral policies that do not dialogue, the comprehensive concepts requires that FNS policies pursue articulation and coordination to enhance its effects and achieve FNS as a goal. Given the complexity of food security and nutrition it was crucial to the success of some policies the ability to engage different segments of governments in building action plans across sectors. Interviewees informed that this principle was applied in the understanding of the phenomenon of food insecurity and conceptual design of strategies to combat hunger, even before LOSAN, and translated into real action. For example, through a strategic axis in the Zero Hunger Programme to increase access to food, where intersectoral action of strengthening family farming, income generation and social participation were fundamental. The same logic was used for the ongoing Brazil without Extreme Poverty Plan, where cash transfers, productive inclusion and access to services are structural axes.

The third is the recognition of food as a human right, which cannot be separated from the full realization of food and nutrition security. Still difficult to guarantee, it gives a new connotation to public policy in this area.

The full application of the principle of multisectoral work is still seen by interviewees as a challenge. The creation of the Interministerial Chamber of Food and Nutritional Security - CAISAN, whose goal is the interaction between the various government sectors involved in public policy SAN, was a major step towards coordinated action. Nonetheless there is still fragmentation in the management of public policies.
Stakeholders also identified that the main criticism that this approach and concept of FNS has received is that it is not yet able to influence structuring policies such as land reform or land demarcation for indigenous and quilombola communities. These actions are considered fundamental to the food and nutrition security of these specific population groups and of the general population, but they turn out to be defined by other criteria and notions not based on FNS principles.

Table 14. Terminology used in policies and strategies analyzed

<table>
<thead>
<tr>
<th>Policy/plan/programme</th>
<th>Terms used</th>
</tr>
</thead>
<tbody>
<tr>
<td>PNSAN / PLANSAN</td>
<td>Food and nutrition security</td>
</tr>
<tr>
<td>PNAPO / PLANAPO</td>
<td>Food and nutrition security</td>
</tr>
<tr>
<td>Agriculture and Livestock Plans</td>
<td>Not mentioned</td>
</tr>
<tr>
<td>Harvest Plans for Family Farming and for Fisheries and Aquaculture</td>
<td>Not mentioned</td>
</tr>
<tr>
<td>PRONAF</td>
<td>Not mentioned</td>
</tr>
<tr>
<td>PAA</td>
<td>Food and nutrition security</td>
</tr>
<tr>
<td>PNAE</td>
<td>Food and nutrition security</td>
</tr>
</tbody>
</table>
5.7 Monitoring and evaluation and relevant indicators

There are a number of mechanisms in place that contribute to monitoring and evaluation of the nutrition and FNS situation in Brazil, as well as the evaluation of policies. The Food and Nutrition Surveillance System (SISVAN), implemented by the Ministry of Health since 1990, regularly collects anthropometric and food consumption data from users of the Unified Health System (SUS), to monitor their nutrition vulnerability. Food and nutrition surveillance through SISVAN follows the guidelines established in the National Food and Nutrition Policy (PNAN) in what regards food and nutrition surveillance. The goal is the early detection of nutritional risk to enable prevention and curative actions, as well as the identification of groups at risk (MS 2008).

Data is disaggregated for different geographic areas, age, gender, ethnicity, and also consider specific population groups that are traditionally more vulnerable, such as indigenous and quilombola communities. Beneficiaries of social programmes such as Bolsa Familia are also followed up, as part of the conditions for cash transfers. Information from SISVAN supports planning of prevention and curative actions for nutrition within SUS, as well broader FNS actions in other sectors (MS 2008).

There are also regular national surveys that take into account food and nutrition security components. The Household Budget Survey (POF), conducted by the National Institute of Geography and Statistics (IBGE), includes data regarding household expenditure with food items, and in 2008-09 it included anthropometric data for children, adolescents and adults. The National Household Sample Survey (PNAD), also conducted by IBGE, collects information about socioeconomic characteristics of the population, and in 2004 and 2009 it had a special module on the national food and nutrition security situation, where the Brazilian Scale of Food Insecurity (EBIA) was used. In addition, the National Demographic and Health Surveys (PNDS), conducted by the Ministry of Health, also includes information regarding health and nutrition status, micronutrient deficiencies, and food and nutrition security. PNDS is conducted every 10 years, the last edition being in 2006. These are surveys with representative data for the entirety of the population, and have increasingly included issues regarding to FNS in the past years. There are also smaller surveys targeted at specific population groups, such as indigenous and quilombola communities, or geographic regions.

The need for a consolidated monitoring and evaluation system to gather the information from the many ongoing M&E initiatives, with indicators that express the multiple dimensions of FNS and the vulnerability of different groups has been discussed since the early days of CONSEA. In 2006, a technical group on indicators and monitoring was established within council to propose a system to monitor FNS and the progressive realization of the right to food as a collaborative effort. This technical group, composed of representatives of both government and civil society/academia, as is the characteristic of CONSEA, developed a matrix of indicators that later served as a basis for the implementation of a monitoring and evaluation system within CAISAN, called DataSAN.

DataSAN is a system with publicly available FNS information, provided online through the website of the Ministry of Social Development (along with other relevant data for monitoring of other social programmes through a platform called DataSocial). This system consolidates information from surveys such as POF, PNAD, PNDS, the Agrarian Census and food production data from CONAB, among others, on a unique platform for follow up of the food
and nutrition situation in the country. The indicators in DataSAN are organized in seven different dimensions, which are considered necessary to enable a comprehensive understanding of the food and nutrition security situation:

- **Dimension 1**: Food production
- **Dimension 2**: Food availability
- **Dimension 3**: Household income and expenditure with food
- **Dimension 4**: Access to adequate food
- **Dimension 5**: Health and access to health services
- **Dimension 6**: Education
- **Dimension 7**: Public policies, human rights and public budget

The indicators used for the monitoring of each dimension are summarized in Table 15. In DataSAN, the information is disaggregated with a high level of detail as applicable, for example by geographic location, product, employment type, age, gender, ethnicity, etc. This disaggregation allows the identification and targeting of the different interventions at the most vulnerable groups. The information in DataSAN is publicly available for online consultation.

These indicators are used to the follow up and improvement of ongoing programmes of all line ministries represented at CAISAN. The dimension 7, on the monitoring and evaluation of public policies, needs further development in terms of methodology and process. The goal is to have indicators for monitoring policy implementation also through DataSAN. In addition, public policies are also subject to individual evaluation and monitoring of execution and achievement of the goals determined in the Multiyear Plan (PPA), through internal mechanisms. All food and nutrition security programmes are properly identified in PPA and monitored together since 2004, and the idea is that this monitoring will also compose DataSAN in the near future.

Another important issue is the Unified Registry for Social Programmes (Cadastro Único para Programas Sociais), a national instrument for data collection that gather information on low income families that are beneficiaries of social programmes in the country. The system collects data about households characteristics, family composition, personal identification, employment situation, family expenditure, among others. The registry is used for the management of Bolsa Familia and other social programmes, and also to identify and follow up beneficiaries of different programmes, see which programmes overlap, who is entitled to and if they are entitled to other types of benefits.

There are also consultancy reports and independent studies that commissioned by the government to evaluate specific interventions. For example, in 2013 a consultancy report on the evaluation of PAA was published, including the perception of beneficiaries about the benefits of the programme, and the exiting legal framework strengths and weaknesses. For PNAE, there have been two independent nationally representative evaluations, in addition to other consultancies. However, some interviewees have expressed concern as the complete results of such evaluations have not been made publicly available despite numerous requests from different government and civil society organizations.
<table>
<thead>
<tr>
<th>Dimension</th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Food production</td>
<td>• Quantity of food produced&lt;br&gt;• Planted area&lt;br&gt;• Number of agricultural establishments&lt;br&gt;• Employment in agricultural establishments&lt;br&gt;• Area occupied by family farming and non-family farming</td>
</tr>
<tr>
<td>2. Food availability</td>
<td>• Availability of foods for internal consumption&lt;br&gt;• Quantity of fruits and vegetables traded</td>
</tr>
<tr>
<td>3. Household income and expenditure with food</td>
<td>• Per capita household income&lt;br&gt;• Employment level of people over 10 years of age&lt;br&gt;• Household expenditure with food items&lt;br&gt;• Gini coefficient</td>
</tr>
<tr>
<td>4. Access to adequate food</td>
<td>• Macronutrient participation in the diet&lt;br&gt;• Participation of different foods and food groups in the caloric availability&lt;br&gt;• Food insecurity situation</td>
</tr>
<tr>
<td>5. Health and access to health services</td>
<td>• Anthropometric indicators (stunting, wasting, others)&lt;br&gt;• Vitamin A deficiency prevalence&lt;br&gt;• Iron deficiency prevalence&lt;br&gt;• Child mortality&lt;br&gt;• Breastfeeding rates&lt;br&gt;• Adequacy of salt iodization in analyzed samples&lt;br&gt;• Pesticide and veterinary medicines residues in foods&lt;br&gt;• Water and sanitation services coverage&lt;br&gt;• Water and sanitation coverage in schools</td>
</tr>
<tr>
<td>6. Education</td>
<td>• Average number of years of formal education for adults&lt;br&gt;• Literacy rate&lt;br&gt;• Percentage of children and adolescents not attending school&lt;br&gt;• Percentage of the GDP invested in education</td>
</tr>
<tr>
<td>7. Public policies, human rights and public budget</td>
<td>• Evolution of the FNS budget lines in the National Budget&lt;br&gt;• Realization of different dimensions of the RtF in FNS policies</td>
</tr>
</tbody>
</table>

Source: CONSEA 2010 and DataSAN (available online at: http://aplicacoes.mds.gov.br/sagi)
VI. CONCLUSIONS

Overall, the participation of nutrition considerations in agricultural policies is also subject to the two different models present in agricultural policy in Brazil. Policies that follow the agribusiness model have low nutrition-sensitivity, but those who are based on the family farming model are more nutrition sensitive. The most nutrition-sensitive initiative analyzed is the National School Feeding Programme (PNAE), followed by the National Food and Nutrition Security Policy and Plan (PNSAN and PLANSAN), and the Food Purchase Programme (PAA). These three policies and programmes present very high and high degrees of nutrition sensitivity.

The policies and programmes that present medium nutrition sensitivity are the National Agroecology and Organic Production Policy and Plan (PNAPO/PLANAPO), the Harvest Plan for Family Farming 2013-2014 and Harvest Plan for Fisheries and Aquaculture 2012-2013-2014; and the National Programme for Strengthening of Family Farming (PRONAF). The lowest scoring policy is the Agriculture and Livestock Plan 2012/2013 and 2013/2014, which is the investment plan for the agribusiness, with low nutrition sensitivity.

The criteria that contribute the most to the nutrition sensitivity of the policies and plans are:

- A sustainability approach, to maintain or improve the natural resource base (water, soil, air, climate, biodiversity).
- Promoting increase food production, as well as better storage and processing facilities and technologies, with increased dietary diversity.
- Targeting the most vulnerable groups to improve social equity and participation.
- Expand markets access to the most vulnerable
- Empowering women by improving access to productive resources, income opportunities, extension services and information, credit, and others.
- Explicit nutrition objectives and indicators, especially for the FNS and family farming policies.

The issues that could be strengthened in the policies to make them more nutrition-sensitive are taking more into account the local nutrition and food and nutrition security situation in programme planning and implementation, to better table the real causes of malnutrition (in all its forms); incorporating nutrition education components transversally in sectoral programmes as an strategic axis to promote food and nutrition security; and adding a focus on the quality of foods and on nutrient-rich / nutritious foods, for example when fomenting food production, increasing access to markets or promoting dietary diversification.

Generally, and based on the analysis of sociopolitical aspects of the policy-making process in Brazil, the policies display important features of convergence. For example:

- Policy formulation debates are multisectoral and inclusive, with representation of different sectors of the government and also civil society and academia;
- There are coordination mechanisms and legal frameworks in place to promote better policy formulation, managing, implementation, monitoring and evaluation, for example through SISAN and its components;
- There are decentralized policy-making mechanisms to increase participation at all levels, for example through the municipal, state and national conferences on food
and nutrition securities, which are a deliberative forum that informs FNS policy in the country;

- Even though the agribusiness and the family farming model do not coexist harmonically and the first is still predominant, the strengthening of family farming programmes (including increased funding) has contributed to shift power relationships and represent important steps towards fairer food systems;
- The engagement of high-level leaders for nutrition and food and nutrition security has increased since 2003, and issues such as the current concerns with overweight and obesity and healthier diets is in the political discourse of many ministries. However, there is the need for more high-level engagement for important yet politically sensitive issues such as regulation for marketing of foods and pesticides, and genetically modified crops; and
- The goals of some of the policies analyzed, such as PNSAN/PLANSAN, PNAPO/PLANAPO, PNAE and PAA include considerations about multisectoral, coordinated work to achieve common goals.

Nevertheless, there are issues that need alignment and better harmonization, with increased dialogue between the different line ministries that compose CAISAN. For example, to increase the dialogue between MS, MDS and MDA was indicated as beneficial for outcomes of ongoing initiatives. In addition, the participation of the Ministry of Agriculture, Livestock and Supply (MAPA) in CAISAN and CONSEA is also of extreme relevance to more the nutrition-sensitive agenda forward in the country. MAPA currently participates through the National Food Supply Company (CONAB), which is very supportive of the family farming approach, the right to food and food and nutrition security. However, this is an independent institution and increased participation of MAPA itself would be crucial to contribute to incorporating nutrition considerations to the agribusiness model.

6.1 Impact of policies and programmes on nutrition outcomes

The policies and programmes can impact nutrition through a variety of pathways. While an in depth impact study was not possible within the scope of this study, the following aspects were identify as contributors to positive nutrition outcomes. Further studies are needed mainly to investigate the possible impacts of the agribusiness model in nutrition.

*Strengthening of a rights-based approach*

The recognition of food as a human right has progressed much in the past 10 years, which brought high-level commitment and political attention to the right to food. Since then the debates have evolved and the right to food is recognized as the basis for many of the policies and programmes in the country, mainly those related to nutrition and FNS. The right to food is present in many of the policies analyzed, and is a constitutional right since 2010. A rights-based approach is important to shifting towards food production to promote domestic consumption and healthy diets, and much progress has been observed in that regard in the country.
**Food and nutrition security as one**

In Brazil, the terminology used indicates *food and nutrition security* as one unity, in other words, not separating food security from nutrition security. Beyond terminology, this conceptual approach is important to framing policies and programmes in the country. It is well defined and established through legal instruments, and a fruit of extensive discussion with different stakeholders. It is well-accepted and widely used. It enabled the move from the initial focus on food production and access to the incorporation of concerns with the quality of foods, as access is not enough to fulfill the country’s definition of FNS.

**Social inclusion, access to income and access to food**

Key progress in FNS in the country has happened through a set of policies that allowed greater access to food, especially the lower income strata of the population. It was a combination of increases in income, through more formal employment, increase of minimum wage, and cash transfer programmes to those most economically vulnerable, along with specific policies and programmes on food and nutrition security. Initiatives such as Bolsa Família and Brazil without Extreme Poverty are important to promote access to income and to food, and the right to food. The increased access to food represented an important step forward, enabling future action on improving the quality of the diet to address the current challenge with overweight, obesity and noncommunicable diseases.

**Women empowerment and inclusion**

Women are recognized in the country as an important group to move the social inclusion and nutrition agendas forward. Their role is recognized for example through cash transfer programmes, where they are the ones responsible for receiving the cash benefit in the household. They are also empowered through different programmes, for example with specific credit lines to foment the work of female farmers, through priority for female farmer organizations in PAA projects, with criteria established by law, among others. Female employment is recognized by Gillespie et al (2012) as an important pathway through which nutrition outcomes can be improved, as this better women’s socioeconomic status can impact on their ability to influence household decision making and allocations of food, health and care, as well as their own nutritional status.

**Structuring of sustainable production systems**

While the agribusiness model is still predominant in the country, with low level of nutrition-sensitivity as indicated in this analysis, the efforts to promote the structuring and strengthening of more sustainable and fair production systems are also important steps to promoting healthier diets and improved nutrition. This is happening through family farming and diversified food production, through the incentives for agroecological and organic food products, as well as productions from the agro-bio-diversity and that respect and promote local traditions and preferences.
**Multisectoral action, institutional arrangements and legal frameworks**

The country has advanced in the past years with the institutionalization and legal framework for food and nutrition security. This includes the FNS Organic Law (LOSAN), the National FNS System (SISAN), the National FNS Policy (PNSAN) and plan (PLANSAN), as well as the Interministerial Chamber for FNS (CAISAN), the local, regional and national FNS conferences, and the National Council for FNS (CONSEA). These were fundamental steps for food and nutrition security to become a state policy, rather than a government initiative. They are also important mechanisms of integration of the government with the civil society, and for the articulation of different line ministries to promote multisectoral action.

**Increasing opportunities for promotion of healthy eating habits**

Overweight and obesity is a problem understood by many spheres of the government as a society rather than an individual problem. Now the focus has shifted and this discussion has gone beyond the technical levels, and this process of political construction was possible due to strong action of CONSEA, the results of consistent research reports, the media worrying about healthy eating (even if for aesthetic reasons), and due to progresses made on enabling steps of establishing a food and nutrition security system that in starting to incorporate more concerns with the quality of the diet. While this is still a process in its initial steps, the broad understanding about the overweight and obesity problematic has already enabled important actions such as the Intersectoral Strategy for Obesity Prevention and Control, elaborated through CAISAN, which includes nutrition education and other strategies to promote healthy eating in workplaces, in schools and in the social assistance network. Existing programmes such as PNAE have already made progress in promoting healthy eating in schools, through healthier school meals, through nutrition education, through the follow up with nutritionist, and also through increased social participation at the local level to demand healthier and better quality school meals.

On the other hand, some aspects that can impact negatively on nutrition were also identified. The high use of pesticides and GM crops, the concentration of productive chains, the increased consumption of ultraprocessed foods associated with the lack of a good regulatory framework, and political challenges beyond the executive level of the government are important barriers to the full realization of the right to food and to improved nutrition and health outcomes. These issues affect the entire population, but disproportionately affect traditional peoples and communities such as indigenous and quilombolas.
6.2 Opportunities for future action

The following opportunities for future action were identified during this case study:

Regarding the agribusiness and family farming models

An important step forward would be to promote discussion to achieve better understanding on how these two models can be better harmonized and coexist in a way that promotes food and nutrition security and the right to food, minimally considering a do no harm approach and the mitigation of potential negative impacts on nutrition. For that, an increased dialogue with MAPA, not only via CONAB, would be beneficial. Institutional spaces such as CAISAN and CONSEA have great potential to promote this debate. In addition, future studies showing the direct impact of the agribusiness model on nutrition would be important steps to qualify this discussion and identify future steps.

Regarding the key challenges for the food system in the country

Many of the challenges identified have important barriers in the legislative, due to factors such as lobby of strong private forces and the private funding of political campaigns. In that sense, a civil society movement to promote a reform in the political system is a crucial step to move forward agendas such as land reform, demarcation of indigenous territories, and regulation of pesticides, GMs and marketing of foods, among others. This, however, requires the involvement of multiple society sectors beyond nutrition, FNS and agriculture.

While such structural changes are not possible in the short term, there is the opportunity to make progress in such agendas through the involvement of high-level policy makers in the executive, taking the leadership in such challenging issues. For example, taking the regulatory agenda forward and giving support to the already existing commitment of civil society and government representatives at technical level. In the case of the marketing of foods, such commitment would be crucial to combat the current problem with overweight and obesity. In the case of land reform, putting this issue back in the political agenda is a foremost condition to promote food and nutrition security of those groups still affected by food insecurity, such as traditional peoples and communities.

Another important opportunity is to address the current concentration of productive chains, which can be strengthened by a consistent food supply policy that is designed with a rights-based approach. A National Food Supply Policy is being drafted and discussed, and this constitutes an opportunity for action in that regard.

Regarding the policies and plans analysed

This study indicates many opportunities to make the policies and programmes analysed more nutrition-sensitive, by having examined them against a set of criteria that can be used to identify strengths and weaknesses of each policy and programme. For example, only three policies analyzed (PNSAN/PLANSAN, PAA and PNAE) considered addressing the types and causes of malnutrition based on an assessment of the context at the local level. This issue could be improved in strategies where such considerations are absent. In addition, almost all policies would benefit from: (i) including more explicitly nutrition education components transversally in sectoral programmes as a strategic axis to promote
food and nutrition security; (ii) adding an explicit focus on the quality of foods and on nutrient-rich / nutritious foods, for example when fomenting food production, increasing access to markets or promoting dietary diversification, or selecting priority food items for institutional purchase.

The inclusion of such aspects could be done in the occasion of the elaboration of the next PLANSAN, and through the elaboration of specific guidelines and manuals for PAA. Credit lines through PAA or PRONAF could be increased (or created) to focus on desired food items, including a range of healthy foods such as fish, fruits and vegetables, or specific fruits and vegetables in specific geographic areas where there are nutritional deficiencies, following the example of what is currently done with organic and agroecological products. In addition, the *per capitas* of PNAE for organic and agroecological products could be adjusted, so that local programme managers feel motivated to buy those products from family farmers.

Through PAA, two additional opportunities were identified. First, to establish national guidelines detailing how to systematically identify the nutritional and dietary needs of the consumer beneficiaries. This includes existing information from the monitoring systems that are in place, and the identification of monitoring gaps that should be addressed. The programme could liaise with family farmers and influence the foods produced based on such identification of dietary needs and regional preferences. This would represent an important move forward for dietary diversification, beyond including only what is currently produced in the region, but also demanding specific products to family farmers.

Second, to conduct specific evaluations of the impact of the programme on the nutrition situation of beneficiary consumes, mainly for those who are not currently covered through the existing M&E frameworks like SISVAN (for example, those beneficiaries of other assistance programmes, popular restaurants and others).
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IX. ANNEXES

ANNEX 1. GUIDELINE FOR THE COUNTRY CASE STUDIES

COUNTRY POLICY ANALYSIS – GUIDELINE FOR COUNTRY CASE STUDIES
NUTRITION IMPACT OF FOOD SYSTEMS

Objectives of the Country Case Studies:

- To review how food and agricultural policies are having or are intended to have an impact on nutrition in the country
- To contribute to the advancement of the discussion on nutrition-sensitive agriculture

Specific Tasks and content for the Country Case Study:

A) **Perform a Situation analysis**

**[See Annex 1 for situation guidance and Annex 2 for policy checklist]**

1. Describe the current nutrition - and the current agriculture situation in the country using available country statistics and international databases (WHO NLiS, FAO, WFP, IFPRI etc).
2. Describe the current food system from food consumption to food supply, diets and stage of the nutrition transition in the country using available country statistics and international databases (WHO NLiS, FAO database, WFP survey reports, IFPRI etc). Apply an equity lens, gender lens and climate justice/sustainability lens when describing the system.
3. Describe which of the existing problems are being prioritized according to the purposes and goals of the current national nutrition policy and action plan.
4. Describe the main policy frameworks of the current agriculture and food policies in the country and their main purpose(s). *(See Annex 2 for policy checklist)*
   a. A brief description of current policy frameworks (policies, strategies, action plans and investment plans) relevant to actions in food and agriculture system in the country
   b. The main purposes of these policies (e.g. export, employment, national food security, climate change adaptation/mitigation etc.)
   c. Do they address climate change/sustainability issues?
5. Describe how nutrition is referred to in the national food and agriculture policy
documents (identified under point 4). Describe which language and term with regard to Food and Nutrition Security is used (food security, nutrition security, food security+nutrition; food+nutrition security, or others); and which definitions/concepts are applied.

B) **Analysis of the nutrition sensitivity**\(^\text{16}\) of the specific agriculture and food policies and frameworks that currently exist. (refers to the ones that have been identified and briefly described under point 4)

** [See Annex 2 and 3 for policy checklist and guiding principles; Annex 4 and Annex 5 for impact pathways and for summary mapping]

6. Analyze to what extent the specific agriculture and food policies and frameworks that currently exist are nutrition sensitive:
   a. Do they impact diet and nutritional outcomes and if so why and how? (See Annex 4 for guidance on impact pathway)
   b. Describe the envisaged impact pathways for these actions and explain how they may affect nutrition (undernutrition, micronutrient deficiencies, obesity and overweight) in particular population groups, geographic areas etc
   c. Document (identify, collect and describe) the available information and evidence to substantiate the impact of such actions on diet/nutrition outcome variables or on logically related intermediate variables.
   d. Outline some case examples, good practices, and challenges in the country, taken the cross-cutting issues of gender, climate change, sustainability into consideration as appropriate.

7. Describe how far relevant actions of these nutrition-sensitive agriculture and food policies etc are being implemented sufficiently and how.
   a. If yes, why is this or is not sufficiently and effectively etc?
   b. How?
   c. Outline good practices, challenges and recommendations.

8. Describe the major nutrition-sensitive agriculture/food programmes and projects

---

\(^{16}\) In this study the following definition will be used: Nutrition-sensitive refers to interventions or development efforts that, within the context of sector-specific objectives, also aim to improve the underlying determinants of nutrition (adequate food access, healthy environments, adequate health services, and care practices), or aim at least to avoid harm to the underlying or immediate causes of malnutrition, especially among the most nutritionally vulnerable populations and individuals.” (p25 of “Improving Nutrition through Multisectoral Approaches”

funded and carried out by donors and NGOs in the country.
   a. Are they done outside the government policy, budget and control?
   b. If so, why? How?
   c. What to do about it?

9. Describe at what point does the food and agricultural system engage/link with relevant policies of other sectors:
   a. Health
   b. Social protection and welfare
   c. Education (and early child development)
   d. Environment
   e. Women’s welfare
   f. etc.

C) **Describe policy processes and alignments including cross-sectoral communication and coordination, M+E frameworks**

As the consultant undertakes the analysis outlined in A and B, there will be some “process” type areas that influence the impact that policies and programmes have in addressing the nutrition situation and reaching populations. These supporting factors and constraints include M&E Systems and indicators, implementation capacity, Coordination and Funding. As the consultant undertakes interviews, these areas should be included and a short descriptive, neutral analysis of key elements of these processes should be included in the report.

**[See Annex 6 for more guidance on governance and management processes]**

**Process Questions include:**

10. Are the government arrangements in place to support and coordinate nutrition sensitive agriculture, cross-sectoral communication and coordination?

11. How does the used language and terms on food and nutrition security as applied in the policy frameworks (described under point 5) facilitate a more integrated approach and communication across government sectors? reflect the attention paid to nutrition?

12. Is the national M&E framework supporting/could better support a nutrition-sensitive agriculture programme for the country?

13. Are there any incentives for sustainable food production? What are incentives and barriers for agricultural and nutrition professionals or organizations to engage with
each other in the country and what drives action?

14. Are there resource / capacity gaps (financially, human, organizational and institutional) for nutrition sensitive actions, approaches and programming that would need to be addressed in future? If so, which ones?

15. What are good practices and lessons learned?

**Methods:**

*Desk review prior to country visit:*

- Analysis of nutrition situation and food system with rigorous databases
- Ex post analysis of country policies and action plans on nutrition, agriculture and food sectors
- Literature review (scientific and grey literature of nutrition, agriculture and food system)

*While in country:*

- Perform policy gathering exercise and localized review
- Analyze secondary data of country level data on food system and nutrition
- Perform key stakeholder and informant interviews\(^ {17}\) (national government focal points and experts in specific sector areas) followed by a snowballing method to do deeper interviews with national partners and experts
- Assess the national M&E system
- Organize feedback session with relevant stakeholders that were contacted during the field visit.

\(^{17}\) See attached Interview guide.
**Guideline annex 1: Situation analysis: from national food consumption to food supply**

*Consult grey literature and scientific literature for descriptions of the country nutrition transition. For example, the nutrition transition is well described in the scientific literature by authors, such as Popkin. Please consult Pubmed and do a thorough literature review of your country’s nutrition situation.*

<table>
<thead>
<tr>
<th>Type of Information</th>
<th>Source of information</th>
</tr>
</thead>
<tbody>
<tr>
<td>What are the main nutrition problems in the country?</td>
<td>WHO and FAO country papers for ICN, WHO online database, UNICEF database, MICS, DHS, SMART surveys</td>
</tr>
<tr>
<td>• Undernutrition</td>
<td></td>
</tr>
<tr>
<td>• Micronutrient deficiencies</td>
<td></td>
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<tr>
<td>• Over-nutrition/overconsumption</td>
<td></td>
</tr>
<tr>
<td>What are the current national priorities in nutrition policy and action plan?</td>
<td>WHO policy review, National policy documents</td>
</tr>
<tr>
<td>What are the main food consumption patterns?</td>
<td>FAO online database, National surveys, WFP, FAO etc</td>
</tr>
<tr>
<td>(urban/rural, income groups, geographic areas; and types of foods, number of meals, main food items, frequency, etc.)</td>
<td></td>
</tr>
<tr>
<td><em>Capture seasonal and geographic variations and difference between socio-economic groups according to available information.</em></td>
<td></td>
</tr>
<tr>
<td>What is the cost of diet and the food price patterns, and what do they indicate?</td>
<td>Household expenditure surveys, FAO country paper for ICN</td>
</tr>
<tr>
<td>Source of food: What is the share of national food supply provided by local production and by imports? (specify by food items)</td>
<td>FAO online database, Food balance sheets</td>
</tr>
<tr>
<td>Access to food: How do households access food (household food supply)? (share of own production and purchase from market; type of markets)</td>
<td>Household expenditure surveys</td>
</tr>
<tr>
<td>(urban/rural, income groups, geographic areas; and types of foods</td>
<td></td>
</tr>
<tr>
<td><em>Capture seasonal and geographic variations and difference between socio-economic groups according to available information.</em></td>
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<tr>
<td>Type of Information</td>
<td>Source of Information</td>
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<tr>
<td>What is/are the main purpose(s)/goals of agriculture as described in national policies? (e.g. export, employment, national food security)</td>
<td>National Policy documents</td>
</tr>
<tr>
<td>How is nutrition referred to in national food and agriculture documents:</td>
<td>National Policy documents</td>
</tr>
<tr>
<td>Which terminology with regard to Food and Nutrition Security is used in the policy documents; and which definitions/concepts applied?</td>
<td>Interviews with key informants</td>
</tr>
<tr>
<td>Food security, Food security and nutrition, Food and nutrition security, Nutrition security etc? <strong>Background refers to the CFS paper 'coming to term with terminology'</strong>.</td>
<td></td>
</tr>
<tr>
<td>How does the applied language reflect / or not reflect attention paid to nutrition? How does applied language favour an integrated approach and communication across government ministries? Like through multi-sectoral platforms.</td>
<td></td>
</tr>
<tr>
<td>Is the country experiencing the impact of climate change?</td>
<td>Documented case studies, Meteorological Service, UNEP, National Adaptation plans (NAP/NAPA), National Mitigation Plans, Green Climate Fund, Global Environment Facility.</td>
</tr>
<tr>
<td>If yes, how is it impacting the agriculture and food system / food production / nutrition security of the population?</td>
<td></td>
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<tr>
<td>Are there climate change adaptation/mitigation measures that negatively affect nutrition security (e.g. biofuels)?</td>
<td></td>
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</tbody>
</table>
Guideline annex 2: Agriculture and Food Policy, Trade and Legislation Checklist

- **Policies to increase consumption and demand for nutritious foods**
  - Labeling
  - Food promotion
  - Marketing foods
  - Dietary guidelines
  - Sustainable consumption policies

- **Policies to improve production of foods with high nutrient content and dietary diversity**
  - Increase production, reduce post-harvest losses, facilitate diversification, gender, empowerment of women, equity, reduce climate change impacts.
  - Climate change adaptation/mitigation policies impacting the food system, promote sustainable food production (conservation agriculture, climate-smart agriculture).
  - Input/assets: fertilizers, seeds, land use, land ownership, credit, water
  - Research and extension services
  - Markets and market access for vulnerable groups
  - Credit systems

- **International trade flows of food and agriculture commodities**
  - Analysis of tariffs that prevent the import of certain items
  - Understand how commodities substitution impact accessibility (example: biofuels)
  - Risk assessment of trade agreements
  - Analysis of taxes
  - Wholesalers and retailers - supermarkets

- **Domestic trade flows of food and agricultural commodities**

- **Legislation/regulations**
  - Examples: fortification, breastmilk substitutes, ready-to-use therapeutic foods
  - etc.
Guideline annex 3: Guiding Principles for Nutrition Sensitive Agriculture

- Nutrition objectives and M&E
- Link to context/nutritional challenges
- Target the vulnerable
- Empower women
- Increase production and reduce post-harvest losses, facilitate diversification
- Incorporate nutrition promotion and education
- Improve processing to retain nutritional value
- Expand markets and market access for vulnerable groups
- Collaboration between sectors
- Maintain the natural resource base

18 Waiting on finalized principles (should be available end of April 2013)
Guideline annex 4: Impact pathways

Source: Gillespie et al., TANDI project
Guideline annex 5: Mapping food and agriculture policies with a nutrition lens

Includes horticulture, fisheries, livestock, forest and natural resources as deemed relevant by country

**Food consumption**
(Promotion, education, labeling, taxes, subsidies...)
- What specific policies (and laws) exist to address this? (incl. link to regional)
- Are they being implemented / supported by investments & programmes?
- Do they include modalities to improve diversification?
- Do they include measures to ensure gender and climate sensitivity?
- Do they include measures to target the poorest?
- Is there any evidence of impact of the policy/ies on nutrition?
- Remarks: challenges; key gaps; main areas of interest for the country

**Economic access to food**
(subsidies, tax reductions, social protection measures / safety nets...)
- What specific policies (and laws) exist to address this? (incl. link to regional)
- Are they being implemented / supported by investments & programmes?
- Do they include modalities to improve diversification?
- Do they include measures to ensure gender and climate sensitivity?
- Do they include measures to target the poorest?
- Is there any evidence of impact of the policy/ies on nutrition?
- Remarks: challenges; key gaps; main areas of interest for the country

**Physical access to food**
(e.g. markets/roads to marginal areas; infrastructure; distribution networks; retail)
- What specific policies (and laws) exist to address this? (incl. link to regional)
- Are they being implemented / supported by investments & programmes?
- Do they include modalities to improve diversification?
- Do they include measures to ensure gender and climate sensitivity?
- Do they include measures to target the poorest?
- Is there any evidence of impact of the policy/ies on nutrition?
- Remarks: challenges; key gaps; main areas of interest for the country

**Processing and storage of food**
(regulations, subsidies...)
- What specific policies (and laws) exist to address this? (incl. link to regional)
- Are they being implemented / supported by investments & programmes?
- Do they include modalities to improve diversification?
- Do they include measures to ensure gender and climate sensitivity?
- Do they include measures to target the poorest?
- Is there any evidence of impact of the policy/ies on nutrition?
- Remarks: challenges; key gaps; main areas of interest for the country

**Food Production**
(inputs, land use, extension, research, credit, NRM...)
- What specific policies (and laws) exist to address this? (incl. link to regional)
- Are they being implemented / supported by investments & programmes?
- Do they include modalities to improve diversification?
- Do they include measures to ensure gender and climate sensitivity?
- Do they include measures to target the poorest?
- Is there any evidence of impact of the policy/ies on nutrition?
- Remarks: challenges; key gaps; main areas of interest for the country

**Trade of food and commodities**
(domestic and international)
- What specific policies (and laws) exist to address this? (incl. link to regional)
- Are they being implemented / supported by investments & programmes?
• Do they include modalities to improve diversification?
• Do they include measures to ensure gender and climate sensitivity?
• Do they include measures to target the poorest?
• Is there any evidence of impact of the policy/ies on nutrition?
• Remarks: challenges; key gaps; main areas of interest for the country

Guideline annex 6: Governance and Management Process Guidance

1. Government arrangements in place to support nutrition sensitive agriculture.
   a. Do ministries communicate and coordinate cross-sectoral?
   b. What are the structures?
   c. Are they effective?
2. Policy implications of applied terminology:
   a. How does applied language and term on food and nutrition security used in the policy frameworks (described under point 5) facilitate a more integrated approach and communication across government sectors?
   b. How does the language reflect / or not reflect the attention paid to nutrition in planning, implementing and monitoring agriculture and food policies and actions?
3. National M&E frameworks for nutrition-sensitive agriculture programmes
   a. What are the potential process and impact indicators related to actions that enhance the impact of food and agriculture on nutrition?
   b. What are the existing methods of measuring the above?
   c. What are information and knowledge needs and gaps that should be addressed through further study? What are potential processes for monitoring and evaluation?
4. Resource/capacity gaps (financially, human, organizational and institutional) for nutrition sensitive actions, approaches and programming.
5. Incentives and barriers are for agricultural and nutrition professionals or organizations to engage with each other in the country and what drives action.
   a. Short-term collaborations?
   b. Multisectoral training in nutrition and agriculture in the country?
6. Food-agriculture-nutrition policy processes and alignment, including alignment around common results frameworks and stakeholder participation. Are there any links with climate change adaptation/mitigation plans?
7. Factors contributing or impeding collaboration between relevant ministries.
8. Good practices and lessons learned from the implemented actions, including considerations on the design of the actions as well as issues relating to institutional capacity, policy processes and alignment, and stakeholder participation.
ANNEX 2. LIST OF WORKSHOP PARTICIPANTS (n=13)

UNSCN COUNTRY POLICY ANALYSIS: NUTRITION IMPACT OF FOOD SYSTEMS IN BRAZIL

WORKSHOP - LIST OF PARTICIPANTS

10 July 2013, 9h to 11h

<table>
<thead>
<tr>
<th>Name</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gerciane Carvalho de Araújo e Silva</td>
<td>CONAB</td>
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<tr>
<td>Douglas Souza Pereira</td>
<td>MPA</td>
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<tr>
<td>Milene Boaretto Constancio</td>
<td>MPA</td>
</tr>
<tr>
<td>Israel Kluz</td>
<td>MRE / CGFome</td>
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<tr>
<td>Milton Rondó</td>
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<td>Janine Coutinho</td>
<td>MDS/CGEAN</td>
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<td>Guilherme Abrahão</td>
<td>MDA/NEAD</td>
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<td>Juliane Perini</td>
<td>MDS/SESAN/CAISAN</td>
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<tr>
<td>Sara Lopes</td>
<td>FNDE/PNAE</td>
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<tr>
<td>Regiane Fonini</td>
<td>FNDE/PNAE</td>
</tr>
<tr>
<td>Patrícia Jaime</td>
<td>MS/CGAN</td>
</tr>
<tr>
<td>Oscar Suriel</td>
<td>OPAS/OMS</td>
</tr>
<tr>
<td>Sabrina Ionata de Oliveira Granheim</td>
<td>UNSCN/OMS</td>
</tr>
</tbody>
</table>
ANNEX 3. INTERVIEW GUIDE

COUNTRY POLICY ANALYSIS: BRAZIL
NUTRITION IMPACT OF FOOD SYSTEMS
INTERVIEW GUIDE

Interview summary
1. Overview of the case study and interview goals
2. General discussion on food systems and the link between nutrition and agriculture in the country
3. Policy processes and alignment
4. Lessons learned / gaps
5. Further steps

Ask for consent to record interview
Reiterate anonymity and confidentiality

1. Overview of the case study and interview goals
   - Provide case study 2-pager (printed)
   - Brief explanation of case study activities and methodology:

2. General discussion on food systems and the link between nutrition and agriculture in the country

Policy goals and challenges
   - Major goals of agriculture policy in the country
   - Link with nutrition goals
     - Present? How?
   - Major challenges for agricultural development
   - Are agricultural policies having an impact on nutrition? Examples.
   - Major challenges for nutrition-sensitive agriculture

Other policy areas
Trade, taxation, subsidies, environment, climate change, gender
   - Do / could they have a role for nutrition-sensitive agriculture?
   - Are there incentives for
     - sustainable food production?
     - high nutrition value crops?

Implementation
   - If there is a link between agriculture and nutrition goals, is it reflected in implementation?
     - Why / why not
     - How effectively
   - Implementation challenges

M&E
   - What is in place?
   - Project x system M&E
   - Nutrition indicators
     - Present? How? Which?
3. Policy processes and alignment

Cross-sectional coordination / Institutional arrangements

- Coordination mechanisms
  - Existent?
  - How do they work?
  - How effective?
  - Key stakeholders
  - Strengths and weaknesses
  - Consensus on meaning, priorities, roles and responsibilities?
  - What hinders collaboration? What promotes it?

Political commitment

- Do nutrition-sensitive policies have high-level support?
  - Why / how? Why not?
- Barriers
- Potential (what could be done to galvanize more political support)

Capacity for nutrition-sensitive agriculture

- Current status
- Implementation capacity
- Knowledge / capacity development gaps
  - How could they be / are they being addressed

Funding

- Are nutrition goals reflected in national budgets?
- Key donors for nutrition-sensitive agriculture
- Strategies for mobilization of resources
- Success rate
- What is funded x what could be funded to support nutrition-sensitive agriculture
- Does nutrition sensitive development have any implications for funding possibilities (e.g. make projects more attractive to donors)

Terminology

- Food security / food and nutrition security / food security and nutrition / other
- Perceived implications for policy (+ or -)
  - Examples

4. Lessons learned / gaps

- Key progress until now in nutrition-sensitive agriculture in the country
  - 3 concrete examples
- What do stakeholders need to allow/support them to implement programmes successfully?
- Knowledge gaps

5. Further steps

- Stakeholder questionnaire
  - Introduce printed copy, brief overview, send via email
  - Recommendations for the case study (other interviewees, documents, etc)
ANÁLISE DE POLÍTICAS NACIONAIS: BRASIL
IMPACTO DOS SISTEMAS ALIMENTARES NA NUTRIÇÃO

QUESTIONÁRIO

O Comitê Permanente de Nutrição das Nações Unidas (SCN) está desenvolvendo uma série de estudos de caso em parceria com os governos de 8 países (Brasil, Serra Leoa, África do Sul, Malawi, Senegal, Nepal, Tailândia e Moçambique) para investigar como as políticas alimentar e agrícola têm (ou pretendem ter) um impacto na situação da nutrição nestes países, bem como contribuir para o avanço da discussão sobre agricultura sensível à nutrição no contexto nacional. Os estudos de caso serão utilizados como subsídio para as discussões da Segunda Conferência Internacional de Nutrição (ICN2), organizada pela OMS e FAO em novembro de 2014.

Esse questionário sobre o sistema alimentar no Brasil é parte da coleta de dados para este estudo. Os dados serão tratados de forma confidencial e anônima, e deverão ser enviados diretamente para a consultora do SCN Sabrina Ionata no email sabrina.ionata@gmail.com até o dia 06 de setembro de 2013. A consultora também está à disposição para maiores informações neste email ou pelo telefone +47 9204 9391, ou pelo skype sabrina.ionata.

QUESTIONÁRIO

Instruções: o questionário é composto de 9 perguntas abertas, que deverão ser respondidas livremente com suas percepções pessoais sobre o tema. Não há limite de tamanho para as respostas, e sinta-se à vontade para incluir exemplos práticos, bem como links para materiais disponíveis na internet.

1) Considerando o sistema alimentar no Brasil em todas as suas etapas, desde a produção, armazenamento, transporte, processamento, comercialização até o consumo, onde você identifica o maior desafio para a segurança alimentar e nutricional (SAN) no contexto brasileiro atual?
Resposta:

2) Na sua opinião, quais os principais avanços para a segurança alimentar e nutricional no país nos últimos anos?
Resposta:

3) O conceito brasileiro de SAN influencia de alguma forma a formulação de políticas públicas? De que maneira?
Resposta:

4) Em termos gerais, e na sua percepção, qual o foco das políticas e programas de agricultura, pecuária e pesca no país?
Resposta:
5) O modelo agrícola brasileiro apresenta dois componentes importantes: o agronegócio e a agricultura familiar. Estes componentes coexistem de forma harmônica? Por quê?
Resposta:

6) Em geral, a política agrícola no Brasil considera questões de alimentação e nutrição?
Resposta:

7) Quais são os principais desafios para uma maior integração entre agricultura e nutrição no país? E quais oportunidades de integração poderiam ser exploradas?
Resposta:

8) Que planos, políticas e programas atuais você destacaria como exemplos importantes de articulação entre agricultura e nutrição? E quais seriam oportunidades para ação futura em outros planos, políticas e programas?
Resposta:

9) Há algum outro aspecto não mencionado nas perguntas acima que você considera importantes para o estudo de caso sobre agricultura e nutrição no país? Por exemplo, temas a serem abordados, contribuições que o estudo poderia trazer para o Brasil, etc.
Resposta:

Obrigada pela participação!

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### ANNEX 5. LIST OF STUDY PARTICIPANTS (N=22)

<table>
<thead>
<tr>
<th>Name</th>
<th>Institution</th>
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<tbody>
<tr>
<td>Adriano Campolina</td>
<td>ActionAid Brasil</td>
</tr>
<tr>
<td>Albaneide Peixinho</td>
<td>School Feeding Programme (PNAE), FNDE/MEC</td>
</tr>
<tr>
<td>Douglas Souza Pereira</td>
<td>Secretariat for Infrastructure and Promotion, MPA</td>
</tr>
<tr>
<td>Edélcio Vigna</td>
<td>University of Brasilia</td>
</tr>
<tr>
<td>Francesco Pierri</td>
<td>International Advisory Group, MDA</td>
</tr>
<tr>
<td>Francisco Menezes</td>
<td>IBASE</td>
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<tr>
<td>Gerciane Carvalho de Araújo e Silva</td>
<td>CONAB/MAPA</td>
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<td>Gustavo Lund</td>
<td>CONAB/MAPA</td>
</tr>
<tr>
<td>Janine Coutinho</td>
<td>SESAN/MDS</td>
</tr>
<tr>
<td>Juliana Santilli</td>
<td>Prosecutor, Office of the District Attorney</td>
</tr>
<tr>
<td>Juliane Perini</td>
<td>SESAN/ MDS, CAISAN</td>
</tr>
<tr>
<td>Kelma Cruz</td>
<td>CONAB/MAPA</td>
</tr>
<tr>
<td>Luis Sabanay</td>
<td>Chief Adviser, MPA</td>
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<tr>
<td>Maria Emilia Pacheco</td>
<td>CONSEA</td>
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<tr>
<td>Mariana Ferraz</td>
<td>IDEC/PROCON RJ</td>
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<tr>
<td>Michele Lessa</td>
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<td>Roberto Nascimento</td>
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<td>Sergio Sauer</td>
<td>University of Brasilia</td>
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<tr>
<td>Silvio Porto</td>
<td>CONAB/MAPA</td>
</tr>
<tr>
<td>Sonia Lucia Lucena Sousa de Andrade</td>
<td>ASBRAN, Federal University of Pernambuco</td>
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</tbody>
</table>
ANNEX 6. POLICY SCORING CRITERIA – DETAILED

1 Incorporate explicit nutrition objectives
2 Have explicit goals and indicators into their design, and track and mitigate potential harms, while seeking synergies with economic, social and environmental objectives.
+ Link with nutrition M&E system.
3 Assess the context\(^{19}\) at the local level, to design appropriate activities to address the types and causes of malnutrition\(^{20}\).
4 Target the vulnerable\(^{21}\) and improve equity through participation, access to resources, and decent employment.
5 Empower women by improving access to productive resources, income opportunities, extension services and information, credit, labor and time-saving technologies (including energy and water services), and supporting their voice in household and farming decisions. Equitable opportunities to earn and learn should be compatible with safe pregnancy and young child feeding.
6 Increase the production of foods (particularly horticultural products, legumes, small-scale livestock and fish, biofortified crops, and underutilized foods). Diversified production systems are important to vulnerable producers to enable resilience to climate and price shocks, more diverse food consumption, reduction of seasonal food and income fluctuations, and greater and more gender-equitable income generation.
6.1 Increase production of nutritious foods
7 Reduce post-harvest losses
8 Facilitate diversification of agricultural production (particularly horticultural products, legumes, small-scale livestock and fish, biofortified crops, and underutilized foods). Diversified production systems are important to vulnerable producers to enable resilience to climate and price shocks, more diverse food consumption, reduction of seasonal food and income fluctuations, and greater and more gender-equitable income generation.
9 Incorporate nutrition promotion and education around food and sustainable food systems that builds on existing local knowledge, attitudes and practices. Nutrition knowledge can enhance the impact of production and income in rural households, especially important for women and young children, and can increase demand for nutritious foods in the general population.

\(^{19}\) Context assessment can include potential food resources, agro-ecology, seasonality of production and income, access to productive resources such as land, market opportunities and infrastructure, gender dynamics and roles, opportunities for collaboration with other sectors or programmes, and local priorities.
\(^{20}\) Malnutrition includes chronic or acute undernutrition, vitamin and mineral deficiencies, and obesity and chronic disease.
\(^{21}\) Vulnerable groups include smallholders, women, youth, the landless, urban dwellers, the unemployed.
10 Improve processing, and to make healthy foods convenient to prepare.

10.1 Improve processing of foods to retain nutritional value

11 Improve storage and preservation to retain nutritional value, shelf life, and food safety, to reduce seasonality of food insecurity and

12 Expand markets and market access for vulnerable groups, particularly for marketing of foods or products vulnerable groups have a comparative advantage in producing. This can include innovative promotion (such as marketing based on nutrient content), value addition, access to price information, and farmer associations.

12.1 Expand market access of nutrient-rich foods

13 Collaborate and coordinate with other sectors (health, environment, social protection, labor, water and sanitation, education, energy) and programs, through joint strategies with common goals, to address concurrently the multiple underlying causes of malnutrition.

14 Maintain or improve the natural resource base (water, soil, air, climate, biodiversity), critical to the livelihoods and resilience of vulnerable farmers and to sustainable food and nutrition security for all. Manage water resources in particular to reduce vector-borne illness and to ensure sustainable, safe household water sources.
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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