



Country Policy Analysis

Nutrition Impact of Agriculture and Food Systems

South Africa

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This report presents an independent snapshot of the nutrition sensitivity of the South African food system at this time. The authors acknowledge that the landscape is changing at a rapid pace.



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1. Executive Summary

1.1 Introduction

This case study forms part of an on-going effort by the United National Standing Committee on Nutrition (UNSCN) to better understand how food systems and agricultural can impact on nutrition outcomes. This case study aims to present a snapshot of the current nutrition-sensitivity of the South African agriculture- and food systems, as well as highlight the importance of the food system for future improvements towards food security and nutrition.

The most recent data indicates that many South African children under 14 years of age are stunted (15.4% of all children under 14 years, and 26.5% of children under 3 years) with increasing rates of overweight and obesity (23.6% of girls and 16.2% of boys between the ages of 2 and 14 years) observed. These continue to co-exist with persistent vitamin A (43.6%) and iron (9.2%) deficiencies in children. The majority of South African adults, and especially women, are overweight (24.8%) or obese (39.2%), while many women also suffer from the consequences of micronutrient deficiencies, i.e. anaemia (22%) and vitamin A deficiency (13.3%) (SANHANES-1, 2012). The paradox of persistent under nutrition and increasing incidence of overnutrition in this middle income country experiencing the nutrition transition, with high reported values of household food insecurity, requires a new paradigm.

1.2 Purpose

The purpose of this paper is to describe the nutrition-sensitivity of the South African agriculture and food systems.

1.3 Methodology

The study was conducted by means of a desktop review of current policies and programmes, followed by a contact-based research process and validation involving key stakeholders.

1.4 Findings

1.4.1 Description of relevant food and agricultural policies, strategies and frameworks

The Bill of Rights in the Constitution of the Republic of South Africa (Act 108 of 1996) stipulates that everyone has the right to have access to sufficient food and water and that every child has the right to basic nutrition, shelter, basic health care services and social services (Section 28). This Constitution is considered the supreme law of the land and cannot be superseded by any other governmental action. The Medium Term Strategic Framework (MTSF) of South Africa for the current period (2009 to 2014), being the electoral mandate and statement of intent, outlines the medium-term strategy for improvements in the conditions of life of South Africans. The objectives of the MTSF, which guide planning and resource allocation, include halving poverty and unemployment by 2014, ensuring more equitable distribution of the benefits of economic growth and reducing inequality, improving the nation's health profile and skills base and ensuring universal access to basic services, improved safety of citizens and building a nation free of all forms of racism, sexism, tribalism and xenophobia.



The current Strategic Plan for DAFF (2012/13 to 2016/17) is aimed at providing an effective framework to address the challenges facing agricultural sectors and to set the delivery targets for the departmental programmes from 2012 to 2017. The six programmes of the plan include: Administration; Agricultural Production, Health and Food Safety; Food Security and Agrarian Reform; Economic Development, Trade and Marketing; Forestry and Natural Resource Management; and Fisheries Management. Programme 3 (Food Security and Agrarian Reform) facilitates and promotes household food security and agrarian reform programmes and initiatives targeting subsistence and smallholder producers. It comprises three sub-programmes, namely Food Security, Sector Capacity Development and National Extension and Support Services. The sub-programme: Food Security provides a national framework to promote the Sustainable Household Food Security Programme through the coordination of governmental food security initiatives.

Since the IFSS was implemented under DAFF in 2003 to streamline, harmonize and integrate diverse food security programmes, there has been progressive achievement on implementation of the strategic priority areas, but about 22% of the South African population still experience inadequate to severe inadequate access to food (StatsSA, 2010). Due to such statistics DAFF (which is responsible for the co-ordination and implementation of the IFSS) determined a need to review the implementation of the strategy to strengthen its impact on the poor and marginalised members of our society. Core to this review was to draw lessons learnt at both the continental and international level, Brazil was identified as a model country, which has largely solved their own problems of food insecurity. The Zero Hunger programme was then conceptualised, based on the Brazilian example, to strengthen and assist in the actualisation of the IFSS for South Africa. The Zero Hunger programme has since been immobilised. A draft policy is currently in the cabinet process, namely the Food Security and Nutrition Policy for South Africa. This policy is still considered confidential but available information is included in this report.

1.4.2 How the stated policies impact nutrition outcomes and/or health outcomes

In 2010, the Diagnostics Report of the National Planning Commission (NPC) identified a failure to implement policies and an absence of broad partnerships as the main reasons for slow progress in South Africa, and set out 9 primary challenges, including high unemployment rates, high disease burden, poor educational outcomes, divided communities, uneven public service performance, crumbling infrastructure, spatial patterns marginalising the poor, corruption and a resource intensive economy. As part of the solution, the New Development Plan (NDP), Vision 2030, was developed to align future activities of the country at policy level, with the main aims to eliminate poverty and reduce inequality in the next three electoral periods. It emphasizes the importance of hard work, leadership and unity.

The draft Food Security and Nutrition Policy for South Africa aims to serve as a key pillar to achieving these objectives of the NDP, including areas where the IFSS has failed, namely: inadequate safety nets and food emergency management systems; lack of knowledge and resources to make optimal food choices by citizens for nutritious safe diets; lack of optimal use of land; limited access to processing facilities or markets; climate change and its associated



impacts; ecosystems and goods systems being undermined and the lack of sustainability. The draft policy defines food security as “the right to have access to and control over the physical, social and economic means to ensure sufficient, safe and nutritious food at all times, in order to meet the dietary requirements for a healthy life.” When defining food security the draft policy specifies four specific dimensions, which are also the determinants of food security by the policy, namely 1) adequate availability of food, 2) accessibility (physical, social and economic), 3) utilisation, quality, nutrition and safety of food, and 4) stability of the food supply. Yet, the policy lacks in terms of 1) promoting diversification of agricultural production, 2) improving processing to retain nutritional value of foods and 3) improvement of storage of nutrient-rich foods. These gaps along with stakeholder comments received still indicate a lack of understanding of the importance of nutrient density and dietary diversity by key stakeholders. The two indicators deemed critical according to the draft policy are anthropometric status (key indicator), and the Hunger Index (proxy indicator). The limitations of these indicators as measurements could limit the efficacy of improving the nutritional status of the population as lack of hunger and an adequate supply and consumption of energy does not equate to a well-nourished individual.

1.4.3 How these policies and programmes are being funded and implemented

Most of the programmes and strategies related to agriculture and nutrition are funded through budget allocations to the relevant departments and included in the respective strategic plans that guide the allocations under the MTSF. Resource allocation to departments and programmes will over the next 17 years be shaped by the NDP. The Plan supports government’s intention to gradually shift resources towards investment that grows the economy, broadens opportunities and enhances capabilities.

1.4.4 Policy processes and alignments

Since food security and improved rural livelihoods are some of the Presidential outcomes, every department tries to build in these elements in their strategic plans and programmes. The result is that there is duplication of effort and often people with limited expertise in food security, agriculture and nutrition are appointed to lead these initiatives in departments such as Human Settlement, Rural Development, Public Works, etc. This generally leads to poor implementation and a waste of valuable state resources. Coordination and efficiency in delivery of actions and programmes remains one of South Africa’s major challenges.

In 2010, the Diagnostics Report of the NPC identified a failure to implement policies and an absence of broad partnerships as the main reasons for slow progress in South Africa. As part of the solution, the NDP, Vision 2030, was developed to align future activities of the country at policy level, with the main aims to eliminate poverty and reduce inequality in the next three electoral periods. Affordable access to quality healthcare as well as household food and nutrition security are listed as milestones to achieve the aims proposed by the NDP, Vision 2030. Environmental sustainability and women empowerment are also highlighted in the NDP.

The proposed Food Security and Nutrition Policy strongly recommend inter-sectorial coordination, and a real integration of existing policies. The policy is proposed to be guided,



motivated and overseen by the Presidency, with each element championed by a specific Ministry, supported by various other Ministries and Departments.

1.4.5 Monitoring & Evaluation

Effective monitoring and evaluation measures are lacking. Such measures need to be integrated into nutrition-related projects to assess any reasonable degree of impact on nutrition outcomes, using assessments that take into account nutrition considerations. Irrespective of what measure is chosen, it should be monitored continuously and cut-off values for differentiating between severities of food and nutrition security within local context should be determined.

1.4.6 Final appraisal

The draft Food Security and Nutrition Policy for South Africa provides an ambitious framework which could assist in improving nutritional status. However, the following 6 gaps have been identified during the comprehensive review that needs to be addressed in order to enhance nutrition-sensitivity of agriculture.

1. Lack of recognition of the responsibility and role of agriculture and the food system for improved nutrition.
2. Lack of understanding dietary diversity and nutrient density by agriculture and the food system in the context of adequate kilojoules and absence of hunger.
3. Lack of understanding and data on the beneficial cost to benefit ratio of improving the nutritional status of the population
4. Lack of effective and well defined metrics and methods.
5. Lack of engagement/integration between sectors.
6. Lack of governance.

1.4.7. Conclusions and recommendations

According to StatsSA 12 million South Africans (22.7%) have insufficient access to food, increasingly so for nutritious foods. Therefore, South Africa needs better coordinated and better planned food security and nutrition interventions. South Africa has numerous programmes and policies with components of improving nutritional status, however unless these are coherent and coordinated, failure is likely. The problem observed is not whether every component of improved nutritional status and food security is covered by such programmes in South Africa, but rather how these programs are implemented in practice, if the necessary human capacity, knowledge and structure is available, and what the outcomes and impacts are.

- A collective vision to implement nutrition outcomes in agriculture is required, as identified in the NDP, Vision 2030. This plan is now being translated into the MTSF of the next presidential period and will guide the development plans and resource allocation for departments.
- Moving away from DOH or DAFF as single responsible ministries to a broader coalition between sectors will improve coherence.



- A comprehensive and coordinated Food Security and Nutrition Policy is proposed which suggests a deeper political commitment.
 - The programmes designed to implement this policy should show clear evidence of the link between nutrition, agriculture and the food system.
- Champions for nutrition and food security are required to advance nutrition-sensitivity in agriculture and the food system.
 - Scientific evidence and technical expertise should be used collectively to raise awareness, educate and sensitize leadership and the authorities on the contribution of agriculture and the food system to nutrition outcomes.
- Better aligned programmes for all aspects of the food system
 - 60% of South Africa's population is urbanised, thus the nutritional needs and status of the population will not only depend on agriculture but on the whole food system.
 - Understanding aspects related to food processing, food composition, food marketing, fast foods, diets, and nutritional education become fairly important.
 - For this reason, various mechanisms to improve nutritional outcomes in agriculture and the food system are proposed:
 - Improving agricultural growth and development
 - Increasing the production and availability of nutritious foods
 - Enhancing food value chains to improve accessibility of nutritious foods
 - Programmes that combine two or three of these components.
- M&E should be put in place along with effective information systems to guide programmes.
 - Interventions and programmes should be planned and indicators for M&E developed which take dietary diversity and nutrient density into consideration.



2. Purpose of Study and Research

The United Nations Systems Standing Committee on Nutrition tasked a country policy analysis for South Africa on the nutrition impact of current food systems.

Country specific objectives were:

- a) To review how food and agricultural policies are having or are intended to have an impact on nutrition in South Africa through performing a situation analyses of both nutrition and agriculture
- b) To contribute to the advancement of the discussion on nutrition-sensitive agriculture through the description of policy processes and alignments, and analysing the nutrition sensitivity of specific agricultural and food policies that currently exists.

The specific focus areas covered include:

- 1) Describe the South African nutrition situation including nutrition status, food supply, consumption, affordability, access and related policies.
- 2) Describe the South African national strategic frameworks in terms of agriculture, nutrition and food security focussing on the agro-food system.
- 3) Describe the South African agricultural policy environment.
- 4) Analyse the agricultural policy environment in terms of nutrition sensitivity including terminology, implementation, impact and eventually, collaboration.
- 5) Identify opportunities for the improvement of nutrition-sensitive agriculture.



3. Introduction

3.1 Background that defines nutrition sensitive agriculture and its importance in development and in nutrition and health

Although Health is a key development goal, South Africa principally suffers today from a quadruple burden of disease: from HIV and AIDS and TB, high levels of Maternal and Child mortality; Intentional and non-intentional injuries; and non-communicable diseases (NCDs). The major NCDs are linked to common risk factors, namely unhealthy diets (high intake of energy dense foods containing fats, salt and sugar), physical inactivity, and harmful use of alcohol, tobacco use and in some cases infections. Unequal development including poverty and health illiteracy is strongly associated with increased NCD morbidity and mortality. People living with Human Immune Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS) are at higher risk for developing NCD including cancers, heart disease, mental disorder and diabetes. Maternal and child health are inextricably linked with NCD and their risk factors, while prenatal malnutrition and low birth weight create a predisposition for obesity, high blood pressure, heart disease and diabetes later in life. NCD in pregnancy create risks for both mother and child. Added to this is the fact that more than half of people who have hypertension and diabetes in South Africa are not even aware of their condition. An estimated 17 million visits at health centres per annum for these conditions, results in significant health care costs and use of human resources. NCDs have economic consequences on individuals, households and society.

Agriculture plays a key role in the relationship with regard to nutrition and health. It is the primary source of energy and essential nutrients, while simultaneously being a source of income, creating jobs and earning foreign exchange. Agricultural development is fundamental for sustaining the lives of the world's population, yet agricultural activities have to face many challenges due to population growth, urbanization and climate change which threaten the availability of water, land and other natural resources.

The importance of agriculture for health has been increasingly recognised, but the link between agriculture, nutrition and health policies and programmes are still weak in most countries, with serious implications for the effectiveness and efficiency of the efforts to improve overall health and nutrition outcomes. Although the agriculture and health sectors are all aiming at improved well-being, agricultural interventions and actions frequently undermine health and nutrition (IFPRI/ILRI, 2010). For instance agricultural intensification could lead to the development and spread of agriculture-associated diseases. Furthermore, the failure of agriculture to provide access to nutritious foods and support high quality food choices contributes to micronutrient deficiencies and "hidden hunger", which are a persistent health concern in many countries including South Africa. Monotonous diets which mainly include inexpensive, energy-dense, nutrient-poor (staple) foods could further aggravate the emerging epidemic of obesity and chronic diseases in South Africa during economic and nutrition transition.

The Republic of South Africa, with an estimated population of nearly 53 million (StatsSA, 2013), is a middle income country occupying the southernmost point of the African continent. The country is divided in nine provinces ranging in prosperity and nutritional status of the diversity of



cultures residing in the provinces. Nearly two thirds (62%) of the population resides in urban areas, with the number consistently increasing due to urbanisation. At the same time many people living in rural areas are commuting daily or weekly to the urban metropolises for their daily job. There is therefore a strong link between rural areas and many of the urban/industrial areas (Kirsten, 2012). The economy has been growing, albeit slowly, in the past ten years, but high poverty and inequality persist with a GINI co-efficient of 0.7 (World Bank, 2012). South Africa is in a nutrition transition in which under-nutrition, notably stunting and micronutrient deficiencies, co-exist with a rising incidence of overweight and obesity and the associated consequences such as hypertension, cardiovascular disease and diabetes. Within the context of the HIV and AIDS pandemic and food insecurity, the high prevalence of under-nutrition, micronutrient deficiencies and emergent over-nutrition presents a complex series of challenges. Undernutrition has stayed roughly constant in South Africa since the early 1990s. Despite the relatively high per capita income, rates of childhood stunting (18% of children under 6 years (NFCS-FB-I, 2008)) are comparable to low income countries in the region, and have a higher stunting rate than lower-income countries in other regions (DOH, 2013). While some indicators show improvement, several conditions seem to have worsened over the past decade (NFCS-FB-I, 2008). During the period 1985 to 1994, Statistics SA estimated life expectancy at birth at about 54.12 years for males and 64.38 years for females. This has improved for males to an estimated 57.7 years, but the estimated life expectancy decreased for females to 61.4 years (StatsSA, 2013). South Africa is also one of only 12 countries in the world in which mortality rates for children younger than 5 years have increased since 1990 (Black et al., 2008). High incidence of stunting observed in children indicate chronic deficiency in essential nutrients during the growing years, yet 25% of adolescents and 56% of the adult population were recorded as overweight or obese (Reddy et al., 2010; SADHS, 2003) indicating excessive intake of energy. Furthermore, nearly 30% of all deaths were attributed to non-communicable diseases (NCDs) with cardiovascular disease (11%) and cancers (7%) being the largest contributors (WHO, 2011).

Since the democratisation of South Africa in 1994, the Government has remained consistently committed to reducing malnutrition in mothers and children. The Bill of Rights in the Constitution of the Republic of South Africa (Act 108 of 1996) states that: Everyone has the right to have access to sufficient food and water, and the state must take reasonable legislative and other measures, within its available resources, to achieve the progressive realisation of each right (Section 27); and Every child has the right to basic nutrition, shelter, basic health care services and social services (Section 28).

South Africa has an abundant supply of natural resources, well developed financial and service sectors and modern infrastructure. The nominal gross domestic product (GDP) at market prices during the fourth quarter of 2012 was R815 billion, with an annual growth rate of about 2.5% (StatsSA, 2013). South Africa is considered nationally food secure as agricultural production is high, and at national level there is enough food available for the whole population estimated at more than 3000kcal/capita/day (FAOSTAT, 2013). This amount is more than the average daily dietary energy requirements of 2400kcal/capita/day. It has also been suggested that South Africa has the capacity to respond to malnutrition in terms of prioritisation within governmental



departments, funding, reporting systems and the presence of integrated policies on nutrition (WHO, 2011). Yet, malnutrition remains a persistent problem, with negative consequences for the health status and productivity of the nation. Although South Africa has the ability to meet national food requirements within increasing export value index in the past 10 years (FAOSTAT, 2013), large scale inequality and poverty mean that many households do not enjoy food security or adequate access to nutritious and safe food. Apart from poverty increasing vulnerability to hunger and food insecurity, many households do not have sufficient access to diverse foods that will allow adequate nutrition.



3.2 *Situation analysis*

3.2.1 National nutrition situation

The relationship between the causes and consequences of malnutrition is complex (Kimani-Murage et al., 2010). Poverty and high food prices reduce consumer purchasing power and can leave the nutritionally vulnerable even more powerless when it comes to acquiring healthy foods. It is also well understood that nutrition plays a fundamental role in the sustainable development of human capital (Vorster, 2010). Malnutrition adversely affects both mental and physical development and significantly reduces the productivity and economic potential of an individual (Lanigan & Singhal, 2009).

The average household income of the poor in South Africa equips many households to procure mainly low cost staple foods such as maize meal porridge, with limited added variety. Although this ability to procure enough food to maintain satiety of all family members might categorise them as being food secure, the nutritional limitations of such monotonous diets might have severe implications in terms of health, development and quality of life.

Studies to determine the nutritional situation of South Africa at a national level is unfortunately limited as only sporadic nationally representative studies have been performed (Van Heerden & Schönfeldt, 2011). From these studies, wasting in children, indicating acute or persistent lack of dietary energy, has been generally uncommon in South Africa. Unfortunately, although still relatively low in comparison to stunting and the increased incidence of obesity, it seems that wasting in children is increasing. In 1994, only 2.6% of children (under 6 years of age) were wasted (SAVACG, 1996), in 1999 this number increased slightly to 3.7% (NFCS, 1999), and in 2005 4.5% of children were recorded as wasted (NFCS-FB-I, 2008).

Labadarios et al (2000) pointed out that at the national level, stunting was by far the most common nutritional disorder, affecting at that time nearly one in five children. Stunting, is indicative of chronic long-term dietary inadequacy but is also reflecting socioeconomic deprivation, and mostly used as a measure of nutritional status in children (Vorster et al. 1997). In the 2013 SANHANES-1 Study similar pattern emerged for the prevalence of stunting of 26.5 % of children aged 1-3 years and 11.9 % of children aged 4-6. The same study come with an underweight prevalence , of 6.1% of the children in the group 1-3 years and 4.5% of the children in the group 4-6 years.

Furthermore, for South African children as a whole, the intakes of energy, calcium, iron, zinc, selenium, vitamins A, D, C and E, riboflavin, niacin, vitamin B6 and folic acid were below two-thirds of the Recommended Dietary Allowances. (Labadarios et al 2005). At national level, the SANHANES-1 data from 2013 indicate that 43,6% of the children under 5 have Vitamin A deficiency, that 33% of the children between 10 and 14 years had no food in the house to eat breakfast and 29.8 % had nothing at home to put in the lunchbox before to go to school.

In addition to underweight, the prevalence of overweight in South African is a reality, and increasingly so in children. In 1999 nearly 10% of South African children under 9 years were



recorded as overweight or obese, with 4% being obese (NFCS, 1999). In 2005, nearly 5% of children under 5 years of age were recorded as overweight or obese (NFCS-FB-I, 2008). Regional and international comparisons with more recent data indicate that South Africa's preschool children have a major and increasing problem of combined overweight and obesity. Morocco, Swaziland, Botswana, and Nigeria have a prevalence of about 11%, which is about half of South Africa's prevalence of 22.9%. By further comparison, 12% of children aged 2-5 years were overweight and obese in the United States. The current prevalence in South Africa is where the USA was in 1999-2000, viz. 20.5% for 2-5-year-olds. Albania, Libya, Egypt, and Georgia reported overweight and obesity (combined) prevalence of 23, 22, 21, and 20%, respectively (SANHANES-1, 2012).

Of the adult population, 29% of men and 55% of women were overweight, and 9% of men and 29% of women were obese in 1998 (SADHS, 1998). By 2003, 56.2% of the total adult population was recorded as overweight or obese (SADHS, 2003). In August 2013, the South African National Health and Nutrition Examination Survey (SANHANES-1, 2012) was released. The media release reports that South African males had a mean body-mass index (BMI) of 23.6kg/m², which is significantly lower than that found of South African females (28.9kg/m²). The study found that 20% of men and 68% of women in South Africa had a waist circumference that places them at risk of metabolic complications. When compared to 2003 SADHS data, the SANHANES-1 found that underweight decreased, while overweight and obesity increased. Obesity incidence increased substantially in females, from 27% in 2003 to 39.2% in 2012 (SANHANES-1, 2012).

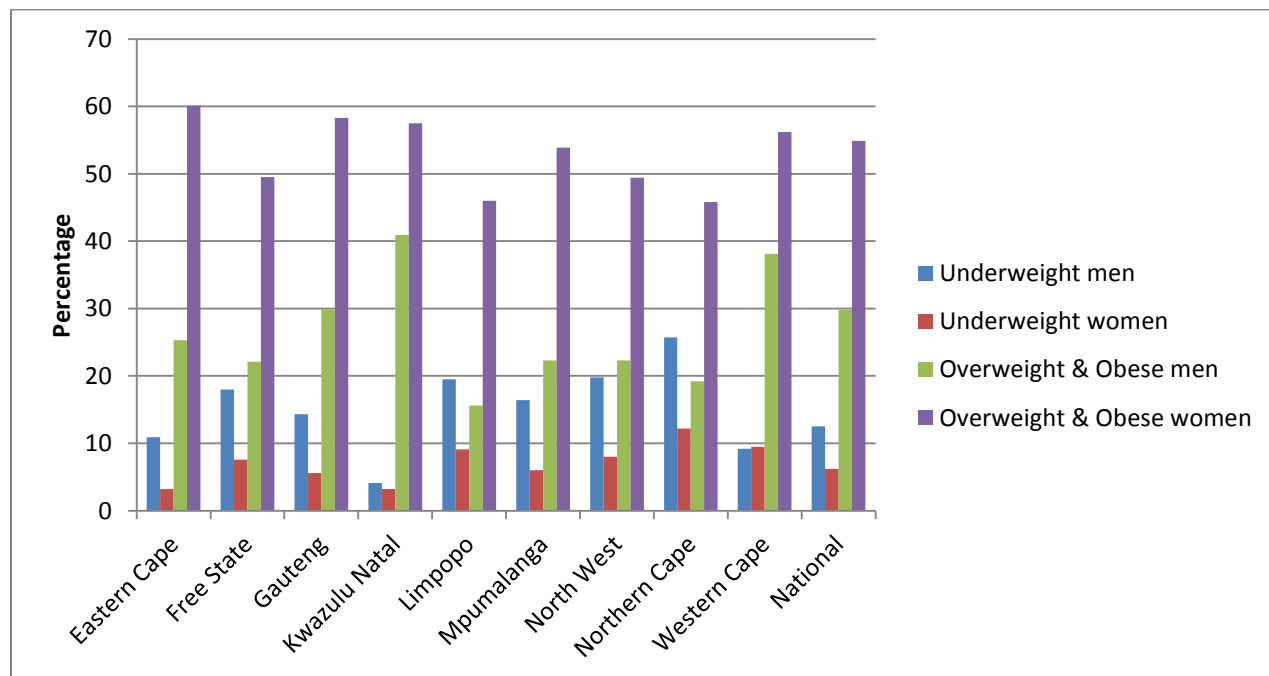


Figure 3.1: Incidence of underweight and overweight in adult men and women (SADHS, 2003)

In 2000, the Medical Research Council (MRC) performed a comparative risk assessment for South Africa, and found that eleven of the seventeen most common risk factors for deaths were



directly or indirectly related to nutrition, and included among others high blood pressure, excess body weight, high cholesterol, diabetes, low fruit and vegetable intake, vitamin A deficiency and iron deficiency anaemia (Norman et al., 2007). The rapid increase in NCD's such as diabetes, hypertension and cancers has led to the strengthening of the arguments to focus on dietary quality and is reflected in actions encouraging dietary diversity, including the Food-Based Dietary Guidelines. Furthermore, strengthening the policy environment together with a framework such as reflected in the National Development Plan (NDP) to link education to nutrition could encourage positive health outcomes.

In terms of nutritional deficiencies, in 1994 it was found that 33% of children under 6 years were marginally deficient in vitamin A (serum retinol <20mg/dL-1), with the highest rates recorded among children aged 3 to 4 years. In 1999 it was recorded that one out of two children under the age of 9 years consumed less than half of the recommended levels of energy, vitamin A, vitamin C, riboflavin, niacin, vitamin B6, folate, iron, zinc and calcium. In this national study, diets of children were found to be confined to a narrow range of foods of low micronutrient density. Dietary intakes were particularly inadequate in rural areas (Labadarios et al., 2011). After the mandatory fortification of staple food with a fortification mix (vitamin A, B-vitamins, zinc and iron) was legislated in October 2003, a follow-up national survey in 2005 still found significant nutritional deficiencies in children and women. Nearly 30% of children and women had anaemia, 64% of children and 28% of women had a vitamin A deficiency and 45.3% of children had a zinc deficiency (NFCS-FB-I, 2008). Children's nutritional status varies considerably among the nine provinces and possibly within each province. This should focus targeting and prioritization for interventions and resource allocation.

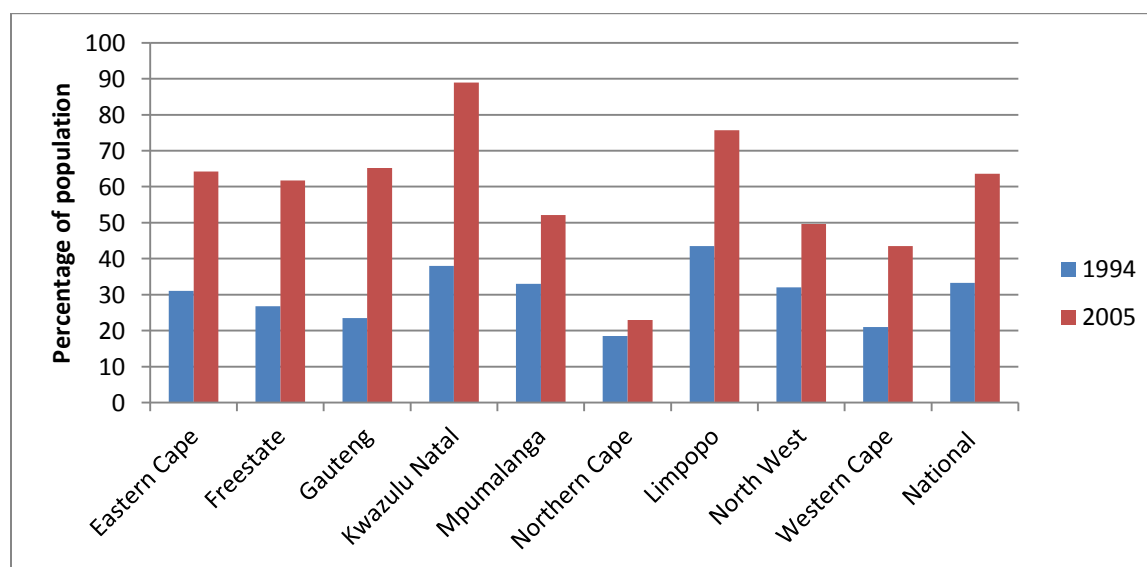


Figure 3.2: Inadequate Vitamin A status of South African children per province in 1994 and 2005 (% Vit A <20 µg/dL)

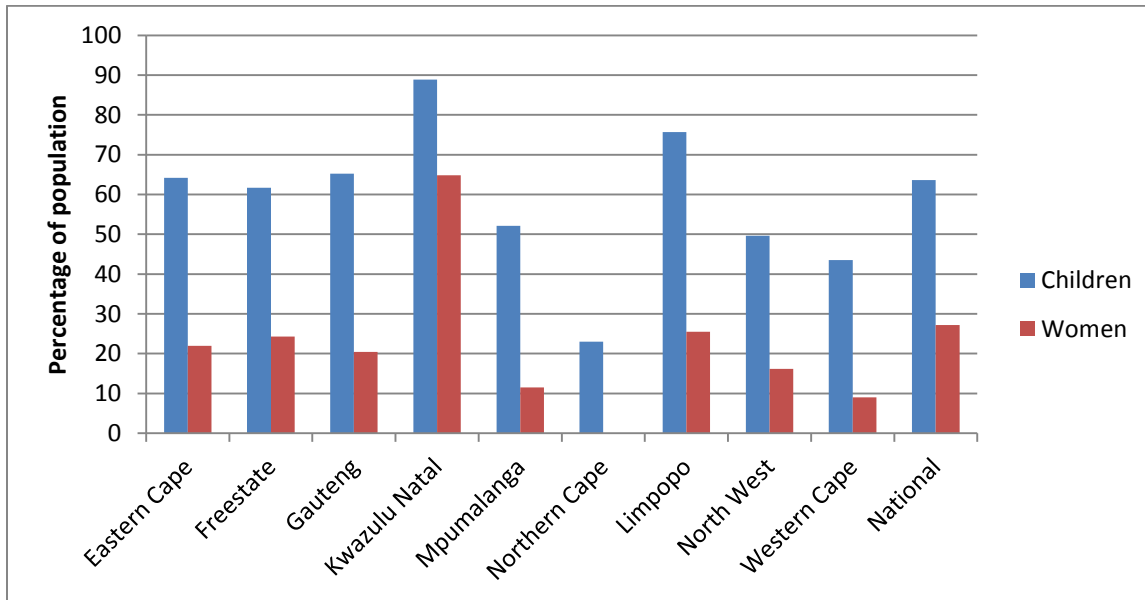


Figure 3.3: Percentage of women and children with inadequate vitamin A status according to the most recent national study results in 2005 (NFCS-FB-I, 2008)

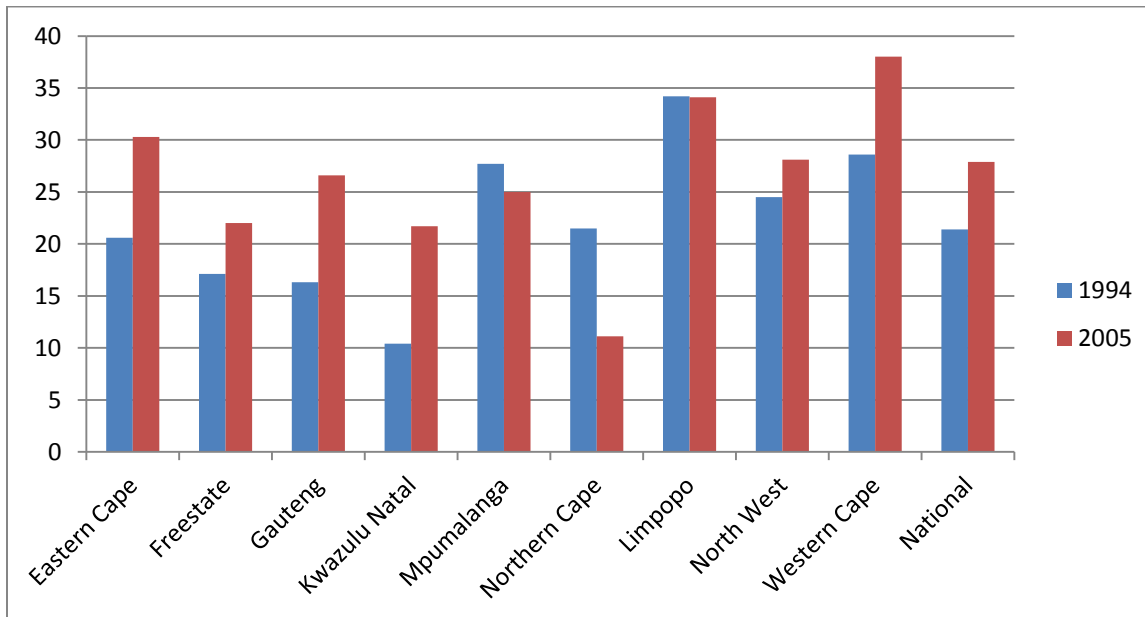


Figure 3.4: Anaemia prevalence in South African children (1 to 9 years) per province (Hb<11g/dL <60 mo; Hb<11.5g/dL >60 mo)

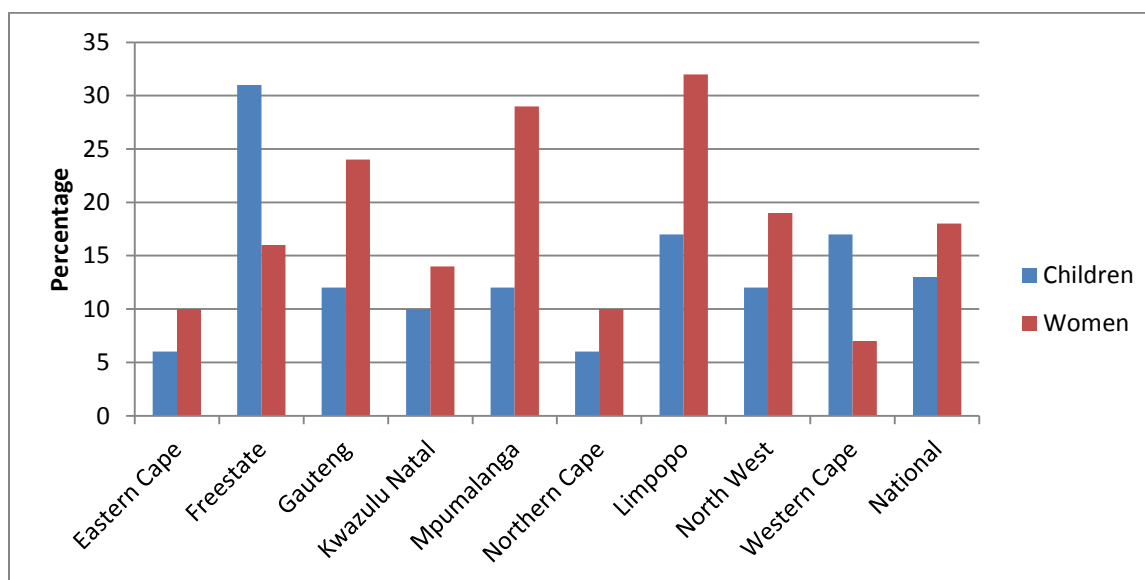


Figure 3.5: Poor iron status of South African women and children in 2005 (NFCS-FB-I, 2008)

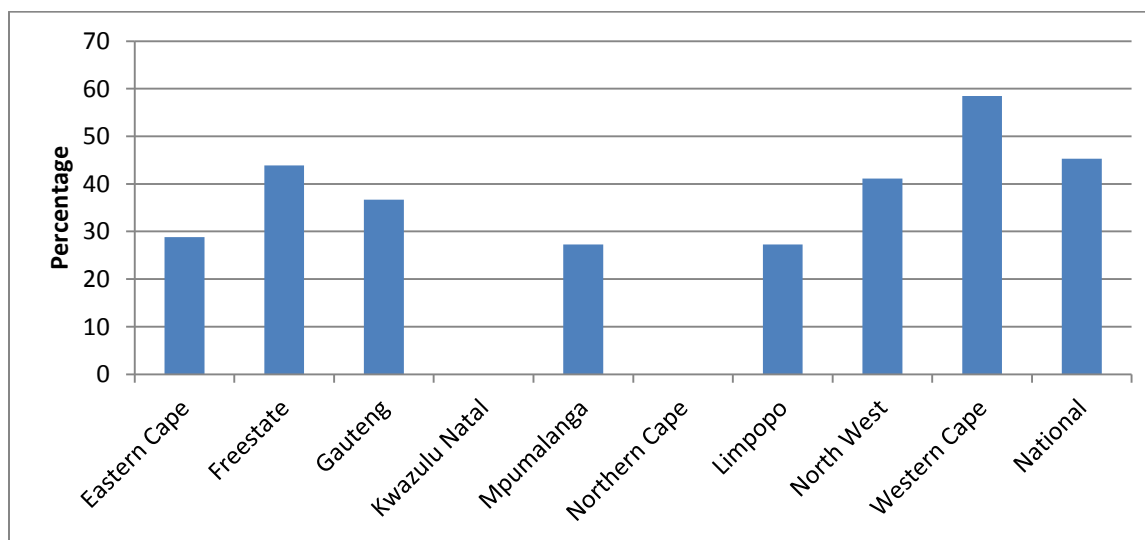


Figure 3.6: Poor zinc status of South African children (NFCS-FB-I, 2008)

In terms of successes, South Africa has essentially achieved the virtual elimination of Iodine Deficiency Disorder (IDD). At both national and provincial level since 1998 there has been a consistent increase in the number of households using and consuming salt with an iodine content of more than 15ppm.

The relationships between food insecurity, undernutrition and overweight are complex. The NFCS-FB-I (2008) found that overweight and obese mothers are more likely to have overweight infants, whereas underweight or stunted mothers were more likely to have undernourished children (Steyn et al., 2011). In 2008 the National Income Dynamics Study (NIDS) found that overweight and obesity in adults co-occurred with stunting and underweight children in about 12% of South African households (Ardington & Case, 2009).



3.2.2 Dietary transition

When populations modernize as a result of socio-economic development, urbanization and acculturation such as in South Africa, it is characterized by changes in dietary patterns and nutrient intakes that increase the risk of the diet-related non-communicable diseases (Vorster et al., 2011). Non-communicable diseases have emerged in Sub-Saharan Africa at a faster rate and at a lower economic level than in industrialized countries, before the battle against under-nutrition has been won. Adverse changes in dietary patterns include increased consumption of foods from animal origin rich in total-and saturated fat, decreased intakes of legumes and vegetables, and increased intakes of energy-dense, micronutrient-poor snack foods, convenience foods (often high in sodium), vegetable oils and sweetened carbonated beverages as well as added sugar, fats and oils during the preparation of food. Although increases in fruit and meat consumption have been observed, the increased intake has not been sufficient to meet all micronutrient needs (Vorster et al., 2011).

3.2.2.1 *Inequality between and within population groups*

Despite significant development in the past 15 years, South Africa remains a country with a complex combination of developed and developing areas, in terms of its people, economy and infrastructure. There is a significant difference in the nutrition indicators observed between rural and urban areas. The South African Demographic and Health Survey (SADHS, 1998) recorded the significant difference in the health situation between the different groups within the country, with the mortality rate in rural areas as high as 7.12%, compared to a 4.32% rate in urban areas, and obesity rates in children in urban areas (5.5%) were recorded higher compared to the national average (4.8%). Stunting rates are higher in younger children (1- 3 years) and for those living in rural areas and on commercial farms (26.5%) compared to children living in urban areas (16.7%) (NFCS, 1999).

3.2.2.2 *Double burden of over- and undernutrition*

South Africa is considered an example of a country experiencing a nutrition transition, where under- and over-nutrition increasingly co-exist. This co-existence is often observed within the same household (i.e. where the mother is overweight and the children are undernourished), and even within the same individual (due to excessive energy intake with a low intake of essential nutrients) (Joubert et al., 2007).

3.2.2.3 *Overweight and obesity*

The 1998 Demographic and Health Survey showed that 58.5% of black women and 54.5% of white men were overweight. In 2005, the National Food Consumption Survey (NFCS-FB-I, 2008) found that 26.6% of women (15-49 years) were overweight, with 24.9% being obese (51.5% combined).

3.2.2.4 *Hidden hunger*

Hidden hunger is a term used to indicate micronutrient deficiencies in apparent well-fed individuals. Although exact figures for hidden hunger are unknown, studies have indicated that many South Africans do not meet their requirements for calcium, iron, zinc, riboflavin, vitamin B6, folate, vitamin C and vitamin A (NFCS-FB-I, 2008). Yet, only 4% of women were found to be



underweight, while more than half of the women were found to be overweight or obese (NFCS-FB-I, 2008).

3.2.3 Food and agriculture and food security situation

3.2.3.1 *Food security status of South Africans*

Food security is said to exist, in accordance with its international definition, when all people in a society at all times have enough food for an active, healthy life. Food security as an umbrella term includes the availability of food that is nutritious and safe; and an assured ability to procure and acquire food of good quality in a socially acceptable way. Measuring food security continues to exist as a challenge due to the multidimensional nature thereof. There is currently no standardised methodology to measure or monitor food security (Koch, 2011). There are many constraints that prevent determination of household level food security status. Main measures for food security are related to income versus food basket expenditure, agriculture production, consumption and household expenditure. According to the IFSS the best available direct measure of food security is to look at the adequacy of daily energy intake through seven day recall expenditure data.

Food access can be defined as a households' ability to meet the nutritional requirements of all the members by acquiring enough food of sufficient quality (Webb et al., 2006). According to the General Household Survey of 2010 an estimated 21.9% of South African households have inadequate or severely inadequate access to food (StatsSA, 2010).

At national level, South Africa appears to be food secure, but the same cannot be said about households, especially those in rural areas (Du Toit et al., 2011). The majority of South African households live in poverty with a limited variety of foods (mainly staples) available in the home. Although no national survey has been conducted to assess all the dimensions of food insecurity in South Africa, some surveys have included components of food insecurity. According to the Development Indicators Mid-term Review issued by the Presidency in 2006, 43.2% of the country's population was living in poverty. In 2004, 7.6% of the population was recorded to be living below the US\$1 per day, indicting extreme poverty (Steyn & Temple, 2008). In the 2005 National Food Consumption Survey (NFCS) one in two households experienced hunger, while almost one in three households was at risk of hunger (Steyn & Temple, 2008).

The 1999 National Food-Consumption Survey found that 25% of households were food secure, In 2005, the number of households to be food secure were recorded as nearly 20%, while one in two households (51.6%) experienced hunger as determined by the hunger scale, approximately one out of three (33%) was at risk of hunger and only one out of five (20%) households appeared to be food secure (NFCS-FB-I, 2008). In 2008 the South African Social Attitudes Survey (SASAS) found that 48% of South African households were food secure (as determined by hunger), while 25% were at risk of hunger and 26% experienced hunger (SASAS, 2011). Although these studies indicate that food insecurity threatens 50% to 80% of South African households, the incidence of obesity (>50% of adults and >5% of children) are increasingly reported. This co-occurrence indicates nutritional problems corresponding to an excessive intake of energy. Significant micronutrient deficiencies in the midst of the rise in



obesity clearly indicate the consequences of a monotonous diet high in energy, but low in essential nutrients. A longitudinal study on 28,353 children found persistent household food insecurity related to child obesity, with the association dependent on maternal weight status (Metallinos-Katsaras et al., 2012).

The Project for Statistics on Living Standards and Development estimated that 39% of the SA population is vulnerable to food insecurity (SALDRU, 1994). It is estimated that almost 57% of South Africans live in poverty – thus aggravating the problem of household food security (NFCS, 1999). In 2013, despite positive indicators in the agricultural sector, between 14% and 52% of South African households are insecure. In rural areas, as much as 85% of households were unable to afford even the “below average dietary energy costs”. According to StatSA (2013) 12 million (22.7%) of South Africans have insufficient access to food.

3.2.3.2 *Economic profile of the population*

In terms of the economic situation, the average income per household in 2011 was \$13,118 per annum according to the latest Statistics South African Income and Expenditure Survey (Stats SA, 2012). South Africa has a consistently unequal economy where two thirds of the populations live in third world country conditions, with the rest living in first world conditions (Nkonkiet et al., 2011). Furthermore, the wealthiest members of the population are in the minority (10%) but earn more than half of the total income (58%) (Leibbrandt et al., 2012).

Class mobility is a reality within the South African consumers market, where consumers continually move towards higher income classes driven by factors such as economic growth as well as socio-economic empowerment. It is important to note that class mobility has a significant impact on the socio-economic distribution of ethnic groups within South Africa. A comparison of all media and product survey (AMPS) data from 2004 and 2011 indicates that the increasingly expanding higher consumer classes are characterised by a growing black consumer component (Eighty20, 2012).

3.2.3.3 *Food consumption patterns*

Due to numerous constraints, only one national food intake study, the National Food Consumption Survey was completed in South Africa in 1999. This seminal study did not study the food intake of the entire population, but only of children between the ages of 1 and 9 years. A follow-up study in 2005 (NFCS-FB-I, 2008) concentrated on the nutritional status of 1- to 9-year-old children of 1-9 years of age, and included women of child bearing age, but did not report on actual food intake data. Smaller food intake studies of persons older than 9 years have been conducted, although these are less representative nationally. According to the NFCS (1999), the five most commonly consumed foods in South Africa are maize, sugar, tea, whole milk and brown bread.

According to the StatSA Income and Expenditure Survey 2010/2011 (StatsSA, 2012) the poorest 30% of the population spends nearly a third of their total expenditure on food and non-alcoholic beverages, decreasing to as little as 6% for the wealthiest 30% of the population. Expenditure on staple food products (bread and cereals) and meat contribute the largest share of food expenditure. The poorest 50% of the population spends around 30% of total food



expenditure on staple food products (bread and cereals), decreasing to 15% for the wealthiest 10% of the population. As expected, dietary diversity increases as income increases.

Households living in urban informal and traditional areas generally also spend the largest share of their total expenditure on food and non-alcoholic beverages (25% and 27% of total expenditure respectively) and have the lowest total expenditure per household per annum. In terms of the share of food expenditure allocated to staple foods (bread and cereals), households living in urban informal and traditional areas generally spend around 30% of total food expenditure on staples, compared to level a of around 20% for the groups living in urban formal and rural formal areas.

3.2.3.4 Cost of the diet and food price patterns

Average earnings by a South African worker are \$313 per month, while 25% of workers earn a monthly salary of less than \$168 (StatsSA 2012). In the fourth quarter of 2013 the official unemployment rate reported by StatsSA was 24% (StatsSA, 2013). With high unemployment rates, the reality is that one salary often carries an entire household. The poorest South Africans (30%) spend 31% of their total expenditure on food according to the latest Statistics South African Income and Expenditure Survey (StatsSA, 2012). Based on these statistics, a household with an income of \$168 per month will spend roughly \$52 per month on food, which amounts to \$1.73 per household, per day (Schonfeldt et al., 2013).

Although the average household size in South Africa consists of 3.4 people (Census 2011), numerous rural households (often observed in those most severely affected by poverty) typically have many household members who are unable to work. These extended families can include children, grand-children, older family members and the physically disabled. In a recent study performed in rural settlements in South Africa, most households consisted of 6 to 7 members and more than 50% of them were found to be severely food insecure (D'Hease et al., 2011). With as little as \$1.73 available to feed a household with up to 7 family members per day, many South Africans have as little as \$0.25 per person per day to meet all of their dietary requirements. Additionally, limited available income to spend on food can inevitably lead to an inadequate food basket that is largely dependent on the price of food (Schönfeldt et al., 2013).

With food price inflation being a global phenomenon, the price of staple foods has continued to increase over the past two years at a relatively high rate. Currently, the National Agricultural Marketing Council (NAMC) in South Africa is working in collaboration with the National Departments of Agriculture and StatsSA to monitor and report trends in food prices. Results have shown that from January 2011 to January 2012, food inflation was 6.2% (NAMC, 2013). During the period January 2012 to January 2013, significant price inflation was observed for a variety of products within the food basket: oranges, tomatoes, cabbage, onions, eggs, sunflower oil, canned fish, fresh chicken pieces, white bread, peanut butter and brown bread (NAMC, 2013). Comparing rural and urban food price trends, in January 2013 rural consumers paid \$0.37 more for a food basket selection consisting of rice (2kg), maize meal (5kg), one litre of full cream-long life milk, sunflower oil (750ml) and a loaf of white bread (700g),



3.2.3.5 South African food systems

Food security is underpinned by food systems (Drimie et al., 2011). Food security is the state achieved when food systems operate so that all people, at all times, have physical and economic access to nutritious, safe and sufficient food to meet their dietary needs and food preferences for an active and healthy life (FAO, 1996). Food systems encompass two main factors, activities (production, processing, distribution, preparation and consumption) and outcomes (availability, access and utilisation).

Food production

Producing food is a fundamental agricultural and industrial activity contributing to food security outcomes (Drimie et al., 2011). South Africa has a country area of 121 909 000 hectares. The area utilised for agriculture amounts to 79%, distributed between permanent meadows and pastures (69%), arable land (10%) and permanent crops (0.34%). The remaining country area consists of 8% forest area and 13% other land areas (FAOSTAT, 2013). Of the arable land available, only 22% is high-potential arable land, with the availability of water presenting the greatest constraint to the farming sector (SouthAfrica.info, 2012). The country has a 3000km long coast line and consists of seven climatic regions, ranging from Mediterranean to semi-desert regions (SouthAfrica.info, 2012).

The South African agricultural sector is also characterised by inequalities between different types of farmers, in particular between large commercial farmers and small farmers in the communal areas. The number of commercial producers is small, but they make a substantial contribution to total production. In contrast, there are many subsistence producers, but their scale of operations is relatively small, although they are a political and donor priority. On the other hand, the advantages from which commercial producers historically benefitted (subsidies, cheap water and labour) have been abolished and these producers are subject to reforms such as land, access to water and subsidy policies. The majority of foods procured by South Africans are from formally processed food products, highlighting the importance of the food industry in population nutrition and health (Figure 3.7).

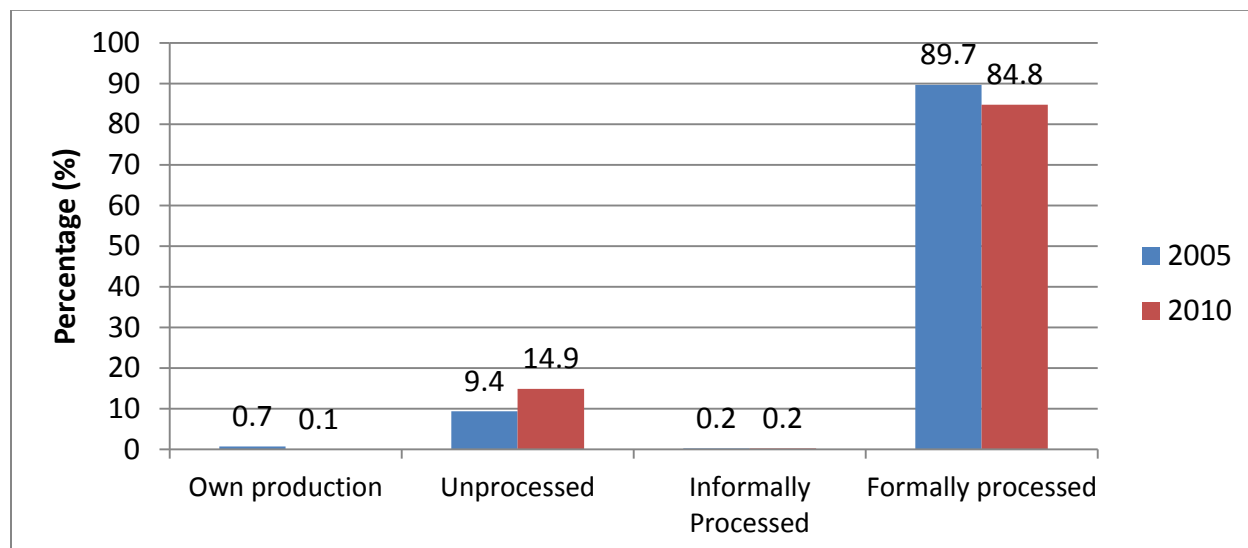




Figure 3.7: Food budget shares disaggregated by food processing level (BFAP, 2013)

For the 2011/2012 production season the total gross value of agricultural production was more than \$17 million, which is 12.9% higher than the previous season mainly due to an increase in the value of field crops. South African agriculture's contribution to gross domestic product (GDP) amounted to 1.9% in 2010 (decreasing significantly from 7.1% in 1970) (DAFF, 2012). Even though agriculture has a relatively small contribution to total GDP, agriculture remains an important economic sector in terms of food production, being a significant provider of employment and a major earner of foreign exchange.

The gross value of agricultural production for the 2011/2012 production season was made up of animal products (gross value contribution of 46%), field crops (gross value contribution of 29%), and horticultural products (gross value contribution of 25%). The individual sectors with the highest contributions to the gross value of agricultural production were poultry production (16% contribution), maize (15%), cattle and calves slaughtered (11%), deciduous and other fruit (6%), milk (6%), vegetables (5%), eggs (5%), citrus fruit (5%), sugar cane (4%) and potatoes (3%) (Calculations based on DAFF, 2013). South Africa's major agricultural export products (based on 2011/2012 export values) are citrus fruit, wine, chemical wood pulp (dissolving grades), maize and grapes. The major agricultural import products are rice, wheat and meslin, poultry, palm oil and un-denatured ethyl alcohol (DAFF, 2012).

In terms of the agro-processing industry, the average contribution of agro-processing to the output and value added of the manufacturing sectors, during the period 2006 to 2010, were 29,3% and 29,1%, respectively while it contributed 13.6% to exports during that period (DAFF, 2012). The composition of total real output in the agro-processing industry from 2005 to 2010 encompasses the following: Food (42%), beverages (12%), paper / paper products (14%), wood / wood products (7%), textiles (6%), wearing apparel (5%), furniture (4%), tobacco (4%), rubber products (3%), footwear (2%), leather / leather products (1%). From a food perspective the agro-processing industry involves the processing and manufacturing of a wide variety of commodities, including freshwater aquaculture, meats, nuts, herbs, fruit, wine, confectionary and natural fibres. The food processing industry employs about 171 000 employees, representing the largest manufacturing sector in employment terms (SouthAfrica.info, 2012). The composition of total employment in the agro-processing industry for the period 2005 to 2010 encompassed among others a 31% contribution from food processing and an 8% contribution from beverage manufacturing (DAFF, 2012).

The food balance sheet for South Africa (FAOSTAT, 2013), indicates that South Africa produces enough food for local consumption for a wide selection of commodities including maize, sorghum, other cereals, millet, potatoes, sweet potatoes, sugar cane, sugar & sweeteners, sugar (raw equivalent), pulses (excluding peas and beans), soyabeans, sunflowerseed oil, groundnuts (shelled equivalents), other oilcrops, cottonseed oil, vegetables, tomatoes, onions, grapes, oranges, mandarins, other fruits, apples, grapefruit, bananas, lemons, limes, pineapples, other citrus, bovine meat, other meat, raw animal fats, eggs, milk (excluding butter), seafood fish, pelagic fish, demersal fish, cephalopods and other marine fish. The commodities in short supply from local production and relying on imports include wheat, barley, oats, rice



(milled equivalent), rye, sweeteners, honey, beans, peas, tree nuts, sunflower seed, vegetable oils, rape and mustard seed, soyabean oil, cottonseed, groundnut oil, poultry meat, pig meat, mutton and goat meat, butter, ghee, crustaceans, freshwater fish, molluscs, tea, coffee, cocoa beans, pimento, pepper and spices.

Food distribution

Many of the challenges facing South Africa's transport infrastructure are reflected in the country's economic geography. One third of the country's Gross Value Added is concentrated in the Gauteng province, which lies 1400m above sea level and a considerable distance from ports.

The country's major trading partners lie far from these shores. At a local level, apartheid segregation created settlements that are separated from the main areas of employment. The domestic economy is transport-intensive. The country's share of world GDP is about 0.7 percent, but it has 2.2% of world surface ton-kilometres. In 2008, nearly 15% of GDP went towards logistics costs, representing a major constraint on our competitiveness (Ittmann & King 2010).

In 2009, only 11% of freight was transported by rail, with the remainder being transported by road (89%). The total road network includes both proclaimed and un-proclaimed roads – the latter making up an estimated 140000km of roads that serve mostly rural areas. These roads are not represented in the government's road inventory, and are not assigned for maintenance and upkeep. National roads make up 201000 km of the network, 65000 km of which are paved.

Approximately 96% of South Africa's exports are conveyed by sea, underlining the importance of the country's ports. South Africa's port productivity is seen as substandard in global terms.

South Africa has 728 airports, of which 146 have paved runways. Non-military air transport is controlled by the Ministry of Transport through the Civil Aviation Authority, while the Airports Company of South Africa (ACSA) owns and operates most of the country's airports. The largest passenger volumes are aligned with urban centres (NDP, 2013).

Food access and retail

Food retailing in South Africa is characterised by two distinct sectors: The formal food retail sector and the informal sector. The shop formats within the formal food retail sector includes hypermarkets, supermarkets, superettes, convenience stores, urban counter stores, urban self-serve stores, rural counter stores and rural self-serve stores. The four major food retail chains are Shoprite/Checkers, Pick 'n Pay, Woolworths and SPAR. The store numbers of these retailers in South Africa are: SPAR (>850), Pick 'n Pay (775 consisting of hypermarkets, supermarket and smaller family stores), Woolworths (>130), Shoprite (441), Checkers (>200) and Usave stores (part of Shoprite/Checkers – 287 stores) (source: web pages of various retailers). The estimated market shares of these retail groups in 2006 were: Pick 'n Pay (35%), Shoprite/Checkers (28%), SPAR (26%), Woolworths (7%) and other retailers (4%) (Louw et al., 2007:541-542). These retailers generally target different socio-economic consumer groups: Woolworths focus on wealthier consumers, while Shoprite serves the lower socio-economic consumer groups. Pick 'n Pay and SPAR have a more widespread focus and furthermore SPAR



is actively expanding its rural footprint in South Africa – serving a predominantly poorer rural consumer market in that regard. It is estimated that the formal food retail sector accounts for at least 60% of food retailing in South Africa.

The informal food retail sector includes informal markets, small retail stands, hawkers (street traders), food vendors and spaza shops (informal stores found in rural areas and informal settlements in South Africa). Battersby (2011) confirmed the significant role of informal market in the food security of the most vulnerable population groups in South Africa. Crush et al., (2011) stated that 66% of households in Cape Town and 85% of households in Johannesburg sourced food from informal suppliers. In an informal settlement in the Free State province, Ntema et al., (2012) found that spaza shops mostly provided consumers with basic food items such a bread (purchased by 70% of households in study), milk (37% of households) and cool drinks (37% of households). Popular non-food items sold by spaza shops included cell phone airtime, alcohol, paraffin and cigarettes. In 2002/03 the informal retail business contributed an estimated 28% of South Africa's GDP and informal outlets contributed an estimated 10% of the potential retail trade (Ntema et al., 2012). Furthermore it is estimated that the informal retail industry in the form of spaza shops contributed about 320 000 job opportunities in 2006 (Ntema et al., 2012). In 2000 it was estimated that (International Labour Organizaition, 2003):

- The Durban metropolitan area had about 20 000 street traders;
- The greater Johannesburg had between 12 000 and 15 000 street traders;
- More than 70% of all street traders sold food items;
- More than 70% of the traders were women.

Monthly 'bulk' food shopping is more prominent among the lower income consumer groups, while fragmented shopping events become more prominent among wealthier consumers.

Case study: Poor rural households' sources of food: Limpopo Province (D'Haese et al., 2011)

A recent extensive study of food security among poor households in the Limpopo province of South Africa found that in terms of food production 57% and 50% of households were involved in crop production and livestock production respectively. The most popular crops were maize (27% of households), mangoes (27%), papaja (15%), spinach (15%), tomatoes (13%), oranges (13%), bananas (10%) and guavas (10%). The most prominent livestock production activities focused on poultry (50%), cattle (22%) and goats (22%). The sources of food consumed (in order of importance were) purchase, own production, gathering, through gifts, exchange and food aid. Other sources of food consumed accounted for very minimal shares.

In terms of sources from which households normally procure foods, the Frayne et al. (2009) reported that 25% of South Africans purchase foods from supermarkets, 22% purchase foods from informal markets / street food, and 21% purchase foods from small formal shops, take-away outlets or restaurants (Figure 3.8).

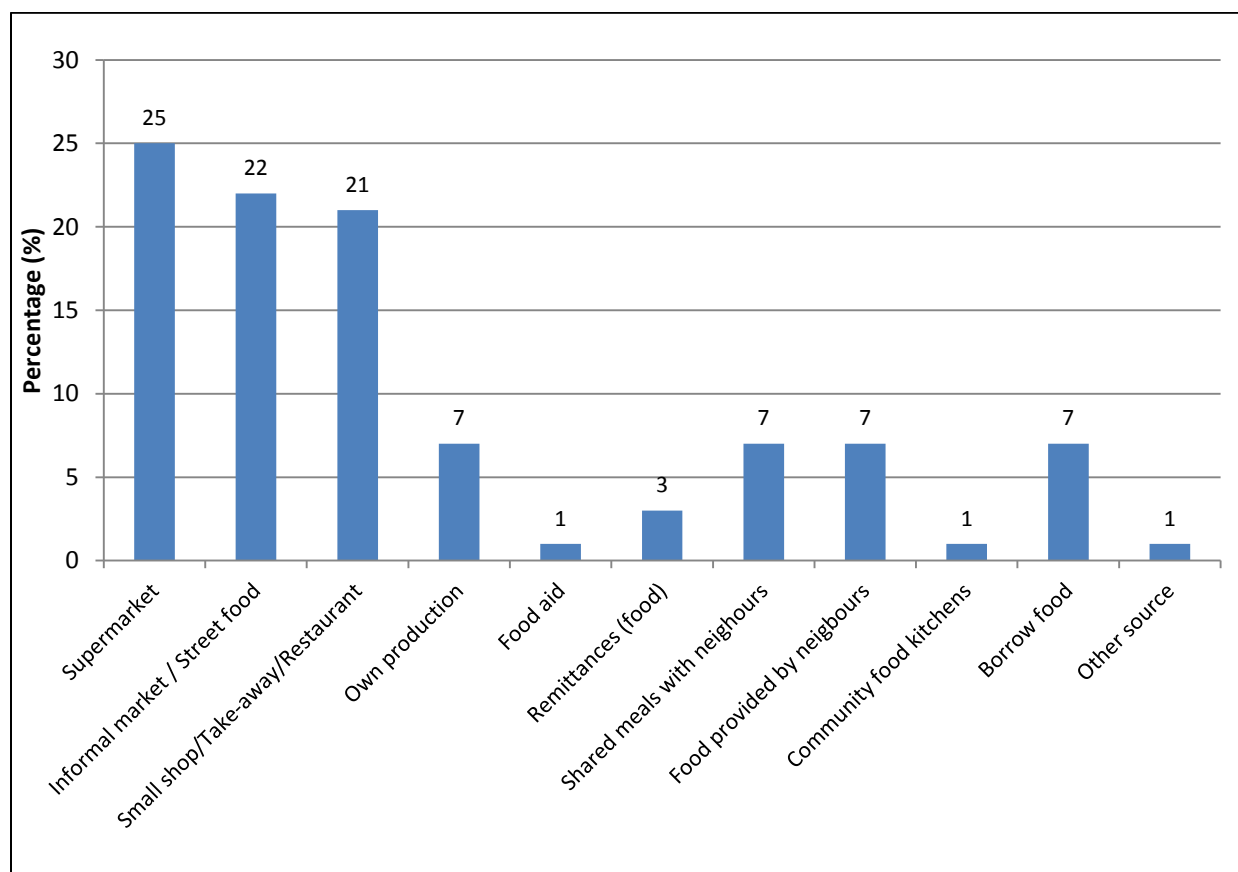


Figure 3.8: Sources from which households normally obtain food (Frayne et al., 2009)

3.3 Description of priorities in the current national nutrition policy and action plans

As part of the alignment of the Strategic Plan of the National Department of Health, the priority is improving the health status of the entire population and to contribute to the Government's vision of "A Long and Healthy Life for All South Africans" (refer to 5.1). The Minister of Health has signed a Negotiated Service Delivery Agreement (NSDA) with the President which prioritises four outputs to achieve this vision. Table 3.1 indicates the priorities and indicators as specified in the NSDA, including the stakeholders involved.

In terms of measurement and evaluation, the Health Data Advisory and Co-ordination Committee (HDACC) aims to i) improve the quality and integrity of data on health outcomes, ii) establish consensus among research experts on indicators and indicator values, identification of reliable empirical data sources to be used to monitor these indicators as well as mechanisms to improve data systems, and iii) advising on baseline values and targets for the Negotiated Service Delivery Agreement (NSDA).



Specifically related to nutrition, the Department of Health has established the nutrition unit (Directorate of Nutrition), which is tasked with the responsibility of coordinating nutritional interventions in the country.

3.3.1 Integrated Nutrition Strategy (INS) and Integrated Nutrition Programme (INP)

Since democratisation of the country, several nutrition intervention programmes have been implemented under a comprehensive national nutrition strategy for combating malnutrition, namely the Integrated Nutrition Strategy (INS). The INS has three components: 1) health facility-based, 2) community based and 3) nutrition promotion. The INS was used as the basis for the development of the Integrated Nutrition Program (INP) which adopted United Nations Children Funds (UNICEF's) Conceptual Framework on malnutrition and targets nutritionally vulnerable communities and groups, including children under 5 years (Iversen et al., 2012). Depending on the location of the target group and the nature of the intervention the INP is implemented at the level of population, communities, households, health facilities and schools. The INP was considered a means to replace previously fragmented nutrition programmes with a more integrated approach, and today it is considered a holistic approach to combat malnutrition with the following priority interventions:

- Infant and young child feeding, including the promotion of safe infant feeding practices
- Micronutrient malnutrition control – supplements, fortification and food diversification
- Facility-based nutrition interventions
- Growth monitoring and promotion
- Diseases-specific interventions such as nutrition interventions for people living with Tuberculosis (TB), HIV, AIDS and other chronic debilitating conditions
- Prevention of chronic diseases of the lifestyle through dietary and other lifestyle modifications
- Maternal nutrition

The Primary School Nutrition Programme (PSNP) was one of the lead projects initiated in 1994 as part of the INP, but was transferred from the Department of Health to the Department of Education in 2004 with a subsequent name change to the National School Nutrition Programme.

The Nutrition Therapeutic Programme (previously known as the Nutrition Supplementation Programme (NSP), and before the Protein-Energy Malnutrition (PEM) Scheme) falls under the Health Facilities Based Nutrition Programme (HFBNP), and provides nutrition supplements, nutrition and health education, promotion of exclusive breastfeeding according to WHO guidelines, growth monitoring and promotion, immunization as well as diagnosis and treatment of diseases (Iversen et al., 2012).

To further address micronutrient status, the INP focusses on fortification of staple foods. Salt iodisation has been mandatory since 1995, and since 2003 it has been mandatory to fortify all maize meal and wheat bread flour with iron, zinc, vitamin A and the B vitamins. In 2005, the fortification baseline follow-up of the National Food Consumption Survey found that although manufacturers complied with legislation, neither the anthropometric status nor micronutrient status of children had improved, especially observed in rural communities. Possible reasons



could be poor compliance, missed opportunities, incorrect implementation and the instability of added micronutrients (Iversen et al., 2012). In 2009 the vitamin A supplementation programme was extended to include national vitamin A campaign in September of each year and a new policy on zinc supplementation was implemented in 2010.

The national Infant and Young Child Feeding Policy (focussing on infants and children 0 to 60 months) was implemented in 2008. It aims to standardise and harmonise infant feeding messages, to guide healthcare workers on how to address threats and challenges to infant feeding, and to promote optimum infant feeding practices. In addition to the South African Food-based dietary guidelines for South Africans older than 7 years, preliminary paediatric Food-Based Dietary Guidelines (from birth to 7 years) have been developed (Bourne et al., 2007). The Road to Health Booklet for children 0 to 60 months has been launched by the Department of Health in 2011 and includes weight-for-age, height-for-age and weight-for-height tables. The main executers of all these campaigns are the primary health care clinics in the country.

3.3.2 Roadmap for nutrition in South Africa, 2013 – 2017 (confidential paper, May 2013)

A Roadmap for Nutrition for South Africa is currently being developed by the National Department of Health based on recent reviews on the INP as well as a Landscape Analyses (WHO, 2010), and seeks to direct nutrition-related activities in the health sector to achieve the four focus areas of the Negotiated Service Delivery Agreement (NSDA). It provides a framework for the repositioning of nutrition and nutrition-related issues and action, with particular reference to the Strategic Plan for Maternal, Neonatal, Child and Woman's Health, and Nutrition in South Africa (DOH, 2013). In line with the four outputs of the NSDA for 2010 to 2014, the goals set out by the Nutrition Roadmap are:

- To contribute to increased life expectancy of the entire population by improving the quality, coverage and intensity of specific nutrition interventions that support reduction of mortality rate, especially maternal, neonatal, infant and child mortality,
- To promote optimal growth of children and prevent overweight and obesity later in life, by focusing on optimal infant and young child nutrition,
- To contribute to the prevention, control and treatment of HIV and Tuberculosis through targeted nutritional care and support strategies,
- To contribute to the effective function of the health sector, by reducing the demand for curative services and improving recovery rates from disease, thus freeing up resources for preventative and promotive services,
- To empower families and communities to make informed nutrition-related decisions, through advocacy regarding household food security, multisectorial collaboration and effective nutrition education.

To achieve the overall goals, all nutrition-related action in the health sectors will be geared towards the implementation of a set of priority nutrition interventions. These are:

- 1) Advocacy and technical support for the integration of nutrition into relevant sector strategies and programmes.



- 2) Positioning nutrition strategically within the health sector at national and provincial levels.
- 3) Delivering the key nutrition interventions through the appropriate action at each of the following levels:
 - a) Population based services, including communication and market-based approaches
 - b) Community based services
 - c) Primary Health Care clinic services
 - d) Hospital-based services
 - e) Strengthening Human Resources to deliver effective nutrition services
 - f) Strengthening the information base for effective nutrition services.



Table 3.7: Priority areas and indicators for the Department of Health (DOH Strategic Plan, 2011)

Priority	Indicators/targets	Current estimates	Key partners/ Stakeholders
Increased life expectancy	Life expectancy must increase from the 53.9 years for males and 57.2 years for females (Statistics SA 2009) to 58 years for males and 60 years for females by 2014.	Life expectancy is 57.7 years for males and 61.4 years for females (StatsSA, 2013))	Department of Social Development (DSD), Co-operative Governance and Traditional Affairs (CGTA), DAFF, National Treasury, Department of Trade and Industry (DTI), Justice and Constitutional Development, Correctional Services, South African Police Service (SAPS), Transport, Non-Government Organization (NGOs), World Health Organization (WHO), UNICEF and the Centres for Disease Control
Reduction in maternal and child mortality rates	Maternal Mortality Ratio (MMR) must decrease to 100 (or less) per 100,000 live births by 2014. Child mortality rate must decrease to 20 deaths (or less) per 1,000 live births by 2014	Child mortality rate is 41.7 deaths per 1000 live births (StatsSA, 2013))	DSD, DAFF, Justice and Constitutional Development, Correctional Services, Public Works, Transport, SAPS, NGOs, WHO, UNICEF and the Centres for Disease Control
Combating HIV and AIDS and decreasing the burden of disease from tuberculosis	The TB cure rate must improve from 64% in 2007 to 85% by 2014. 80% of eligible people living with HIV and AIDS must access antiretroviral treatment. New HIV infections must be reduced by 50% by 2014	People living with HIV from 2002 to 2013 increased from 4 million to 5.26 million. An estimated 10% of the population is HIV positive, with approximately 17% of women of reproductive age being HIV positive (StatsSA, 2013)	Departments of Mineral Resources, Labour, Correctional Services, Human Settlement, The Mining Companies (including the Chamber of Mines), academic institutions, research and civil society organisations, WHO, UNICEF and the Centres for Disease Control
Strengthening health systems effectiveness			Department of Public Works (DPW), DAFF, National Treasury, DTI, Higher Education & Training, Department of Science and Technology (DST), Public Service & Administration, Cooperative Governance & Traditional Affairs as well as other partners.



4. Methods

A South African country team was formed representing academics and professionals working in nutrition, food security and the agricultural policy environment. The country team members and contributors are listed in Table 4.1.

Members of the country team were selected based on their level of involvement in nutrition and agricultural activities and frameworks within South Africa. With reference to the United Nations System Standing Committee on Nutrition (UNSCN) country case study guideline and in collaboration with UNSCN Secretariat and the country team, country-specific priorities for the case study and specific goals were defined and a schedule of work was prepared.

Table 4.1: Country team members and contributors to the analysis

Country team member	Contributors
Prof Hettie C Schönfeldt	Prof Nick Vink
Prof Johann F Kirsten	Dr Ferdi Meyer
Prof Milla McLachlan	Dr Beulah Pretorius
	Ms Hester Vermeulen
	Ms Nicolette Hall

4.1 Procedure of data collection and sources of information

4.1.1 Review of the current national nutrition situation

A literature review was conducted on the nutrition situation in South Africa to serve as the background to contextualize the report. A review of previous nutrition surveys and data was conducted simultaneously with the collection of primary data in the field. Nutrition information was sourced from the previous nutrition-related national surveys that were conducted in South Africa since 1994 namely, the review of the South African Vitamin A Survey (SAVACG) and the National Food Consumption Survey (1999 and 2005). The main current nutrition policies in South Africa were also reviewed and summarised in comparison with the findings of the Landscape Analyses Report performed for the WHO in 2010 (DOH, 2010). The information was discussed and insights were obtained through a stakeholder interview with the Directorate of Nutrition, Department of Health.

4.1.2 Review of policies and programmes in food and agriculture

4.1.2.1 Understanding the South African policy environment

To get a thorough understanding of the South African policy environment, key stakeholders were interviewed (refer to Annex 2 for a list of stakeholder interviewed). Once the policy environment within which programmes are rolled out was well understood, key programmes and policies were identified which do/could impact on the nutrition-sensitivity of agriculture and food systems. The programmes excluded medical based interventions and programmes such as



supplementation programmes by the Department of Health and medicinal Farmer-to-Pharma by Department of Science and Technology.

4.1.2.2 Identify key policies, programmes and frameworks to include in the review

The programmes included were identified by means of:

i. Stakeholder interviews

Key stakeholders were identified and interviews were scheduled. Interviews at the national level involved mainly senior staff (Directors and managers) at key government ministries and agencies, Departmental heads of academic and training institutions, and national programme officers. See Annex 2 for a list of stakeholders interviewed.

ii. Stakeholder questionnaires

A developed and tested questionnaire was distributed extensively throughout the country to stakeholders as well as professionals through means of their professional associations (i.e.: the South African Association for Food Science and Technology (SAAFOST), and Nutrition Society of South Africa (NSSA)). The questionnaire was developed and adapted based on a scientific article from Haddad (2013) and a report from the Leverhulme Centre for Integrative Research on Agriculture and Health (Hawkes et al., 2012). The questionnaire was adopted to be applicable to South Africa's situation.

iii. Review

A desktop review was done to isolate relevant programmes. This was done by means of reviewing all the current strategic plans of all the national departments in South Africa, identifying any frameworks and programmes containing the words '*nutrition*', '*food security*' or '*health*' or '*agriculture*'.

4.1.2.3 Approval of the list of policies, programmes and frameworks to include in the review

Once the list of programmes was compiled, confirmation that the list was complete was obtained from stakeholders in South Africa through distribution of the list to them for comment and approval, as well as presentation of the report to DAFF.

4.1.2.4 Review the policies, programmes and frameworks included in the list

To review all programmes included in the list, a template was developed to evaluate the nutrition sensitivity of each of the interventions, adopted from the guideline provided.

4.2 Analysis of findings

In this report, the frameworks that influence the policy environment are presented first, followed by specific programmes. Programmes identified are reported and evaluated after being grouped into three broad categories namely: 1) Agricultural productivity, 2) Post-harvest supply chain, and 3) Consumers (FAO, 2013).

Results from the questionnaires distributed to the stakeholders (used to identify current programmes) also provided valuable insights into their current thoughts, gaps and recommendations on improved nutrition-sensitive agriculture.



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5. Findings

5.1 *Description of the relevant food and agriculture policies, strategies, frameworks, legislation policies and agricultural investment plans for the country (the ones that exist)*

Summary of relevant food and agricultural policies strategies and frameworks in South Africa

National executive authority frameworks include:

- Constitutional mandate: Bill of Rights
- Strategic mandate: Medium Term Strategic Framework 2009 to 2014
- National Development Plan, Vision 2030

Under these, each of the national Ministries (Departments) develop their own Strategic Plans and subsequent frameworks, policies and programmes. Departments with mandates which are relevant to nutrition include the Department of Agriculture, Fisheries and Forestry (DAFF), Department of Health (DOH), Department of Rural Development and Land Reform (DLA), and the Department of Social Development (DSD). Many of these Departments work in collaboration with other department and/or are in charge of a specific cross-departmental strategy, e.g. the Integrated Food Security Strategy (IFSS) managed by DAFF to align national food security programmes. A summary of the national authorities and the relevant policies, programmes and frameworks are summarized in Figure 5.1

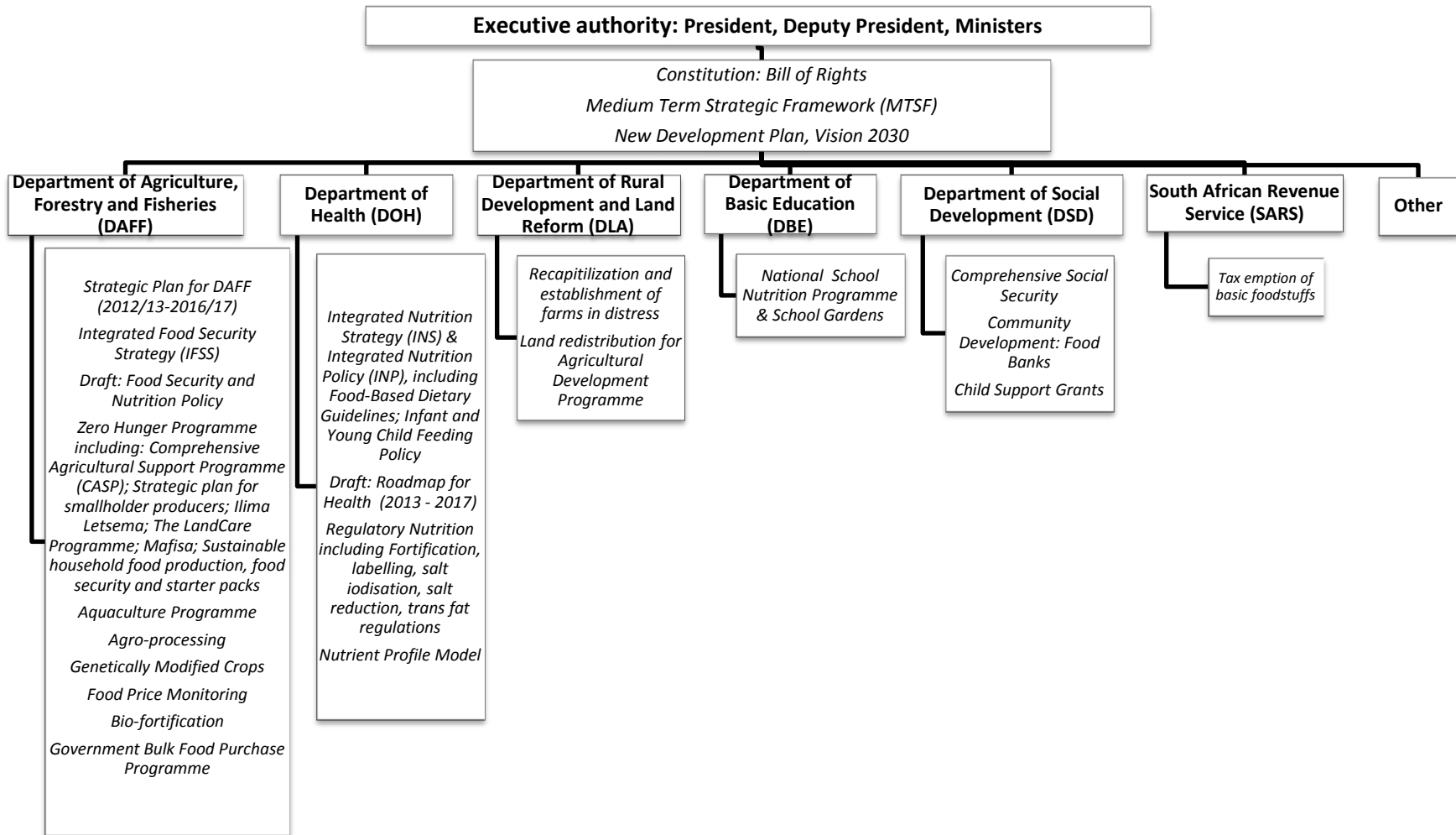


Figure 5.1: Organogram of the national levels of power responsible for the relevant food and agricultural policies, programmes and frameworks included in this review



5.1.1 The National Policy Environment

5.1.1.1 *Constitutional mandate of South Africa*

The Bill of Rights in the Constitution of the Republic of South Africa (Act 108 of 1996) stipulates that everyone has the right to have access to sufficient food and water and that every child has the right to basic nutrition, shelter, basic health care services and social services (Section 28). This Constitution is considered the supreme law of the land and cannot be superseded by any other governmental action. It provides for interdependence, distinctive but inter-relatedness and spells out principles for cooperative governance to coordinate activities and legislation. The national government of South Africa functions through three spheres, i.e. national, provincial and local governmental departments.

5.1.1.2 *Strategic mandate for South Africa 2009 to 2014*

The Medium Term Strategic Framework (MTSF) of South Africa (2009 to 2014) is an electoral mandate, and a statement of intent identifying the development challenges facing South Africa. It outlines the medium-term strategy for improvements in the conditions of life of South Africans. The document is meant to guide planning and resource allocation, and national and provincial departments need to develop their own strategic plans and budgets taking the medium-term imperatives reported in this document into account. The following five objectives are identified:

1. Halve poverty and unemployment by 2014
2. Ensure a more equitable distribution of the benefits of economic growth and reduce inequality
3. Improve the nation's health profile and skills base and ensure universal access to basic services
4. Improved the safety of citizens by reducing incidents of crime and corruption
5. Build a nation free of all forms of racism, sexism, tribalism and xenophobia.

The priority areas to achieve these five objectives include among others:

- More inclusive economic growth, decent work and sustainable livelihoods
- Economic and social infrastructure
- Rural development, food security and land reform
- Access to quality education
- Improved health care
- Cohesive and sustainable communities
- Sustainable resource management and use
- A developmental state including improvement of public services.

Based on the MTSF, a set of 12 national outcomes was developed. These outcomes reflect the desired development impacts the South African Government seeks to achieve, given the policy priorities. Each outcome is clearly articulated in terms of measurable outputs and key activities to achieve the outputs. In 2010 the President of South Africa signed Negotiated Service Delivery Agreements (NSDA) with all Cabinet Ministers, in which they were requested to establish and participate in Implementation Forums for each of the twelve outcomes. The NSDA is thus a charter that reflects the commitment of key sectoral and intersectoral partners linked to the



delivery of identified outputs as they relate to a particular sector of government. The twelve key outcomes that have been identified and agreed to by the Cabinet are:

- a) Improved quality of basic education, coordinated by the Department of Basic Education
- b) ***A long and healthy life for all South Africans, coordinated by the Department of Health***
- c) All people in South Africa are and feel safe, coordinated by the Department of Justice and Constitutional Development
- d) Decent employment through inclusive economic growth, coordinated by the Departments of Economic Development, Trade and Industry and the National Treasury
- e) A skilled and capable workforce to support an inclusive growth path, coordinated by the Department of Higher Education
- f) An efficient, competitive and responsive economic infrastructure network, coordinated by the Department of Transport
- g) ***Vibrant, equitable and sustainable rural communities with food security for all, coordinated by the Department of Rural Development and Land Reform***
- h) Sustainable human settlements and improved quality of household life, coordinated by the Department of Human Settlements
- i) A responsive, accountable, effective and efficient local government system, coordinated by the Department of Cooperative Governance
- j) Environmental assets and natural resources that are well protected and continually enhanced, coordinated by the Department of Environmental Affairs
- k) Create a better South Africa and contribute to a better and safer Africa and World, coordinated by the Department of Defence
- l) An efficient, effective and development oriented public service and an empowered, fair and inclusive citizenship, coordinated by the Department of Public Service and Administration.

5.1.1.3 *The National Development Plan (NDP), Vision 2030*

The National Development Plan is a broad strategic framework set out by the National Planning Commission to guide the development of a new cycle of the presidential MTSF. It sets out a coherent and holistic approach to confronting poverty and inequality, drawing on the energies of its people, growing an inclusive economy, building capabilities, enhancing the capacity of the state, and promoting leadership and partnerships throughout society. The National Planning Commission released a Diagnostics Report in 2011, setting out the achievements and shortcoming of South Africa since 1994. It identified a failure to implement policies and an absence of broad partnerships as the main reasons for slow progress, and set out 9 primary challenges: 1) too few people work, 2) the quality of school education of black people is poor, 3) infrastructure is poorly located, inadequate and under-maintained, 4) spatial divides hobble inclusive development, 5) the economy is unsustainably resource-intensive, 6) the public health system can't meet demand or sustain quality, 7) public services are uneven and often of poor quality, 8) corruption levels are high, and 9) South Africa remains a divided society.

The NDP, released later in 2011, identifies the key challenges facing South Africa as a country but argues that the country can eliminate poverty and reduce inequality by 2030. It emphasises



the importance of hard work, leadership and unity. It furthermore identifies Infrastructure Development, Job Creation, Health, Education, Governance, Inclusive Planning and the Fight against Corruption as key focus areas and spells out specific projects for each.

In summary, the principle indicators of the NDP are to eliminate income poverty by 2030 (reduce the proportion of households with a monthly income below R419 per person (in 2009 prices) from 39% to zero), and reduce inequality (the Gini coefficient should fall from 0.69 to 0.6 by 2030). Apart from increased employment (from 13 million in 2010 to 24 million in 2030), affordable access to *quality health care* and *household food and nutrition security* are listed as milestones required for enabling the achievement of these indicators.

5.1.2 Agriculture and Food Systems Policy Environment

To understand the current agricultural policy environment it is important to take note of the evolution of agricultural policy in the years since 1994. It is important to note that these policy frameworks and documents were prepared and implemented in the context of a deregulated agricultural sector with minimal state intervention. Despite the fact that the documents were prepared a number of years apart they have common characteristics with three main focus areas common to all the documents: 1) improving competitiveness of commercial agriculture in a free market dispensation; 2) improving participation by the disadvantaged communities and 3) protecting the natural resource base. A full description of the previous policies is available.

5.1.2.1 *The Strategic Plan for the Department of Agriculture, Forestry and Fisheries (2012/13 to 2016/17)*

The current Strategic Plan (2012/13 to 2016/17) for the Department of Agriculture, Forestry and Fisheries (DAFF) is aimed at providing an effective framework to address the challenges facing agricultural sectors and to set the delivery targets for the departmental programmes from 2012 to 2017. The Strategic Plan was guided by Government's key policies, namely the NGP, the Industrial Policy Action Plan (IPAP), the Comprehensive Rural Development Programme (CRDP) and the Integrated Growth and Development Plan (IGDP) for Agriculture. The Strategic Goals and Programmes of DAFF were conceptualised from the Priorities and Outcomes of the MTSF. The six programmes of DAFF include: 1) Administration, 2) Agricultural Production, Health and Food Safety, 3) *Food Security and Agrarian Reform*, 4) Economic Development, Trade and Marketing, 5) Forestry and Natural Resource Management, and 6) Fisheries Management.

Programme 3 facilitates and promotes household food security and agrarian reform programmes and initiatives targeting subsistence and smallholder producers. It comprises three sub-programmes, namely Food Security, Sector Capacity Development and National Extension and Support Services. The sub-programme: *Food Security* provides national frameworks to promote the *Sustainable Household Food Security Programme* through the coordination of governmental food security initiatives. Notable strategic interventions proposed in the Strategic Plan for the period 2012/2013 to 2016/17 are the coordination of the generation of a Food Security Bill, and the development and implementation of the Zero Hunger Programme, which aims to actuate the Integrated Food Security Strategy (IFSS) implemented in 2002.



5.1.2.2 *The Integrated Food Security Strategy (IFSS)*

The IFSS was developed to streamline, harmonise and integrate diverse food security programmes into one comprehensive strategy to improve food security and nutrition in South Africa. The vision of the IFSS is to improve food security and nutrition in the country with the overall goal to attain universal and sustainable access to minimum daily, safe and nutritious food for a healthy, active and better life for all the people of South Africa. This vision is aligned with the definition of food security of the FAO. The IFSS's goal is linked to the Millenium Development Goals (MDGs), specifically MDG 1, to "Eradicate extreme poverty and hunger" with the specific target to "To halve, between 1990 and 2015, the proportion of people who suffer from hunger". The strategic objectives and programmes, as well as lead departments and social clusters are presented in Table 5.1.

Table 5.1: Pillars and programmes of the Integrated Food Security Strategy of South Africa

Goal	Programme	Lead agency	Cluster agencies
Increase household food production and trade	Special Programme for Food Security	DAFF	Department of Rural Development and Land Reform (DLA), DOH, DPW, DTI
Improve incoer generation and job creation opportunities	Community Development Programmes	DTI	DAFF, DLA, DOH, DPW,DTI
Improve nutrition and food safety	Integrated Nutrition and Food Safety Programme	DOH	DAFF, DTI
Increase safety nets and food emergency management systems	Comprehensive Social Security Programme	DSD	DAFF, DPW
Improve analysis and information management systems	Information and Communications Programme	StatsSA	
Provide capacity building	Food Security Capacity Building Programme	All departments	
Hold stakeholder dialogue	Food Security Stakeholder Dialogue Programme	All departments	

5.1.2.3 *The draft Food Security and Nutrition Policy for South Africa (Confidential draft, 2013)*

The NDP, Vision 2030, provides a plan for the reduction of poverty and inequality, and it is recognised that a key element of both is food security. Food insecurity is both a consequence of poverty and inequality as well as a cause. The NDP thus makes reference to a number of steps that will improve food security including expanding irrigation, security and land tenure (especially for women) and the promotion of social protection including nutrition education. The Food Security and Nutrition Policy was consequently drafted as a key pillar to achieve the objective of the NDP.

The strategic goal of the draft Food Security and Nutrition Policy is to ensure the availability, accessibility and affordability of safe and nutritious food at national and household levels. The



emphasis of the proposed policy will be to prioritise comprehensive and satisfactory household food security within a context of national food security, and will function through the implementation of five pillars:

1. Effective **food assistance strategies and improved nutritional safety nets** involving both government and non-governmental agencies to ensure better access to food by all. These include extending National School Nutrition Programme by introducing before-school breakfasts and finding mechanisms to provide food during weekends and school holidays. Establish a proper network of food distribution centres (including but not limited to food kitchens), backed by a substantially larger financial commitment from the fiscus than is presently the case. Develop and test mechanisms to support Early Childhood Development (ECD) centres to offer meals to the children in their care. And initiating national early warning system for food and nutrition insecurity.
2. Improved **nutrition education**, including District level nutrition services to assist households and communities monitoring nutritional indices, providing consumer literacy, and assisting with better food management and improved meal planning. Programmes are available, and could be made available on a mass scale.
3. The **alignment of investment in agriculture** towards local economic development, particularly in rural areas. This includes the provision or subsidisation of inputs and support services for increased food production, as well as more effective food storage and distribution networks, involving both government and private agencies, to eliminate waste and ensure better access to food by all.
4. **Improved market participation** of the emerging agricultural sector through public-private partnerships, including off-take and other agreements, a government food purchase programme that supports smallholder farmers, as well as through the implementation of the Agri-BEE Charter, which requires agro-processing industries to broaden their supply bases to include the emerging agricultural sector.
5. **Food Security Risk management**, including increased investment in research and technology to respond to the production challenges currently facing the country, such as climate change and bio-energy. It would also include the protection of prime agricultural land, and limitations on its alienation for other activities, including mining, game farming, and property development. Improved food security information management systems would also be required, with periodic scientific reviews of the state of food security and nutrition in the country.

It is proposed that the Presidency will take the lead in providing guidance, motivation and leadership, and each element of the policy will be championed by a particular ministry. In particular, DAFF will coordinate and implement the policy. The implementation approach will entrench public, private and civil society partnerships. An Inter-Ministerial Committee on Food Security would be advised by a National Food Security Advisory Committee, comprised from organized agriculture, food security and consumer bodies, as well as climate change and environmental practitioners. The policy also proposed broader consultative forums, with representatives from the public, academic and research bodies, civil societies and NGO's.



5.1.3 Specific programmes aimed at increasing agricultural productivity

According to the FAO State of Food and Agriculture (2013), agricultural productivity growth contributes to nutrition through raising incomes, especially in countries where the sector accounts for a large share of the economy and employment such as in South Africa. By increasing the total agricultural output the sector also plays a role in reducing the cost of food. This section briefly reviews some of the programmes funded by the South African government specifically aimed at increasing agricultural production and increasing rural incomes. Readers should however be reminded that most of the programmes discussed below are on paper and recorded in the budgetary process, but the extent to which the rollout and implementation happened is currently unknown.

5.1.3.1 *The Zero Hunger Programme*

The mandate for the Zero Hunger Campaign is derived from various policies and documents, including the Constitution, the IFSS and the NDP, Vision 2030. The Zero Hunger Programme seeks to link subsistence producers and smallholder producers to government institutions such as government schools (i.e. to supply the School Nutrition Programme), public hospitals and prisons, and in the medium term also be a conduit through which food produced by smallholders can be used to meet the nutritional needs of low-income individuals and households. The programme seeks to provide a boost to existing smallholder producers/producers, and an opportunity through which subsistence producers can start generating sustainable income through farming and become smallholder producers. This programme is in adaptation of the successful Brazilian Zero Hunger programme and targets 20 highly-deprived municipalities in the Eastern Cape, KwaZulu Natal, Limpopo and the North West provinces.

The objectives of the Zero Hunger Programme are:

1. Improving **food production** capacity of households and resource poor farmers
2. Ensuring **access to food** by the poor and vulnerable members of our society
3. Improve **nutrition security** of the citizens
4. Developing **market channels** through bulk government procurement of food linked to the emerging agricultural sector
5. Fostering **partnerships** with relevant stakeholders within the food supply chain

The key objectives of Zero Hunger can be aligned within the three recommended food system elements which need to be targeted through interventions for better nutrition identified by the FAO State of Food and Agriculture (2013), namely agricultural production, supply chains and consumer interventions. Specific programmes which were incorporated into Zero Hunger include:

The Comprehensive Agricultural Support Programme (CASP): The aim of this programme is to provide post settlement support to the targeted beneficiaries of land reform and to other producers who have acquired land through private means and are, for example, engaged in value-adding enterprises domestically or involved in export. The programme benefits the hungry, subsistence and household food producers, farmers and agricultural macro-systems within the consumer environment. The programme is a core focus for the Department of



Agriculture and will make interventions in six priority areas: (1) Information and technology management, (2) Technical and advisory assistance and regulatory services, (3) Marketing and business development, (4) Training and capacity building, (5) On/off farm infrastructure and product inputs, and (6) Financial support. The six pillars of CASP are providing support provided to farmers, as planned for in outcome 7: “Vibrant, equitable and sustainable rural communities with food security for all”, and also impacts on outcome 4 of the MTSF. Given that the predominant need for the development of an equitable and diverse agricultural sector has been identified, 80% of the budget will be utilised to build the capacity of the historically disadvantaged communities and individuals. CASP has been reprioritised to respond timeously to the demands of the Land and Agrarian Reform Project (LARP).

The Strategic Plan for Smallholder Producers (DAFF): The Strategic Plan for Smallholder Producers is a broad initiative that seeks to improve support to smallholder producers and in doing so increase the number of smallholder producers. It aims to do this by means of better aligning—and where necessary adjusting – what are in effect a large number of distinct functions, e.g. extension, cooperatives development, marketing, mechanisation, financial services, spatial planning, etc. The plan also seeks to identify innovative means by which the environment can be made more conducive to smallholder development, for instance by promoting land rental markets, and by using land acquired via land redistribution. The plan is closely related to Zero Hunger, in that the latter is an important means of addressing the marketing challenges that smallholders face. Work on the Strategic Plan for Smallholder Producers began in 2011/12 and was proposed to be completed and formalised in 2012/13. As a complementary measure, in order to fast-track the shift towards a more efficacious way of supporting the smallholder sector, DAFF has initiated the Smallholder Development Working Group, which comprises representatives from provincial departments of agriculture, the Agricultural Research Council, the Department of Rural Development and Land Reform, the Economic Development Department, and DAFF.

Ilima Letsema (DAFF): Ilima Letsema responds to presidential outcome 7 in terms of the establishment and support provided to farmers at large, as well as support for domestic food production. Currently the budget is R415.7 million, rising to R460 million in 2014/15. 54 740 beneficiaries were targeted, but 99 245 have been reached.

The LandCare Programme (DAFF): LandCare is a community-based and government supported approach to the sustainable management and use of natural agricultural resources. The goal of the National Land Care Programme (NLP) is to develop and implement integrated approaches to natural resource management in South Africa, which are efficient, sustainable, equitable, and consistent with the principles of ecologically sustainable development and linked to outcomes 7 (rural development) and 10 (Environment). Land care projects are implemented mostly in communal lands and the programme employs community members to implement activities. The NLP objectives are to: (1) promote partnerships between the communities, the private sector and government in the management of natural resources, and (2) establish institutional arrangements to develop and implement policies, programs and practices that will encourage the sustainable use of natural resources.



Micro-agricultural Financial Institutions of South Africa (Mafisa) (DAFF): Micro-agricultural Financial Institutions of South Africa (Mafisa) was developed as a micro and retail agricultural financial scheme for economically active poor people. MAFISA will allow access to financial services through selected financial institutions on an affordable and sustainable basis. MAFISA products and services included: loans to target groups, individuals and farmers; and savings and banking facilities at approved financial institutions.

Sustainable Household Food Production, Food Security and Starter Packs (DAFF): This is an intergovernmental project aimed at providing interim relief measures to households and beneficiaries severely affected by food insecurity and the price escalation of basic food items by providing agricultural input and equipment for own food production. The programme provides agricultural input and equipment to the existing food security campaign and Special Programme for Food Security Projects (SPFS) and the National Food Emergency Scheme (NFES) beneficiaries. It also encourages household food production through improvement of crop intensification, diversification, adoption of simple and affordable technologies and promotes home (backyard mixed farming) and where appropriate, school gardens and urban agriculture.

5.1.3.2 The Aquaculture Programme (DAFF)

The Aquaculture Programme is presently being implemented by means of fish production projects around the country, in partnership with the Department of Trade and Industry. The programme is guided by the National Aquaculture Strategic Framework, which is undergoing final consultation. While presently focusing on primary production, the programme is attentive to the upstream and downstream parts of the value chain. DAFF has established an Aquaculture Development Zone in the Eastern Cape, through a partnership with the East London Industrial Development Zone. Two further identified zones are undergoing EIA processes. DAFF has completed the establishment of an Aquaculture Demonstration Centre in partnership with Free State Agriculture and the Chinese government. To date, DAFF has facilitated the establishment of at least 10 fish farms.

5.1.3.3 Agro-Processing (DAFF)

Agro-processing has been identified by IPAP and the New Growth Path and the NDP as potentially capable to creating jobs on a large scale. The central challenge is how the potential that has been identified can be realised in practice. The Agro-processing Strategic Framework lays out how the agriculture, forestry and fisheries sectors could be supported to achieve job creation and related government priority targets. DAFF has established the Directorate: Agroprocessing Support to complement the interventions undertaken by several governmental departments, notably DTI, by focusing on supporting the establishment and growth of Small and Medium Enterprises (SMEs) for agroprocessing.

5.1.3.4 Recapitalisation and establishment of farms in distress (DLA)

The Recapitalisation and Development Programme is aimed at resuscitating all distressed land-reform projects implemented since 1994. It is envisaged that this programme will contribute a great deal to increase agricultural production, guarantee food security and job creation, and graduate small scale farmers to commercial farmers in the agricultural sector.



To ensure the success of this project, the department has selected strategic partners who are currently farmers themselves; co-operatives who were previously assisting white farmers, or commodity organisations who have a vested interest in the projects because the sustainability of their businesses depend on agricultural produce. These strategic partners come with their own resources, and either guarantee uptake along the value chain, or buy products from the farmers.

The Recapitalisation and Development Programme (RECAP) was launched in 2010 with the following objectives: (a) to increase agricultural production; (b) to guarantee food security; (c) to graduate small farmers into commercial farmers; (d) to create employment opportunities in the agricultural sector; and (e) to establish rural development monitors (rangers). The programme was designed to focus on struggling land reform farms acquired since 1994 that have received little or no support, but have potential to become successful, if assisted. These distressed farms were supposed to receive both technical and financial support from government (Department of Rural Development and Land Reform). Two strategic interventions, namely, strategic partnership and mentorship, have been adopted under the RECAP to ensure sustainability of assisted projects/farms. The RECAP is to be implemented over a five-year period from 2010 to 2014.

5.1.3.5 Land Redistribution for Agricultural Development Programme (LRAD) (DLA)

The Land Redistribution for Agricultural Development Programme (LRAD) is designed to provide grants to black South African citizens to access land specifically for agricultural purposes. The objectives of the Programme include: (1) helping previously disadvantaged people in rural areas to improve their living standard, by enabling them to run their own large or small farms effectively, (2) broadening the opportunities available to young people who live in rural areas, and (3) stimulating agricultural production - which will be to the benefit of the entire country.

The size of the grant is intended to help applicants with small resources to become farmers. If the applicant can afford to make a bigger input to buy a larger piece of land, the proportional size of the grant in relation to his/her input will be smaller than that provided to help the less well-off person.

People who already live on agricultural land in communal areas and who need a grant only to develop the land (not to buy it) may also apply for an LRAD grant. Small farmers may apply in groups for grants for the purpose of buying agricultural land.

5.1.3.6 Water for growth and development strategy (DAFF)

The Water for Growth and Development Framework guides actions and decisions that will ensure water security in terms of quantity and quality to support South Africa's requirements for economic growth and social development.

5.1.3.7 Bio-fortification (DAFF)

As one of the newly-restructured Agricultural Research Council's (ARC's) business divisions, the Horticulture Group has the important function of assisting the horticultural industry to be competitive both domestically and on the international market. A very interesting project that is



currently being carried out in conjunction with the Food and Agriculture Organisation of the United Nations, involves bio-fortification.

With many of South Africa's rural communities suffering serious vitamin A and iron deficiencies in their diets, scientists have, through a process of selective breeding and manipulation, come up with a yellow sweet potato that is particularly rich in iron and vitamin A. This sweet potato, which can be produced the whole year round, is currently being piloted in various rural areas around the country.

5.1.4 Programmes for post-harvest / supply chain interventions

According to the FAO State of Food and Agriculture (2013), traditional and modern food systems coexist and evolve as economies grow and urbanization increase as is the case in South Africa. In South Africa this is evident from the rapid growth of the modern sector, the integration of the remote rural areas into the sector, the stagnation of the subsistence sector and the lack of growth in the smallholder sector.

Modern supply chains include vertical integration of storage, distribution and retailing and offer efficiency gains that can gain lower prices for consumers and higher incomes for farmers. They typically carry a wide variety of nutritious foods year-round, but also sell more highly-processed packaged foods, which could contribute to obesity when consumed in excess. Modern supply chain activities also provide opportunities for food fortification. South Africa has developed a rather extensive framework in terms of regulatory nutrition. Although well defined, it has its own problems with regard to excessive centralization, industrialization, environmental damage etc.

Furthermore, improved sanitation, food handling and storage in traditional food systems (in South Africa many rural consumers still purchase food through traditional food networks), could boost efficiently and improve safety and nutritional quality (FAO, 2013).

In South Africa, food legislation are grouped under four main Acts which reside under DAFF and DOH and which cover all food products, and these Acts form the core of the South Africa food control framework. DAFF is the leading authority responsible for food security and safety issues related to agricultural products. DOH is responsible for foodstuffs (agricultural and non-agricultural products including fish as they are released on the market from jurisdiction of DAFF or imported to South Africa). DTI is responsible for canned meat and meat products as well as canned and frozen fish through their National Regulator for Compulsory Specifications. The DTI through the National Consumer Commission is responsible for a fair, accessible and sustainable market place for consumer products (including product regulated by DAFF, DOH and the National Regulatory for Compulsory Specifications). In Table 5.2 a summary of the legislative framework of the South African agricultural and food industry is presented.

Table 5.2: Summary of the legislative framework of the South African food industry

Constitution of South Africa (Act No 7 of 1996)
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Product Specific Acts	Agricultural Specific Acts	Health Specific Acts
<p>Animal Related: Animal Improvement Act No 62 of 1998 Animal Protection Act No 71 of 1962 Animal Health Act 7 of 2002 Meat Safety Act No 40 of 2000 Animal Identification Act No 6 of 2002</p> <p>Plant related: Agricultural Pests Act No 36 of 1983 Plant Improvement Act No 53 of 1976 Plant Breeders' Rights Act No 15 of 1976 The GMO Act Amendment No 23 of 2006 Sugar Act No 9 of 1987</p> <p>Fisheries related: Marine Living Resources Act No 18 of 1998 Sea Fisheries Act No 12 of 1988</p> <p>Beverage industry: Liquor products Act No 60 of 1989 Liquor Act No 59 of 2003</p>	<p>Agricultural Products Standards Act No 119 of 1990</p> <p>Marketing of Agricultural Products Act No 60 of 1989</p> <p>Fertiliser, Farm Feeds, Agricultural Remedies and Stock Remedies Act No 36 of 1947</p>	<p>Foodstuff, Cosmetics and Disinfectants Act No 54 of 1972</p> <p>National Health Act, 61 of 2003</p>
<p align="center">SQAM Landscape: Trade Metrology Amendment Act No 42 of 1994; Standards Act No 8 of 2008; Trade Marks Act No 194 of 1993; National Regulatory Compulsory Specifications Act No 5 of 2008; Conformity Assessment, Calibration and Good Laboratory Practice Act No 19 of 2006.</p>		
<p align="center">Water Legislation: National Water Act No 36 of 1998; Water Service Act No 108 of 1997; Conservation of Agricultural Resources Act No 43 of 1983</p>		
<p align="center">Environmental Legislation: National Environmental Management Act No 107 of 1998; Air Quality Act No 39 of 2004; National Environmental Management Biodiversity Act No 10 of 2004; NEMA: Protected Areas Act No 57 of 2003; Environmental Conservation Act No 73 of 1989</p>		
<p align="center">Social Legislation: Occupational Health and Safety Act No 85 of 1993; Skills Development Amendment Act No 31 of 2003; Labour Relations Amendment Act No 12 of 2002</p>		
<p align="center">Consumer Protection Bill Government Gazette No. 31027 of 5 May 2008</p>		

5.1.4.1 Regulatory Nutrition (DOH)

The food control section within the DOH is responsible for: “mandatory regulatory activity of enforcement by national, provincial or local authorities to provide consumer protection and ensure that all foods during production, handling, storage, processing and distribution are safe, wholesome and fit for human consumption; conform to quality and safety requirements; and are honestly and accurately labelled as prescribed by law”.

Food Fortification: On 7 April 2003 regulations pertaining to the mandatory fortification of all maize meal and wheat flour were printed in the Government Gazette. Published under Act No 54 of 1972 Foodstuffs, Cosmetics and Disinfectants. These regulations become legally applicable and implementable on 7 October 2003. The regulations apply to any person or company which manufactures, imports, or sells maize meal and/or wheat flour, and foodstuffs



which contain 90% of either maize meal or wheat flour such as bread. The fortification cocktail, consisting of six vitamins and two minerals (*ie.* vitamin A, Vitamin B1, B2, B6, niacin, folic acid, iron and zinc) and addition rates were scientifically calculated based on the research and data from the SAVACG Study as well as the South African National Food Consumption Survey concluded in 2000. An official fortification logo (monochromatic or in colour) with an allowed health claim has been developed which may be used voluntarily on the packaging and advertising materials of fortified maize meal and wheat flour.

Food labelling and advertising legislation: The Regulations Relating to the Labelling and Advertising of Foodstuffs published by the Minister of Health in terms of the Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act 54 of 1972), came into effect in March 2012. The Regulations are aimed to ensure that consumers are provided with nutritional, compositional and other information related to foodstuffs manufactured, imported and sold in South Africa. The information in question will assist consumers in making informed choices regarding the foodstuffs they purchase. It will further ensure that consumers are not being misled by unscrupulous manufacturers, importers or sellers of foodstuffs covered by the provisions of the mentioned Act and the new Regulations. The enforcement of the new Regulations is the responsibility of the Environmental Health Practitioners (EHPs), employed by the Municipal Health Services of the metro and district municipalities. Consumers and others should bring it to the attention of the mentioned services where problems regarding non-compliance to the new Regulations are encountered, for their further investigation and to take remedial action if required. The Directorate: Food Control of the National Department of Health will support municipalities regarding the interpretation and/or clarification of the provisions of the new Regulations, as well as with regard to the contents of labels, where required. The same support will be provided to the Port Health Services of the nine provinces, who are responsible for the control of imported foodstuffs.

Salt iodisation: Voluntary iodisation of table salt was introduced in 1954. South Africa introduced compulsory iodisation of table salt at the end of 1995 (regulated by the Regulations Relating to Salt (R. 1368 of 21/12/2001) under the Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act No. 54 of 1972). Compulsory iodisation of table salt, as a public health intervention to eliminate iodine deficiency, resulted in dramatic improvements. A 1998 survey showed that optimal iodine nutrition was achieved nationally. At that time, 86.4% of households used iodised salt.

Salt reduction regulations: Regulations relating to the reduction of sodium in certain foodstuffs (R. 214) under the Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act No. 54 of 1972) was published in March 2013. The reduction of salt content in food would be a gradual process. Food manufacturers have until June 2016 to comply with the first set of sodium targets, and another two years to meet the next. Different thresholds have been set for various food groups. This would be done alongside a campaign to educate the public on the matter, in partnership with the South African Heart and Stroke Foundation.

Regulations on Trans Fats in food: Regulations (R. 127) was published in February 2011 by the Department of Health as a "Regulation relating to Trans Fat in Foodstuffs", as part of the



Foodstuffs, Cosmetics & Disinfectants Act, 1972 (Act No. 54 of 1972). According to the Regulation, the sale of foods which contain more than the specified maximum trans fat content of 2 gram per 100 gram of oil or fat, is prohibited. According to definitions in the regulations, industrially produced trans fatty acids (in other words, trans-fats produced by partial hydrogenation of unsaturated oils) and not the Natural trans fatty acids are prohibited. As per definition, Conjugated Linoleic Acid (CLA) and its precursor vaccenic acid are not banned and foods that contain natural trans-fats such as CLA in amounts exceeding 2 gram per 100g, are not banned either.

The South African **Genetically Modified Organisms (GMO) Act** under the auspices of DAFF was passed in December 1997. In addition, South Africa is one of 164 members that have endorsed the international Cartagena Protocol on Biosafety. This protocol is aimed at ensuring the safe handling and trade of Genetically Modified (GM) products between member countries. South Africa has made several amendments to the original GMO Act to align it with international trade obligations and national requirements.

South Africa was the first country in Africa to approve commercial production of GM crops. Approval has been granted for commercial production of three (3) GM crops. These include approval for GM cotton and GM maize (the first approvals of each of these crops occurred in 1997) and GM soybean (first approved in 2001). These GM crops either have resistance to insect pests or tolerance to broad range chemical herbicides, or both. Multinational seed companies are leading the research of GM crops in South Africa. Approved GM cultivars/ varieties are aimed at reducing total costs and optimising production yields of both commercial and small-scale farmers. South Africa currently has 2.3 million hectares of GM crops under cultivation of which 4.3% is GM cotton, 17.7% is GM soybean and 78.0% is GM maize. GM cotton is mainly planted in northern Kwazulu Natal by small scale farmers. In contrast to GM cotton, GM maize and GM soybean are mainly farmed by commercial farmers throughout South Africa. GM poses potential for improved nutrition if nutrients are increased or introduced within a programme.

5.1.4.2 Food Price Monitoring (DAFF)

South Africa experienced a number of food prices crises between January 1991 and January 2011. The periods of extreme food inflation were 1991/92; 1994/95; 2002/03 and then again in 2008/09. The food price crises during the period from 2000 to 2010 were not caused by a national drought as was the case in 1991/92. The first period of food price increases occurred towards the beginning of 2002, when the prices of staple food commodities skyrocketed, and kept on increasing throughout 2002. As expected, food retail prices were not long to follow, and double-digit inflation rates seemed once again to be the order of the day. As an immediate response the government appointed on 28 November 2002 a Food Pricing Monitoring Committee (FPMC) to investigate the sharp increases in food prices. In an effort to understand food price trends the Food Price Monitoring Committee introduced in 2003 a process to monitor retail food prices in South Africa. This process delivered a complete time series of commodity prices, exchange rates, retail prices and farm to retail price spread since the year 2000. The retail price series consist of a combination of the prices recorded by the government statistical



agency (STATS SA) and recorded retail prices provided by ACNielsen. The maintenance of this time series and the responsibility of food price monitoring now lies with the National Agricultural Marketing Council (NAMC), which publishes a quarterly review of retail food price trends in South Africa. Once a year they also publish the “Food Cost Review” which details the farm-retail price margins as well as all the other cost drivers in the food supply chain.

The Marketing and Economic Research Centre (MERC) was established to enhance the mandate of NAMC through the MAP Act. MERC is involved in five main focusing areas namely:

- Mapping, understanding and quantifying agro-food chains
- Trade
- Linking farmers to markets and market development
- Risk management
- Information management system

This is done through research as commissioned by the NAMC requested by the DAFF or requested by directly affected groups. Regular publications include:

- Food Price Monitors
- NAMC-DAFF TradeProbe
- Input Cost Monitors
- Food Cost review

Other areas where MERC is involved include collaboration with agri benchmark and two local universities to benchmark grain and beef farming internationally, regular appearances at conferences and farmers days, serve on industry committees and hosting of Agricultural Economics Association of South Africa (AEASA) business office.

5.1.4.3 TAX exemption of basic foods

Since the inception of Value Added Tax (VAT) in South Africa, there has been an on-going debate around the issue of zero-rating of basic foods to alleviate the burden on poor households. The zero-rated items in South Africa include brown bread, rice, maize meal, brown wheaten meal, samp, dried mealies, mealie rice, vegetables, fruit, vegetable oil, dried beans, lentils, edible legumes and pulses of leguminous plants, milk, cultured milk, milk powder, dairy powder blend, pilchards/sardinella in tins, and eggs.

5.1.5 Programmes aimed directly at the consumer

Making food systems more nutrition-enhancing so that food is available, accessible, diverse and nutritious is important, but so is assisting consumers in making healthy food choices (FAO, 2013). Apart from nutritional messages, it is recommended that behaviour-change interventions should also combat food waste and contribute to the sustainable use of resources.



5.1.5.1 *Integrated Nutrition Programme*

As previously reported in the review (section 3.3) the national Department of Health (DOH) has established the nutrition unit (Directorate of Nutrition), which is tasked with the responsibility of coordinating nutritional interventions in the country. Nutrition intervention programmes are implemented under the Integrated Nutrition Strategy (INS) and the Integrated Nutrition Program (INP).

Food-based Dietary Guidelines (DOH): The South African Food Based Dietary Guidelines were developed to provide an effective tool to eliminate or greatly reduce nutrition-related diseases. The guidelines are food-based rather than nutrient-based and recommend a food consumption pattern that South Africans five years and older should be following (whether under, over or adequately nourished) – separate guidelines, in line with the general guidelines, are being developed for children under the age of five. New updated South Africa Food-Based Dietary Guidelines have been released in 2012. A Food Guide which serves as a visual reminder to support the messages of the Guidelines for Healthy Eating has also been developed. This includes information on the suggested amounts of foods needed daily, from all the food groups.

Young Child and Infant Feeding Policy: The vision of the policy is optimal nutrition, growth, development and health of infants and young children. The aim of the policy is to improve the nutritional status, growth, development and health of infants and young children by protecting, promoting and supporting optimal safe infant feeding practices. Key recommendations include the promotion, protection and support of breastfeeding, promotion of the Baby Friendly Hospital Initiative, promotion of exclusive breastfeeding should be practised during the first six months of life and continued breastfeeding up to two years of age or beyond, the provision of evidence based information on HIV and infant feeding, education on preparation, storage and use of formula feeds, counselling and support to mothers. National, Provinces and Districts should implement, monitor and evaluate the implementation of the Policy.

5.1.5.2 *Nutrient Profile Model (DOH)*

Nutrient profiling of foods is defined as 'the science of ranking foods based on their nutrient composition'. Nutrient profiles aim to benefit both the consumer and food manufacturers by ensuring that claims do not mask the overall nutrient content of food products and by encouraging food manufacturers to improve the nutritional quality of their products. The ultimate goal is that a nutrient profile system will help consumers to make healthier food choices.

The South African model is based on work done by Mike Rayner and colleagues of the UK as adapted by the UK Food Standards Agency with modifications by the Food Standards Australia and New Zealand (FSANZ).

5.1.5.3 *Roadmap for Health (Draft policy)*

The Roadmap for Health for South Africa is currently being developed which provides a framework for the repositioning of nutrition and nutrition-related issues and action, with particular reference to the Strategic Plan for Maternal, Neonatal, Child and Woman's Health, and Nutrition in South Africa (Department of Health, 2013).



5.1.5.4 *National School Nutrition Programme (NSNP) and school gardens (DBE)*

The Department of Health managed the PSNP from 1998 to 2004. In April 2004, the responsibility for school feeding in SA was passed on to the then Department of Education (DoE), now renamed the DBE. In 2004 the programme was renamed the National School Nutrition Programme (NSNP).

The NSNP has as its objectives improvements in the following spheres:

- The quality of education (by enhancing the active learning capacity of primary school children as well as their school attendance through the alleviation of hunger);
- Nutrition knowledge and perceptions, attitudes and eating patterns among school children, their parents and teachers through education, and
- Broader development initiatives, particularly in the area of small business development, economic empowerment and the combating of poverty.

The DBE further developed the NSNP to include a school food garden project. The food gardens were implemented with the support of the Department of Agriculture, local authorities and non-governmental organisations and are used not only to produce meals for learners but also to teach them about food production and management. In 2007 6390 of the 17899 schools participating in the nutrition programmes (36%) had food gardens.

In 2009 the NSNP was expanded to secondary schools with the following objectives:

- Contributing to the improvement of learning capacity;
- Promoting self-supporting school food gardens and other food production activities; and
- Promoting healthy lifestyles among learners.

5.1.5.5 *Comprehensive Social Security (DSD)*

The aim of the programme is to develop comprehensive social security policies, and provide income support to vulnerable groups, eg. persons affected by disasters and to ensure vibrant, equitable sustainable rural communities contributing towards food security for all.

5.1.5.6 *Community Development (DSD)*

The aim of the programme is to create an enabling environment for empowering the poor and vulnerable through the promotion of and support for community development work, strengthening of institutional arrangements, and dialogue with civil society, eg. the establishment of food banks to feed the poor, the hungry, and people living with HIV/AIDS. More than 70 Republic of South Africa (RSA) business, government and social service leaders have expressed a strong interest in building a national food banking system. The overall objective for this project is to create greater local, regional and in-country capacity for food banking and to reduce the number of hungry people in South Africa.



5.2 How the stated policies impact nutrition outcomes (directly and/or indirectly) (undernutrition, micronutrient deficiencies, obesity and overweight) and/or health outcomes (infections, other communicable diseases, non-communicable diseases) of different population groups.

SUMMARY

The Executive Authority Frameworks of South Africa do mention nutrition and food security, and there are existing programmes with explicit nutrition objectives. The draft Food Security and Nutrition Policy for South Africa, which will be overseen by DAFF, seems to be the most inclusive policy to be introduced in the country. Yet the current draft lacks context in terms of *promoting diversification of agricultural production*, improving *processing to retain nutritional value* of foods and the *improvement of storage of nutrient-rich foods*. These gaps along with stakeholder comments indicate a limited understanding of the importance of nutrient density and dietary diversity in nutrition by key stakeholders.



5.2.3 The nutrition-sensitivity of the Executive Authority Frameworks of South Africa

The **Constitution of the South Africa** (Act 108 of 1996) states that everyone *has the right to have access to sufficient food and water and that every child has the right to basic nutrition, shelter, basic health care services and social services (Section 28)*. The Constitution is considered the supreme law of the land. The **MTSF** is the electoral mandate, and is developed for each cycle of presidential term. The document guides the planning and resource allocation, and national and provincial departments need to develop their own strategic plans and budgets taking the medium-term imperatives reported in this document into account.

Since South Africa is currently anticipating the 2014 elections and the development of a new MTSF (2014 to 2019), the **NDP, Vision 2030** was developed to guide the development of the new MTSF. The NDP states that income, through employment or social security, is critical to defining living standards, but humans need more than income. It is recognised that adequate *nutrition*, transport, housing, water, sanitation, education and skills, safety and security, health care, recreation and leisure in addition to employment are elements of a decent standard of living.

Specific approaches that are applicable to nutrition-sensitive agriculture in the NDP include:

- *Nutrition Programme for pregnant women and young children (developed and piloted by the DOH):* To reduce the acute effects of poverty on millions of South Africans over the short term, the plan proposes (applicable to nutrition) to introduce a nutrition programme for pregnant women and young children and extend early childhood development services for children under five. It is recommended that urgent action is needed at households and community level, specifically related to proper nutrition and diet, especially for children under three as nutrition is essential for sound physical and mental development.
- *Women empowerment:* Apart from the nutrition programme specifically designed for pregnant women and young children, the NDP takes gender, along with race and geographic location, into account. Recommendations include that public employment should be expanded to provide work for the unemployed, with a specific focus on youth and women, the transformation of the economy should involve the active participation and empowerment of women, the role of women as leaders in all sectors of society should be actively supported, and social, cultural, religious and educational barriers to women entering the job market should be addressed. Concrete measures should furthermore be put in place and the results should be evaluated over time. Access to safe drinking water, electricity and quality early childhood education, for example, could free women from doing unpaid work and help them seek jobs.
- *Environmental sustainability:* It is recognised within the NDP that exploitation of natural resources has resulted in South Africa facing several environmentally related challenges. Three measures are proposed including 1) an environmental management framework, 2) a target for the amount of land and oceans under protection, and 3) a set of indicators for natural resources accompanied by publication of annual reports on the health of identified resources to inform policy.



- *Improving education quality:* The NDP states that proper nutrition and diet (at household and community level), especially for children under three, are essential for sound physical and mental development. The Commission makes recommendations on child nutrition, helping parents and families to break the cycle of poverty, and providing the best preparation for young children – including a proposal that every child should have at least two years of preschool education.
- *Quality health care for all:* The NDP recognises that long-term health outcomes are shaped by factors largely outside the health system: lifestyle, diet and nutritional levels, education, sexual behaviour, exercise, road accidents and the level of violence. The Commission makes recommendations in each of these areas. Priority areas include sex education, nutrition, exercise, and combating smoking and alcohol abuse. These are social responsibilities that deserve to be taken seriously by every citizen, and promoted by families and institutions.
- *Comprehensive system of social protection:* By 2030 it is recommended that South Africa have a comprehensive system of social protection that includes social security grants, mandatory retirement savings, risk benefits and voluntary retirement savings. A part of the approach to social protection is through a social wage, which includes no-fee schools, free basic services and subsidised public transport. Specific objectives further include: 1) all children should enjoy services and benefits aimed at facilitating access to nutrition, health care, education, social care and safety, 2) addressing problems such as hunger, malnutrition and micronutrient deficiencies that affect physical growth and cognitive development, especially among children, and 3) identify the main elements of a comprehensive food security and nutrition strategy and launch a campaign. To achieve the objectives of broader social security coverage, the commission recommends a commitment to household food and nutrition security involving public- and private-sector action.
- *Agricultural productivity to increase employment:* As the primary economic activity in rural areas, the NDP identifies agriculture as having the potential to create close to one million new jobs by 2030, a significant contribution to the overall employment target. The NDP makes the following detailed recommendations, in achieving the goal of 1 million new jobs by 2030:
 - Substantially increase investment in water resources and irrigation infrastructure where the natural resource base allows and improves the efficiency of existing irrigation to make more water available.
 - Invest substantially in providing innovative market linkages for small-scale farmers in the communal and land reform areas, with provisions to link these farmers to markets in South Africa and further afield in the sub-continent.
 - A substantial proportion of the agricultural output is consumed in the “food-away-from-home” market in South Africa. While this includes restaurants and take-away outlets, which are hardly relevant in most rural areas, it also includes school feeding schemes and other forms of institutionalised catering, such as food service in hospitals, correctional facilities and emergency food packages where the state is the main purchaser. As part of comprehensive support packages for farmers, preferential procurement mechanisms should be put in place to ensure that new entrants into agriculture can also access these markets.



- Create tenure security for communal farmers. Tenure security is vital to secure incomes from all existing farmers and for new entrants. Investigate the possibility of flexible systems of land use for different kinds of farming on communal lands.
- Investigate different forms of financing and vesting of private property rights to land reform beneficiaries that does not hamper beneficiaries with a high debt burden.
- There should be greater support for innovative public-private partnerships. South Africa's commercial farming sector is full of examples of major investments that have resulted in new growth and new job opportunities.
- Increase and refocus investment in research and development for the agricultural sector.



Table 5.2: Summary of the nutrition-sensitivity of relevant South African policies and programmes

Nutrition sensitivity of agriculture policies and programmes	IFSS	Zero Hunger Programme	Food security and Nutrition Policy	Aquaculture Programme	Agro-processing	Food Price Monitoring	Zero Rated TAX	Bio-fortification	INS & INP	Road map for Nutrition	Regulatory Nutrition	Recapitalization and establishment of farms	Land redistribution for Agricultural Development	NSNP	Comprehensive Social Security	Community Development : Food Banks	Child support Grants
1. Have explicit nutrition objectives	Yes	Yes	Yes	Partial	Partial	No	Yes	Partial	Yes	Yes	Yes	Partial	Partial	Yes	Partial	Yes	Partial
2. Have explicit nutrition indicators / link with nutrition M&E system	Yes	Yes	Yes	No	No	No	No	No	Yes	Yes	No	No	No	Yes	No	Yes	No
3. Have goals/activities based in the local nutrition context	Yes	Yes	Yes	No	No	Yes	Yes	No	Yes	Yes	Yes	No	No	Yes	No	Yes	No
4. Target the most vulnerable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Partial	Yes	Yes	Yes	Yes	Yes	Yes
5. Empower women	No	No	Yes	No	No	No	No	No	No	Yes	No	No	No	No	No	No	No
6. Increase food production	Yes	Yes	Yes	Yes	No	No	No	Partial	Yes	Yes	No	Yes	Partial	Yes	No	No	No
6.1 of nutrient-rich foods	No	No	Partial	Yes	No	No	No	Yes	Yes	Yes	No	No	No	Yes	No	No	No
7. Reduce post-harvest losses	No	No	Yes	No	Yes	No	No	No	Yes	Yes	No	No	No	No	No	Partial	No
8. Promote diversification of agricultural products	Partial	Yes	No	Partial	No	No	Partial	Yes	Yes	Yes	No	No	No	Partial	No	No	No
9. Presence of nutrition promotion / education components	Yes	Yes	Yes	No	No	No	No	No	Yes	Yes	Yes	No	No	Yes	No	No	No
10. Improve processing of foods	No	No	Yes	No	Yes	No	No	No	No	No	Partial	No	No	No	No	No	No
10.1 to retain nutritional value	No	No	No	No	Partial	No	No	No	No	No	Yes	No	No	No	No	No	No
11. Improve storage	No	No	Yes	No	No	No	No	No	No	No	No	No	No	No	No	Partial	No
11.1 storage of nutrient-rich foods	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
12. Expand markets and market access of the most vulnerable	Yes	Yes	Yes	No	No	No	Partial	No	No	No	No	Partial	Partial	Yes	Partial	No	Partial
12.1 of nutrient-rich foods	No	No	Yes	No	No	No	Partial	Partial	No	No	No	No	No	Yes	No	No	No
13. Collaborate with other sectors	Yes	Yes	Yes	Partial	Partial	Partial	Partial	Partial	Partial	No	Partial	Partial	Partial	Yes	Yes	Yes	Yes
14. Maintain / improve the natural resource base (sustainability approach)	Partial	Yes	Yes	Partial	No	No	No	No	No	No	No	No	No	Partial	No	No	No



5.2.4 Nutrition-sensitivity of the overarching national programmes / frameworks aimed at increasing national food security and/or nutrition

Cabinet approved in 2002 the **IFSS** to streamline, harmonize and integrate the diverse food security programmes. The strategy was implemented with effect from 2002, through among others the **Zero Hunger Programme**, and there have been achievements in many of the strategic priority areas [i.e. NSNP, INP, EPWP, Working for Water, CASP, Ilema/Letsema, Land Care etc.]. Today the country is able to attain national food sufficiency through a combination of own production and importation, but access to nutritious foods by all households is not yet guaranteed. Increasing numbers of the population experience inadequate access to food and many do not benefit from proper nutrition. The global economic slowdown, increased food price volatility, and the impact of extreme climatic events, climate variability and climate change have compelled a review of this Strategy, and the development of a comprehensive the **Food Security and Nutrition Policy** for South Africa (*currently in draft*).

Within the context of food and nutrition security, South Africa still faces serious challenges, including:

- Inadequate safety nets and food emergency management systems to provide for all those who are unable to meet their immediate food needs or to mitigate the impact of natural and non-natural disaster on the population.
- Lack of knowledge and resources to make optimal food choices by citizens for nutritious safe diets.
- In cases where land is available, it is not always optimally utilised for food production, often for want of inputs (including finance, equipment and water) or skills,
- There is limited access to processing facilities or markets for small-scale primary producers, including farmers, fishers and foresters.
- Climate change and its associated impacts.
- Ecosystems and goods systems being undermined.
- Lack of sustainability.
- No adequate, timely and relevant information on food security and food security programmes

As previously mentioned, the **NDP** provides a plan for reducing poverty and inequality, and the proposed Food Security and Nutrition Policy aims to serve as a key pillar to achieving these objectives. The policy defines food security as “the right to have access to and control over the physical, social and economic means to ensure sufficient, safe and nutritious food at all times, in order to meet the dietary requirements for a healthy life.” When defining food security the draft policy specifies four specific dimensions, which are also the determinants of food security by the policy, namely 1) adequate availability of food, 2) accessibility (physical, social and economic), 3) utilisation, quality, nutrition and safety of food, and 4) stability of the food supply. In Figure 5.2 the visual pathway proposed by the policy is presented.



Food Security and Nutrition Policy

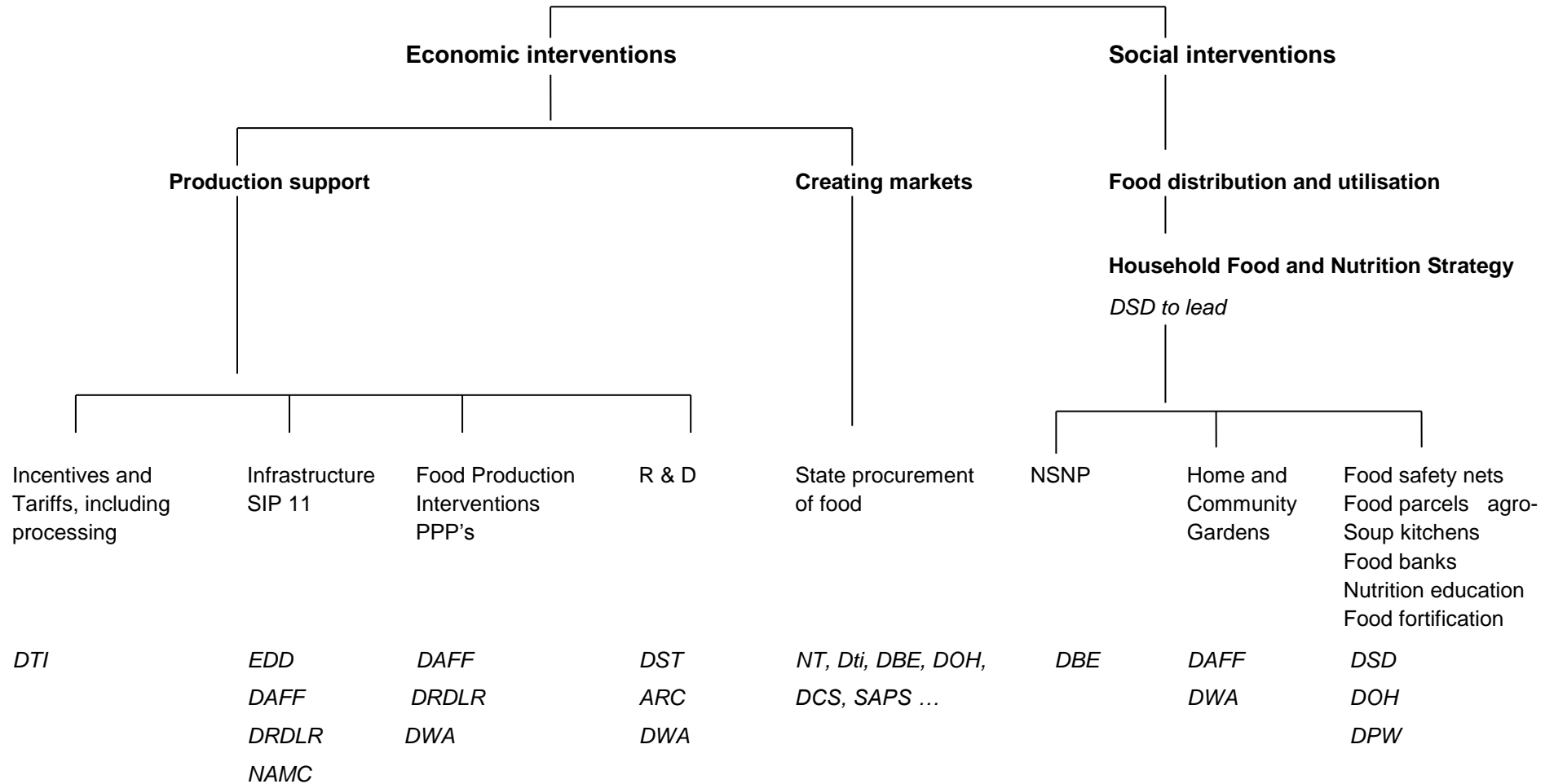


Figure 5.2: Visual pathway of the interventions proposed by the draft Food Security and Nutrition Policy for South Africa to improve food security and nutrition



5.2.5 Nutrition sensitivity of specific programmes aimed at increasing agricultural production

The **Zero Hunger programme** functions through various sub-programmes as described to ensure access to food for the poor and vulnerable members of our society, to improve food production capacity of households and poor resource farmers, to improve nutrition security of the citizens, to develop market channels through bulk government procurement of food linked to the emerging agricultural sector and to foster partnerships with relevant stakeholders within the food supply chain.

CASP also focused on skills and knowledge transfer and financial and marketing advice with the aim to promote wealth through agriculture and improve national and household food security, amongst others. By providing credit through **MAFISA** to aspiring black farmers and the working poor, it was hoped that the effect would be evident in improved livelihoods, reduced poverty and viable business ventures. The **Sustainable Household Food Production, Food Security and Starter Packs programme** supplies seed and fertilizer packs to households. The intention is to encourage every household to produce some food for consumption purposes with a long-term goal of producing enough food to sell at local markets. It also encourages household food production through improvement of crop intensification, diversification, adoption of simple and affordable technologies and promotes home (backyard mix farming) and where appropriate, school gardens and urban agriculture.

The **Land Redistribution for Agricultural Development Programme** is aimed at helping previously disadvantaged people in rural areas to improve their living standard, by improved access to affordable and diverse food and increased access to and productive use of land. The **Recapitalisation and Establishment of Farms in Distress Programme** is envisaged to contribute to increase agricultural production, guarantee food security and job creation, and graduate small-scale farmers to commercial farmers in the agricultural sector. The **Aquaculture programme** has established at least ten fresh water fish farms which would increase access to nutritious food options.

Progress has been made in South Africa to control micronutrient deficiencies through supplementation and food fortification, but new approaches are needed, especially to reach the rural poor. **Bio-fortification** (enriching the nutrition contribution of staple crops through plant breeding) is an option. Scientific evidence shows this is technically feasible without compromising agronomic productivity. Predictive cost-benefit analyses also support biofortification for controlling micronutrient deficiencies. Although application of this technology is still limited in South Africa, the challenge remains to get producers and consumers to accept biofortified crops and increase their intake of the target nutrients.

5.2.6 Nutrition sensitivity of programmes aimed at the post-harvest supply chain

The food control section within the Department of Health is responsible for: “mandatory regulatory activity of enforcement by national, provincial or local authorities to provide consumer protection and ensure that all foods during production, handling, storage, processing and distribution are safe, wholesome and fit for human consumption; conform to quality and safety



requirements; and are honestly and accurately labelled as prescribed by law”. South Africa has an overregulated food system, but policing is sporadic.

In terms of **food fortification** in South Africa, the National Food Consumption Survey Fortification Baseline (NFCS-FB-I, 2008) was done two years after the mandatory fortification of all maize meal and wheat flour was enacted. Main findings on micronutrient status were:

- An adequate folate status in both children and women of child bearing age, which is perhaps the first early indication of the benefits to be accrued from the legislated food fortification programme.
- An apparent deterioration in the vitamin A status of children aged 1–5 years.
- An apparent deterioration in the iron status of children aged 1–5 years.
- A high prevalence of poor zinc status among children 1–9 years of age.
- A high prevalence of poor iron and vitamin A status in women of child bearing age.

These findings lead to a Consultative Meeting on Micronutrient Control Interventions held in 2012 by the Department of Health, academics and industry to review and discuss the current status of micronutrient deficiencies and micronutrient control interventions; the relevancy of new initiatives in micronutrients and its control interventions to the South African context; and to get consensus on the way forward to strengthen micronutrient control interventions.

Food labelling and advertising legislation: The entire purpose of these revised and updated Food Labelling Regulations is to make life easier for consumers by providing them with additional and relevant information on the labels of the foods they purchase, and to regulate what is said in food advertisements. These improvements will permit consumers to make more informed decisions when selecting foodstuffs.

Salt iodisation: Compulsory iodisation of table salt, as a public health intervention to eliminate iodine deficiency, resulted in dramatic improvements. Essentially, based on the median UI of women and children reported during the National Food Consumption Survey Fortification Baseline (NFCS-FB-I, 2008), South Africa has achieved the virtual elimination of Iodine Deficiency Disorders (IDD).

Salt reduction regulations: regulate the food industry in terms of permitted salt content to help lower blood pressure amongst the population and thereby save lives.

Regulations on Trans Fats in food: Though some trans fats occur naturally in meat and dairy, the new regulations specifically refer to artificially created (man-made) trans fats and will apply to all food stuffs sold, manufactured in or imported into South Africa, as well food prepared in restaurants, fast food outlets and the catering industry. The regulations will be especially beneficial by helping the consumer eat fewer trans fats and reduce their potential risk for cardiovascular diseases and cancer.

Apart from **Food Price Monitoring** serving as a tracking system, as well as early warning system, food price monitoring increases transparency along the food supply chain and thus encourages competition throughout the agro-food supply chain and improve its resilience to price volatility. The specific food products monitored include commonly consumed food choices,



and not nutritious foods *per se*. **Zero rated VAT on basic food items** aims to alleviate the plight of the poor regarding the regressive impact of VAT on poor households. Although only selected food products are included in this system, it does provide some relief for nutritious food items such as dairy and vegetables.

5.2.7 Nutrition sensitivity of programmes aimed at the consumer

The **INP** and the **Roadmap to Health** provides strategic inputs to other sectors to improve household food security, dietary diversity and nutrition for women and children. Correspondingly ensuring that nutrition resources (human and financial) are committed to key nutrition interventions. Increased dietary diversification of the population was envisioned through nutrition education, promotion and advocacy to improve practices related to the consumption of available micronutrient-rich food and horticultural and agricultural interventions for example home, school and community gardening and the planting of indigenous fruit trees that aim to increase availability of micronutrient-rich foods and also to contribute to household food security.

To further impact on nutrition, advocacy was done for appropriate technologies and methods of food production, processing, preservation, preparation, distribution, storage; and for affordable food prices and the exemption of VAT on basic foodstuffs and fortified basic foods. The South African **Food Based Dietary Guidelines** for people older than five as well as a separate guideline for infants were reviewed and updated. A SA Food Guide was developed which serves as a visual reminder to support the messages of the Guidelines for Healthy Eating. This includes information on the suggested amounts of foods needed daily, from all the food groups. The Roadmap also aims to provide nutrition guidelines for sectors caring for children such as the social development sector which is responsible for feeding in emergency situations, the feeding of AIDS orphans and crèche feeding. An updated school curriculum with evidence-based nutrition information based on updated food-based dietary guidelines followed.

Nutrient profiles aim to benefit both the consumer and food manufacturers by ensuring that claims do not mask the overall nutrient content of food products and by encouraging food manufacturers to improve the nutritional quality of their products. The ultimate goal is that a **Nutrient Profile Model** will help consumers to make healthier food choices.

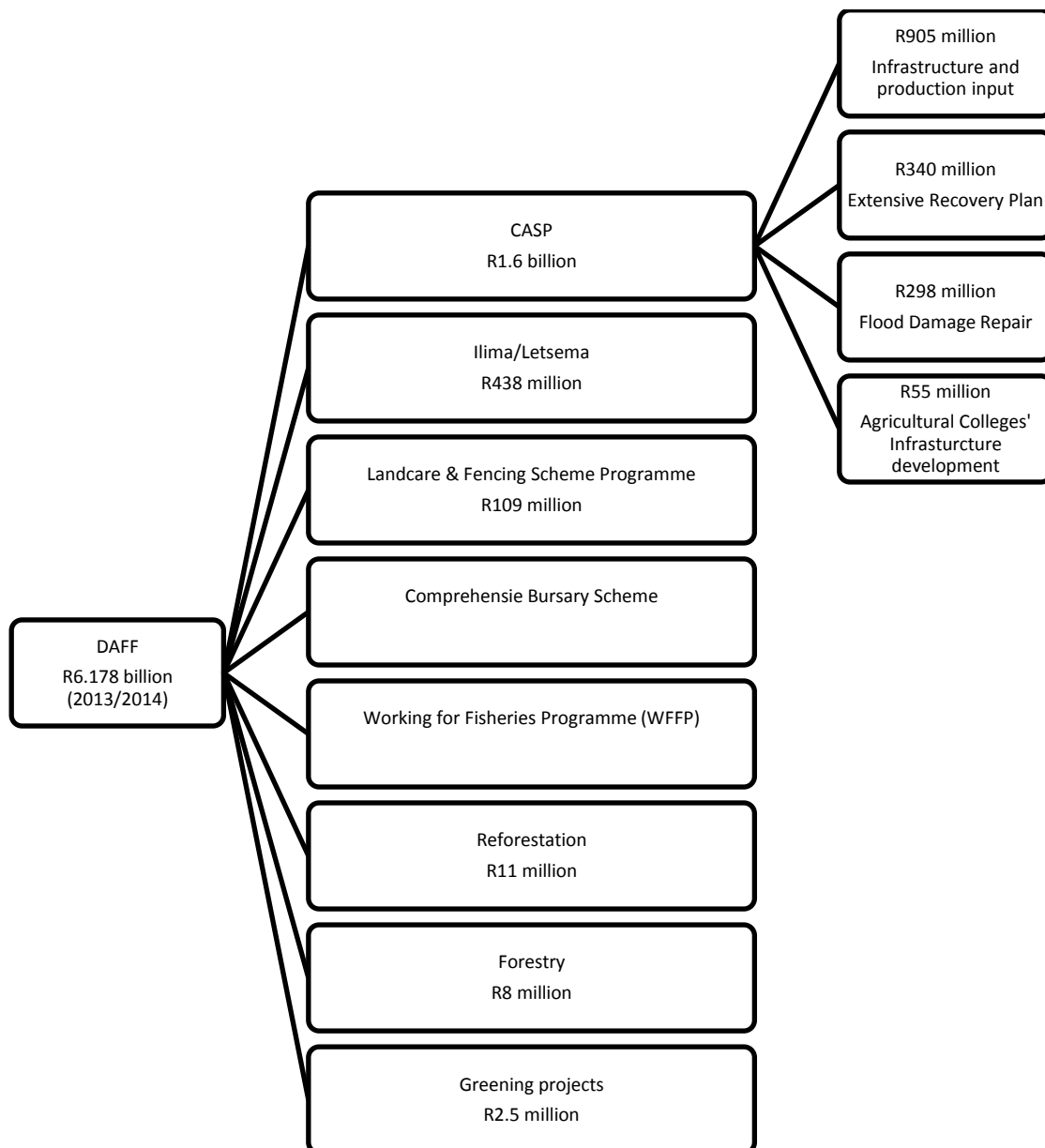
The **National School Nutrition Programme (NSNP)** aims to provide nutritious meals to targeted primary and secondary learners, to promote and support food production and improve food security in school communities; and to strengthen nutrition education in schools and communities to increase dietary diversification through healthy food choices. Meals provided to learners follow the Food Based Dietary Guidelines, which provide for a variety of foods including fresh vegetables and fruit.

The programmes of the **Department of Social Development (DSD)** aims to encourage sustainable rural communities and food security through social assistance grants, to reduce poverty by establishing community food banks; and to enhance sustainable human development by promoting equilibrium between population trends, environment and development in local areas.



5.3 A description of how nutrition-sensitive agriculture and food policies are being funded and implemented

Most of the programmes and strategies related to agriculture and nutrition discussed earlier are funded through budget allocations to the relevant departments and included in the respective strategic plans that guide the allocations under the Medium Term Expenditure Framework. In Future, resource allocation to departments and programmes will over the next 17 years by shaped by the NDP.





5.3.3 Programmes funded by donors and NGOs

In contrast to other African countries South Africa has only a few major programmes in food security and nutrition funded by donors and NGO's supported by national and international partners. The major donors such as USAID, DfID, SIDA and IDRC are active in the country and do implement programmes that are in the ambit of agriculture, nutrition, and food security. These programmes are limited and are largely outside the control of the government budget. The programmes mostly are aligned with government strategic frameworks, outcomes and objectives and are thus complementary to government programmes. There are however many cases of duplication and poor coordination between donor or NGO funded programmes and those funded by government.

Programmes directly dealing with nutrition outcomes are funded by international NGOs such as GAIN and also by the private sector supporting school feeding programmes (such as Tiger Brands) and food banks, food drives, etc. Between 2004 and 2008, the Global Alliance on Improved Nutrition (GAIN) invested US\$2.8 million in technical support to the South African government to implement a public-private partnership in support of the national flour fortification initiative.



5.4 Policy processes and alignments

In 2010, the Diagnostics Report of the NPC identified the main reasons for slow progress in SA as a failure to implement policies and an absence of broad partnerships. As part of the solution the NDP, Vision 2030, was developed and aims to align future activities at policy level, with the aims to eliminate poverty and reduce inequality in the next three electoral periods. Affordable access to quality healthcare as well as household food and nutrition security are listed as milestones to achieve the aims. Environmental sustainability and women empowerment are also highlighted. However, the NDP is an ambitious programme that seeks to provide a wider framework for engagement and alignment between different sectors.

The approach of the proposed Food Security and Nutrition Policy for South Africa strongly recommends inter-sectoral coordination, and a real integration of existing policies. The policy is proposed to be guided, motivated and lead by the Presidency, with each element championed by a specific Ministry, supported by various other Ministries and Departments. In the past 18 months, departmental Ministers have been involved in regulation conversation re formalization and implementation of the policy. The following roles are proposed in the draft policy:

The **Presidency** will be at the apex of this process, and will provide guidance, motivation and leadership on the implementation of all food security matters. This should be replicated at provincial level, where Premiers would need to oversee and champion food security. In this way Food Security would be closely linked to the War on Poverty programme.

The **Planning Ministry** in the Presidency will help to ensure that all related policies and programmes are consistent with the National Development Plan.

The **Economic Development Department** would ensure alignment with the New Growth Path, as a strategic jobs driver.

The **Department of Trade and Industry** will be instrumental in leading the alignment of agriculture to IPAP 2. This may include a review of the market mechanisms in regard to food, and the appropriateness of these in regard to food security. The regulation of exports and imports, and the use of tariffs and incentives, should all be explored from the perspective and recommendations of this Policy.

The **Department of Agriculture, Forestry and Fisheries** (national and provincial) will co-ordinate the implementation of the Food Security Policy, and in addition will do the following:

- Conceptualise, plan and implement food production projects in rural communities, in partnership with other departments and civil society;
- Develop and implement infrastructure projects that will support agricultural development, in terms of SIP 11 of the Presidential Infrastructure Coordination Commission (PICC);
- Promote the proper transport, storage and processing of food to avoid wastage; and
- Facilitate support from international bodies such as International Fund for Agricultural Development (IFAD), FAO and others to ensure viable development models.



The **Department of Rural Development and Land Reform** strives to achieve the transformation of the rural economy, which will facilitate growth and development, and contribute to the elimination of rural hunger.

As part of this the Department is leading a Presidential PPP Project, which seeks to address agrarian reform through the development of public-private partnerships (PPPs). It provides an overarching framework for the development of partnerships in support of rural development, and for the development of specific programmes that promote and enhance food production, agro-processing and the creation of markets among the state and private sectors. The PPP Framework contributes towards securing the physical, social and economic accessibility of food, and the Department of Rural Development and Land Reform would co-ordinate efforts by public and private role-players.

The **Department of Social Development** will lead on the finalisation and implementation of the Household Food and Nutrition Strategy, which will address the issues of social relief and assistance, as well as matters of nutrition education at a household level. The **Department of Health** would contribute to this as well, and also in the proposed fortification of foods with minerals and vitamins. Furthermore, it would determine an acceptable minimum adult daily energy intake level, below which an individual would be considered as being food insecure.

The **Department of Basic Education** would seek to expand and improve on the school nutrition programme, promoting the development of school and community gardens, and encouraging schools to buy from local producers and smallholders.

The **Department of Science and Technology**, together with the **Department of Higher Education and Training**, should continue to promote research and development work related to Food Security, including technologies to promote production and reduce wastage through safe storage and distribution of food, as well as enhancing nutrition and food fortification.

The **Departments of Energy and Transport** would need to contribute towards reducing input costs, and on effective food distribution strategies.

Other **Departments, NGOs, NPOs and CBOs, as well as the Private Sector** will contribute to the National Policy by developing and implementing concrete programmes that serve to alleviate or eradicate hunger and which are aligned to the goals of the Policy.

The final dimension, which deals with the stability of food supply, and the management and use of food security related information, will be led by the **Department of Agriculture, Forestry and Fisheries**, supported by appropriate institutions like **Stats SA**.



5.4.3 Analysis of terminology used in current policies and programmes

Currently, the terms “food security”, “nutrition security” and nutrition are all being used interchangeably. The way these terms are used is linked to different departments (professional groups) with a focus on different meanings. The secondary departments (Department of Rural Development and Land Reform, Department of Social Development, Department of Basic Education and Department of Water Affairs) focus on “food security” and “nutrition” with an emphasis on “when all people, at all times, have physical, social and economic access to sufficient, safe food which is consumed in adequate quantities to meet their dietary needs and food preferences”. The primary departments (Department of Agriculture and the Department of Health) use both the terms “food security” and “nutrition security”, but not “food security and nutrition” nor “food and nutrition security”.

The Roadmap for Nutrition in South Africa 2013 - 2017 defines food security as “when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life. Nutrition security is not specifically defined, but is used as an overarching term which included malnutrition, food security, unsafe water and poor sanitation.

The draft Food Security and Nutrition Policy for South Africa defines food security as “the right to have access to and control over the physical, social and economic means to ensure sufficient, safe and nutritious food at all times, in order to meet the dietary requirements for a healthy life.” When defining food security the draft policy specifies four specific dimensions, which are also the determinants of food security by the policy, namely 1) adequate availability of food, 2) accessibility (physical, social and economic), 3) utilisation, quality, nutrition and safety of food, and 4) stability of the food supply. “Nutrition security” requires that the population should have access to diverse foods, fruits and vegetable supply at all times and they should know how to prepare them in a healthy manner. In this draft policy, “nutrition security” is used as a complementary term to the previously used “food security”. “Food security and nutrition” has been used for actions needed at national, provincial and local government within the context of national food security. “Nutrition security” is used to define household and individual’s nutrition needs.

Although the term “food and nutrition security” is mentioned in the NDP, Vision 2030, the term “food and nutrition security” is used only on two occasions in the draft Food Security and Nutrition Policy document and not once in the Roadmap for nutrition 2013 – 2017. It is recommended that the term “food security and nutrition” is rather used as this represents a more integrated way two combine the two concepts to achieve both “food security” and “nutrition security” as single objective of policies and programmes. With the term “food security and nutrition” the food systems approach of food security is complemented by the biological approach in which the human being is the starting point, as emphasised by the nutrition security concept.



5.5 Analysis of monitoring and evaluation approach in the strategies; and relevant indicators

5.5.3 Monitoring and Evaluation of strategies by Executive Authorities

5.5.3.1 The Department of Performance Monitoring and Evaluation in the Presidency

Established in January 2010, the Department of Performance Monitoring and Evaluation in the Presidency (DPME) seeks to ensure continuous improvement in service delivery through performance monitoring and evaluation. The mandate of the DPME derives from Section 85 (2) (c) of the Constitution of the Republic of South Africa which states that the President exercises executive authority, together with the other members of the Cabinet, by coordinating the functions of state departments and administrations. Key focus areas include:

- Performance monitoring of government priorities
- Evaluation of government priorities
- Assessment of the quality of management practices in government departments
- Frontline Service Delivery Monitoring and the Presidential Hotline
- Citizen-Based Monitoring
- Government-Wide M&E System and capacity building
- Development Indicators

The strategic orientation of the DPME is about ensuring that government achieves its developmental goals by focusing on the delivery of the results. Focusing on the results means that government should be efficient in carrying out all its implementation processes (activities) using the current resource capacity (inputs) to deliver the desired public goods and services (outputs), and be effective in meeting the societal objectives (outcomes) that are about changing people's lives for the better in the long-run (impact). As such, all our efforts are aimed at addressing the triple challenges of unemployment, poverty and inequality.

The Department of Performance Monitoring and Evaluation consist of four (4) branches namely 1) Administration which aims to ensure that the department has effective strategic leadership, administration and management, and to ensure that it complies with all relevant legislative prescripts, 2) Outcomes Monitoring and Evaluation aimed at developing and implement the national priority outcomes, monitor and report on progress, 3) M&E Systems Coordination and Support which aims to coordinate and support an integrated government-wide performance monitoring and evaluation system through policy development, capacity building and improving data quality and analysis and 4) Public Sector Oversight which aims to conduct institutional assessments, frontline service delivery monitoring, citizen-based M&E and the Presidential Hotline.

5.5.3.2 Medium term strategic framework (MTSF) 2009-2014

As the presidential guidance document, the MTSF (2009-2014) indicators are used when monitoring the performance of government priorities. In Table 5.3 the 76 development indicators as stipulated in the current MTSF of South Africa are presented.



Table 5.3 Development indicators of the Medium Term Strategic Framework (MTSF) (2009-2014)

Theme	Indicator	Theme	Indicator	
ECONOMIC GROWTH AND TRANSFORMATION	1 Gross Domestic Product (GDP) growth	EDUCATION	40 Educator: Learner ratio in public ordinary schools	
	2 Real Per Capita GDP growth		41 Enrolment rates: Gross Enrolment Rate (GER) , Gender Parity Index (GPI)	
	3 Foreign Direct Investment		42 National Senior Certificate (NSC) pass rate	
	4 Gross Fixed Capital Formation		43 Matriculants with Mathematics Passes	
	5 Budget Surplus or Deficit before borrowing		44 Adult literacy rate	
	6 Government Debt		45 Graduating science, engineering & technology (SET) Students	
	EMPLOYMENT	7 Interest Rates: Real and Nominal	SOCIAL COHESION	46 Strength of civil society
		8 Inflation measures: CPI and CPIX		47 Voter participation
		9 Bond Point Spreads		48 Voters per province
		10 Expenditure on Research and Development		49 Percentage of women who are members of legislative bodies
		11 Foreign Trade and Payments		50 Confidence in a happy future for all races
		12 South Africa's competitiveness outlook		51 Public opinion on race relations
		13 Knowledge based Economy Index		52 Country going in the right direction
		14 Black Economic Empowerment (BEE) Transactions		53 Identity based on self-description
		15 Black and Female Managers		54 Pride in being South Africa
16 Employment		55 Number of all crimes		
17 Unemployment		56 Contact crime		
18 Expanded Public Works Programme		SAFETY AND SECURITY		57 Property crime
POVERTY AND INEQUALITY			19 Per Capita Income	58 Aggravated Robberies
			20 Living Standards Measure (LSM)	59 Detection rate
			21 Inequality Measure	60 Charges referred to court
	22 Poverty Headcount Index		61 Conviction rate	
	23 Poverty Gap analysis: Poverty gap index(P1) and Squared Poverty Gap Index (P2)		62 Total number of inmates	
	24 Social Assistance Support	63 Road accidents		
	25 People with Disabilities	INTER-NATIONAL RELATIONS	64 Peace operations	
HOUSEHOLD AND COMMUNITY ASSETS	26 Dwellings		65 Democratically elected governments in Africa	
	27 Potable Water		66 Real GDP growth in Africa	
	28 Sanitation		67 Sustainable tourism	
	29 Electricity	68 Mission operations and diplomats trained		
	30 Land Restitution	69 Agreements		
	31 Land Redistribution	GOOD GOVERNANCE	70 Tax returns	
HEALTH	32 Life Expectancy		71 Audits	
	33 Infant and child mortality rate		72 Corruption perceptions	
	34 Severe malnutrition under five		73 Budget Transparency	
	35 Immunisation coverage		74 Public opinion: Delivery of basic services	
	36 Maternal Mortality Ratio		75 Ease of Doing Business	
	37 HIV Prevalence	76 Green-house gas emissions		
	38 Tuberculosis			
	39 Malaria			

5.5.3.3 National Development Plan, Vision 2030

The successful implementation of the NDP depends on:

- Breaking the Plan into manageable chunks
- Developing detailed programme plans
- Building on the broad support for the Plan
- Building trust and confidence among key role-players



- Strengthening public sector capacity
- Streamlining reporting procedures
- Consistent messaging

Planning and implementation should be informed by evidence-based monitoring and evaluation. There are already monitoring and reporting processes in place for government priorities, plans and policies. Integration of the NDP into these plans will enable implementation of the Plan to be monitored through existing processes. The Department for Performance Monitoring and Evaluation (DPME) has responsibility for overseeing progress against many of these objectives through the outcomes approach, and will have overall responsibility for monitoring progress.

It is also important that we are able to keep track of our progress against the NDP as a whole. This includes identifying unforeseen circumstances that may hamper progress or identifying serious blockages that need to be addressed. This will require a more strategic and high-level form of monitoring that will be carried out by the NPC drawing on data that is already collected by DPME and other sources so as to minimise the reporting burden.

Since the implementation of the Plan will be a shared responsibility between government and social partners, it will be important to interact with organisations in other sectors to assess progress and identify blockages.

5.5.4 Food security and Nutrition Policy for South Africa (Confidential Draft, 2013)

Two food security and nutrition indicators are deemed critical according to the draft policy, namely anthropometric status (key indicator), and the Hunger Index (proxy indicator). Adequate daily energy intake of people with different dietary needs (as recommended by the WHO) is proposed as the comparison baseline for food security. No reference is made to other critical nutrients. Expenditure on food is proposed to enhance the accuracy of the hunger indices.

Further it is mentioned in the draft document that South Africa has several types of information systems that are relevant for understanding food insecurity but micro level analysis is crucial to the spatial development process. Food security and vulnerability assessments should be structured to harmonise diverse data sets and assessment methodologies, drawing on the following systems:

- Early Warning Information Systems
- Agriculture Information Systems
- Health and Nutrition Information Systems
- Food Vulnerability and Information Management System
- Marketing Information Systems
- National Integrated Social Information Systems
- Livelihoods Zoning for South Africa
- General Vulnerability Information Systems

The structures and methodology used should conform to that of other South Africa Development Community (SADC) member states to allow for easier regional food security analysis.



5.5.5 Programmes

In Table 5.3 to 5.5 the indicators for the various programmes are presented grouped into three food systems namely agricultural productivity, post-harvest supply chain and the consumer.

a) Agricultural Productivity (Table 5.3)

Indicators toward the Zero Hunger Programme aim of *improved food production capacity of households and poor resource farmers* include 1) the percentage of households who were involved in agricultural activities during the twelve months period, 2) the percentage of households that received support from the DAFF or from other organisations, 3) the percentage of household owning productive land, 4) the percentage of food inflation and 5) the volumes of food sold on the local markets, imports and export.

b) Post-harvest supply chain (Table 5.4)

Towards the aim to *develop market channels through bulk government procurement of food*, indicators are 1) the number of Land Reform projects, 2) the number of community agricultural projects, and 3) the number of LED Agricultural projects.

c) Consumers (Table 5.5)

Towards *improving nutrition security of the citizens*, indicators include 1) the percentage of population undernourished [malnutrition] (FAO Indicator of Undernourishment), 2) the percentage of children under five years not stunted, 3) the percentage of children under five years not wasted, 4) the percentage of mothers and children receiving nutrition training, 5) the percentage of households with water supply infrastructure, 6) the percentage of households with access to functioning basic sanitation facilities, and 7) the percentage of households with refuse removed by municipality.

Other relevant indicators reported on in South Africa include The global hunger index, The global food security index, the Poverty and hunger index, The hunger reduction commitment Index and the Medical and biomarker indicators (Fe & Vit A). Furthermore the Road map for Nutrition (DOH) has a list of indicators on which programmes' successes are evaluated (Table 5.5.)

Towards ensuring access to food by the poor and vulnerable members of our society, the Zero Hunger Programme measures 1) the percentage of households receiving social protection grants, 2) the percentage of households who get an income from wages/salaries/commission, 3) the percentage of households that produce and sell food, 4) the percentage of households involved in business activities, 5) the percentage of households who's expenditure exceeds 60% of their monthly income on food and 6) the number of functioning markets.

Table 5.3: Indicators of **agricultural productivity** interventions for better nutrition

Draft Food Security and Nutrition Policy	Zero Hunger Framework (DAFF)			Other relevant indicators related to nutrition
	Objective	Indicator	Source	



No applicable indicators included in draft	Improved food production capacity of households and poor resource farmers	<ul style="list-style-type: none"> • % of households who were involved in agricultural activities during the twelve months period. • % of households that received support from the DAFF or from other organisations. • % household owning productive land • % of food inflation • Volumes of food sold on the local markets, imports and export. 	<ul style="list-style-type: none"> • General Household Survey • DAFF • IFSNP Comprehensive Report • General Household Survey / Census • Consumer Price Index • Import & Export [South African Revenue Service (SARS)] • Marketing Directorate • Stats SA 	<ul style="list-style-type: none"> • Hunger and malnutrition in rural areas (DLA) • Small scale irrigation for community level food security (DWA) • Food production in home gardens (DWA)
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Table 5.4: Indicators of *post-harvest supply chain* interventions for better nutrition

Draft Food Security and Nutrition Policy	Zero Hunger Framework (DAFF)			Other relevant indicators related to nutrition
	Objective	Indicator	Source	
No indicators included in draft	Develop market channels through bulk government procurement of food linked to the emerging agricultural sector	<ul style="list-style-type: none"> • Number of Land Reform projects • Number of community agricultural projects • LED Agricultural projects 	<ul style="list-style-type: none"> • DLA • Provincial Departments of DAFF • Municipalities 	<ul style="list-style-type: none"> • Legislation to ensure fortification is promulgated (DOH)

Table 5.5: Indicators of *consumer* interventions for better nutrition

Draft Food Security and Nutrition Policy	Zero Hunger Framework (DAFF)			Other relevant indicators related to nutrition or agriculture
	Objective	Indicator	Sources	



<ul style="list-style-type: none"> • Anthropometric status • Hunger Index 	<p>Improve nutrition security of the citizens</p>	<ul style="list-style-type: none"> • Energy intake • % of population undernourished [malnutrition] (FAO Indicator of Undernourishment) • % of children under five years not stunted • % of children under five years not wasted • % of mothers and children receiving nutrition training • % of households with water supply infrastructure • % households with access to functioning basic sanitation facilities. • % of households with refuse removed by municipality 	<ul style="list-style-type: none"> • DOH • General Household Survey • Stats SA • DWAF 	<ul style="list-style-type: none"> • The global hunger index (DAFF) • The global food security index (DAFF) • Poverty and hunger index (DAFF) • The hunger reduction commitment Index (DAFF) • Medical and biomarker indicators (Fe & Vit A) (DOH) • Anaemia amongst woman in reproductive age (Hb < 11g/dL) (Roadmap for Nutrition, DOH)
	<p>Ensuring access to food by the poor and vulnerable members of our society</p>	<ul style="list-style-type: none"> • % of households receiving social protection grants • % of households who get an income from wages/salaries/commission • % of households that produce & sell food • % of households involve in business activities • % households who expenditure exceeds 60% of their monthly income on food. • Number of function markets 	<ul style="list-style-type: none"> • DSD • General Household Survey [Stats SA] • DAFF • NAMC 	<ul style="list-style-type: none"> • Low birth weight • Overweight children below 5 years • Proportion of population below minimum level of energy consumption • Babies (14 weeks) and infants (<6 months) exclusively breastfed • Proportion of children 6 – 23 months who receive a minimum acceptable diet • Proportion of HIV+ individuals who were found to be undernourished and provided with nutritional support • Proportion of children aged 6 to 9 years who have received 2 doses of vitamin A supplements • Maternal life expectancy • Infant mortality rate • The number of learners that are fed (DBE) • Sustainable rural communities and food security (DSD) • Community food banks (DSD)



6. Final appraisal of nutritional value of analysed action

6.1 Lessons learned on ‘what to do’ and ‘how to do’ nutrition-sensitive agriculture for the country, which include technical considerations as well as issues relating to institutional capacity, policy processes and alignment, and stakeholder participation.

Malnutrition in all its forms (under-nutrition, micronutrient deficiencies as well as overweight and obesity) imposes unacceptably high economic and social costs on countries at all income levels (FAO, 2013). It can be argued that reducing these costs should begin with agriculture and the food system, but there are still numerous hurdles to overcome before this can effectively be done in South Africa. Analysis of the nutrition sensitivity of the present South African agricultural and food system was done by means of a thorough investigation and analysis of current policies and programmes (Annex 1), as well as through the collection of opinions of key role players. The latter was collected by means of stakeholder interviews (Annex 2) and completed questionnaires. The questionnaires were completed cross-sectorially by 35 role players, representing the food industry (34%), human nutrition (20%), agricultural (18%), education (13%), health (11%) and social welfare (4%) sectors.

5.5.6 The nutrition-sensitivity of National Authoritative Frameworks

Recognising the multiple objectives to be reconciled such as equity, growth, health and sustainability, combined with the unregulated nature of the agricultural system, the challenge for policy-makers is to re-direct the nutrition transition and addressing micronutrient deficiencies, chronic malnutrition and hunger. Although this challenge seems significant, the returns are high. Investing in the reduction of micronutrient deficiencies as an example will result in better health, fewer child deaths and increased future earnings with an unqualified benefit-to-cost ratio reported as high as 13 to 1 (FAO, 2013). The current governance structure divides the various aspects of food security into the different ministries (Figure 6.1).

Both the **Bill of Rights** and the **MTSF** state that good nutrition is a right of all South Africans. However, the Diagnostics Report of the National Planning Commission (NPC) identified a failure to implement policies and an absence of broad partnerships as the main reasons for slow progress in South Africa, and set out 9 primary shortcomings, including:

- High unemployment rates
- A high disease burden
- Poor educational outcomes
- Divided communities
- Uneven public service performance
- Crumbling infrastructure
- Spatial patterns marginalising the poor
- Corruption



- Resource intensive economy

The hurdles towards success seem not to be the lack of policies and programmes, but the lack of coherent coordination, human capacity, structure and knowledge, implementation and outcome/impact monitoring.

As part of the solution, the **NDP, Vision 2030**, was developed to align future activities of the country at policy level, with the main aims to eliminate poverty and reduce inequality. It emphasizes the importance of hard work, leadership and unity. Affordable access to quality healthcare as well as household food and nutrition security are listed as milestones to achieve the aims proposed by the plan. Environmental sustainability and women empowerment are also highlighted in the NDP, yet stakeholder correspondence indicated that in South African gender exclusion is still very evident within the agricultural sector. A comment was received that the impact of agricultural productivity growth on nutrition status of the population is dependent of whether men or women control income. Gender equality was also highlighted in a comment as a key to a middle income country such as South Africa and is recognised as one of several solutions.

The draft **Food Security and Nutrition Policy for South Africa**, to be coordinated by DAFF and championed by the Presidency, integrates nutrition into food security programmes as the **IFSS and Zero Hunger**, although successful in some areas, fell short in improving food security at individual level. While the draft policy aims to align programmes across departments, the exact link between health care, food production, the food system, and economic growth are still unclear in the draft. This could restrict prioritisation of engagement between Ministries. Furthermore, the indicators proposed in the draft policy are restricted to anthropometric status and the Hunger Index; with limited reference to nutrients and food. This could potentially limit the development of policies to increase agricultural production, processing of, and access to, diverse, nutrient dense foods - as increased production and access to kilojoules is proposed as the measurement of success. Apart from not necessarily contributing to the prevention of macro- and micronutrient deficiencies (under-nutrition), increased availability and access to energy-dense micronutrient-poor foods could potentially increase overweight and obesity (over-nutrition). Incentives, regulations and knowledge to change behaviours are needed within a local context for farmers, food processors, consumer and other economic agents in the system. Furthermore, although many frameworks promote nutrition and food security within the policy documents, actual buy-in and action from all sectors are required to realise the goals documented. The same applies to other relevant programmes.



- Programme codes:
- 1: NDP-MTSF 2014-19
 - 2: NDP-MTSF 2009-13
 - 3: DAFF Food Security & Nutrition Strategy 2013
 - 4: DSD Strategic Plan 2010-15
 - 5: DLA Strategic Plan 2010-15
 - 6: DWA Strategic Plan 2013-18
 - 7: DBE Strategic Plan 2011-14
 - 8: DOH Strategic Plan 2012-13
 - 9: DST Corp. Strategy 2009-10
 - 10: DTI MTSP 2011-16

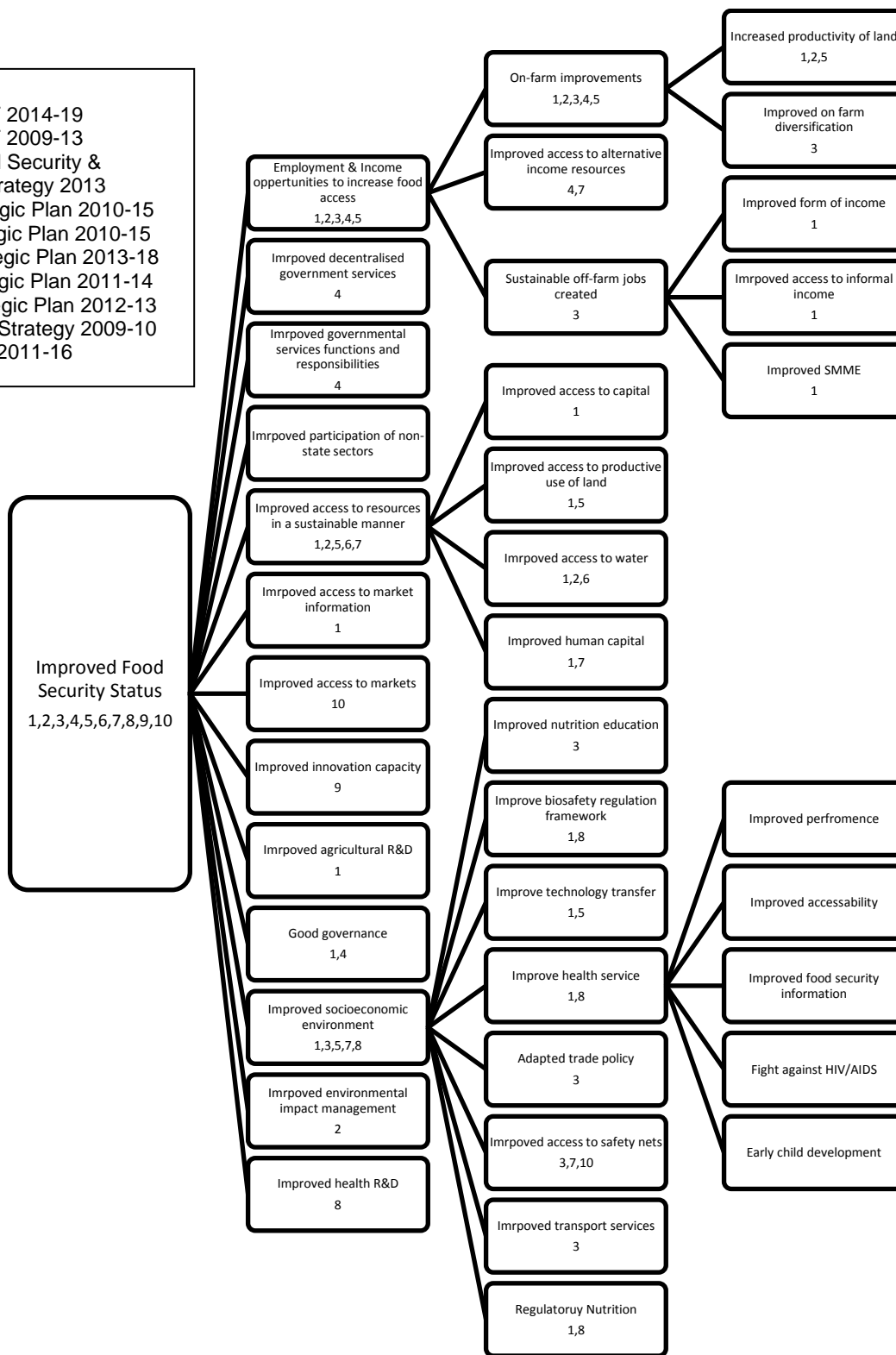


Figure 6.1: Departmental arrangement for programmes aimed at improving food security (adopted from Karaan & D’Haese, 2013)



As mentioned, South African has numerous existing programmes relevant to nutrition-sensitive agriculture. Investigation and analysis of these current policies and programmes (Annex 1) was done according to the guiding principles on Agricultural Programming for Nutrition (FAO, 2013). Out of the recommended 20 main messages for making agriculture work for nutrition, the draft Food Security and Nutrition Policy for South Africa included 16 of these guidelines (DAFF). The INP (DOH) includes 11 of these messages in the programme, and the Roadmap to Health (DOH) includes 10. The current strategic plan of DAFF includes 8, while the plans of DLA, DBE, DSD and DWA include only 6 or 7 of the 20 recommended messages. It is reasonable to conclude that South Africa has a strong political will to improve food security and nutrition, yet programmes have not been completely successful in improving individual food security or nutrition status as this has not improved according to the 2005 National Food Consumption Survey. It is therefore opportune time to look at pathways to link and integrate agriculture, the food system and nutrition to better improve the efficacy of programmes. The draft Food Security and Nutrition Policy might be considered a feasible approach to do this, but needs appropriate integration between sectors and departmental ministries.

6.1 Description on the identified need for more information and knowledge gaps that should be addressed

The following 6 gaps have been identified that need to be addressed in order to enhance nutrition-sensitivity of agriculture.

i. Lack of knowledge and recognition of the responsibility and role of agriculture and the food system for improved nutrition.

There was no agreement among the key role players that good nutrition is an ultimate purpose of agriculture. Although many responded that growth in agricultural productivity improves nutritional outcomes of a population, the majority of the respondents felt that improved profitability, job creation and competitiveness are the main aims of agriculture. This reflects the dualistic South African agricultural situation. The full pathway of change from agricultural inputs, practices, value chains, food environment to nutrition outcomes is poorly understood.

Noteworthy stakeholder comment:

- *Why should agriculture be responsible for nutrition?*

ii. Lack of the promotion of dietary diversification

Although nutrition and food security are often components of current policies and programmes, limited definitions are given to what is meant by *nutritious food* or *good nutrition*. Food security, although defined as having access to sufficient, nutritious foods, is often only measured as having access to sufficient kilojoules and a lack of hunger. The majority of respondents agreed that the production of more nutritious foods is needed as an integral part to improve the nutritional status of the population, yet it is important that the term “nutritious foods” be better defined as stakeholders from the agricultural sector mainly considered increasing production



(access and availability) of staple foods, i.e. maize and bread, as the key strategy to improve food security and nutrition.

Noteworthy stakeholder comment:

- *Food security is all about staple foods.*

iii. Lack of data and limited understanding of the beneficial cost to benefit ratio of improving the nutritional status of the population (for the agricultural and food sectors as well as nationally).

The double burden of disease prevalent in South Africa imposes high economic and social costs. Investing in the reduction of undernutrition, micronutrient deficiencies as well overweight and obesity will result in better health, fewer deaths and increased future earnings with a significant benefit-to-cost ratio. Although it was well acknowledged that agricultural growth improves income and economic growth of the population, the majority of stakeholders agreed that there is an extensive knowledge gap on the cost effectiveness of nutrition-sensitive agriculture, e.g. changes in health outcomes.

Noteworthy stakeholder comments:

- *Agriculture has become a business and its main purpose is (and should remain) profitability and increased production.*
- *Agriculture is not a charity and should not be seen as a soup kitchen to feed the needy.*

iv. Lack of effective and well defined metrics and methods.

The impact of agricultural interventions for improved nutrition requires more and better designed programmes utilizing appropriate M&E. There remains a lack of studies which measure the local effect of agricultural interventions on households, the food environment, education and improved health.

Various measures must be integrated into monitoring and evaluation systems of nutrition-related projects to assess any reasonable degree of impact on nutrition outcomes. This requires indicators that directly measure food consumption and dietary diversity such as adopting and validating within the country the Dietary Diversity Score (DDS) and the Household Food Insecurity Access Scale (HFIAS). Towards better understanding of how agriculture and food-system can lead to better nutrition, it is imperative for progress that there is nationally consensus on measurement and indicators for Food Security and Nutrition in South Africa.

In the absence of an empirical measure for food security and nutrition, different elements, indicators and measures which are used for the different composite indexes should be discussed and decided upon e.g. The FAO Indicator of Undernourishment (FAOIU); The Global Hunger Index (GHI); The Global Food Security Index (GFSI); The Poverty and Hunger Index (PHI); The Hunger Reduction Commitment Index (HRCI); Anthropometric indicators (AI); The Diet Diversity Score (DDS); Medical and biomarker indicators (MBI). There are other composite



food security and nutrition indicators, such as the Nutrition Barometer (which builds on the GHI and the HRCI, the Global Nutrition Index (based on DALYs lost per 100'000 population compiled by the Global Burden of Disease Project, WHO women's body mass index and the FAO statistic on the percentage of population undernourished), the Hunger FREE Scorecard (which largely inspired the HRI), and others. Irrespective of what measure is chosen, it should be monitored continuously and cut-off values for differentiating between severities of food security within local context should be determined.

There is also a need to improve the availability of timely and relevant data for analysis and reporting. As an example South Africa has no reliable data for livestock numbers. For health outcomes there is only one national food consumption survey which was conducted (and on children) more than 10 years ago.

Noteworthy stakeholder comments:

- *There is a lack of consensus regarding the assessment of food security and the indicators linked to it.*
- *There are no ways of monitoring food security*
- *There has never been a national survey to assess all dimensions of food and nutrition security*

v. Lack of engagement/integration between sectors.

Cross sectoral coordination, advocacy to sustain political commitment and resource mobilization is essential to ensure the success of any policy or programme. In South Africa a system-wide commitment is required, yet this review identified that food security and nutrition programmes are still not integrated and that the Ministries still continue to function in isolation, delivering on their own indicators as set out by each Ministry's Strategic Plan. There is a consensus between respondents that there is little collaboration between the sectors including agriculture, the food system sectors, health, human nutrition, education and social welfare.

Noteworthy stakeholder comments:

- *Engagement and collaboration is a failure of government.*
- *There is currently limited meaningful collaboration between agriculture and nutrition stakeholders.*
- *Although agricultural and food system policies make reference to nutrition, agriculture does not employ nutritionists for insights.*

vi. Weak governance.

South Africa has the inability to implement and deliver on policies and programmes to achieve their stated goals. Adequate governance, policy processes and the political economy as it relates to implementation is lacking and/or quickly becomes unravelled as the programme deploys. As an example, after much excitement about the Zero Hunger Programme for the



previous 5 years, the responsible Minister rechanneled all the funding in 2012, leaving the programme to immediate extinction.

The importance of an effective political economy and the engagement/integration between sectors can be highlighted by the following South African example:

Food Security is defined by the draft Food Security and Nutrition Policy of South Africa as “*the right to have access to and control over the physical, social and economic means to ensure sufficient, safe and nutritious food at all times, in order to meet the dietary requirements for a healthy life.*” When defining food security the draft policy specifies four specific dimensions, which are also the determinants of food security by the policy, namely 1) adequate **availability** of food, 2) **accessibility** (physical, social and economic), 3) **utilisation, quality, nutrition and safety** of food, and 4) **stability** of the food supply.

In South Africa, agricultural productivity, imports and exports (among others) influence the **availability** of foods (DAFF; DLA). Various partners are responsible to improve infrastructure as well as economic and social **accessibility** of these foods (Department of Energy and Transport; DTI; DLA; DSD; EDD; DST; DHET). Utilisation of foods depends on consumer education and awareness, which along with the food system influences quality, safety, and nutritious food choices (DBE; DOH; DST; DHET). The definition of a nutritious food product is defined by the Nutrient Profiling Model of the health sector (DOH), and the agricultural, trade, and food sectors need to ensure a **stable** food supply (DAFF; DTI).



7. Conclusions & Recommendations

Why should agriculture be responsible for nutrition in South Africa? This is a comment made by a prominent stakeholder shaping the agricultural policy framework for South Africa. This demonstrates the lack of consensus that have become synonymous with this case study. The Bill of Rights states that “every citizen has a right to access sufficient food”, which within the current South African landscape we may arguably want to include “sufficient, nutritious and affordable food”. Although the country is able to attain national food sufficiency through a combination of own production and importation, access to nutritious foods by all households is not yet within reach. In fact two food price crises rocked the country in 2002/2003 and again in 2007/2009, however it did not lead to civil unrest or political instability. No major policy response followed the two crises, showing a disjuncture between the institutional response mechanisms and the complexity of national food insecurity. This is probably due to the country’s well-funded comprehensive social welfare programmes providing an important safety net. However, 2012 (and continuing as a threat) was associated with civil unrest in the form of protests for higher wages and better service delivery. It could be argued that current social welfare payments are insufficient and that the neediest communities of South Africa need better co-ordinated and better-planned food security interventions.

At present government is becoming more aware of the implications of malnutrition and of both the human and economic benefits of improved nutrition of the population. Nutrition as integral part of agriculture and the food system is becoming more important and increasingly so, as it is linked to the health and wellbeing of citizens. The minister of DAFF in her budget speech on 29 May 2013 highlighted improving food security and putting good nutrition within reach of more citizens. This case study is therefore both opportune and timely for South Africa.

Although nutrition is frequently included within governments’ policies, frameworks and programmes, it is mostly reported upon in terms of “under-nourishment”, focusing on vulnerable people rather than adopting a more integrated approach. Although reference is made to nutrition in other programmes, apart from that of the DOH, it is not clear how they will contribute to better nutrition as expressed in these goals. There is a lack of inclusion of: 1) the promotion of diversifying agricultural production, 2) improved processing of foods to retain nutrient value, and 3) improved storage of nutrient-rich foods. Apart from the health sector, there seems to be a knowledge gap on the role which essential nutrients (in addition to kilojoules) play on the health status of the population. Furthermore, there seems to be a lack of understanding the economic and social burden which malnutrition plays on the country. There is consequently very little coordination across technical areas in relation to nutrition. A deeper understanding of the relevance of the interlinkage between agriculture and nutrition for improved health status is needed.

It is important for South Africa to develop and implement a comprehensive policy/plan placed under a body with an overarching mandate. This policy/plan needs to include a narrative about the importance of nutrition and agriculture to enhance system-wide commitments, and include concrete operational plans, including allocation of the necessary authority, accountability and resources. A **collective vision** or “game plan” to implement nutrition outcomes in agriculture is



required and the National Development Plan, Vision 2030 can be seen as creating the correct architecture. Yet, it is a very ambitious plan that will need buy-in and support programmes in order to be effective. It provides a plan for the reduction of poverty and inequality, with increased employment, affordable access to quality health care and household food and nutrition security as milestones. This plan is currently being written into the medium term strategic framework (2014 to 2019).

South Africa had no implemented national nutrition policy. Oversight of food security is allocated within DAFF (IFSS and Zero Hunger Programme), yet South Africa has not been completely successful in improving food security and nutrition. Evidence of deeper political commitment is now evident in the draft **Food Security and Nutrition Policy** for South Africa. This Policy strives to respond to the triple challenges of poverty, inequality and unemployment, which are the foundations of food insecurity. The body will have an over-arching mandate, with the Presidency at the apex of the Food Security and Nutrition Policy and implementation will entrench public, private and civil society partnerships. An Inter-Ministerial Committee on Food Security would be advised by a National Food Security Advisory Committee, comprised of recognised experts from organized agriculture, food security and consumer bodies, as well as climate change and environmental practitioners. Although ambitious, this may allow for more effective coordination among sectors for nutrition outcomes, and in the past 18 months the ministerial partners involved have engaged in order to plan and streamline the policy prior to implementation. However, specific areas where this policy still lacks include: 1) promoting diversification of agricultural production, 2) improving processing to retain nutritional value of foods and 3) improvement of storage of nutrient-rich foods. These gaps along with stakeholder comments still indicate misunderstanding of the importance of nutrient density and dietary diversity. This policy as it unfolds in programmes need to be followed as it has great potential as evaluated according to The Guiding Principles of making Agriculture work for Nutrition.

Following the acceptance of the draft Food Security and Nutrition Policy for South Africa, **programmes** should now be developed to build clear evidence of the **link between agriculture and nutrition**. These programmes and **projects** need to sufficiently articulate how the evidence base and lessons learned from the projects will contribute to other interventions to inform policy. Projects like these could be designed and studied as potential models for greater nutritional impact, i.e. how to make it work, extent of impact etc. Agricultural programs linked to measured nutritional outcomes as **mechanisms**, include those linked to:

1. Improved agricultural growth and development (such as vitamin A rich vegetable gardens of the ARC)
 - Rural and community household food production such as home gardens e.g. the Ndunakazi project of the MRC
 - Agricultural commodity development, including animal husbandry/livestock, aquaculture/fisheries, dairy and cultivation
 - Sustainable resource management
2. Increasing the production of nutritious* foods e.g.:



- Agrobiodiversity contributing to dietary diversification - mix of different crops (e.g. fruits and vegetables and livestock)
 - Traditional/indigenous/local foods
 - Biofortification (crop breeding) including orange fleshed sweet potatoes, brown sorghum, yellow maize, cassava, rice, pearl millet, legumes and beans
 - Aquaculture technology development
- *Nutritious, or nutrient-rich, foods are foods with a high nutrient content. They include animal-source foods (fish, meat, eggs, and dairy products), fruits and vegetables, and traditional local crops (including neglected and underutilized species and wild foods) (Hawkes et al., 2012)
3. Focus on value chains - making nutritious foods more available and specifically to vulnerable groups such as children and women, e.g.:
 - School-based nutrition programmes such as SEED
 - School feeding programmes such as the National School Nutrition Programme (NSNP)
 - Alternative marketing and retail channels such as Harvest for Hope providing more fruits and vegetables through an alternative food supply chain
 - Food price monitoring such as the pre-determined food basket of the NAMC which serves as a database to demonstrate food price trends – could be more aligned with the FBDG
 - Tax incentives – tax exemption on basic food stuffs
 - Food fortification – up scaling current levels
 4. Other entry points (adopted from McLachlan et al., 2013)
 - Linking small-scale food production and nutrition education
 - Strengthening initiatives that combine low external input farming and nutritional education (Such as the vitamin A rich vegetable gardens of the ARC)
 - Strengthening alternative marketing channels and local food economies
 - Including different commodity chains in food price monitoring

Advocacy is a critical element of any effort to raise the policy profile and social consensus for nutrition. Placing nutrition outcomes high on the agenda of agriculture and the food system, requires strong leadership (**champions for nutrition and food security**) with a multi-dimensional understanding. The outcome of this would be firstly to improve the quality and affordability of food available in South Africa by means of intersectoral collaborations to remove the silo effect. South Africa has a liberalized agriculture and food system with limited or no border controls and no controls on the behavior of farmers, traders, food companies and retailers in the food value chain. The health sector has brought in measures such as food labeling, trans fat reduction and salt reduction. Much needs to be done to align programmes across sectors towards the greater goal of improving population health and economic viability of the country. Secondly, influencing the ultimate discretionary food choices of consumers remains a significant challenge. A “whole of society” approach is imperative in dealing with malnutrition



given that NCD are caused or strongly influenced by behavioral, environmental, social and economic factors.

Government needs to invest in **scientific evidence** such as to conduct baseline surveys and, undertake formative research; develop community awareness; achieve behaviour change, and conduct regular monitoring and evaluation, as well as document findings and lessons learned. Organisational arrangements allowing for shared resources, responsibility, accountability and decision making with incentives for collaboration will have to be put in place. DAFF has signed MOU's with 4 universities to support capacity building in food security and to assist in gathering baseline information to align development, and will also be assisting as M&E partners (*stakeholder comment*).

A clear link between putting nutrition into agriculture is now made with the new Food Security and Nutrition Policy being drafted, but still only anthropometry and hunger will be reported upon. It is therefore imperative that if agriculture and the food system be used as pathways to deliver better nutritional products, the **technical expertise** will have to be put in place. Sufficient skilled human and financial resources will have to be allocated, as well as working effectively with a multi-disciplinary team to deliver measurable outcomes to find both direct and longer-term solutions. With our increased economic growth the South African agricultural sector is becoming less of a provider of food for direct consumption, to more a supplier of raw ingredients to the food industry. The post-harvest value chain of the food system is this becoming more important. Policy action to incentivize, regulate and educate the food industry and to encourage consumers to make more nutritious choices is currently limited and needs to be further explored. Therefore, building strategic and operational capacity in nutrition at different levels and within different cadres (national and provincial) is vital to build partnerships and tackle issues as they arise (Harris & Drimie, 2012).

These measures must be integrated into **monitoring and evaluation** systems of nutrition-related projects to assess any reasonable degree of impact on nutrition outcomes, using assessments that take into account nutrition considerations. These measures should be monitored continuously and cut-off values for differentiating between severity of for instance food security within local context should be determined.

South Africa has a great need for more regular extensive national food consumption surveys and related **information** systems to guide agricultural programmes and consumer education. For instance: Nutrient composition of local foods requires more attention as it adapts to the changing environment and consumer requirements. This should be complemented with nutrient and dietary intake studies to provide the essential coordinates for food security and nutrition assessments (including food balance sheets, household and dietary surveys) and critically informs food security indicators. Insufficient capacities have been built to generate new data and support the classification and management of the data to inform education. An information system on food security and nutrition should be developed and populated with national, accurate and reliable information.

Much needs to be done to raise **awareness** both within government and civil society of the contribution that agriculture and food-system make to nutrition outcomes. Introducing evidence



based interventions and campaigns through the media and other information and education mechanisms to increase nutrition literacy amongst South African consumers are recommended. Nutrition education and behavioural change are very much at the core of this work. There is often the assumption in the agricultural sector that increased food production will resolve nutrition concerns without understanding sufficiently how this production should diversify to address malnutrition and micronutrient deficiencies of the target population.

Nutrition-sensitive agriculture is a holistic approach to ensure food security in the long term as the main actors of agriculture themselves, after providing them with the needed production systems, education and knowledge, should not only prevent South Africa from malnutrition, but also ensure a certain long lasting livelihood of our population. Good nutrition, an adequate well-balanced diet combined with regular physical activity, is a cornerstone of good health. Agriculture, the science of farming, provides us with the food and fibers we need. However, the trade-offs between production and income generation and the food system (the life cycle of the food, including once produced, processing, distribution, consumption and waste management) in a free market dispensation versus nutrient delivery from farm to fork remains the challenge.

This review is a snap shot of South African policy analysis and the current debate on the nutrition impact of the food system at this moment in time and will need to be updated for ICN2 to be relevant.



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9. Annexes

Annex 1: Summary of the policies, frameworks and programmes evaluated

National Strategic Frameworks	All objectives/deliverables of national strategic frameworks	Nutrition, food security, agriculture					
		Priority Areas / Mission	Outcomes related to nutrition, food security or agriculture	Programmes / Policies	Nutrition indicators	M&E information	Terminology used (List terms used)
Presidential Medium Term Strategic Framework (MTSF) 2009 - 2014	Halve poverty and unemployment Ensure a more equitable distribution of the benefits of economic growth and reduce inequality Improve the nation's health profile and skills base and ensure universal access to basic services Improved the safety of citizens by reducing incidents of crime and corruption Build a nation free of all forms of racism, sexism, tribalism and xenophobia	More inclusive economic growth Economic and social infrastructure Rural development, food security and land reform Access to quality education Improved healthcare Cohesive and sustainable communities Sustainable Resource management and use A developmental state including improvement of public services	Outcome 2: A long and healthy life for all South Africans. Outcome 7: Vibrant, equitable and sustainable rural communities and food security for all. Outcome 10: Environmental assets and natural resources that are well protected and continually enhanced	Stimulate agricultural production with a view to contributing to food security Rural livelihoods and food security: the Ilima/Letsema Campaign (Agricultural starter packs) to enhance household food security Framework response on climate change mitigation and adaptation System for environmental impact management Water for Growth and Development Strategy	-	-	Food security
Department of Performance Monitoring and Evaluation 2013/14 - 2015/16	Improving policy or programme performance - providing feedback to managers; Improving accountability for where public spending is going and the difference it is making; Improving decision-making on what is working or not-working; Increasing knowledge about what works and what does not with regards to a public policy, plan, programme, or project.	Cabinet approved the second National Evaluation Plan on 21 November 2012. One evaluation is now complete (on Early Childhood Development), the 2012/13 Plan is currently underway, with 8 evaluations while the 2013/14 Plan has 15 evaluations. This means that important programmes will be evaluated around agriculture and rural development (eg Land Restitution, Comprehensive Rural Development Programme), employment (such as Business Process Outsourcing, Export Marketing Assistance), children (Early Childhood Development, Nutrition, Grade R, School Nutrition Programme etc).	Impact Evaluation of the Comprehensive Agricultural Support Programme (CASP) (2013/2014) Impact Evaluation of Ilima-Letsema Programme (2014/2015) Policy evaluation of small farmer support (2014/2015) Impact Evaluation of Land Care (2015/2016)	National Evaluation Plan 2013-14 to 2015-16	-	-	Food security
Department of Agriculture, Forestry and Fisheries (DAFF) Strategic Plan 2012/13 - 2016/17	Administration Agricultural Production, Health and Food Safety Food Security and Agrarian Reform Economic Development, Trade and Marketing Forestry and Natural Resources Management Fisheries Management	Economic growth Job creation Rural development Sustainable use of natural resources Food security	Coordinate government Food Security Objective Generate Food Security Bill Integrated Growth and Development Plan (IGDP) for Agriculture	Integrated Food Security Strategy (IFSS) - Zero Hunger Programme (Sustainable Households Food Security Programme, The Strategic Plan for Smallholder Producers, The Aquaculture Programme, Agro-processing Strategic Framework, Comprehensive Agricultural Support Programme, Ilima Letsema, LandCare programme, Micro-Agricultural Financial Institutions of South Africa)	Energy intake % of population malnourished (Dept of Health) Stunting, Wasting Mothers & children receiving nutrition training	Inadequate access to food	Nutrition security Food security



<p>Department of Agriculture, Forestry and Fisheries (DAFF) Food Security and Nutrition Policy (Version 3) - May 2013</p>		<p>Strategic goal of the Food Security and Nutrition Policy is to ensure the availability, accessibility and affordability of safe and nutritious food at national and household levels</p>	<p>Food assistance to ensure access by all Enhanced nutrition security of all citizens Optimization of agriculture and land reform's contribution to economy of the vulnerable groups Agricultural trade and the participation of the emerging agriculture sector Centralized food safety control system Food security risk management</p>	<p>-</p>	<p>The anthropomorphic measurement will be the key indicator and the hunger indices will be a proxy indicator</p>	<p>Institutional framework for implementation, monitoring and evaluation More regular extensive national food consumption surveys needs to be conducted to properly monitor nutrition security of the country</p>	<p>Nutrition security Food security</p>
<p>Department of Health Strategic Plan 2010/11 - 2012/13 Strategic Plan for Maternal, Newborn, Child and Women's Health (MNCWH) and Nutrition in South Africa 2012 - 2016</p>	<p>Increase life expectancy at birth Reduce child mortality Decrease maternal mortality ratio Reduce HIV Incidence Expand PMTCT Programme Improve TB case finding Improved access to antiretroviral for HIV-TB co-infected patients Decrease prevalence of MDR-TB Improved physical infrastructure for healthcare delivery Improved patient care and satisfaction accreditation of health facilities for quality Enhanced operational management of health facilities Improved access to human resources Improved healthcare financing Strengthen Health Information System Improved health services for youths Expand access to home based care and community health workers</p>	<p>Provision of strategic leadership and creation of social compact for better health outcomes Implementation of National Health Insurance Improving the quality of health services Overhauling the health care system and improving management Improved human resource planning, development and management Revitalization of physical infrastructure Accelerate implementation of the HIV/AIDS strategic plan and the increased focus on TB and other communicable diseases Mass mobilization for the better health for the population Review the drug policy Strengthen research and development</p>	<p>Increase life expectancy Decreasing maternal and child mortality</p>	<p>Integrated Nutrition Programme / Integrated Nutrition Strategy 2002 - 2007 Roadmap to Health 2013 - 2017 Regulatory Nutrition Fortification -Food labelling and advertising legislation -Salt iodisation -Salt reduction regulations -Regulations on Trans Fats in food Food-Based Dietary Guidelines Nutrient Profile Model Other regulatory environment -GMO</p>	<p>Prevalence of wasting and stunting among children and underweight for age among children under 6 Number of districts implementing INP Number of districts that has strategies that promote community-based growth monitoring Number of facilities and community-based projects that provides nutrition interventions for malnourished children Number of districts with intersectoral plans to tackle the issues of poverty and poor nutrition Legislation to ensure food fortification promulgated Proportion of stunted children below age five (< 2yrs and 2-5yrs) Proportion of wasted children below age five (< 2yrs and 2-5yrs) Proportion of women in reproductive age with Hb<11 g/dL Incidence of low birth weight Proportion of overweight children below age five (< 2yrs and 2-5yrs) Proportion of population below minimum level of dietary energy consumption Exclusive breastfeeding Proportion of children 6-23 months who receive a minimum acceptable diet Proportion of People Living with HIV nutritionally assessed using anthropometric measurement that were found to be undernourished and provided with nutritional support at any point during the reporting period.</p>	<p>- Comprehensive monitoring and evaluation plan will be developed to monitor the implementation of nutritional interventions</p>	<p>Food Security Food and nutrition needs Nutrition Nutrition security Food security</p>



<p>Department of Rural Development and Land Reform Strategic Plan 2011 - 2014</p>	<p>Sustainable agrarian reform with thriving farming sector Improved access to affordable and diverse food Improved support services to support livelihoods Rural job creation and promoting economic livelihoods Enabling institutional environment for sustainable and inclusive growth</p>	<p>To initiate, facilitate, coordinate, catalyse and implement an integrated rural development programme</p>	<p>Strategic Output 2: Food Security for all - Reduction in poverty levels in the rural communities and improved nutrition levels of children</p>	<p>Programme 3: Rural Development - with the following strategic goals: Sustainable Agrarian reform; Improved food production; Improved rural livelihoods (Establish food gardens to establish household food security; Recapitalization and development support provided to black farmers, rural communities and land reform beneficiaries by 2014)</p>	<p>Hunger and malnutrition in rural areas</p>	<p>Compliance with relevant legislation governing the management of the public sector</p>	<p>Nutrition Food security/insecurity</p>
<p>Department of Basic Education Strategic Plan 2011 - 2014</p>	<p>Output 1: Improve the quality of teaching and learning. Output 2: Undertake regular assessment to track progress. Output 3: Improve early childhood development. Output 4: Ensure a credible outcomes-focused planning and accountability system</p>	<p>To provide nutritious meals to targeted learners. To promote and support food production and improve food security in school communities To strengthen nutrition education in schools and communities</p>	<p>-</p>	<p>National School Nutrition Programme (NSNP)</p>	<p>Numbers of learners that are fed.</p>	<p>-</p>	<p>Nutrition Food security</p>
<p>Department of Trade and Industry Medium Term Strategic Plan 2011 - 2014</p>	<p>Facilitate transformation of the economy to promote industrial development, investment, competitiveness and employment creation Build mutually-beneficial regional and global relations to advance South Africa's trade, industrial policy and economic development objectives Facilitate broad-based economic participation through targeted interventions, to achieve more inclusive growth Create a fair regulatory environment that enables investment, trade and enterprise development in an equitable and socially responsible manner Promote a professional, competitive and customer-focused working environment that ensures effective and efficient service delivery</p>	<p>-</p>	<p>-</p>	<p>-</p>	<p>-</p>	<p>-</p>	<p>-</p>
<p>Department of Science and Technology Corporate Strategy 2009/10</p>	<p>develop the innovation capacity of the science system and thereby contribute to socio-economic development; develop South Africa's knowledge-generation capacity; develop appropriate human capital for research, development and innovation (RDI); build world-class RDI infrastructure; and position South Africa as a strategic international RDI partner and destination;</p>	<p>-</p>	<p>Develop sector programmes for agriculture</p>	<p>-</p>	<p>-</p>	<p>-</p>	<p>-</p>
<p>Department of Labour Strategic Plan 2012 - 2017</p>	<p>Implementation of Decent Work Country Programme Rebuilding Public Employment Services Strengthening of the Department of Labour's inspectorate Strengthening social security including reintegration of workers into the labour market Give value to social dialogue in the formulation of sound and responsive legislation and policies Strengthen the institutional capacity of the Department</p>	<p>Protecting vulnerable workers in agriculture</p>	<p>-</p>	<p>-</p>	<p>-</p>	<p>-</p>	<p>-</p>



<p>Department of Social Development Strategic Plan 2010 - 2015</p>	<p>Caring for and protecting vulnerable groups, especially children, women, and people with disabilities. Strengthening families and communities. Transforming social relations, with a specific focus on gender and victim empowerment. Providing comprehensive social security, including income support, and a safety net for the destitute. Strengthening institutional capacity to deliver quality services. Reinforcing participation in key bilateral and multilateral initiatives that contribute to poverty eradication.</p>	<p>-Caring for and protecting vulnerable groups, especially children, women, and people with disabilities. -Strengthening families and communities. -Transforming social relations, with a specific focus on gender and victim empowerment. -Providing comprehensive social security, including income support, and a safety net for the destitute. -Strengthening institutional capacity to deliver quality services. -Reinforcing participation in key bilateral and multilateral initiatives that contribute to poverty eradication.</p>	<p>Social assistance - Sustainable rural communities and food security Appeals Tribunal - Vibrant, equitable sustainable rural communities contributing towards food security for all Sustainable Livelihoods: develops and provides support for the implementation of programmes, strategies and tools for sustainable livelihoods, and manages service delivery partners. National Development Agency: provides grants to civil society obligations to implement sustainable community-driven projects that address food security, and create employment and income opportunities.</p>	<p>Program 2: Comprehensive Social Security - Social Assistance Program 4: Community development - Sustainable Livelihoods (Food Banks) Program 5: Strategy and Governance -To address and reduce poverty</p>	<p>Sustainable rural communities and food security Reduce poverty by establishing community food banks To enhance sustainable human development by promoting equilibrium between population trends, environment and development in local areas</p>	<p>-</p>	<p>Nutrition Food Security</p>
<p>Department of Water Affairs Strategic 2013/14 - 2017/18</p>	<p>Equitable and sustainable provisioning of water Provision of equitable and sustainable water services of acceptable quantity and quality Protection of freshwater ecosystems</p>	<p>-</p>	<p>Water related policies and legislation which are critical in delivering on the right of access to sufficient food and water, transforming the economy and eradicating poverty</p>	<p>Water for Growth and Development (WfGD) framework</p>	<p>Small-scale irrigation for household community level food security (food plots) Food production in home gardens</p>	<p>-</p>	<p>Food Security</p>
<p>Department of Human Settlements</p>	<p>Sustainable human settlements Improved quality of household life</p>	<p>-</p>		<p>Farm Residents programme</p>	<p>-</p>	<p>-</p>	<p>-</p>



Annex 2: List of persons interviewed

Dr Lucia Anelich, International Life Sciences Institute (ILSI), South Africa

Dr Scott Drimie, University of Stellenbosch

Dr Simela Langa, National Emergent Red Meat Producers Organisation (NERPO)

Dr Sizwe Mkhize, Deputy Director-General: Food Security and Agrarian Reform, Department of Agriculture, Forestry and Fisheries

Dr Zubisiso Dlamini, CD: Food Security. Department of Agriculture, Forestry and Fisheries

Mr Sibongiseni Ndimande, D: Subsistence Farming. Department of Agriculture, Forestry and Fisheries

Dr Sonja Venter, Agricultural Research Council

Dr Tobais Takavarasha, FAO representative, South Africa

Mr Andile Maxwell Hawes, Deputy Director-General: Policy Planning and Monitoring and Evaluation, Department of Agriculture, Forestry and Fisheries

Mr Daniel Matlala, Department of Health

Mr Dries Pretorius, Department of Health (retired)

Mr Lot Mlati, FAO representative, South Africa

Mr Neil Erasmus, Department of Agriculture, Forestry and Fisheries

Mr Owen Frisby, South African Association for Food Science and Technology. (SAAFoST)

Mr Winston Makabanyane, Department of Agriculture, Forestry and Fisheries

Ms Bibi Giyose, The New Partnership for Africa's Development (NEPAD)

Ms Boitshoko Ntshebele, Department of Agriculture, Forestry and Fisheries

Ms Lynn Moeng, Department of Health

Ms Mary Anne Groepe, WHO representative, South Africa

Ms Noncedo Vutula, Department of Agriculture, Forestry and Fisheries

Ms Yolandé van der Riet, Consumer Goods Council of South Africa (CGCSA)

Prof Demetre Labadarios, Human Sciences Research Council

Prof Edward Webb, University of Pretoria

Prof Luc d'Haese, Ghent University, Belgium

Prof Mohammad Karaan, National Planning Commission

Prof Nic Olivier, University of Pretoria

Prof Nick Vink, University of Stellenbosch

Prof Sheryl Hendriks, University of Pretoria

Prof Wilna Oldewagen-Theron, Vaal University of Technology



Annex 3: List of Acronyms

ACB- Agricultural Credit Board
AEASA- Agricultural Economics Association of South Africa
AIDS- Acquired Immune Deficiency Syndrome
AMPS- All Media and Product Survey
ANA- Antinuclear Antibody Test
ANC- African National Congress
ARC- Agricultural Research Council
ARV- Antiretroviral
BFAP- Bureau of Food and Agricultural Policy
CASP- Comprehensive Agricultural Support Programme
CBO- Congressional Budget Office
CGTA- Co-operative Governance and Traditional Affairs
CLA- Conjugated Linoleic Acid
CRDP- Comprehensive Rural Development Programme
DAFF- Department of Agriculture Forestry and Fishery
DBE- Department of Basic Education
DBE- Department of Education
DfID- Department of International Development
DLA- Department of Rural Development and Land Reform
DoE- Department of Education
DPME- Department of Performance Monitoring and Evaluation
DPW- Department of Public Works
DPW- Department of Public Works
DPW- Department of Public Works
DSC- Department of Correctional Service
DSD- Department of Social Development
DSD- Department of Social Development
DST- Department of Science and Technology
DST- Department of Science and Technology
DTI- Department of Trade and Industry
DWA- Department of Water Affairs
EDD- Economic Development Department
EHP- Environmental Health Practitioners
FAO- Food and Agricultural Council



FET- Further Education and Training
FOSAD- Forum of South African Director Generals
FPMC- Food Pricing Monitoring Committee
FSANZ- Food Standards Australia and New Zealand
GAIN- Global Alliance on Improved Nutrition
GDP- Gross Domestic Product
GEAR- Growth Employment and Redistribution
GEIS- General Export Incentive Scheme
GER- Gross Enrolment Rate
GM- Genetically Modified
GMO- Genetically Modified Organisms
GPI- Gender Parity Index
HDACC- Health Data Advisory and Co-ordination Committee
HFBNP- Health Facilities Based Nutrition Programme
HIV- Human Immune Virus
IDD- Iodine Deficiency Syndrome
IDP- Integrated Development Plan
IDRC- International Development Research Centre
IFAD- International Fund for Agricultural Development
IFSS- Integrated Food Security Strategy
IGDP- Integrated Growth and Development Plan
INP- Integrated Nutrition Programme
INS- Integrated Nutrition Strategy
IPAP- Industrial Policy Action Plan
LARP- Land and Agrarian Reform
LED- Local Economic Development
LRAD- Land Redistribution for Agricultural Development Programme
M&E- Monitoring and Evaluation
MAFISA- Micro Agricultural Financial Institutional Scheme of South Africa
MDG- Millennium Development Goals
MERC- Marketing and Economic Research Centre
MRC- Medical Research Council
MTSF- Medium Term Strategic Framework
MTSF- Medium term Strategic Framework
NAMC- National Agricultural Marketing Council
NAMC- National Agricultural Marketing Council



NCD- Non-Communicable Diseases
NDP- National Development Plan
NFCS- National Food Consumption Survey
NGO- Non-Government Organisation
NGP- New Economic Growth Path
NIDS- National Income Dynamics
NIPF- National Industrial policy Framework
NLP- National Land Care Programme
NPO- Non- Profit Organisations
NSC- National Senior Certificate
NSDA- Negotiated Service Delivery Agreement
NSDA- Negotiated Service Delivery Agreement
NSNP- National School Nutrition Programme
NSP- Nutrition Supplement Programme
NSSA- Nutrition Society of South Africa
PEM- Protein Energy Malnutrition
PICC- Presidential Infrastructure Coordination Commission
PPP- Public Private Partnership
PSNP- Primary School Nutrition Programme
RDD- Reconstruction and Development Programme
RECAP- Recapitalisation and Development programme
RSA- Republic of South Africa
SAAFOST- South African Association for Food Science and Technology
SADC- South Africa Development Community
SADHS- South African Demographic and Health Survey
SAFDAG- South African Data Advisory Group
SAFOODS- South African Food Data System
SAPS- South African Police Services
SARS- South African Revenue Service
SASAS- South African Social Attitude Survey
SAVACG- South African Vitamin A Survey
SET- Science Engineering & Technology
SIDA- Swedish International Cooperative Agency
SME's- Small and Medium Enterprises
SPFS- Special Programme for Food Security Projects
TB- Tuberculosis



UNICEF- United Nations Children Fund

UNSCN- United Nations Standing Committee on Nutrition

USAID- United States Agency for International Development

VA- Vaccenic Acid

VAT- Value Added Tax

WHO- World Health Organisation



Annex 4: Terms Of Reference

COUNTRY POLICY ANALYSIS

NUTRITION IMPACT OF FOOD SYSTEMS

VERSION 21 MARCH 2013, REVISED

Background

The agriculture and food systems are best placed to influence food production and the consumption patterns of nutritious foods necessary for a healthy and active life. The present agricultural and food systems have evolved to become more complex and global with longer supply chains from farm to fork. Nutrition-sensitive agriculture aims to maximize the impact of the food and agricultural sector on nutrition outcomes while minimizing any unintended negative nutritional consequences of agricultural policies and interventions on the consumer. It is placing a nutrition lens on the food and agricultural sector, without detracting from the sector's own goals which include production, productivity and income.

There is increasing attention to addressing the multiple forms of malnutrition (undernutrition, micronutrient deficiencies, and overweight and obesity) through agriculture and the food system. Important initiatives include the Scaling Up Nutrition (SUN) Movement, with attention to multi-sectoral development action, the Zero Hunger Challenge launched by the UN Secretary General to end hunger and malnutrition within our lifetimes, the development of country CAADP plans (Comprehensive African Agriculture Development Programme) that include nutrition in Pillar 3 (Food Supply and Hunger), the CGIAR research program (CRP-4) on Agriculture for Improved Nutrition and Health (A4NH), and the mainstreaming of nutrition as an FAO corporate priority. In addition, several development partners are developing agriculture-nutrition guidance and tools.

Applying a nutrition lens to agriculture and food systems should include a consistent focus on nutritional outcomes and indicators within national food and agricultural policies and programmes, and the broader macroeconomic policies and development strategies. The aim should be to improve food and nutrition security and combat the multiple burden of malnutrition through food and agriculture, and other relevant sectors. Although there is wide agreement on the great potential for agriculture and the food system to improve nutrition, at present there are limited experiences with this approach at scale and insufficient existence of rigorously supported evidence-based technical recommendations to inform policy makers.

Therefore, there is a need to better understand how agricultural and food systems impact nutrition outcomes. There is need to identify whether and how these systems can be modified to better meet nutrition goals in a sustainable way and reduce the risk of the multiple burden of malnutrition, including diet-related non communicable diseases (NCDs). There is an urgent



need to provide practical answers and guidance for countries on the “what to do?” and “how to do it?” questions.

A number of countries have started to link their national agriculture or food and nutrition security policies to nutrition related outcomes and the multiple burden of malnutrition. These countries refer to the multiple underlying causes of malnutrition in broad areas such as agriculture, food security, food supply as well as various stages along the value chain. Some country strategies take account of the multi-sectoral nature of nutrition. Eight countries¹ have been selected for in-depth review of specific ways how food and agricultural policies are having or are intended to have an impact on nutrition in that country.

These eight countries reflect different stages of the nutrition transition. In view of the multiple burden of malnutrition - hunger and undernutrition are common, especially among children, while the incidence of overweight, obesity and nutrition-related NCDs are increasingly occurring among adults- the case studies are looking at both sides of the malnutrition problem.

Specific thematic areas will be assigned to each of the country’s study, such as related to the food supply chain as well as to food and agricultural and trade policies, and their potential link to nutrition and health outcomes in the country. For these the more detailed specifications and analysis frameworks will be elaborated with a group of experts during the Meeting of the Minds in Geneva, 25-28 March 2013.

These TORs refer to the country case study in **South Africa**

Objective

The descriptive review of food and agricultural policies in **South Africa** will contribute to advance the discussion on nutrition-sensitive agriculture. The study will provide answers to some of the emerging questions on:

- the specific nature and range of policies and other actions to improve nutrition through food and agriculture (for various populations and geographies), including the characteristics of the system, at what point these policies and other actions engage with the food and agricultural system, and how; through what actors and institutions; and with what known or potential effects;
- the potential process and impact indicators related to actions that enhance the impact of food and agriculture on nutrition and methods of measuring both;

¹ Brazil, Thailand, Nepal, Mozambique, South Africa, Malawi, Sierra Leone and Senegal.



- key knowledge gaps in the relationship between the shape and operation of food and agricultural system and nutrition.

Description of the assignment

- i) The consultant will participate in the preparatory Meeting of the Minds that will take place in Geneva between 25 and 28 March 2013.
- ii) The consultant is responsible for conducting an in-depth review of specific aspects of the agriculture and food system and its potential impact on nutrition in the assigned country/countries.
- iii) The consultant will document all relevant information and analysis in a country report according to the provided template. One country report per assigned country will be delivered.
- iv) The consultant will contribute to the synthesis report.

For activities and timeline see below.

The in-depth review of specific aspects of the agriculture and food system and its potential impact on nutrition includes the following **study components**:

- Identify and describe actions (strategies, policies, programmes and investments) in agriculture and the food system that may have an impact on diet and nutrition.
- 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.
- 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.
- Describe policy processes and alignment, including alignment around common results frameworks and stakeholder participation.
- Identify factors contributing or impeding collaboration between relevant ministries.
- Identify applied language and terminology with regard to food and nutrition security and describe whether and how this reflects / or not reflects attention paid to nutrition when designing, planning and monitoring food security policies and programmes.
- Highlight 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.
- Identify information and knowledge needs and gaps that should be addressed through further study and suggest potential processes for monitoring and evaluation.



Method

The country analysis includes a **secondary data analysis, a literature review, snowballing interview approach, and a country visit to the assigned country/countries.**

The consultant will review the information from relevant country policy and programme documents to seek out relevant information on strategies, policies and investments in food and agriculture, their impact pathways on various nutritional outcome, direct and indirect ones, institutional capacities, stakeholder participation, alignment, cross-sectoral collaboration processes, and others.

The literature review will provide further insights and background information. The consultant will refer to and build on country papers developed in preparation for the International Conference on Nutrition (ICN2) as well as use data in existing databases or country profiles (e.g. the NLIS (WHO) or FAO country profiles, World Bank, UNDP).

The consultant will consult with national government focal points and experts in the specific sector areas using a predefined and country adapted **policy checklist and interview guide.**

These and the common methodological approach for the country study will have been elaborated and agreed upon during the preparatory Meeting of the Minds in Geneva 25-28 March 2013. This meeting will provide the detailed template for the studies, including a framework of analysis, list of research questions to be answered, and the agreed common methodological approach.

Country visit: The country visit will give opportunity for more in-depth interviews with national partners and experts. Potential partners to interview include: The government focal point, representatives from the Ministry of Planning, Ministry of Agriculture, Ministry of Health, national level SUN movement stakeholders, REACH facilitators and UN country teams (if applicable), international and local NGOs and CSOs, and donors in country including the donor convener (if applicable). According to the context this list is not exclusive.

The information and its analysis will be included in a final country report. For this report the agreed template will be used. The report will include the description of the methodology, of the relevant policy areas, an analysis of their sensitivity to nutrition, lessons learned and good practices, and recommendations for 'how to do nutrition-sensitive agriculture' and potentially 'how not to do it'. It will also include the timetable of the consultancy, the country visit and a list of people that were contacted and/or interviewed, a list of references and relevant policy documents.



Content of the final country report (a report template will be provided in annex 1)

- Description of the stage of dietary transition.
- Description of relevant actions (strategies, policies, programmes and investments) in agriculture and the food system that may have an impact on diet and nutrition.
- Analysis how they may affect nutrition (undernutrition, micronutrient deficiencies, obesity and overweight) and / or health (infections, other communicable diseases, non-communicable diseases) of different population groups.
- Documentation of the impact of such actions on diet/nutrition outcome variables or on logically related intermediate variables.
- Description of policy processes, stakeholder participation, stakeholder coordination mechanisms and model for collaboration between Ministries, like Ministry of Agriculture and Ministry of Health etc.
- Final appraisal of nutritional value of analyzed action. Lessons learned on ‘what to do’ and ‘how to do’ nutrition-sensitive agriculture, including technical considerations as well as issues relating to institutional capacity, policy processes and alignment, and stakeholder participation.
- Description of the identified need for more information and knowledge gaps that should be addressed through further study.
- Executive summary.
- Conclusions and recommendations.
- Annexes (will be specified, including:)
 - List of persons met and interviewed
 - List of references
 - Timeline of the consultancy

Activities and Timeline

The consultant’s tasks include:

Participate in meeting to develop approach and methods: 25-28 March 2013

37 working days within the period from 2 April until 24 May 2013

Carry out country study: 2 April – 24 May 2013

First draft of report: 24 May, latest on 27 May 2013

Comments received: 09 June 2013

Final draft of report: 14 June 2013



Qualifications

Great value is placed on the technical qualification and independence of the expert. Candidates should have the following basic and essential qualifications:

- Advanced University degree and relevant experience in nutrition; food security and agricultural sciences; food policy; or related fields
- Scientific publications in peer reviewed journals or relevant publications within the last ten years
- At least five years of country level experience (including in Africa) in linking nutrition to food and agriculture at policy, strategy, programme level
- Participation in national or international scientific bodies, committees, and other expert advisory bodies pertinent to the scope of this study is an asset
- Applicants must have excellent working knowledge of English; additionally knowledge of French or Portuguese is an asset.

Working language

The working language for this assignment is English.

Starting period and duration

The study is to start at the beginning of April 2013 and will take about 6-8 weeks, during which one country visit for further in-depth analysis of up to 2-3 weeks will be conducted.

Planning

The consultant will participate in the preparatory planning meeting from 25-28 March 2013 in Geneva

Location of assignment

The place of the assignment is the residence country of the consultant. In addition a country visit will be conducted, if the assigned country is different from the country of residence.

The following number of country-visit days are foreseen for this particular country:

To study is conducted in the country of residence of the consultant.



Reporting

All documents will be written in English and references well documented.

The final report will be delivered in English, and compiled following the agreed template.

Obligations:

To participate in the preparatory meeting in March 2013 in WHO Geneva

Give updates on the progress of work to the UNSCN Secretariat focal point: planning stage, mid-term update, end-term update.

In country: give feedback (also for verification) to relevant stakeholders that were contacted and were involved in the information collection process.



Annex 1

Outline of the Country Study Report

Will be elaborated in details during the meeting 25-28 March 2013

Annex 2

Meeting of the Minds, 25-28 March 2013

This meeting is by invitation only and you have been identified as an important stakeholder in the nutrition - agriculture – food security nexus arena. The UNSCN Secretariat, in close collaboration with WHO and FAO, therefore invites you to attend the Meeting of the Minds on Nutrition impact of agricultural policies taking place in the WHO Headquarters in Geneva from 25-28 March 2013.

The meeting comprises of 2 parts:

- PART I: 25-26 March: participants will discuss the nutritional impact of policies shaping the food systems of countries at different stages of the nutrition transition;
- PART II: 27-28 March: participants will advise on the development of frameworks that can be used to describe and analyse national policies in the area of agriculture, trade and related sectors using a value chain approach in selected countries at different stages of the nutrition transition.



ANNEX 5: COUNTRY POLICY ANALYSIS - THE NUTRITION IMPACT OF FOOD SYSTEMS

Major Activities	Sub-Activities	Deliverables	Notes	Start Date - End Deadline
1. Organize country analysis	Prepare schedule in collaboration with UNSCN Secretariat	Schedule Identify country team members	This will be done with reference to the UNSCN country case study guideline.	25/04/2013 – 06/05/2013
2. Define the scope of the case study in the country (together with country team and UNSCN Secretariat)	<ul style="list-style-type: none"> Identify country-specific priorities for the case study (policies/programmes, population groups, etc.) Define the specific goals of the case study and the value added for the country 	Brief note with the definition of the country-specific objectives and tasks List of relevant policies and programmes	Agree on objectives and country specific tasks in collaboration with the country team and the UNSCN secretariat support team.	25/04/2013 – 08/05/2013
3. Develop country-specific methodology for literature review, and the collection and analysis of primary qualitative data and secondary data that is available	<ul style="list-style-type: none"> Complete sampling framework and methodology for the data/information collection of the project Determine criteria for literature review for primary and grey literature Review sources of data collection Identify stakeholders for interviews 	Methodology and work plan	Follow the guidelines provided by the UNSCN These sources will support the writing of the introduction chapter of the report, and can also contain relevant information for the final chapter.	25/04/2013 – 08/05/2013



<p>4. Situation analysis:</p> <p>Country Nutrition Profile</p>	<ul style="list-style-type: none"> • Perform situation analyses <ol style="list-style-type: none"> 1. Describe the current nutrition - and the current agriculture situation in the country 2. Describe the current food system from food consumption to food supply, diets and stage of the nutrition transition in the country 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. • Develop interview guide 	<p>Literature review Country nutrition profile</p>	<p>Follow the guidelines provided by the UNSCN and adopted to the specific country</p>	<p>25/04/2013 – 22/05/2013</p>
<p>5. Situation analyses:</p> <p>Agriculture & food policy analysis</p>	<ul style="list-style-type: none"> • Describe the main policy frameworks of the current agriculture and food policies in the country and their main purpose(s). <ol style="list-style-type: none"> 1. 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) 2. The main purposes of these policies (e.g. export, employment, national food security etc.) • Conduct interviews 	<p>Literature review Country agriculture and food policy profile</p>		<p>30/04/2013 – 22/05/2013</p>
<p>6. Situation analysis:</p> <p>Describe nutrition within agriculture & food policies</p>	<ul style="list-style-type: none"> • Describe how nutrition is referred to in national food and agriculture documents: Which terminology with regard to Food and Nutrition Security is used in the policy framework documents; and which definitions are applied. • Conduct interviews 	<p>Database with policies and their application to nutrition</p>		<p>10/05/2013 - 30/05/2013</p>



7. Analyse agriculture and food policies to nutrient sensitivity	<ul style="list-style-type: none"> Analyse to what extent the specific agriculture and food policies and frameworks that currently exist are nutrition sensitive. Describe how far relevant actions of these nutrition-sensitive agriculture and food policies etc. are being implemented sufficiently 	Nutrition sensitivity analyses of country agricultural and food policies		20/05/2013 - 14/06/2013
8. Review of nutrition sensitive agriculture in country	<ul style="list-style-type: none"> Describe the major nutrition-sensitive agriculture/food programmes and projects 	Review of nutrition sensitive agriculture		20/05/2013 - 14/06/2013
9. Analyse national M&E Systems	<ul style="list-style-type: none"> Policy impact analyses Undertake a feedback session with key stakeholders 		Including representatives of all relevant all identified key stakeholders (ideally)	20/05/2013 - 14/06/2013
10. Compile final report	<ul style="list-style-type: none"> Complete report summarizing outcomes 	Draft report: 19/06/2013 Final report: 30/06/2013		01/05/2013 - 30/06/2013



United Nations
System

Standing Committee on
Nutrition

UNITED NATIONS SYSTEM

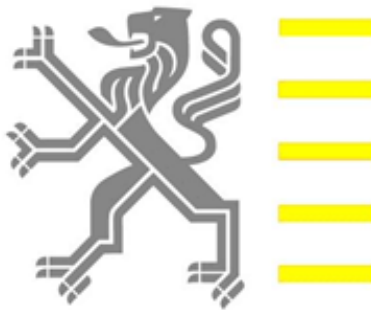
STANDING COMMITTEE ON NUTRITION

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

UNSCN

CHAIR: RAMIRO LOPES DA SILVA
C/O WORLD HEALTH ORGANIZATION
20 AVENUE APPIA, CH 1211 GENEVA 27
SWITZERLAND
TELEPHONE: +41-22 791 04 56
SCN@WHO.INT
WWW.UNSCN.ORG

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