REPUBLIC OF SOUTH AFRICA

THE GOVERNMENT OF
THE REPUBLIC OF SOUTH AFRICA

NATIONAL FOOD AND NUTRITION SECURITY PLAN FOR SOUTH AFRICA

2018-2023

VERSION: 07 NOVEMBER 2017

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ACRONYMS AND ABBREVIATIONS

AFF	Agriculture, Forestry and Fisheries
CASP	Comprehensive Agricultural Support Programme
CCHIP	Community Childhood Hunger Identification Project Index
CNDC	Community Nutrition Development Centre
CoGTA	Department of Co-operative Governance and Traditional Affairs
CRDP	Comprehensive Rural Development Programme
DAFF	Department of Agriculture, Forestry and Fisheries
DoH	Department of Health
DPME	Department of Planning, Monitoring and Evaluation
DSD	Department of Social Development
DRDLR	Department of Rural Development and Land Reform
DSBD	Department of Small Business Development
DST	Department of Science and Technology
DTI	Department of Trade and Industry
ECD	Early Childhood Development
ECDs	Early Childhood Development Centres
EPWP	Expanded Public Works Programme
FAO	Food and Agriculture Organization
FHI 360	Family Health International
GDP	Gross Domestic Product
GHI	Global Hunger Index
GHS	General Household Survey
GNP	Gross National Product
HIV/AIDS	Human Immune Virus / Acquired Immune Deficiency Syndrome
ICT	Information and Communications Technology
IGAP	Inter-Government Action Plan
INP	Integrated Nutrition Programme
IYCF	Infant and Young Child Feeding
MDGs	Millennium Development Goals
MIYCF	Maternal, Infant and Young Child Feeding
MNCWH&N	Maternal, New-born, Child and Women's Health and Nutrition
MTSF	Medium-Term Strategic Framework
NCD	Non-Communicable Diseases
NDMC	National Disaster Management Centre
NDP	National Development Plan
NFNS Plan	National Food and Nutrition Security Plan
NFNSP	National Food and Nutrition Security Plan
NGOs	Non-Governmental Organisations
NGP	New Growth Path
NPFNS	National Policy on Food and Nutrition Security
NSNP	National School Nutrition Programme
PLAS	Proactive Land Acquisition Strategy
SADC	Southern African Development Community
SADHS	South African Demographic and Health Survey
SA GAP	South African Good Agricultural Practices
SANHANES	South African National Health and Nutrition Examination Survey
SASSA	South Africa Social Security Agency
STATS SA	Statistics South Africa
SDGs	Sustainable Development Goals
UNICEF	United Nations Children's Fund

GLOSSARY OF TERMS

Agricultural land: Any land used for farming purposes, situated in the area of jurisdiction of a municipal council and classified as agricultural land when the first members of the council were elected.

Agri-Park model: A networked innovation system of agro-production, processing, logistics, marketing, training and extension services, located in district municipalities. As a network it enables a market-driven integration of various agricultural activities and rural transformation services.

Food accessibility: Refers to the ability of households to obtain sufficient food for all members at all times, either through production for own consumption, intra-household exchange and/or having an income to purchase, and availability of markets/outlets to access food.

Food availability: Determined by the total quantities of food available - including domestic food production and international importation - and efficiency of food distribution, and assessed in the light of the food requirements of the population.

Food chain: The systematic production and development of food from primary production to the point of consumption.

Food control: Mandatory regulatory enforcement by national and 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 safety and quality requirements, and are accurately labelled.

Food insecurity: Exists when people are undernourished due to unavailability of food, inability to access food, and/or improper utilisation of food.

Food security: A condition in which all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active healthy life.

Food utilisation: Refers to the body's utilisation of various nutrients in food. Sufficient energy and nutrient intake by individuals is the result of diversity of the diet, proper food handling and preparation practices, good child and health care practices, clean water and sanitation.

Food: Any substance consumed to provide nutritional support for the human body. It is usually of animal or plant origin and contains essential nutrients such as carbohydrates, fats, proteins, vitamins and minerals.

Household: One person or a group of people who occupy a common dwelling and who provide themselves jointly with food and other essentials for living.

Hunger: Recurrent involuntary lack of access to food.

Infant: A child from birth to 12 months of age.

Malnutrition: People are malnourished if their diet does not provide adequate nutrients for growth and maintenance, or if they are unable to fully utilise the food they eat due to illness (undernutrition). They are also malnourished if they consume too much energy (overnutrition) and are at risk of micronutrient deficiencies.

Risk of hunger: The limited or uncertain access to nutritious, adequate and safe foods, including involuntarily cutting back on meals or food portions, or not knowing the source of the next meal. Consistent access to adequate food is limited by a lack of money and other resources.

Social protection: All initiatives that: (1) provide income (cash) or consumption (food) transfers to the poor; (2) protect the vulnerable against livelihood risks; (3) "Enhance the social status and rights of the excluded and marginalised" (Devereux and Sabates-Wheeler, 2004, p.9).

Vulnerability: Refers to the full range of factors that place people at risk of becoming food insecure. The degree of vulnerability for an individual, household or group of persons is determined by their exposure to the risk factors and their ability to cope with or withstand stressful situations.

PREFACE TO THE NATIONAL FOOD AND NUTRITION SECURITY PLAN (NFNSP) 2018-2023

President Cyril Ramaphosa
President of the Republic of South Africa

The challenge of hunger, poverty and malnutrition in South Africa

The National Food and Nutrition Security Plan 2018-2023 embodies our collective response to the challenge of food insecurity and malnutrition. Over the two decades of democracy, multidimensional poverty, measured in terms of composite indicators for health, education, standard of living and economic activity, declined significantly, from 17,9% of the population in 2001 to 8% in 2011, and subsequently to 7% by 2016 [Stats SA, 2017]. This is largely attributed to the social wage that government provides to improve the quality of life of vulnerable households. This includes free basic services (water, electricity and sanitation), primary health care, no-fee paying schools, and provision of free housing (Stats SA, 2017). Nonetheless, the levels of poverty are still too high, relative to ou National Development Plan (NDP) targets for 2030. According to Stats SA, the proportion of the population living below the Lower Bound Poverty Line (LBPL) initially decreased steadily from 51% (24,2 million people) in 2006 to 47,6% (23,7 million people) in 2009 and subsequently to 36,4% (18,7 million people) in 2011. However, recent data reflects that the population living below the LBPL subsequently increased from 36,4% in 2011 to 40% in 2015 (21,9 million people). This is attributed to the fact that notwithstanding the social wage that government has provided to households, their financial well-being, measured through the money-metric poverty measures, declined between 2011 and 2015, due to a combination of international and domestic factors, such as stagnant economic growth (Stats SA, 2017). Government's social protection measures have also cushioned and provided a safety net for 17 million vulnerable people.

Why malnutrition matters

Malnutrition has devastating consequences for health, livelihoods and the economy as a whole. We know that 45% of the deaths of children under 3 are related to malnutrition. We also know that children who are stunted are less likely than their non-stunted counterparts to do well in school and gain employment, and if they do find work, will have lower wages. When they become mothers, stunted girls are more likely to give birth to malnourished babies. Adults who are diagnosed with obesity and diabetes are estimated to generate economic costs for their families that are the equivalent of 8-16% of their annual income. At the national level it is estimated that, for African countries on average, malnutrition depresses GDP by 11%.

In South Africa, the rate of stunting of children under 5 years of age has gone up from 24% in 2005, to 25% in 2012 and to 27% in 2016. This is evidenced by the South African National Health and Nutrition Examination Survey (SANHANES-1), published by the Human Sciences Research Council in 2013, and Stats SA's South Africa Demographic and Health Survey (SADHS) 2016. Levels of wasting

among children have increased slightly from 2,2% in 2012 to 3,3% in 2016. The SADHS 2016 found that a total of 67% of South African women aged 15 years and above were either obese or overweight. Female adult obesity in South Africa stood at 41% in 2016, a worsening trend from the 24,8% recorded in SANHANES-1. A total of 26,6% of women were obese in 2016, which reflects a decrease from 39% in 2012. Of concern is that South African women might have transitioned from being overweight to being obese. Levels of obesity among men aged 15 years and over remained at 11% in 2016, compared to 11,6% in 2012.

Making rapid advances in reducing hunger and malnutrition is possible

Malnutrition does not have to be destiny. There are many countries that are rapidly overcoming malnutrition, starting from positions much less favourable than South Africa's. For example, Ghana halved its stunting rate from 37% to 19% in 8 years. SADC-region countries which also performed well include Tanzania and Malawi, which have recently reported large decreases in stunting rates over a period of 7 years. These countries have raised the political and economic profile of nutrition: it has become a key development priority - not only a health outcome but a key input into the economic growth process. As the President of the African Development Bank put it recently, good nutrition provides the "grey matter infrastructure" that provides the innovation and entrepreneurship needed to supercharge South Africa's expected demographic dividend.

South Africa is committed to ending hunger and malnutrition

South Africa is committed to ending malnutrition and hunger by 2030 - as the new Sustainable Development Goals challenge all countries to do. We have over 50 programmes and initiatives which address food security and malnutrition. There have been successes as wasting and severe acute malnutrition rates have declined. Our social assistance programme witnessed its largest expansion yet, and almost 17 million people are benefiting from the programme. Twelve million of the grant recipients are recipients of the Child Support Grant (CSG) while more than 3.2 million receive the Old Age Grants. These and many other achievements bear testimony to our determination to create a fairer society. During 2015/16 Cabinet approved the Early Childhood Development (ECD) policy, which seeks to ensure universal access to ECD services and appropriate nutrition interventions for children in ECDs by 2030. The number of children enrolled in the more than 27 000 ECD centres has grown phenomenally, and almost 1 million children have been subsidised by the state. The National School Nutrition Programme (NSNP) reaches over 9 million learners among the poorer primary and secondary schools around the country. The school feeding programme alleviates short-term hunger, and thus improves concentration in class. Furthermore, it has the potential of increasing attendance and enrolment of children in schools, resulting in improved retention in the schooling system. Through implementation of the NSNP 2018-2023, it is anticipated these achievements will be enhanced, in particular to ensure that the learners receive adequate, safe and nutritious meals. As part of strengthening the Food and Nutrition Security Programme, government is now operating Food Distribution Centres linked to Community Nutrition and Development Centres (CNDCs) in Provinces, to meet the immediate nutritional needs of the most vulnerable and food insecure members of our society. Despite the large number of food and nutrition programmes, some forms of malnutrition continue to exist and grow. This requires us to redouble our efforts.

A beacon of hope

The National Food and Nutrition Security Plan 2018-2023 (NFNS Plan) is a beacon of hope. Over 24 years of democracy, our country has made significant strides towards surmounting the challenges of food insecurity and nutrition. However, external evaluations reflect that our

response to this challenge has been largely sectoral and separate, resulting in suboptimal impact levels. In 2013 Cabinet approved the National Policy on Food and Nutrition Security, the Household Food and Nutrition Security Strategy and the Fetsa Tlala Integrated Food Production Initiative. These policy frameworks are intended to streamline, harmonise and integrate the diverse food and nutrition security interventions in South Africa. In 2014, the Diagnostic/Implementation Evaluation of Nutrition Interventions for Children from Conception to Age 5 was undertaken by the Department of Performance Monitoring and Evaluation together with the Departments responsible for implementing the 18 nutrition interventions.

The purpose of this evaluation was to assess the implementation of 18 nutrition interventions implemented by South Africa to determine enabling and inhibiting factors for implementation, as well as the level of synergy among sector departments. The evaluation focused on the sufficiency of policy, leadership, resource allocation, management and oversight, and local-level service delivery. It found that South Africa had almost 60 policies, strategies, plans and programmes for addressing hunger and malnutrition, but lacked a single integrated national plan to achieve this goal. Positive findings of the evaluation included the fact that in South Africa, the right to food is entrenched in the Constitution, in Sections 27, 28 and 35. Also positive was the finding that South Africa has a good mix of health and nutrition policies which should address the immediate, basic, and underlying factors associated with poor nutrition. On the negative side, the evaluation found that South Africa has placed emphasis on food production but not nutrition or consumption of nutritious foods. It was further found that nutrition programmes have not been fully effective in reducing malnutrition because they focused primarily on providing food to the needy, and do not effectively address the underlying causes of malnutrition. The evaluation also found that compared to the 5 comparison countries, South Africa does not have a single or coherent strategy, policy or regulatory system to realise the right to food as set out in the Constitution, and to facilitate and ensure food security for all citizens. The National Food and Nutrition Security Plan notes that there are over 50 programmes that national government implements which address food insecurity and malnutrition. This plan serves as a coherent framework to harness all these efforts towards a common direction.

The collective and intersectoral interventions outlined in this document are game changers. A new National Food and Nutrition Security Council will be established to provide leadership and oversight for all efforts of government and society to enhance food security and good nutrition. This is significant. All the interventions outlined in this national plan, if implemented appropriately, will maximise the leverage we can obtain from acting in unison, across spheres of government, with our communities, and with our social and development partners.

The National Food and Nutrition Security Plan actions are guided by six strategic objectives, derived from an iterative consultative process as described in the plan, as well as directives from Cabinet, recommendations from the Diagnostic/Implementation Evaluation of Nutrition Interventions for Children from Conception to Age 5, and the best evidence in the scientific literature. The biggest game changer will be the assumption of responsibility for food and nutrition improvement at the highest levels of government and the development of processes to help leaders coordinate action and monitor progress, making adjustments as needed and being more accountable to the people on issues of food and nutrition security.

My gratitude goes to the Minister in the Presidency for Planning, Monitoring and Evaluation, Minister Jeff Radebe, for the immense political oversight and leadership he provided during the development of this plan, including his periodic reports to Cabinet.

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However, the real work starts now, with the earnest implementation of this plan, to improve the lives of our people.

President Cyril Ramaphosa
President of the Republic of South Africa
Date:

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CHAPTER 1: Executive Summary

1.1 Introduction

The National Food and Nutrition Strategic Plan (NFNSP) 2018-2023 describes how South Africa will combat the silent crisis of malnutrition and reverse its growth in the next 15 years.

1.2 Vision

The Vision of the NFNSP is: optimal food security and enhanced nutritional status for all South Africans.

1.3 Mission

The Mission is to significantly improve food security and reduce malnutrition in all its forms to afford South Africa's people opportunities to lead healthy and productive lives.

1.4 Goals

The Goal of the NFNSP is to implement a priority set of actions and establish the necessary institutional architecture to lead, coordinate, budget and monitor the implementation of these actions to deliver significant improvements in food and nutrition status by 2030.

Expectations for the impact of the NFNSP are guided by the findings of the Stats SA General Household Survey (2016) about the state of food security in South Africa, and the WHO 2025 global targets for six nutrition indicators. The NFNSP has set targets for 2023, rather than 2025, to accentuate the urgency of South Africa's response to food insecurity and malnutrition challenges.

The NFNSP 2018-2023 seeks to significantly improve food security and nutritional status. It therefore sets out impact targets covering interventions to address vulnerability to hunger; undernutrition and under overweight and obesity, which are at least as ambitious as the global targets and in some cases (e.g. stunting and exclusive breastfeeding rates) more ambitious. The selection of 17 indicators was inspired by three imperatives: (a) Key national goals to reduce poverty, inequality and unemployment, as set out in the National Development Plan 2030; (b) The six World Health Assembly indicators for nutrition1 and (c) Food security indicators from the General Household Survey.

Table 1: SMART impact targets for the NFNSP

Impact Indicators		Baseline	Target for 2023	Data Source
Reduced experience of hunger				
1	Percentage (%) of households vulnerable to hunger	11.8%	5.7%	General Household Survey (GHS) 2016
2	% of individuals vulnerable to hunger	13.4%	6.6%	GHS 2016
Additional indicators				
3	% of households experiencing hunger	New	TBD	GHS 2018
4	% of individuals experiencing hunger	New	TBD	GHS 2018
Decrease in months of food shortages among the poor, vulnerable and marginalised				
5	% of households with inadequate or severely inadequate access to food	22.3%	<10%	GHS 2016
6	% of individuals with inadequate or severely inadequate access to food	24.9%	<5%	GHS 2016
Additional indicators				
7	Number of months (and actual months) in which the household experienced food shortages	New	TBD	GHS 2018
Reduced prevalence of under-nutrition in children (acute)				
8	Wasting: Proportion of children below 5 years of age with height for weight <-2 Z-scores of the median WHO child growth standards	3% (increase from 2.2% in 2012, SANHANES-1, HSRC 2013)	<20% in 2020 <15% in 2023	SADHS 2016

Impact Indicators		Baseline	Target for 2023	Data Source
9	Stunting: Proportion of children below 5 years of age with height for age <-2 Z-scores of the median WHO child growth standards	27% (was 26,9% amongst children aged 1-3 years SANHANES-1, HSRC 2013)	<20% in 2020 <15% in 2023	SADHS 2016
Reduced prevalence of over-nutrition in children				
10	Overweight: Proportion of children less than 5 years of age with height for weight >+2 Z-scores of the median WHO child growth standards	13% in 2016 (decrease from 14% in 2012, SANHANES-1 2013)	No increase in child overweight by 2020, 10% reduction by 2022	SADHS
Reduced prevalence of Low Birth Weight				
11	Prevalence of infants born <2500g (%, proportion of total live births)	13% (117 510 of 901 652 live births)	30% reduction By 2023	DHIS
12	Prevalence of exclusive breastfeeding (%) at 6 months	32%	50% by 2023	SADHS 2016
Reduced prevalence of over-nutrition in adults (Women aged 15 years and above))				
Overweight: Women				
13	Body Mass Index (BMI): Weight in kilograms divided by the square of height in metres (kg/m2	26.6% in 2016 decreased from 39% in 2012 (women over 15 years and above)	10% reduction by 2020 15% reduction by 2023	SADHS 2016 SANHANES 2012

Impact Indicators		Baseline	Target for 2023	Data Source
Obesity: Women				
14	BMI	41% in 2016 worsened from 24.8% (women aged 15 years and above)	10% reduction by 2020 15% reduction by 2023	SADHS 2016 SANHANES 2012
Reduced prevalence of over-nutrition in adults (Men aged 15 years and above))				
Overweight: Men (aged 15 years and above)				
15	BMI	20.3% in 2016 (was 19,6% in 2012) (men aged 15 years and above)	10% reduction by 2020 15% reduction by 2023	SADHS 2016 SANHANES 2012
Obesity: Men (aged 15 years and above)				
16	BMI	11% in 2016 (was 11.6% in 2012)	10% reduction by 2020 15% reduction by 2023	SADHS 2016 SANHANES 2012
Reduced prevalence of Vitamin and Mineral Deficiencies				
17	Percentage (%) of women of reproductive age (16-35 years) who have a haemoglobin level of less than 11g/dl	23.1% (SANHANES 2013)	25% reduction by 2020 (to 17.3%) 50% reduction by 2023 (to 11.5%)	SADHS

1.5 What are the NFNS Plan's objectives?

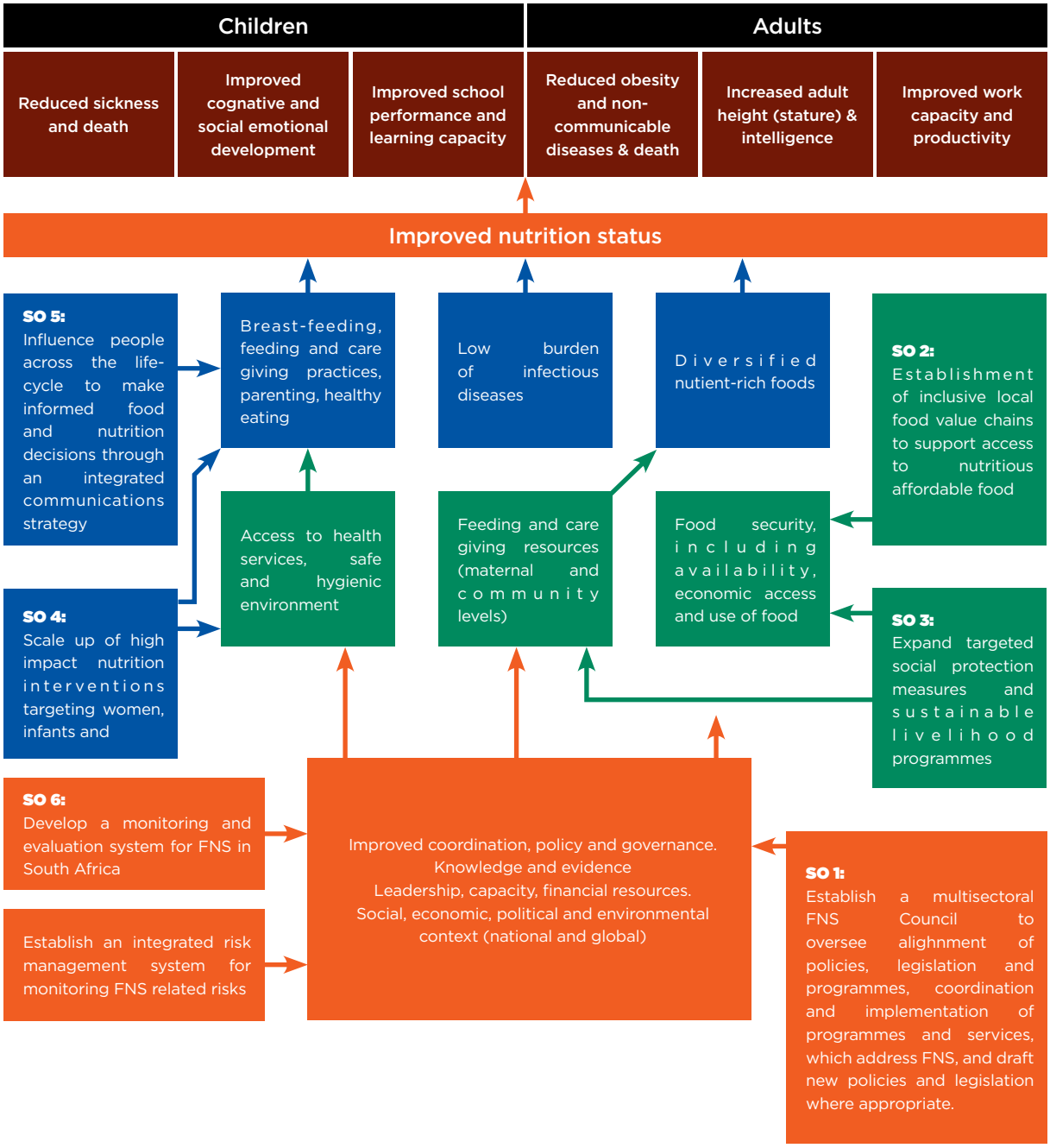
The NFNSP actions are guided by 6 strategic objectives derived from a consultative process. The plan also takes into account the recommendations from Cabinet; the Policy on Food and Nutrition Security, and the Diagnostic/Implementation Evaluation of Nutrition Interventions for Children from Conception to Age 5 (2014), which compared South Africa to Brazil, Colombia, Malaysia, Malawi and Mozambique. The six strategic objectives and their accompanying key interventions are summarised in Table 2.

Table 2: The Strategic Objectives of the NFNSP, their rationale, and key actions to achieve them

NFNSP Strategic Objective	Rationale	Key Action and what is different
1. Establish a multi-sectoral Food and Nutrition Security Council to oversee alignment of policies, coordination and implementation of programmes and services which address food and nutrition security	• All successful efforts to reduce malnutrition have a single leadership and governance structure for food security and nutrition. • A single national plan of action is essential. • Stakeholders in the civic and private sectors are critical stakeholders in the food system. It is important that the council engages with external stakeholders.	• Responsibility for food security and nutrition improvement at the highest political levels: national, provincial, district. Accountability of different departments, at each level, to one body.
2. Establish inclusive local food value-chains to support access to nutritious and affordable food.	• Access to nutritious, safe and affordable food is es-sential to reduce all forms of malnutrition. • The strategic intervention to stimulate markets for smallholder farmers will consider how local mar-kets (at municipal and dis-trict level) can be support-ed as a point of market ac-cess for smallholder farm-ers to sell produce directly to consumers. • Focusing on local food value chains increases employment opportunities and reduces dependence on imports. • The local food value chains have many other elements besides the smallholders - such as agro-processing, retail and waste - which determine whether people have access to food or not. • Commercial farmers are critical to ensuring household food security, and the plan must engage with the role of commercial farmers to ensure affordable • food production.	• Greater focus on raising the productivity of Smallholder Producers as a way of increasing local access to nutritious foods.

NFNSP Strategic Objective	Rationale	Key Action and what is different
3. Expand targeted social protection measures and sustainable livelihood programmes	• Social protection and sustainable livelihoods are essential for access to safe and nutritious food, safe water, sanitation and health care. • Enhanced livelihood assets are the basis for sustainable livelihoods, health and well-being.	• Promote early registration of children born in public health facilities, within the prescribed 30-day period. • Achieve a universal child grant registration for eligible children born in public facilities. • Integrate social protection registration with food and nutrition education. • Improve provision of nutritious meals to targeted learners in schools through the NSNP • (at least 3 food groups per meal).
4. Scale up high-impact nutrition interventions targeting women, infants and children	• There are a set of high- impact, nutrition-specific interventions targeting women, infants and children, which have improved nutrition outcomes globally. The coverage rates of these programmes in South Africa are low.	• Improve nutrition training and focus of community health workers and food handlers in community nutrition centres (ECDs, schools and CNDCs); increase availability of micronutrient supplements, deworming tablets and fortified porridge. • Improve advocacy around exclusive breastfeeding. • Improve ability of ECDs to address nutrition issues.
5. Influence people across the life cycle to make informed food and nutrition decisions through an integrated communications strategy	• The enabling environment for nutrition improvement needs to be stronger / more conducive.	• Better communication to improve consumer choices. • Better regulations to incentivise businesses towards food and nutrition security. • Better capacity for front- line workers.
6. Develop a monitoring and evaluation system for FNS, including an integrated risk- management system for monitoring FNS-related risks	• A simple, unified monitoring system needs to be established to guide action and hold stakeholders accountable. • Food and nutrition outcomes are sensitive to shocks related to weather, prices, • crop and animal diseases and conflict.	• Develop a unified system for tracking inputs and outcomes. The monitoring system should track food and nutrition status, but also indicators related to the other six strategic objectives. • Establishment of a risk register to guide action.

Figure 1: Logical framework of the NFNSP 2018-2023, showing the 6 Strategic Objectives, outcomes and impacts on children and adults



1.6 How will the NFNSP work?

The NFNSP will work through existing departments and agencies. There will be some new activities - such as more nutrition-focused training for community health workers; up-scaling of training for school-based stakeholders for the NSNP, ECD centres and CNDC, public works programmes that are nutrition sensitive, a focus on expanding the coverage of existing nutrition-specific programmes - and some potential game changers.

The biggest game changers will be the assumption of responsibility for nutrition improvement at the highest levels of government and the development of processes to help those leaders coordinate action and monitor progress, making adjustments as needed and being more accountable to the people.

1.7 Who will be accountable for progress?

At each level of government (National, Provincial and District) the NFNSP 2018-2023 recommends setting up a council for various key activities. These will include planning, coordination, mobilisation of resources for investment, and monitoring progress. In addition, Forums will be established at each level to engage with civil society and make the planning and reporting process as participatory as possible. Accountability for steering the NFNSP 2018-2023 towards success will lie with the Office of the Deputy President, the Provincial Premiers and District Mayors. Where provincial and local governments have mechanisms and institutions fulfilling the role of the proposed council, they should be allowed to leverage their existing structures.

1.8. What are the evidence and data gaps?

South Africa has a paucity of data on key food security and nutrition-related research. A number of key indicators are not routinely collected in South Africa. These include indices such as changes in stunting prevalence over time, by wealth quintile; adolescent and adult anthropometry (% population); overweight and obesity; and micronutrient status of population, including anaemia among children and women of reproductive age. Public research funding should be increasingly geared towards evaluating key components of the NFNSP. Researchers and policy makers together need to agree on research priority areas around health, nutrition, food security and social policy including ECD.

1.9 What will success look like?

The metrics of success are specified in detail in the main report and correspond to each of the strategic objectives. The process targets lead to the attainment of the 17 targets in Table 1. At a more basic level, success is reflected by a society-wide thirst for knowledge about the status, consequences and solutions to malnutrition; and optimism that it can be reduced rapidly; a determination of government and all stakeholders to act for food security and nutrition; the willpower needed to stick to the NFNS Plan 2018-2023; and the openness and confidence to report on it in a timely and transparent way.

Success will be measured by the improved ability of children to survive, thrive and become productive as adults, helping to build a stronger, fairer and more prosperous society. This will be the legacy of the NFNS Plan 2018-2023 and of those who made it a reality.

1.10 Government's commitments, resolutions, policies and actions towards food and nutrition security

1.10.1 Global and regional commitments and resolutions related to food security and nutrition

As a UN member state, South Africa has signed various global resolutions and commitments on food and nutrition. A summary of these commitments is appended as Annexure 2. In addition to global commitments and resolutions, there are various African instruments containing provisions addressing the right to adequate food (and by implication to food security and nutrition) that provide a platform for regional commitments and resolutions. An overview of African regional obligations and commitments applicable to South Africa is appended as Annexure 3.

1.10.2 National policies related to food and nutrition security

South Africa has an enabling policy environment for national food security and nutrition. This begins with a strong constitutional framework upon which fundamentals of the country have been built. In addition several laws, regulations, policies and strategies make reference to food security and nutrition. A table of these is appended as Annexure 4.

1.10.3 Fulfilling global, regional and national commitments to food and nutrition security

Despite strong support of global and regional commitments at the highest level South Africa, like many countries, is still struggling to address the complexity of food security and nutrition. The adoption of the 17 Sustainable Development Goals (SDGs) reiterated the importance of nutrition and provides a good opportunity for renewed efforts to combat issues of malnutrition and food insecurity.

1.10.4 Sustainable Development Goals

In September 2015, the UN adopted a set of 17 new Sustainable Development Goals (SDGs), following the review of global progress towards the Millennium Development Goals (MDGs). The UN emphasised that all 17 SDGs and their 169 associated targets are integrated and indivisible. The NFNS Plan 2018-2023 seeks to contribute directly to implementation programmes aimed at advancing the following goals:

Goal 1. End poverty in all its forms everywhere
Goal 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture
Goal 3. Ensure healthy lives and promote well-being for all, at all ages
Goal 5. Achieve gender equality and empower all women and girls
Goal 10. Reduce inequality within and among countries

South Africa also has a plethora of good policies, but their translation into coherent and coordinated implementation has been a challenge. The NFNS Plan 2018-2023 seeks to contribute to addressing this gap by creating a roadmap for implementation of effective food and nutrition security interventions.

CHAPTER 2: Situation Analysis of Food and Nutrition Security in South Africa

2.1 Introduction

This chapter lends insight into the current state of food and nutrition security in South Africa. It focuses on three broad, intertwined themes of food security, nutrition and social protection measures being implemented to provide a safety net.

2.2 International perspectives

The Global Nutrition Report 2014 estimated that Asia and Africa lose 11% of Gross National Product (GNP) every year owing to poor food security and nutrition, and their Gross Domestic Product (GDP) totals are less than 90% of what they would be in the absence of undernutrition.

The World Bank estimates suggest that South Africa loses over US$1.1 billion annually in lost productivity as a result of vitamin and mineral deficiencies alone[2]. In addition, the impact on the future potential of South Africa's children is significant. Box 1 illustrates the economic costs of malnutrition. Eleven of the 17 underlying causes of premature mortality and morbidity experienced in South Africa are directly related to malnutrition[3]. Furthermore, childhood undernutrition predisposes children to overweight and non-communicable diseases (NCDs) later in life[4] (See Box 3 below on the South African nutrition situation). High levels of premature mortality contribute to reduced life expectancy and have major negative impacts on individuals, families and the national economy.

2.3 Current food security situation in South Africa

Food security is defined as a situation where "All people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active healthy life"[5]. Food security is achieved when households are able to access, through production or purchasing, sufficient food to meet their daily nutritional requirements. It includes four foundational elements: availability, access, nutrition and stability of supply (resilience). This section discusses the progress to date and the challenges faced in ensuring food security for all.

2.3.1 Areas of good progress in food security

According to Stats SA (2017), household access to food in the country has improved since 2002, however it has remained static since 2011. The Household Food Insecurity Access Scale, aimed at determining households' access to food, illustrated that the percentage of South African households with inadequate or severely inadequate access to food decreased from 23.9% in 2010 to 22.3% in 2016 (Stats SA, 2017). Between 2010 and 2016, the percentage of individuals at risk of food insecurity decreased from 28.6% to 24,9%. Numerous national policies recognise the important role of agriculture as a driver of rural economic growth and rural revitalisation, yet urgent action is needed to overcome sluggish growth and job losses.

[2] World Bank 2009
[3] These include high blood pressure, excess body weight, high cholesterol, diabetes, low fruit and vegetable intake, childhood and maternal underweight, vitamin A deficiency, iron deficiency anaemia, physical inactivity and unsafe water, sanitation and hygiene (Bradshaw et al., 2007).
[4] WHO, 2003
[5] CFS (2012) as per the FAO 1996 definition

Box 1: Progress on food and nutrition security to date in South Africa

PROGRESS TO DATE

Although income inequality remains a challenge, South Africa can celebrate progress towards achieving some reductions in poverty and hunger:

- The South African MDG country report showed that South Africa achieved three (universal primary education, gender parity in education, access to water and sanitation) of the nine.
- Between 2001 and 2011 the proportion of households which are multi-dimensionally poor fell from 17.9% to 8.0%;
- Coverage of social grants increased from just over 2.5 million beneficiaries in 1997 to approximately 16.6 million in February 2015;
- Access to basic education has continued to increase, with high enrolment rates suggesting that the No-Fee School Policy and the National School Nutrition Programme have an impact.
- Improved coverage of key child-survival interventions such as immunisations, Prevention of Mother to Child Transmission (PMTCT), antiretroviral therapy (ART) and the treatment of common childhood illnesses (for example, diarrhoea and pneumonia) using the Integrated Management of Childhood Illness (IMCI) approach have contributed to the decline in childhood mortality.
- Latest estimates show that more than 80% of all HIV-positive pregnant women received treatment; in 2015, all pregnant women who tested HIV-positive were placed on lifelong antiretroviral treatment.

2.3.2 Key challenges and constraints

There are some challenges and constraints to South Africa achieving national food and nutrition security that need to be considered and addressed. These are outlined below.

2.3.2.1 Access to food and hunger remain a challenge. The 2012 South African National Health and Nutrition Examination Survey (SANHANES-1) used the Community Childhood Hunger Identification Project Index (CCHIP) to assess the frequency of experiencing hunger. It showed that on average, 45.6% of the population was food insecure, 28.3% were at risk of hunger and 26% experienced hunger. The largest percentage of people experiencing hunger lived in urban informal settlements (32.4%) and in rural formal settlements (37%). The same localities showed the highest prevalence of being at risk of hunger: urban informal settlements 36.1% and rural formal settlements 32.8%. The lowest rate of hunger was found in urban formal areas (19.0%)[6]. The General Household Survey (GHS) conducted by Stats SA in 2016 found that the percentage of the population that experienced hunger decreased from 23,9% in 2002 to 13,4% in 2016. This figure has remained static at 13% from 2011 to 2016. With respect to households, the proportion that experienced hunger decreased from 23,8% in 2002 to 11,8% in 2016. This figure has also hovered around 11% from 2011 to 2016 (Stats SA 2017). Around 16,2% of the South African population experienced severely inadequate access to food, while 6,1% experienced inadequate food access in 2016. Table 3 below shows the provincial location of this population.

[6] Shisana et al. 2013

Table 3: Individuals with severely inadequate access to food in 2015

Province	Food access inadequate (% of provincial population)	Food access severely inadequate (% of provincial population)
Western Cape	14,8	7,5
Eastern Cape	20,5	5,9
Northern Cape	20,9	12,7
Free State	17,8	5,8
KwaZulu-Natal	18,2	5,8
North West	25,5	11,1
Gauteng	13,4	4,0
Mpumalanga	19,8	11,3
Limpopo	6,3	2,0
South Africa	**16,2%**	**6,1%**

Source: Stats SA, General Household Survey, 2016

2.3.2.2 Poverty and inequality inhibit households' capacity to access affordable, nutritious, diverse diets. According to the 2011 Income and Expenditure Survey 7, 21.7% of South Africans live in extreme poverty and are not able to pay for basic nutritional requirements, 37% do not have enough money to purchase adequate food and non-food items, while 53.8% survive on less than R779 per month. In 2017 (quarter 3), the official unemployment rate in the country was 27,7%. As a result, despite South Africa being regarded as food secure at the national level, it is still a major problem for most households to access an affordable and nutritious diet. This impacts on dietary diversity, which is low, with the general diet made up predominantly of a micronutrient-poor staple - maize meal porridge - served with a side dish, such as cabbage, that is also relatively low in nutrition.

2.3.2.3 Increase in population and urbanisation compounds the many factors making up the poverty trap that many South Africans find themselves in. South Africa is urbanising rapidly and is growing larger and younger. The UN estimates that 71.3% of South Africa's population will live in urban areas by 2030, and nearly 80% by 2050. Two-thirds of South African youth live in urban areas.

[7] Stats SA (2011)

2.3.2.4 Agricultural and land reform challenges. The combination of slow-to-modest growth and declining employment continues a longer-term trend, evident since at least the 1970s[8], and transformation of the agricultural sector post-1994 has been slow and tentative. The sector is characterised by significant inequalities in levels of production and productivity, access to markets and profitability. The Agriculture, Forestry and Fisheries (AFF) sectors and the Department of Rural Development and Land Reform (DRDLR) play a strategic role as potential drivers of economic growth and employment creation, food security, agrarian transformation, rural development and support to industrial development. However, the challenges facing the sector are numerous: rising input costs, an uneven international trade environment, lack of access to infrastructure (rail, harbour, electricity), and a rapidly changing policy and production environment.

2.3.2.5 Between 1994 and 2012 the real contribution of the sector to GDP increased by 29%. However, over the same period employment declined by 30% to 40% in both primary production and agro-processing. Employment in agriculture fell from 1.09 million to 661, 000 between 2006 and 2012. Twenty per cent (20%) of the country's commercial farmers contribute 80 per cent of total food production even though between 1950 and 2015, the number of commercial farming units in primary agriculture has declined from almost 120 000 to around 38 000.Since 2012 agricultural employment in agriculture has increased (from 661000 in Q3 of 2012 to 881000 in Q3 of 2016- QLFS, Stats SA). This is an increase of 220000 jobs (33%) over this period

2.3.2.6. Over 4 million small-scale farmers need support to contribute meaningfully to national food security in the future. The production gap between commercial and smallholder producers in South Africa is significant, with commercial maize farmers producing 4.4 tons per hectare (t/ha) compared with 1.1t/ha on average for smallholders in the 2012/2013 harvest.

2.3.2.7 Improved market participation of the emerging agricultural sector[9]: Growing the smallholder sector is closely tied to making smallholder agriculture more remunerative – presently, more than half of all smallholder households live below the poverty line[10]. The stimulation of the sector can be facilitated by Government food purchase programmes such as the NSNP. This programme provides meals on an average of 190 school days to an average of 9 million learners; in 2015/16 financial year the cost of meals was around R5.1 billion. If the procurement favoured smallholder producers it could benefit both farmers and schools by timeous provision of sufficient vegetables of good quality[11]. However, issues such as seasonality in smallholder production show that allowance should be made for the specific circumstances of smallholders. Very few of them have the ability to access government's increasingly complicated procurement system.

2.3.2.8 While the focus of agricultural production and marketing programmes in South Africa has shifted to smallholder production, legislative and policy measures for creating an enabling environment for smallholders to establish sustainable and competitive production and marketing systems have not been provided. Many of the elements that helped establish commercial farmers (input subsidies, infrastructure, security of tenure, market protection, credit and public research, development and extension) and ensured national food security are no longer available (or are non-functioning) for both the commercial and smallholder sectors[12].

[8] DAFF, 2014
[9] Republic of South Africa. (2013). The National Food and Nutrition Policy, Inter-governmental Working Group on Food and Nutrition Security. Pretoria. Republic of South Africa.
[10] DAFF, 2014
[11] DPME (2016). Report on the Implementation Evaluation of the National School Nutrition Programme. Pretoria. RSA.
[12] Hendriks, 2014

2.3.2.9 Transformation of the rural economy is essential for growth, poverty reduction, employment creation and overcoming inequalities in the country. How to achieve pro-poor growth in South Africa drives the need for a census of smallholders to create the necessary database to understand the smallholder landscape, character, opportunities, constraints and the most appropriate programme options.

2.3.2.10 Volatile and high international food and input prices between 2007 and 2013 have put additional pressure on the South African food system, particularly as consumer preferences have shifted from maize, the key locally-produced staple, to rice, processed foods and 'fast foods'.

2.3.2.11 South Africa's food networks have negatively affected the affordability of food. Corporatisation of the food and trade networks, leads to the production of nutrient deficient foods and, market dominance and profiteering leads to high food prices, and job losses.

2.3.2.12 A large percentage (estimated at 60-70%) of the social grant is spent on food, making a case for social grants to be conditioned to stimulate procurement of food locally. There is a need for strengthening the Agri-park model (See Box 2 below, Agri-Parks explained). The Agri-park model will also ensure job creation, local food processing and creation of a demand for local producers.

2.3.2.13 Localising food networks and contributing to local trade will facilitate wealth creation, local economic development, improved food access and dietary diversification. At the same time responsible citizenship can be cultivated as communities take charge of their own environments and destinies. However, the characteristics of specific commodities and geographic areas need to be considered.

Box 2: Agri-parks

An Agri-park is a networked innovation system of agro-production, processing, logistics, marketing and training and extension services, located in District Municipalities. As a network it enables a market-driven integration of various agricultural activities and rural transformation services. Agri-parks comprise three basic units:

1. The Farmer Production Support Unit, which is a rural outreach unit connected with the Agri-hub. The unit undertakes primary collection, some storage, some processing for the local market, and extension services including mechanisation.
2. The Agri-Hub Unit is a production, equipment hire, processing, packaging, logistics and training (demonstration) unit.
3. The Rural Urban Market Centre Unit, which has three main purposes:
   (a) Linking and contracting rural, urban and international markets through contracts.
   (b) Acting as a holding facility, releasing produce to urban markets based on seasonal trends.
   (c) Providing market intelligence and feedback to the Agri-Hub and Farmer Production Support Unit, using the latest information and communication technologies.

2.3.2.14 Climate change is a key factor. According to reports from the Intergovernmental Panel on Climate Change, climate change will lead to an increase in weather extremes, including droughts. Regular droughts are already a part of our semi-arid climate, and their increased occurrence and intensity necessitates altered crop systems to mitigate this threat. Currently South Africa is experiencing its worst drought since 1992, the impact of which is expected to endure for at least 2-4 years.

2.3.2.15 Livestock and agriculture livelihoods are worst affected, resulting in unemployment and thus increasing the number of individuals vulnerable to food insecurity.

2.3.2.16 The cost of a food basket has increased by at least 20% since 2015. Limpopo province had a vulnerability risk assessment completed in 2015 and KwaZulu-Natal is undergoing the same assessment.

2.3.3 What is to be done?

2.3.3.1 Alternative production systems for home-based, community and smallholder production are needed to ensure availability of affordable, nutritious food at the household level. What are necessary are novel, low cost, low-input production systems such as small hydroponic units, container production, small shade-net systems and production under protection, including adapted hydroponic systems for smallholders and home gardens.

2.3.3.2 Biofortification is recognised to be among the highest value-for-money investments for economic development. This is due to its improvement of the nutrient quality of crops through the use of agricultural methodologies, making nutrients bio-available to the body after ingestion. Biofortified foods reduce the need for costly supplements, especially among the most vulnerable target groups. Biofortification should be further explored in South Africa.

2.3.3.4 The value of fish in the diet has been neglected and the opportunities offered by South Africa's 320 inland dams have been ignored. Fish can provide income and livelihoods as well as being an important source of protein and other nutrients valuable in increasing dietary diversity. South Africa should investigate the potential of scaling up inland fish farming.

2.3.3.5 Government's social and community development interventions to address drought range from immediate to medium- and long-term interventions, categorised as follows:

(a) Social relief measures

Short-term measures seek to provide social relief to drought-affected provinces over an 8-month period using the current Department of Social Development disaster response and feeding programmes. These include expanding the Social Relief of Distress (SRD) grants and network of Food Distribution Centres to all drought-affected areas, but this requires additional resources. The current network of Community Nutrition Development Centres (CNDCs), 166 as at 2016, is insufficient to address the affected areas. It is proposed that an additional 113 CNDCs be established in all affected areas (local Municipalities), which should be operated 7 days a week.

(b) Household food production support

Through this programme the Department of Agriculture, Forestry and Fisheries (DAFF) intends to support household/subsistence food production. The household production support package includes drilling boreholes and equipping them to provide water for irrigation and livestock, including poultry and small stock that is adaptable to drought.

(c) Enhancing access to drought-tolerant seeds

The DAFF, in partnership with the Agricultural Research Council (ARC) and the South African National Seed Producers Organisation, has distributed drought-tolerant seeds to framers and farming communities. An investment of about R37 million in researches and technology development is required to expand this to cater for crops other than just the staples.

(d) Health implications

The health implications of drought are numerous and far reaching. Drought and water scarcity can impact negatively on health in numerous ways, i.e. through compromised food and nutrition security; compromised quality and quantity of potable water for domestic and recreational use; compromised sanitation and hygiene; and increased disease incidence, i.e. infectious, vector-borne and zoonotic diseases. Importantly, vulnerable groups already at risk of malnutrition, especially young children and elderly people, are at greater risk of malnutrition during drought. Vulnerability assessments have been conducted in Limpopo and KwaZulu-Natal Provinces to determine those at risk of moderate- and severe-acute malnutrition. This will enable health facilities to be prepared with appropriate nutritional supplements, and will also identify those at risk so that social relief interventions can be provided.

2.4 Current nutritional status of South Africans

2.4.1 Areas of good progress

2.4.1.1 South Africa has achieved improved health outcomes with respect to conditions sensitive to primary health care.

(a) Case fatality rate for severe acute malnutrition amongst children under 5 years decreased from 13.3% in 2011/12 to 8.9% in 2015/16.

(b) The 2012 SANHANES-1 survey published by the Human Sciences Research Council (HSRC) in 2013 found that vitamin A deficiency among children under five years of age had decreased from 63.6% in 2005 to 43.6% in 2012.

(c) The survey also showed that anaemia and iron-deficiency anaemia in children under 5 years of age had decreased by 63% and 83.2% respectively, compared to the findings of the National Food Comparison Survey of 2005. It found no cases of severe anaemia.

(d) The survey also identified a significant decrease in wasting and being underweight in children under five.

2.4.1.2 SANHANES-1 attributes these significant achievements to the beneficial impact of the mandatory national Food Fortification Programme that came into effect in October 2003. This programme was introduced by the national Department of Health in response to the findings of the 1999 National Food Consumption Survey, which showed that one out of two children aged one to nine years did not meet half their daily requirement for several nutrients. The programme developed regulations for the mandatory fortification of all maize meal, and white and brown bread flour, with six vitamins and two minerals, (vitamin A, thiamin, riboflavin, niacin, pyridoxine, folic acid, iron and zinc).

2.4.2 Key challenges and constraints

2.4.2.1 While strides were made in reducing poverty and hunger in the country post 1994, on average the nutritional status of children is declining.

Box 3: The nutrition situation in South Africa

THE NUTRITION SITUATION

The South African Health Review, published by the Health Systems Trust in 2016, determined that:

- Close to one in four children in South Africa is stunted.
- Almost half (43.5%) of children under 5 years of age are vitamin-A deficient.
- Iron deficiency prevalence in children under 5 is 8.1%.
- Anaemia prevalence in children under 5 is 10.7%.
- Nearly a quarter (23.1%) of women of reproductive age are anaemic.
- NCDs impose a large and continuously growing burden on the health, economy and development of South Africa, and currently accounts for a staggering 43% of recorded deaths.
- In the year 2000, an estimated 7% of all nationally recorded deaths were attributed to excess body weight, while in 2004 NCDs linked to dietary intake, together with respiratory diseases, contributed 12% to the overall disease burden.
- Approximately 2 out of 5 deaths in South Africa are attributable to non-communicable diseases (NCDs).
- Mean body mass index (BMI) has increased between 1998 and 2012, for all ages, sexes and population groups.
- Over a quarter (26.3%) of adults over the age of 15 have raised blood pressure.
- Almost 10% of South Africans over the age of 15 have diabetes.

2.4.2.2 Although the number of nationally representative surveys is low, evidence from three national surveys (1999, 2005 and 2012) shows a concerning increase in malnutrition – both undernutrition and over-nutrition, which is clearly shown in Figure 1.

Box 3: The economic costs of malnutrition

The Economic Impact of Malnutrition

The 2014 and 2015 Global Nutrition Reports show the economic impact of malnutrition:

- Poor school performance and school attainment. Improving linear growth for chil-dren under the age of 2 by 1 standard deviation adds about half a grade to school at-tainment.
- Lower productivity. Prevention of undernutrition in early childhood leads to hourly earnings that are 20% higher and wage rates that are 48% higher
- Stunting. The cost of the existing stunting in Malawi was estimated to be 10% of an-nual GDP and it is estimated that stunted children earn 20% less as adults compared to non- stunted individuals.

2.4.2.3 Stunting (-2 Standard Deviations (SD)), severe stunting (-3 SD), and severe wasting (-3 SD) among children have increased post-1994. According to the SANHANES-1, 26.9% of boys and 25.9% of girls aged 0-3 years old are stunted. The incidence of severe underweight (-3DS), the rates initially dropped between 1999 and 2005, but in 2013 have increased to above the 1999 level. In 2016, the South Africa Demographic and Health Survey (SADHS) conducted by Statistics South Africa (StatsSA) and the National Department of Health, found that stunting levels among children aged 0-59 months (<5 years) had reached 27%.

2.4.2.4 SANHANES-1 reflected that amongst South Africa's preschool children (2-5 year olds) the prevalence of overweight, was 18.2% and that of obesity 4.7%. SANHANES-1 reported that 16.5% and 7.1% of girls were overweight and obese and 11.5% and 4.7% of boys were overweight and obese respectively. The average South African diet is energy dense but micronutrient poor[13], putting individuals at risk of 'hidden hunger'. SANHANES-1 found that 43.6% of the children under-5 years of age have vitamin A deficiency (a decrease from previous years). SANHANES-1 reflected that 33% of the children between 10 and 14 years of age had no food in the house to eat for breakfast and 29.8 % had nothing at home to put in the lunchbox to take to school.

2.4.2.5 In 2016, the SADHS found that the rate of overweight in children under-5 was 13%.

2.4.2.6 Female adult obesity (i.e. amongst females15-years of age and above) now stands at 41% (SADHS 2016), an increase from 24,8% in 2012 (SANHANES-1, 2013). A total of 26,6% of women were overweight in 2016.

2.4.2.7 Male adult obesity (i.e. amongst males15-years of age and above) was 11% in 2016 (SADHS 2016), compared to 11,2% in 2012 (SANHANES-1). A total of 20,3% of men were overweight in 2016.

13 Shisana et al., 2013

Box 4 Stunting – a key indicator for tracking nutrition and food security

STUNTING

Stunting as an indicator of chronic undernutrition is also an indicator for child poverty, as it reflects economic and social deprivation and whether children's basic needs have been adequately met in their early years. Levels of stunting in South Africa have reflected 27% of children under 5.

Without proper and timely intervention stunting is largely irreversible and the effects are long term and intergenerational. Stunting begins during pregnancy, results in life-long damage and may be passed onto the next generation. Women who are stunted are more likely to have obstructed labour, and are more likely to deliver low-birth weight. Stunted children have lower levels of educational attainment, reduced physical capacity, and poor resistance to infection and disease. In adulthood, stunting translates into diminished work capacity and a higher propensity to diseases such as diabetes, heart disease and hypertension. Stunting is correlated with levels of income, and low-income countries generally have higher rates of stunting. Those in the poorest sectors of these countries were at least three times as likely to be stunted as those in the richest.

The Lancet Nutrition Series of 2008 concluded that 13 known interventions could reduce stunting at 35 months of age by 36%; mortality between birth and 36 months by 25% and; disability-adjusted life years (DALYs) due to stunting, severe wasting, intra-uterine growth retardation (IUGR) and micronutrient deficiencies by 25%.If these estimates are applied to the South African data, the large-scale implementation of key evidence-based nutrition interventions country-wide could save an estimated 18 000 children under the age of 5 years from dying and contribute significantly to lowering maternal and neonatal mortality.

Investing in nutrition will improve the gross domestic product (GDP) of the country through better school performance and increased productivity at work. Empirical evidence reflects the economic benefits of improving the nutritional status of the population in low and middle income countries, with a benefit cost ratio of 16:1 and a compound rate of 10%.

2.4.2.8 Poor breastfeeding and complementary feeding practices. Both stunting and the increasing prevalence of overweight and obesity and poor intake of many micronutrients during the critical first 6 to 24 months period of life are, in part, a consequence of poor breastfeeding and complementary feeding practices and the poor quality of foods used during the complementary feeding period.

2.4.2.9 South Africa's rate of initiation of breastfeeding within 24 hours of delivery increased from 45% to 83% since 1998 to 2013. However, the exclusive breastfeeding rate for infants <6 months in 2008 was recorded at 8%. In 2016, the South African Demographic and Health Survey (SADHS) conducted by the National DoH and StatsSA estimated exclusive breastfeeding rates at 6 months to be at 32%.

2.4.2.10 The IFPRI Global Hunger Index (GHI), based on (a) insufficient energy intake, (b) child underweight and (c) child morbidity, rates the severity of hunger in South Africa as moderate (GHI 12.4)[14].

2.4.2.11 Adult nutritional status is also poor and requires attention. With respect to adult health profiles, SANHANES-1 concluded that Non Communicable Diseases (NCDs)

require intensified national action including a strategic plan that addresses prevention, early detection, behavioural change and universal treatment. This was based on the following findings of this study:

(a) Women of reproductive age had a vitamin A Deficiency (VAD) prevalence of 13.3%, reflecting a moderate public health problem of VAD.
(b) Iron deficiency was present in 15.3% of women.
(c) SANHANES-1 reported that 39.2% of adult women and 10% of men are classified as obese.
(d) Amongst participants aged 15 years and older 10.4% were pre- hypertensive and a further 10.2% had hypertension.
(e) At the national level, one out of four participants 15 years and older had an abnormally high serum total (23.9%) and LDL- cholesterol (28.8%), and one out of two (47.9%) an abnormally low HDL-cholesterol.
(f) Diabetes was diagnosed in 9.5% of participants 15 years and older and almost one out of five participants (18.4%) had impaired glucose homeostasis.

2.4.2.12 In 2013, the health sector published and begun implementing the Strategic Plan for the Prevention and Control of Non-Communicable Diseases 2013-2017, which outlines a comprehensive response to the growing contribution of NCDs to the burden of disease.

2.4.2.13 An independent evaluation of nutrition interventions for children under-5, commissioned by the DPME in 2014, compared South Africa's response to nutrition with 5 countries which have successfully improved nutrition namely, Brazil, Colombia, Mozambique, Malaysia, and Malawi. The positive findings of the evaluation were that in South Africa, the right to food is entrenched in the Constitution of Republic of South Africa (No 108 of 1996) in (i) Section 27 (Bill of Rights): 1(b), (i) Section 28 (1c) and
iii) Section 35 (2e). The evaluation acknowledged the importance of these sections of the Constitution, which deal with issues of access to food and nutrition. Also positive was that the evaluation found that South Africa has a good mix of health and nutrition policies which should address the immediate, basic, and underlying factors associated with poor nutrition.

[14] Global Hunger Index, 2015

2.4.2.14 However, the evaluation found that South Africa has placed emphasis on food production and not nutrition or consumption of nutritious foods. It was further found that nutrition programmes have been not fully effective in reducing malnutrition because they focused primarily on providing food to the needy and do not effectively address the underlying causes of malnutrition.

2.4.2.15 The evaluation compared South Africa against five countries that have made substantial progress towards enhanced food security and nutritional status – Brazil, Columbia, Malaysia, Malawi, and Mozambique. All five countries were found to have a five-fold competitive edge over South Africa, and had the following characteristics in common:

(a) A single national leadership and governance structure for food security and nutrition;
(b) A single national plan for food and nutrition security;
(c) A single national budget for implementation of food and nutrition security Programmes;
(d) A single national monitoring and evaluation system;
(e) A single national set of indicators.

2.4.2.16 South Africa was found that have diverse legislation, policies, strategies, and programmes related to Food and Nutrition Security. A similar review undertaken by the University of Pretoria also found a plethora of government legislation, policies, strategies and programme, which were not integrated. These are reflected in Annexure 2.

2.4.2.17 The effectiveness of nutrition interventions for children under 5 in South Africa were assessed against the WHO High-Impact Interventions. Nine out of18 interventions scored positively for implementation effectiveness – mostly clinical interventions from DoH and ECD food support. The remaining 9 interventions scored significantly lower - mainly DoH behaviour change interventions and food access and agricultural interventions. This is reflected in Table 4 below. Factors contributing to strong implementation include: nutrition sensitivity/ specificity; nutrition expertise in health sector; clear targets for pregnant women/children under 5; and standard operating procedures/ guidelines.

Table 4: High-impact nutrition interventions from the diagnostic evaluation of nutrition interventions for children under 5 years of age

High Impact Interventions (Responsible Government Department)		Total Effectiveness Score
1	Basic ante-natal care (BANC) – Education, supplements, timing (DoH)	81.3%
2	Food Fortification – vitamin A, Iron and Iodine (DoH)	80.0%
3	Early childhood Development (ECD) – Food in ECD centres	75.0%
4	Management of moderate malnutrition including targeted supplementary feeding (DoH)	68.8%
5	Oral Rehydration Salts (ORS) and Zinc (DoH)	68.8%
6	Micronutrient Supplementation including Vitamin A (DoH)	66.7%
7	Deworming (DoH)	66.7%
8	Management of severe acute malnutrition (SAM) (DoH)	66.7%
9	Integrated Management of Childhood Illnesses (IMCI) (DoH)	66.7%
10	Growth Monitoring and Promotion including use of mid-upper arm circumference (MUAC) measurements (DoH)	50.0%
11	Access to (nutritious) food, food prices (DAFF,DSD)	50.0%
12	Breastfeeding support (DoH)	44.4%
13	Complementary feeding (DoH)	37.5%
14	Food access including food parcels, soup kitchens (DSD)	33.3%
15	Food security (DRDLR, DAFF)	25.0%
16	Nutrition education and counselling (part of all of these) (DoH)	22.2%
17	Improving hygiene practice including in relation to water and sanitation (DoH, DWAS, local government)	18.8%
18	Household food production and preservation (home gardening) DAFF,DSD)	18.7%

Note: Using a scoring system that provided points for "yes" or "partially", an implementation score for each intervention was obtained shown above. Half the interventions (N=9), received implementation effectiveness scores over 66%, mostly "clinical" interventions implemented by the DoH, along with ECD food. The remaining 9 had scores below 50% and these include all the DoH behaviour change interventions, food access, and agriculture interventions.

2.4.3 What is to be done?

2.4.3.1 NFNSP 2018-2023 identifies nutrition-specific interventions to address the immediate needs of the nutritionally vulnerable as well as those who require sustained efforts in order to achieve impacts on health. The provision of targeted high-energy and nutrient-dense nutritional supplements for women of reproductive age, people living with HIV & TB, and undernourished infants and children, have an immediate effect by improving nutritional status, reducing risk of infections, and improving ART adherence and efficacy. Maternal multiple micronutrient and energy supplementation have been associated with 32% reduction in small gestation births, 45% reduction in risk of stillbirths and an increase in birth weight. Supplementing pregnant women with iron is associated with a reduction in incidence of low birth-weight by 19%. Among infants and children under 5, the appropriate prevention and management of SAM could avert around 52 000 new cases of SAM each year in South Africa.

2.4.3.2 Despite significant progress in reducing infant mortality, South Africa has some way to go in lowering these figures to an acceptable rate. By simply ensuring that all newborns are breastfed within the first 24 hours, about 5 400 neonatal deaths can be avoided. The longer-term benefits of breastfeeding include reduction of infant morbidity and mortality, increases IQ score, improved school achievement, and boosted adult earnings - all essential for reducing poverty. It also contributes to equity by giving all children a nutritional head start for success in life.[15] New estimates from the Lancet Breastfeeding series (2016) reveal that increasing breastfeeding to near- universal levels for infants and young children may save over 800 000 children's lives a year worldwide, or equivalent to 13% of all deaths in children under two.

2.4.3.3 The timely introduction of safe and nutritional complementary foods to infants from 6 months reduces both stunting and underweight. Handwashing with soap is one of the most inexpensive ways of preventing diarrhea and lower respiratory tract infections. It has been estimated that diarrhea can be reduced by 45% if hand washing with soap at critical times is practiced.

2.4.3.4 Obesity in South Africa is ranked fifth as a risk factor for early death and years of life lived with the disability or disability adjusted life years (DALYS), this is followed by diabetes and hypertension, ranking 6 and 7 respectively. The cost of chronic disease, including obesity on the South African fiscus is said to have cost USD1.9 billion by 2015[16]. The prevention of diseases resulting from poor lifestyle choices is critical.

2.4.3.5 A multifaceted approach starts with improving the nutritional status of adolescent girls and women to ensure that once they become pregnant they give birth to healthy children. It entails:

(a) Strengthening support for early initiation of breastfeeding and exclusive (first 6 months) and continued breastfeeding (to 2 years or beyond);
(b) Introduction of sufficient, high-quality and safe complementary feeding at 6 months;
(c) Ensuring an adequate, safe water supply and proper sanitation for mothers and their children;
(d) Healthy caregiving practices including hygiene behaviours are also vital.
(e) These intervention areas will improve overall nutritional status and children will stand a better chance of reaching their full potential, and this will translate into economic benefits.

[15] Victora CG, Bahl R, Barros AJD, et al, for The Lancet Series Group. Breastfeeding in the 21st century: epidemiology, mechanisms, and lifelong eff ect. Lancet 2016; 387: 475–90.
and Rollins NC, Bhandari N, Hajeebhoy N, et al, on behalf of The Lancet Breastfeeding Series Group. Why invest, and what it will take to improve breastfeeding practices? Lancet 2016; 387: 491–504.
[16] Abegunde D et al. 2007. The Burden and Costs of Chronic Diseases in Low-Income and Middle-Income CountriesThe Lancet 370: 1929–38.

2.4.3.6 School nutrition. An implementation evaluation of the NSNP (DPME, 2016) found that high proportion of learners eat the meals provided in schools regularly, 72.7% ate on the day of visiting schools. This implies that there is need to ensure that the quality of food is retained such that the learners receive the RDAs (30%) that the meals are required to provide. The evaluation, however, established for the schools that participated in the evaluation that:

(a) 18.2% of schools served between 81% and 100% of the required amount of starch. This reflects notable improvement from the 6,1% of schools that were found to be providing the required levels of starch during the implementation evaluation conducted in 2008 by the Public Service Commission.

(b) 8.6% of schools served between 81% and 100% of the required amount of vegetables in 2016, compared to 5,2% in 2008.

(c) 21.4% served between 81% and 100% of the required amount of protein, an improvement from 3,4% in 2008

2.4.3.7 To influence a positive change in the nutrition and health of South Africans, a paradigm shift is required, from the facility-based health service delivery model to greater community-based service delivery, as well as community ownership and participation. This will be implemented through a greater reliance on Community-based Workers, supported by Ward-Based Outreach Teams.

2.4.3.8 One of the contributory factors to the suboptimal nutritional status in South Africa is weaknesses in human resources. The current curricula for trainee dietitians and nutritionists are not aligned to the current disease burden in the country at a community level, as it fosters a therapeutic approach.

2.4.3.9 Greater emphasis must be placed on nutrition education and training. The identification of existing cadres of community-based workers to be trained in nutrition and Water, Sanitation and Hygiene (WASH) practices, e.g. ECD and school-based food handlers; CHWs, CDWs, EPWP participants, Home-based Care Workers and, Masupatsela is necessary. This training must specify their roles and functions in relation to health and nutrition screening, and recording and referral in the community needs to be identified and strengthened. In addition, the in-service training in health and nutrition for current workers involved in nutrition needs to be scaled up to focus on prevention of ill health. It must be needs-specific, and role players from all sectors (e.g. food security and social protection) need to be capacitated in nutrition and WASH counselling. Therefore, the delivery of nutrition interventions needs a paradigm shift away from curative care to preventative, with decreased emphasis from facility-based to community-based support.

2.4.3.10 It is essential to reverse the shift in dietary patterns of the increasingly urban population. There is evidence of poor access to adequate nutritious foods at household level accompanied with poor food choices, including a decreased intake of legumes and vegetables combined with an increased intake of low cost energy dense foods, including added sugars and vegetable oils that are low in micronutrients, and limited dietary diversity.

2.4.3.11 Despite 26% of households experiencing hunger, 18.3 % of the respondents were found to be consuming high fat diets. 19.8% of respondents were found to be consuming high sugar diets.

2.4.3.12 SANHANES-1[17] reported that 64.5% of women stated that the price of food determined their food choices and that South Africans had poor dietary diversity scores, indicative of micronutrient deficient diets.

[17] Shisana, et al., 2013

2.5. Current social protection measures to enhance food security and nutrition

2.5.1 Areas of good progress

The right to Social protection of every South African is enshrined in the South African Constitution[18] through the provision of social security for those who are unable to support themselves and their dependants. Other provisions with direct relevance to food and nutrition security are the rights to water and the progressively realisable right to food. In the case of children, special provisions that are articulated relate to social assistance and more specifically social grants have played a significant role in reducing poverty and the experience of hunger among a large proportion of South Africa's households. However, it is widely accepted that although social grants assist in the short to medium term, they do not alleviate poverty.

The NSNP is a state-funded social protection programme and an intervention to scale-up high impact nutrition targeting school-going children. The success of the programme relies on a range of stakeholders. Since so many children attend school, schools are excellent vehicles for health (nutrition) and education interventions. The DBE recognises that societal and other barriers have a direct bearing on poor education. Its vision as articulated in the Action Plan to 2014 wherein Goal 25 says that "schools should be used as locations to promote and provide access amongst children to the full range of health and poverty reduction interventions".[19] The NSNP provides one school meal daily to all the learners in Q1-3 primary and secondary as well as some special and Q4-5 primary and secondary schools. The programme has additional mandate of promoting schools food gardens and nutrition education for school communities and ensuring that the role players receive required knowledge and skills.

2.5.2 Key challenges and constraints

2.5.2.1 In general, Social Protection Programmes are constrained by lack of coordination and integration of systems, limited funding and significant deficit in human capacity and resources[20]. Within the context of food and nutrition security, programmes are spread across a number of government departments notably; the NSNP in the Department of Basic Education; nutrition supplementation in the Department of Health; social grants in the South Africa Social Security Agency (SASSA); food production support in the Department of Agriculture. Fisheries and Forestry and early childhood development (ECD) in the Department of Social Development.

2.5.2.2 Weak tracking, targeting, referral and monitoring and evaluation systems that have resulted in inefficiency, duplication and overlaps are a result of the fragmentation of existing systems and programs across a number of service delivery departments.

2.5.2.3 Birth registration at public health facilities is currently possible through mobile registration units, but the process is not streamlined and is often not utilised because the parents do not have valid identity numbers .

2.5.2.4 There is insufficient coverage of children receiving social grants within the age group 0 – 36 months. This exposes a large number of them to malnutrition because the mothers are not able to provide the required nutrition during this critical child development phase. An analysis of the costs of social grants found that Child Support Grant uptake for children aged 0-4 years is well below the expected levels and that of other age groups[21]. It is possible that poor registration of children aged 0- 4 years may be a contributing factor to poor social grant uptake.

[18] Constitution, 1996
[19] Department of Basic Education. (2010). Action Plan 2014: Towards the Realisation of schooling 2025
[20] NPC, 2009
[21] Baberton, 2015

2.5.2.5 If registration at birth, coupled with provisional registration for a Child Support Grant at the same location (a public health care facility), can be promoted and streamlined, mothers and children will have enhanced access to resources and by implication food during the first 1000 days.

2.5.2.6 An enhanced ability to track beneficiaries / end users will make it easier to refer individuals and households vulnerable to food insecurity and malnutrition to other programs and interventions that can contribute towards more sustainable changes of food and nutrition security interventions.

2.5.3 What is to be done?

2.5.3.1 Enhanced coordination of programmes across government, private sector and civil society through an integrated tracking system will reduce duplication and contribute towards more effective use of resources (human, financial, infrastructure). Furthermore, reduced 'competition' within and between departments and greater communication and participation is needed. An appreciation by all South Africans of the complementarities of roles and responsibilities and the shared ultimate target of reduced poverty and inequality are necessary.

2.5.3.2 Integration and coordination in service delivery is necessary to avoid wasteful duplication, but is a challenge given the multitude of players involved[22]. This is particularly true when integration is sought using paper-based technologies for example the piloting of the transition from multiple registers to a family folder in Ethiopia[23]. Technological advances have made it increasingly possible to overcome some of these complexities as evidenced by progress made in relation to IT-enabled social and economic transitions[24]. The use of health information technology is considered one of the key requirements for increasing the quality and efficiency of health care and there is evidence that this is indeed the case[25].

2.5.3.3 Poor transport, other infrastructure limitations and limited service coverage especially in remote rural areas hampers the widespread application of technology in developing countries. This is particularly true in relation to computers and computer networks as well as telecommunication. The practise of transmitting basic information into central databases, using smart phones and other mobile devices, is increasingly being used to overcome these challenges[26]:

(a) The most widely used application in health sciences is the use of mobile technology by consumers to obtain health information[27]; by health professionals to aid diagnoses and continued learning[28] and by health workers to transmit basic health information to a central point29.

(b) In the field of agriculture, mobile technology is being used to enhance marketing processes[30] and as a source of technical information[31]. A study conducted in India found that more than 75% of the farmers participating in the study indicated an improvement in services since the introduction of mobile phone technologies as part of agricultural extension[32].

(c) Other applications include the use of mobile device technology for commerce, the transfer of money, banking and other economic transactions[33].

[22] Bodenheimer, 2008
[23] Damtew and Moges, 2013
[24] Aker and Mbiti 2010, Tenhunen 2008
[25] Chaudry et al., 2006, Hillestad et al., 2005
[26] Paris21 2014, OECD 2013
[27] Zhaohua et al., 2015
[28] Chaudry et al. 2014, Ajiboye et al., 2014
[29] Sanner et al., 2014
[30] Aker, 2010
[31] Simpson and Calitz, 2014.
[32] Fua and Akterb, 2012
[33] Mallat and Tuunainen, 2008

(d) One of the reasons why social protection initiatives in South Africa have not reached optimal coverage in especially rural areas has been because of the difficulties of reaching populations in remote areas because of poor infrastructure e.g. transport difficulties. It is believed that a mobile-device-based information system will improve the ability of community and institution-based workers, working in the field of nutrition and food security, to achieve greater connectivity, improve tracking, targeting and referrals, provided that work is based on unique identifiers for example an end user/ beneficiaries identity number. Once ID numbers become a prerequisite for accessing social protection services, complimentary activities for example the process to update and obtain birth certificates and identity numbers need to be further streamlined.

(e) If registration of births at public hospitals is promoted prior to a mother giving birth, it is believed that uptake of social grants amongst children 0-3 years will improve in addition to enhancing the use of the integrated information system through the use of unique identifiers such as an identity number.

(f) The DOH and DHA have established an important initiative to ensure real time registration of births. It is imperative that all hospitals and health facilities that conduct deliveries in the public sector are eventually linked to the DHA server and to Stats SA systems to improve real time birth registration. Alternative ways of encouraging registration at birth system will also need to be devised for South African mothers without documentation and for those not giving birth at a public health facility.

[34] Walker and Carayon, 2009 and Blumenthal, 2009

2.5.3.4 A process of mapping and evaluating current systems and registers with the view of making them more food and nutrition security sensitive must precede the actual development of an integrated system.

(a) This will require not only IT and data management technical expertise, but also food and nutrition security related expertise.

(b) Once implemented the proposed programme will also require that health care workers and professionals acquire new skills and behaviours that will facilitate the technological transition.

(c) It is envisaged that a continual investment in process improvements and business process managers may be required[34].

2.5.3.5 Linkages between the Child Support Grant and the Learner Unit Record Information and Tracking System (Lurits) database will enable schools to do in- school targeting for the NSNP.

(a) This will result in savings which can then be deployed towards extended nutritional support to poor and vulnerable children over weekends and school holidays.

(b) Once children are in the system, additional support packages such as the distribution of seed and tool packages for food production can be channelled more effectively towards them and their households.

(c) Children that are currently treated for malnutrition at health care facilities are not always linked during rehabilitation phase with other food and nutrition security related support mechanisms. These mechanisms that exist in the communities could enhance mother's nutrition education or provide additional food and nutrition security support to the household. This could be either through civil society organisations, community support programs or public programs.

(d) The Integrated Food Security and Nutrition Programme (INFIS) will provide a referral mechanism that will maximise support and care to the child, mother and household.

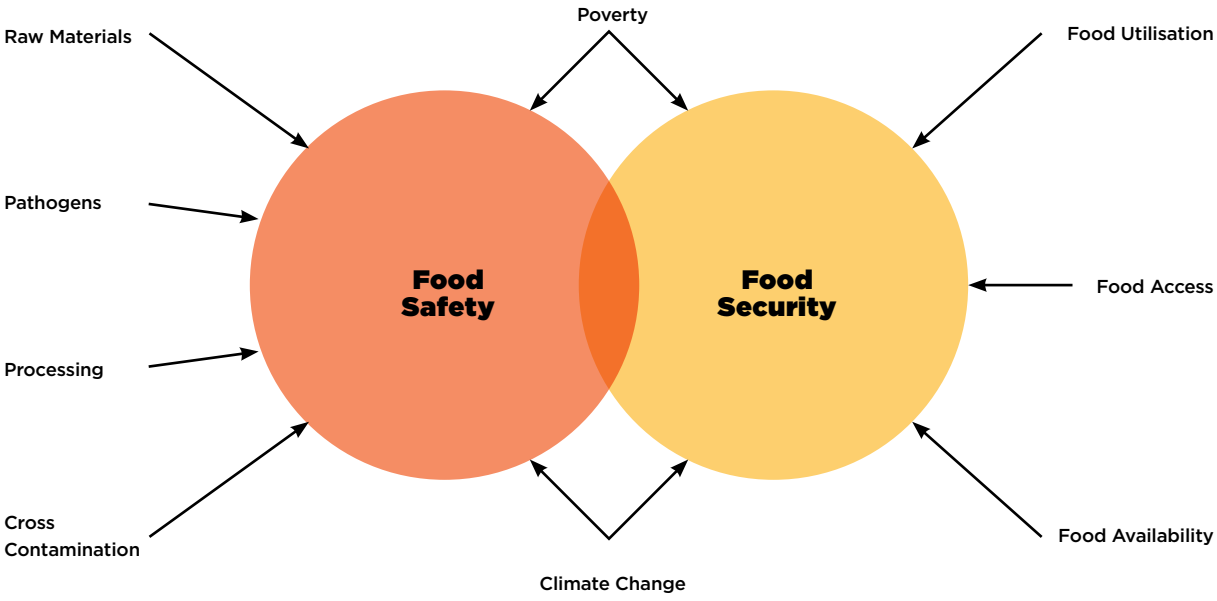
2.5.6. Better coordination with the Expanded Public Works Programme is necessary to ensure integration of this registration system with social protection opportunities to improve food and nutrition security.

2.6. Provision of safe food as a pillar to food security and response mechanisms to unsafe food

South Africa is known for numerous agricultural and associated health challenges. Some of these challenges include: high post-harvest losses, limited processing, inadequate access to markets and finance as well as low investment into food and agricultural research, training and extension services. Basically, various populations in sub-Saharan Africa are exposed to health hazards in their diets, directly and/or indirectly through the consumption of unsafe foods or the unavailability of safe foods as evidenced by the world's largest outbreak of Listeriosis in South Africa in 2018. In 2015, Oxfarm estimated that a staggering third of all the food produced in South Africa is wasted, at a cost of R60-billion a year, equal to 2% of South Africa's gross domestic product (GDP).

Food safety and food security are interrelated concepts with a profound impact on quality of human and animal life and there are many external factors that affect the two areas. The interrelationship between food safety and food security is shown in figure 2. The strengthening of food safety as a pillar of food security seek to protect animals and the public from public health hazards, without creating unnecessarily stringent regulations which would hamper, in particular, small agricultural production and market access.

Figure 2: Interrelationship of food safety and food security



2012 Nature Education

Transforming the nation's food safety system by shifting the focus from responding to foodborne illness to prevention has become the focus of governments and the food industry. The realization that preventable foodborne illness is both a significant public health problem and a threat to the economic wellbeing of the food system has led to domestic and international respond to the dramatic changes in the global food systems. The safety of food derived from agricultural products is an important component of food security with a complex interconnectivity between the institutions sharing the regulatory responsibilities in South Africa. The complex interconnectivity requires a collective effort in the development, implementation and enforcement of food control.

Confidence in the safety and integrity of the food supply chain is an important requirement for consumers. Consequently, consumers expect protection from hazards occurring along the entire food chain from farm-to-table continuum. The responsibilities for the food safety control in South Africa lies between different regulatory Departments and agencies within the different tiers of Government. Consequently, implementation of food safety measures suffers a lot of challenges and set-backs due to challenges in overall coordination, sometimes misunderstanding over jurisdiction of the Institutions.

Effective food safety control system involves enforcement of mandatory safety and quality requirements along with training and education, and community outreach program. Consumer protection will only be effective if all sectors involved in the food control system operate in an integrated way and the food control system addresses all stages of the food value chain. A well planned and structured food control system would give rise to a suitable national system developed in line with international best practices and harmonized with Codex Alimentarius Commission standards and WTO requirements taking cognisance of the country situation.

An integrated national food safety control system that covers all food produced, processed and marketed domestically, including imported and exported food, having statutory basis and mandatory in nature is therefore needed for South Africa. Effective national food control should contain key components such as food legislation and regulation, policy and institutional framework, food inspection and monitoring, laboratory services with involvement of all stakeholders and dissemination of information to them. The principles based on Hazard Analysis and Critical Control Point (HACCP) system supported by robust Good hygiene practices and pre-requisite programs should be applied during the preparation, production, handling, storage, processing, preservation, transportation and distribution of foods.

The current national food safety system is fragmented and in some instances legislation is outdated, consequently putting lives at unnecessary risk. Weaknesses and gaps in the inter and intra-departmental cooperation on food safety and fraud prevention and the maximization of personnel and resources related to examination and inspection of food products of agricultural origin in line with the domestic and international law have not been addressed.

In South Africa, the full extent of the burden and cost of foodborne diseases associated with foodborne illness in human and animals is still unknown and there are no defined public health goals for the commonly known food safety issues.

2.6.1. What is to be done?

To ensure safe food that guarantee food security in the context of production, handling, processing, storage, import, export, marketing and service in food, the following response mechanisms and multistep interventions will be implemented, led by the Department of Agriculture, Forestry and Fisheries (DAFF) working with other departments

2.6.1.1. Establishment of an interim National Food Safety Council of South Africa under the Presidency to assist in conducting a feasibility study for the establishment of modern institutional arrangement(s) for national food control that consolidate all food control components to provide focused centralized leadership, a primary voice on national food control and enforcement of standards, better allocation of resources, and clear lines of responsibility and accountability.

2.6.1.2. Development of an integrated food and feed control policy and the harmonization of all legislation for food of agriculture origin along the entire value chain;

2.6.1.3. Innovation of the entire food chain with emerging technology to ensure sustainable contribution of food of agricultural origin to rural development.

2.6.1.4. Establishment and implementation of food control good practices including:

(a) Establishment of an integrated centre(s) on Sanitary and PhytoSanitary risk analysis in South Africa;
(b) Development and implementation of a food product identification and traceability system;
(c) Establishment and implementation of a program for revitalization of national laboratory infrastructure and accreditation to ensure that South African food testing laboratories meet high- quality standards.
(d) Establishment of mandated systems of inspection, records access, mandatory recall, expanded administrative detention, third party certification, qualified importer program and importer accountability and accreditation requirements of inspection bodies.

CHAPTER 3: Approach to the Development of the NFNSP 2018-2023

3.1 Background

The development of the National Food and Nutrition Security Plan (2018-2023) was mandated by the Cabinet of South Africa following the approval by Cabinet of: (a) The Food and Nutrition Security Policy for South Africa, developed jointly by various departments under the leadership of the DAFF and (b) The report on the Evaluation of Nutrition Interventions for children under-5 in April 2015, commissioned jointly by the Department of Planning Monitoring and Evaluation (DPME) and the Department of Health (DoH), as part of the National Evaluation System.

3.2 Approach to the NFNSP 2018-2023

The NFNSP 2018-2023 is a culmination of consultations and deliberations undertaken through a number of processes that included a wide range of stakeholders. In response to directive from Cabinet in April 2015, an Intersectoral Central Planning Team was established in May 2015 to develop the Plan. The Team was led by the Office of the Deputy President and the DPME. It was comprised of relevant government departments, UN agencies and development partners. Several workshops were convened to consider the available evidence; reach consensus on the key challenges and opportunities; assess available policies, programmes and strategies from the various national departments and; draw lessons from international best practice.

3.3 Vision of the NFNSP 2018-2023

Optimal food security and enhanced nutritional status for all South Africans.

3.4 Mission

To significantly improve food security and reduce malnutrition in all its forms to afford South Africa's people opportunities to lead productive and healthy lives

3.5 NFNSP goals

The immediate goal is the establishment of a governance and leadership system to mobilise the both the government and non-state actors behind a single integrated national plan to address food and nutrition security in South Africa.

3.6 NFNSP 2018-2023 Strategic Objectives

3.6.1. Establish a multi-sectoral Food and Nutrition Security Council to oversee alignment of policies, coordination and implementation of programmes and services which address food and nutrition security

3.6.2. Establishment of inclusive local food value chains to support access to nutritious and affordable food.

3.6.3. Expand targeted social protection measures and sustainable livelihood programmes

3.6.4. Scale up high impact nutrition interventions targeting women, infants and children.

3.6.5. Influence people across the life-cycle to make informed food and nutrition decisions through an integrated communications strategy

3.6.6. Develop a monitoring and evaluation system for FNS, including an integrated risk management system for monitoring FNS related risks

3.7 Focus of the NFNSP 2018-2023

In accordance with the directives from the Government of South Africa, the Plan focuses on the following imperatives:

3.7.1 Ensure visible leadership; improved integration across government departments and; strengthening the management of existing food and nutrition security programmes at all levels;

3.7.2 Draw comprehensive lessons from international best practices on successful interventions addressing food security and nutrition challenges;

3.7.3 Draw lessons and expanding best practices from integrated approaches for addressing hunger, malnutrition and micronutrient deficiencies in South Africa, such as Operation Sukuma Sakhe in KwaZulu-Natal Province;

3.7.4 Consistent improvement of hygiene practices associated with improving nutrition (such as the washing of hands);

3.7.5 Include food and nutrition security in school curricula and ensuring that key food security and nutrition messages are incorporated into education programmes aimed at communities;

3.7.6 Provide continuous skills development for food and nutrition security, health and development workers;

3.7.7 Fast-track the finalization and implementation of a regulatory framework for restricting marketing of unhealthy foods to children and households;

3.7.8 Effectively implement food security and nutrition interventions as part of the package of Social Protection measures provided by the State;

3.7.9 Strengthen referral systems between government departments to ensure seamless provision of food security, nutrition, health and social support to children and households.

3.7.10 Establish a National Food and Nutrition Security Commission (or equivalent structure), which includes all key government departments responsible for preventative and promotive components of the country's nutrition response, to proactively steer the implementation of the Plan;

3.7.11 Ensure that the Commission extends its' work beyond the current health and social development interventions and incorporates all determinants impacting on nutrition outcomes (including but not limited to poverty, water and sanitation, human settlements and, agriculture).

The Plan has been designed to address food and nutrition security issues holistically, while paying special attention to the pre-conception period, the first 1000 days of life, Early Childhood Development (ECD), and Grade R. It also addresses all nutrition issues pertinent to children, in various environments, including households, communities, schools and Primary Health Care settings.

The NFSN Plan 2018-2023 will be implemented nationally, but will focus largely on the most deprived districts across the 9 Provinces, in keeping with the principles of equity. Several assumptions have been made in setting the Plan and it is acknowledged there are risks associated with the commitment and accountability of various stakeholders and that the country's economic and political stability and weather-related shocks may impact on the implementation of the Plan.

3.8 Theory of Change

This section provides two theories of change, the first focuses on food security and the second on nutrition related lifestyle behaviours.

3.8.1 Food security pathways

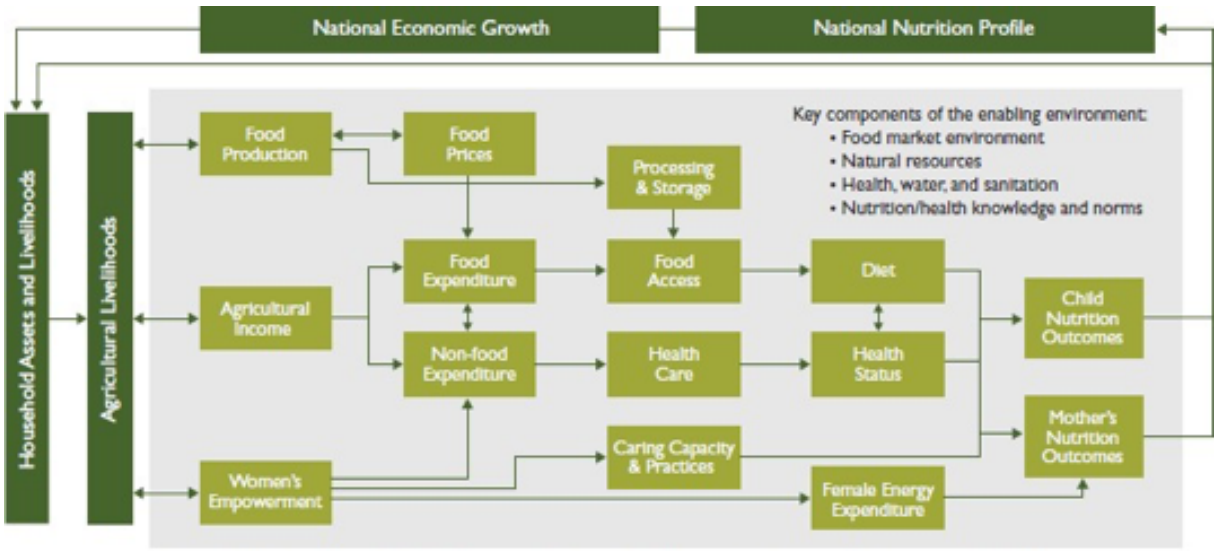
There are three main pathways of nutrition sensitive agriculture to nutrition outcomes: food production, agricultural income and empowerment of women. These pathways are themselves interrelated, are also linked with other interventions and interact with enabling environments such as the natural resource base and cultural practices. Figure 2 below, designed by Feed the Future, provides a schematic view of these pathways. They consist of:

(a) Food production, which is essential for sustained food availability for household consumption (diet quality and quantity) as well the price of diverse foods;

(b) Agricultural income which enables expenditure on food and non-food items. Based on the assumption that increase in income from agriculture related activities (including processing and sale of agriculture products or wages earned) will be used to purchase nutritious food for the household;

(c) Empowerment of women in the agricultural sector, which affects income, caring capacity and practices, and female energy expenditure. Many interventions will affect one or more aspects of women's empowerment.

Figure 2: Conceptual pathways between agriculture and nutrition



Adapted for Feed the Future by Anna Herforth, Jody Harris, and SPRING, from Gillespie, Harris, and Kadiyala (2012) and Headey, Chiu, and Kadiyala (2011).

The Plan focuses on two pathways, namely food production and agricultural income. Emphasis is on increasing small scale food production and the establishment of inclusive local food value chains that would enable households to access nutritious affordable foods and earn an income.

3.8.2 Conceptual Framework: benefits of optimal nutrition

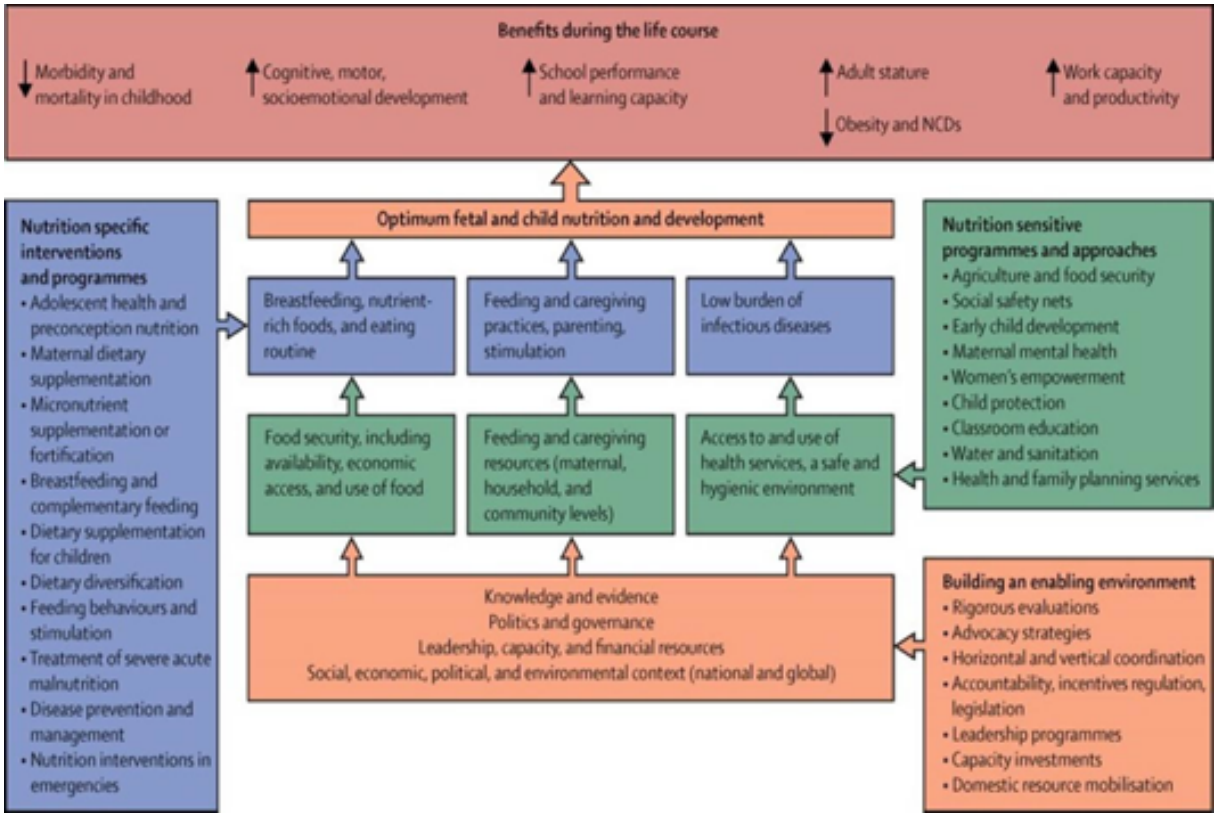
Figure 3, adapted from UNICEF, provides a schematic representation of the benefits of optimal nutrition during the life course, influenced by both nutrition-sensitive and

nutrition-specific interventions. These benefits include decreased childhood morbidity and mortality; enhanced cognitive, motor, and socio-emotional development; improved school performance and learning capacity; decrease in obesity and Non-Communicable Diseases (NCDs), as well as improved work capacity and productivity.

The pathway to the benefits of optimal nutrition entails a dynamic interaction between nutrition- sensitive and nutrition-specific interventions. Nutrition-sensitive interventions include agriculture and food security, social safety nets ;early childhood development, maternal mental health, women's empowerment, water and sanitation, childhood protection, and health and reproductive services. Nutrition-specific interventions, on the other hand, encompass a package of interventions along the entire life cycle. These include adolescent health and preconception nutrition, micronutrient supplementation, breastfeeding and complementary feeding, treatment of severe acute malnutrition, and disease prevention. The dynamic interaction between these interventions requires an enabling environment, which includes leadership, capacity and financial resources; proper governance; and use of knowledge and evidence. This enabling environment facilitates the implementation of nutrition sensitive interventions, which results in improved food security; feeding and care-giving resources; access to and use of health services,

as well as hygienic practices. These in turn result in enhanced breastfeeding, availability of nutrient-rich foods; improved feeding and caregiving practices, and a low burden of disease.

Figure 3: Conceptual Framework: Benefits of optimal nutrition



3.8.3 Nutrition-related ill-health

Optimal child-growth requires adequate energy and nutrient intake, absence of disease and appropriate care practices. Poor living conditions, including household food security, low parental education, lack of access to quality health care and an unhealthy living environment are among the main determinants of stunted growth. Poverty has been shown to have a more detrimental effect on linear growth than on body weight (Black et al, 2008). Child stunting is associated with higher morbidity and mortality, shorter stature in adulthood, lower education attainment and reduced productivity in adulthood.

The first 1000 days, from conception to child's second birthday, is the critical period for growth and development, having a significant influence on adult height and brain development. Investment during this period have the highest returns, with an average of between 7 and 10% greater than investment made at older ages (Carneiro and Heckman, 2003). Investing in early childhood nutrition interventions offers a window of opportunity to significantly increase human capital; mitigating the deleterious effects of poverty and social inequality; ultimately leading to long-term benefits for children, their families and society as a whole. Thus WHO and UNICEF recommended the following optimal feeding practices to ensure optimal growth and development: early initiation of breastfeeding within 1 hour of birth; exclusive breastfeeding for the first 6 months of life; and introduction of nutritionally-adequate

and safe complementary (Solid) foods at 6 months together with continued breastfeeding up to 2 years of age or beyond. In addition, care practices, good hygiene and safe food handling ensure reduced risk of infection and diarrhoeal episodes.

Improving maternal nutrition is key to reduction of stunting and the focus should be scale up maternal nutrition intervention, which also targets adolescents. Intervention targeting women of reproductive age such as iron and folate supplementation, as well as the prevention and treatment of infections and nutrient supplementation during pregnancy are key. According to Black and Bhutta, 2013; intrauterine growth restrictions due to maternal undernutrition (estimated by low birth weight) accounts for 20% of childhood stunting.

Unhealthy diets, especially those high in saturated fats, sugar and salt, are one of the risk factors for non-communicable diseases. The risk starts in childhood and builds up throughout life. Improving nutrition in the first 1000 days (the period from conception through the first two years of life) has a profound impact on child health and development by averting stunting, overweight and obesity. Poor infant-feeding practices due to limited parental knowledge, coupled with exposure to advertising of unhealthy foods to children, can influence parents and children's food preferences.

Several strategies specifically targeting promotion, protection and support of exclusive breastfeeding, appropriate complementary feeding practices and the monitoring of growth (weight and height) in childhood have been implemented in South Africa. Furthermore, Government has promulgated regulations concerning the labeling and advertising of foods which address, among other things, the advertising and marketing of foodstuffs to children. However, these initiatives are not widely communicated and their coverage is limited to events and workshops, leaving most of the population without correct nutrition information.

The escalating prevalence of obesity in South Africa has occurred in conjunction with urbanisation and an increase in sales of sugar-sweetened beverages (SSBs) and high-caloric, energy-dense foods. A mathematical model by academics from the University of the Witwatersrand indicated that a 20% tax on SSBs could positively impact on the burden of obesity in South Africa, particularly in adults, as one component of a multi-faceted

effort to prevent obesity.[35] The government has announced that it intends to introduce a tax on SSBs on 1 April 2017 in a bid to help reduce excessive sugar intake. Mexico enacted taxation on SSB in January 2014 and according to the Mexican National Institute of Public Health and the University of North Carolina, the tax resulted in a reduction in purchases of SSB by an average of 6% in 2014.

Despite various interventions such as regulations, policies and healthy lifestyle campaigns, obesity prevalence has continued to escalate in South Africa. This is because the efforts were not matched with transformative actions that intend to change behaviour and the food environment in various settings such as schools, ECD centre and public spaces. This warrants a radical adoption of interventions that will influence change in these and settings.

3.9 Target population groups for the NFNSP

The NFNS Plan 2018-2023 seeks to benefit all South Africans. However, special emphasis will be placed on the preconception period or the first 1000 days of life; Early Childhood Development and Grade R learners; and children of all ages, in various environments including

households, communities, schools and primary health care settings. Geographically, interventions will be concentrated in the 27 most deprived districts, identified by COGTA and DAFF, and approved by Cabinet.

3.10. Risk analysis and implications

In an attempt to predict what the South African food system would look like in 2030, the FoodLab[36] conducted a participatory workshop with 50 stakeholders from the South African food industry, government, civil society and academia. The aim was to conceptualise four different transformative scenarios, taking into account the current realities and predicting the future of our food system, summarised below:

(a) Scenario 1: Root of the matter: Food as a natural resource explores a case where a severe dry-weather cycle makes the natural system upon which food production depends even more vulnerable. The scenario is driven by climate change, a crisis in water quality and quantity, and energy insecurity, resulting in compromised quality of export crops; job losses in agriculture sector, endangered honeybee species threaten crop pollination, state expenditure on food is diverted to nuclear infrastructure, decreased crop yields, global drought pushes up the prices of staple foods and air quality damaging crops.

(b) Scenario 2: Seeds of possibility: Food production considers a situation where land reform does not move fast enough, resulting in land invasions. The scenario is driven by land ownership pressures, climate variability and currency volatility – resulting in the depreciation of the rand pushes up farmers' input costs; electricity, water and wage costs have a negative impact on poorer farmers; the variable climate affects the production of farmers who are less able to adapt; land reform uncertainties discourage commercial farmers' investment in fixed assets; land invasions and political uncertainty prompts an exodus of commercial farmers; the production of staples declines globally and locally due to warmer weather.

(c) Scenario 3: Kernels of truth: Food in the political economy explores a situation where rising living costs and broken government promises catalyse a powerful and organised national response from those most affected by hunger. This scenario is driven by food prices and the affordability of food in the South African context, hunger, organised social movements and the relationship between

[35] Chola et al. 2014
[36] http://www.thefutureoffood.co.za/

the market and the state. The results being a depreciating rand and rising oil and electricity prices push up food prices beyond affordable thresholds.

(d) Scenario 4: Empty husks: Food as nutrition considers a case where the crisis of malnutrition significantly dents South Africa's economic growth and social prosperity. It is driven by urbanisation, low education outcomes, a growing burden of lifestyle diseases, increased nutrition awareness and increased food regulation by the state. The scenario predicts an acceleration of urbanisation and the spread of informal settlements; more research and advocacy on food security and nutrition produce a burgeoning body of evidence on the shortcomings of the current approach; a growing lifestyle-disease burden, underperformance in education and low workplace productivity, despite major investments in each, turn the spotlight on nutritional deficits and the unhealthy eating habits of South Africans, across class.

The risks highlighted in the above four scenarios accentuate the importance of Government developing appropriate risk-mitigation strategies, in collaboration with its stakeholders. The current drought in South Africa and the consequent increases in food prices that impact most severely on the poor can catalyse a powerful and organised national response. Through the disaster relief funds of government, resources have been provided to farmers to counteract the impact of the drought. Constant and consistent risk monitoring and mitigation systems must be developed for the long term.

Improving the food and nutrition security status of South Africans is fundamental to achieve the three core aspirations of the National Development Plan (NDP): to end poverty, inequality and unemployment. Malnutrition is a significant drain on individuals, households, communities and societies. Under-nutrition leads to the intergenerational perpetuation of poverty and under- development. Over-weight and obesity place significant drain on health systems and predispose individuals to a range of health risks. Micronutrient deficiencies deprive people of productive energy and well-being.

3.11 Responding to the risks

The case for investing in food and nutrition security is strong. The economic benefits of improving food and nutrition security in low and middle income countries, has a cost-benefit of 1:16[37]. While the costs of not acting are far higher at all levels, if one considers the economic cost of lost productivity and income at individual, household and community levels and to the country as a whole, as well as the cost associated with ameliorating the consequences of food insecurity and malnutrition. For the purposes of efficiency and to ensure that investments have an impact, high-level coordination and leadership is essential. Coordination of programmes and activities and a sound monitoring and evaluation process that leads to continual reflection, assessment and adjustment of the Plan are vital.

[37] Global Nutrition Report, 2015.

CHAPTER 4: Game Changers in the NFNS Plan

4.1 What is unique about the NFNSP?

The Plan builds on the key interventions of government and its social partners which have proved successful to date, but also reflects a radical departure from the inefficiencies of the past. The plan adopts an evidence-based approach that reviews good practices of government and its social partners over the 21 years of democracy, but also proposes rationalization and amalgamation of existing programmes, and discontinuation of programmes that are duplicated or not yielding the desired results. As a sign of its commitment to food and nutrition security, the development, implementation and monitoring of the Plan by the National Council on Food and Nutrition Security falls under the jurisdiction of the Deputy President.

4.2 Existing good practices

The independent Diagnostic Evaluation of Nutrition Interventions for children under 5, completed in 2014, identified the following best practices:

4.2.1 South Africa has a good mix of health and nutrition policies which have the potential to significantly step up the contributions to the immediate, basic, and underlying factors to accelerate improvements in nutrition.

4.2.2 Existing enabling factors for implementation include the following:

(a) Nutrition is strategically important and an integral part of provincial war on poverty (Sukuma Sakhe Model)
(b) Common understanding exists on the central role nutrition plays in poverty alleviation (e.g. in KZN);
(c) A common operational plan and approach across sectors (as seen KZN with Operation Sukuma Sakhe - OSS);
(d) Use of community-based workers to extend the reach of services and nutrition education to households and communities where appropriate;
(e) Best practices exist of coordinated case management at local level for food insecure and malnourished households and individuals (e.g. OSS);
(f) Use of mass media communications and road shows to spread nutrition messages.

These practices should be expanded, strengthened and replicated across the country.

4.3 Challenges to be addressed by the NFNSP

The NFNS Plan 2018-2023 seeks to address the following concerns arising from the evaluation of nutrition interventions for children under-5 years:

(a) South Africa has placed emphasis on food production (quantity) and not nutrition or consumption of nutritious foods (quality and diversity);
(b) Compared to 5 comparison countries, South Africa does not (yet) have a single or coherent strategy, policy or regulatory system to realise the right to food as set out in the Constitution, to facilitate and ensure food security for all its citizens;
(c) There is also no coordinating body above line ministries which can hold them accountable in terms of their contribution to nutrition;
(d) There is no annual mechanism to track progress, highlight bottlenecks, raise the profile of issues and hold stakeholders accountable;

In summary, South Africa does not yet have the following factors that are considered best practice in ensuring food and nutrition security:

(a) One national leadership and governance structure for food security and nutrition (such as SANAC for HIV);
(b) One comprehensive, integrated National Food and Nutrition Security Plan;
(c) One budget for food security and nutrition;
(d) One Monitoring and Evaluation (M&E) framework for food security and nutrition;
(e) One set of indicators for food security and nutrition;
(f) One set of coherent legislation pertaining to food and nutrition security.

4.4 Approach taken by the NFNSP 2018-2023

As a result of extensive review and consultation, the new Plan adopts the following approach:
(a) Review of existing programmes;
(b) Identification of gaps in implementation;
(c) Development of new interventions, where this is necessary;
(d) Identification of short-term; medium-term and long term intervention measures;
(e) Acknowledgement that the Development of the Plan occurs against the backdrop of a crisis - the worst drought experienced in South Africa in a century;
(f) Taking cognisance that the Plan needs to respond to the immediate needs but must also put in place measures for the future to ensure sustainability.

4.5 Six levels of analysis adopted by the NFNSP 2018-2023

Drawing on the work of the UN agencies [e.g. Food and Agriculture Organisation (FAO); the World Health Organisation (WHO) and UNICEF], the development of the Plan examined food and nutrition security issues in South Africa at six levels:
(a) Policy level with the objective of analysing the food and nutrition security policy framework;
(b) Institutional level with the objective of analysing the major institutions and stakeholders in the public, private and academic institutions that deal with various aspects of food and nutrition security, focusing on their roles;
(c) Programmatic level with the objective of analysing the different interventions for addressing food and nutrition security being implemented by different institutions;
(d) Food and nutrition security statistics and information with the objective of creating an enabling environment to deliver a structured food and nutrition security information system that provides a timely and robust analysis of the food and nutrition security situation at all levels;
(e) Governance structures for coordinating food and nutrition security with the objective of analysing the structural reporting and accountability mechanisms with respect to food and nutrition security matters, including the involvement of civil society:
(f) Alignment with the objective of ensuring alignment of policies, institutions, programmes, information management systems and governance systems to global and regional processes directed at achieving food and nutrition security.

4.6 Primary areas of focus

The establishment of inclusive local food value chains aims to support access to nutritious affordable food

The six primary strategic objectives of the Food and Nutrition Security Plan are intertwined focal areas that seek to create a balanced livelihood system for the benefit of households and communities. The envisaged outcome of such an intervention will be self-employment, participation in the local economy and reducing the negative impact of poverty while promoting the right to food.

The Department of Agriculture Forestry and Fisheries is implementing a myriad of interventions based on a demand and supply principle. It is thus imperative, if the local economies are to be strengthened, to initiate supply consolidation interventions to optimise current initiatives and the following key principles and outcomes will be consolidated to attain the self-employment, participation in the local economy and reducing the negative impact of poverty in both the rural and urban spheres.

4.6.1 Localisation of interventions

(a) The objective of developing inclusive local value-chains is to increase internal production and thus lessen importation of produce into a defined economic radius (an optimal radius for most agricultural produce is estimated at 60km to, in extreme cases, 100km). Thus, promoting the provision of additional production infrastructure and secondary infrastructure to aid the flow of produce within a confined space is paramount to limit the distribution costs and handling costs of produce. The primary focus of the operation is to enable communities and producers to take advantage to government market platforms and by extension distribute and store food for the benefit of local households and communities.

(b) The impact of minimal costs will translate into reduced produce prices and thus easier access by most community households. The capacity to exploit communal production sites will be enhanced over time through vocational training and behavioural change management, especially when niche production possibilities are identified and taken advantage of. The latter will be based on opportunity cost analysis.

(c) The introduction of climate-smart agriculture (production optimisation technologies and ecological adaptation practices, etc.) and of adaptive species into value chains will further aid in mitigating the impact of the drought phenomenon. It is thus imperative to scale up the implementation of production technologies (open pollination seeds, water harvesting and recycling, etc.) for the benefit of communities and consumers.

(d) Rapid urbanisation (interpreted as increase in residential sites in rural spaces) has a direct impact on the rangelands (animal grazing fields) and less cultivation activities. Thus extensive production systems will constantly be challenged to produce more from less land hence the need to opt for intensive production systems. The latter will include production tunnels (increase of production season), artificial pasture (increase the forage and development of forage bank); solar energy or any alternative energy (reduction of input cost) and these activities if effectively implemented will positively impact on the retail price of produce.

Given that there are initiatives already funded and implemented; the change management focus should be used to spearhead the entry point into communities, with the aim of ensuring optimal participation and understanding by participants. It is further important to be mindful of designing exit strategies which will ensure that ownership of activities is with communities or households.
The increase of produce, place utility and optimisation of inputs, and provision of supporting infrastructure for storage and distribution will contribute towards ensuring availability and access, while ensuring a steady income flow into households for better livelihood management systems.

Strategic Objectives 1, 2 and 6 will be reinforced to accommodate the key areas as defined by Cabinet resolution:

(a) The terms of reference, especially the composition and focus of the District Municipality Councils should allow for constitution of a technical team to ensure inclusion of proposed supply-driven interventions in the Integrated

Development Plans and the Municipal Infrastructure Grants (MIGs).

(b) The Strategic Objectives should ensure inclusion of producer registration (physical position, production capacity, expansion probability, etc.) and mapping of current interventions. The data should further be used to determine placement of secondary infrastructure to ensure collection and distribution channels of procured produce.

(c) The determination of risks as outlined in Strategic Objective 6 should be enforced, to minimise possible losses or to enhance the implementation of mitigation strategies to be defined during area-wide risk assessment activities.

4.6.2 Factoring in rapid urbanisation and consequent poverty

There are currently high levels of food insecurity in South African cities. The General Household Survey, 2016 found national prevalence of households at risk of hunger to be 11.8% and individuals experiencing hunger, 13.8%. The equivalent figures in urban informal areas were 32% and 36% respectively. The figures are reinforced by case studies which consistently show high levels of food insecurity. With regard to trends: nationally, food insecurity was in decline, but it appears to have plateaued. Ever-increasing food prices and other price shocks suggest that levels of urban food insecurity are unlikely to improve.
Urban food insecurity is characterised by low dietary diversity, high malnutrition and obesity, and distinct hunger seasons. This is caused by both household and extra-household scale factors including: Household income, income stability, household structure, and household asset base. The extra-household scale factors include geographic access to a range of sources of food, access to transport and stability of food prices.

Households themselves engage in strategies to mitigate food insecurity, which may increase household vulnerability to food insecurity in the longer term. These include consumption smoothing and accessing credit.

4.6.3 Food systems

Food insecurity is fundamentally linked to the structure of the food system. This provides an increased scope for municipalities to develop food security policies and programmes as the food system is clearly impacted by work conducted under existing mandates.

South Africa is food secure at a national scale, meaning that it currently either produces sufficient food or can import sufficient food to meet the food needs of its residents. However, the food system has become increasingly consolidated in the last two decades. South African agriculture has become more export oriented and is increasingly dependent on imports. There are concerns about the increased presence of highly processed foods as a result of this, and about exposure to price fluctuations. A further concern is that the deregulation of the food system has made it harder to track food within the system, thus generating critical data gaps which make governance more difficult.

Much of the focus on food security at the national scale has been on production, despite this being only one aspect of the system that delivers food to the urban poor. Many components of the food system operate in and around urban areas (production, warehousing, logistics, Fresh Produce Markets, processing, retail). There is therefore a major opportunity for local government to influence the food system.

Peri-urban agriculture (commercial and subsistence) potentially plays a role in generating food system conditions that can enhance food security. However, this land is under considerable development pressure. There is a need for local government to pro-actively include food production and the food system in land-use decision making. Local government should view food production along a continuum from household production to commercial agriculture and develop an understanding of the role that agricultural land can play in achieving broader municipal objectives.

Households depend on a range of formal and informal retailers to access food at different points in order to maximise their potential food security. It is therefore imperative that both formal and informal retail are viewed as critical nodes in the food system; planned for and supported accordingly.

The food system is dependent on several other systems (energy, water, transport, space) and is therefore vulnerable to a number of mega-trends. Strategies to increase food system resilience at the local scale should be supported.

4.6.4 Policy

An overview of key national policies which inform Provincial and Local Government responses to food insecurity is part of the NFNS plan. These national policies and strategies focus on production-based or safety net-based solutions, with some focus on addressing food choice. These policies gear municipalities to develop appropriate responses. However, the NDP 2030 seems to elevate the role of local government.

A review of the 2016/17 IDPs of municipalities finds a dependence on national framing approaches of enhancing food production and social safety nets. However, a number of municipalities attempt innovative approaches such as:

(a) Recognising the role of the Fresh Produce Market as a means to generate a more inclusive food system (Buffalo City)
(b) Recognising the municipal role in the characteristics of value chains (Ekurhuleni and Johannesburg)
(c) Recognising the need for planning to consider the generation of food networks (Ekurhuleni), and the need to understand the spatial determinants of food insecurity (Johannesburg, Mangaung)
(d) Connecting food security to climate change mitigation strategies (eThekwini, Cape Town)
(e) Developing a co-ordinated multi-pronged approach to food security (Johannesburg)
(f) Engagement of stakeholders outside of municipal government (Johannesburg)
(g) Conducting baseline evaluations to determine different levels of food security in different municipal wards (Johannesburg)

A review of constitutional mandates reveals a far broader set of responsibilities regarding the food system, which enables municipalities to generate novel policy approaches.

Because food security and food systems are complex, their challenges cannot be addressed by any spheres of government alone. The National Food and Nutrition Security Plan has two important roles to play in stakeholder engagement - a Convening role and a Mediating role, to ensure that no single perspective dominates. This is important in the context of systemic inequalities in South African municipalities and in the South African food system.

The stakeholder engagement process is therefore a) mapping of key stakeholder groups representing all stages of urban food systems, b) development of key stakeholder groups for ongoing engagement, c) identification and engagement with stakeholders specific to planned areas of policy and programme focus.

4.6.5 Investigation of food prices by the Competition Commission

The Competition Commission has undertaken a number of investigations into the agriculture and agro-processing sectors to address anti-competitive behaviours and business practises that restricted competition in the market. Rising food prices experienced by consumers nationally and globally in 2008, combined with the uncovering of alleged collusive behaviour by companies in the bread, milling, dairy and poultry sectors, has increased suspicions about possible collusion, abuse of dominance and other anti-competitive behaviour throughout the entire food value-chain. This has thus brought sharp focus onto agricultural value-chains and increased calls for more intervention by Government and competition

authorities to ensure fair competition and market transparency across food value-chains. The Competition Commission has recently identified food and agro-processing as a priority area and has already undertaken a number of investigations in the groceries retail market covering a number of food value-chains, including the poultry industry and other staple foods markets. DAFF has over the years worked closely with the Commission on a number of investigations on mergers and acquisitions in the agricultural sector, the latest being an investigation into the fresh produce markets looking into price setting approaches followed in those markets.

4.7 Collaboration with the International Trade Administration Commission (ITAC) on the possibility of reviewing current food-price tariff regimes

Attention is currently focused on the review of the formula-based tariff dispensation for maize, sugar and wheat. This review is already underway through ITAC, with DTI, DAFF and

National Treasury involvement. ITAC will provide an indication of how the reviewed tariff dispensation will affect food prices, with particular focus on the prices of imported maize, wheat and sugar.

4.8 Food Price Monitoring Unit (National Agricultural Marketing Council)

High food prices experienced in 2008 prompted DAFF to establish a Ministerial Committee to undertake a comprehensive assessment of the underlying causes of high and volatile food prices, and to make recommendations on how to deal with food prices to mitigate their negative impact on consumers, and more specifically on poor households. Key among the Committee's recommendations was the establishment of the Food Price Monitoring Unit under the National Agricultural Marketing Council (NAMC), to be supported by Statistics South Africa. This recommendation was approved by Cabinet and the unit was duly set up, and has been tracking food prices and issuing a quarterly Food Price Monitoring Report since it was established in 2008. In the August 2016 issue the cost of an urban food basket consisting of 23 items increased from R525.31 to R610.92, an increase of R85.61 or 16.3%

4.9 Anti-competitive market structure

The reporting years 2014/15, 2015/16 and 2016/17 were marked by a severe El Nino-induced drought, which affected agriculture significantly. This resulted in just under 200 000 livestock deaths, affecting about 246 631 farmers. Drought had major impacts in the sector, fanning inflationary pressures including food-price escalations. The Competition Commission was consulted on the food prices and responded in the following manner:

"It is now clear that liberalisation has not necessarily created competitive markets but, in many areas, it appears as if state intervention has been supplanted by private regulation in the form of anti-competitive conduct. The existence of barriers to entry in the value chain is significant in that anti-competitive conduct would not be sustainable if entry was easy. Barriers include the significance of research and biotechnology in the provision of seeds, and economies of scale in other major inputs such as fertilizer, through to the costs of establishing large grain silos and large-scale milling operations."

There are many factors contributing to the recent food-price increases in South Africa, as internationally. These include exchange-rate movements, especially for internationally-traded foodstuffs such as maize; increasing input costs, such as fertiliser; fuel costs; developments in biofuels; and growth in GDP per capita, which is a variable driving the demand for food. The implications of anti-competitive market structures and conduct

is not that they cause the price increases, but they may indicate that food prices were already at a higher, supra- competitive level, and that the pressures listed above may have a bigger impact to the extent that supply is constrained by low levels of competition. It was expected that under de- regulated conditions, free competition would prevail and prices would on average be lower; and also that firms would be more efficient as competitive rivalry spurred them to cut costs. Instead, it would be fair to infer that market structures have directly impacted on maintaining prices above the competitive level, and on producers' profitability and viability.

Price-fixing cartels are being uncovered by the Commission in investigations into products such as bread, mealie-meal, dairy and poultry. Alleged anti-competitive practices have also been uncovered in some vital agricultural inputs and services, such as fertiliser and silo storage, where cases are pending before the Competition Tribunal. High prices of such products and services achieved through anti-competitive practices impact on the overall high prices for basic foodstuffs, and squeeze the margins of farmers, forcing out marginal farmers

and inducing a shift in land use, such as to game farming thus reducing the overall quantity of food produced in South Africa.
The Commission's approach to the wider study of food, as a priority sector, has been to identify the main staple food products consumed by the large proportion of South Africans living on low incomes. In identifying the staple food basket the Commission assessed consumption patterns through looking at the food items in the basket of goods for the calculation of the Consumer Price Index ("CPI"), the latest Household Income and Expenditure. Survey conducted by Statistics South Africa, as well as data on food consumption patterns in the Living Standards Measurement ("LSM") categories.

4.10 Measures developed to ensure that agricultural land is used for agricultural purposes only

Measures provided for in the Preservation and Development of Agricultural Land Policy and Bill, developed by DAFF, include the following:

(a) Demarcation of agricultural land - to strengthen the protection of agricultural land the Department demarcate high value and best available agricultural land to ensure that such land is protected against non-agricultural land uses.

(b) Establishment of Agricultural Sector Plans - to ensure the preservation of agricultural land across the country and prevent unilateral actions by different organs of state in respect of the sustainable use and preservation of agricultural land that is prejudicial to national interest. The demarcation of agricultural land will separate the agricultural land from the land that is considered as non-agricultural land and guide agricultural land uses within the local municipality to support agricultural growth and development within the respective provinces

(c) Agricultural Land Register - to provide for a national repository that contain geo- referenced data and information on land capability classification, suitability, current state of and the use of agricultural land.

(d) Agro-ecosystem Reports - Compulsory reports to accompany all applications and to be compiled by agricultural scientists registered with South African Council for Natural Scientific Professions (SACNSP) justifying the change of land use application.

(e) Taxation on the change of agricultural land use - to discourage the conversion of agricultural land to other uses while ensuring that with the funds collected, a trust fund is initiated to be utilised for promoting agricultural production activities.

The DAFF has engaged the public for comments where the first round of public engagement on the draft Preservation and Development of Agricultural Land Policy and Bill was held during March 2015.The second round of public engagement were held in all the nine provinces during September 2016. DAFF also regulate and promotes the rehabilitation of degraded agricultural land through the Conservation of Agricultural Resources Act and LandCare programme.

With all of the above measures effectively implemented, the Department will be able to ensure that in future farming land is used for agricultural purposes.

4.11 Collaboration between DAFF and DSD on social protection measures

4.11.1 Food banks: The Food Bank of South Africa is working closely with the Department of Social Development. The South African food banking network initially was aimed at supporting existing feeding programmes and the establishment of new ones in areas where there was dire food needs to address food insecurity in the country. There were an Agreements (MoU) developed that Food Bank SA will buy produce from smallholders for the CNDCs, ECDs, Drop-in Centres, etc. This Agreement has since been revised. An improved integrated model is being investigated and will be deliberated upon by the interdepartmental structure.

4.11.2 Improved coordination between the State and NGOs

Various departments contributing to the food and nutrition security initiatives have engagement with various NGO's. NGOs and CBOs have been engaged during the drafting of the plan. It will be essential to develop the database of the NGOs involved in food production, nutrition and poverty reduction programmes. It will include their contributions and how government will partner with them in implementing the programmes. The NGO fraternity will have representation of the Food and Nutrition Security Council once it is established.

4.11.3 Involvement of the Department of Science and Technology (DST) in food production

The DST is involved in improving food production by sponsoring research conducted by the Agricultural Research Council (ARC). It is through this involvement that ARC developed the nutrient-dense Orange-Fleshed Sweet Potato (OFSP) variety, which is being commercialised for wider distribution and consumption. The ARC is distributing OFSP vines in provinces as a pilot to interested farmers towards a drive to commercialisation The ARC has also developed a drought-resistant maize variety which is adaptable to most areas in South Africa. However, its cultivation has not yet gained popularity among farmers. These developments are reported to the DST. The Department engages with centres of excellence that contribute to technology and information concerning food production and food and nutrition security, and a more structured long-term relationship is being developed with various universities on research advisory panels. The DST is considered instrumental in supporting these engagements.

4.11.4 Clear allocation of responsibilities of Government departments within the NFNSP

Leadership for the development and implementation of the NFNS Plan 2018-2023 is provided by the Office of the Deputy President, working together with 12 government departments. The Plan assigns clear responsibilities to these Government departments. It specifies the department that will lead the implementation of each of the 6 core pillars, as well as those that will be required to contribute. It also seeks to involve municipalities and civil society in its implementation, monitoring and reporting (See Table 6 below).

Table 5: NFNSP priorities, lead departments and contributing departments

Priorities		Lead De-partment	Other key departments and social partners
1	Establish a multisectoral Food and Nutrition Security (FNS) Council to: oversee alignment of policies, legislation and programmes; coordinate and implement programmes and services addressing FNS; and draft new policies and legislation where appropriate	Office of the Deputy President, DPME	DAFF, DSD, COGTA, DBE, DTI, RDLR, Provinces, local government, civil society, organised labour, development partners
2	Establish inclusive local food value-chains to support access to nutritious, affordable foods	DAFF	RDLR, Water & Sanitation, DTI, National Treasury, Correctional Services, civil society, development partners
3	Expand targeted social protection measures and sustainable livelihood programmes	DSD	DOH, Home Affairs, DBE, Provinces and local government, civil society, development partners
4	Scale up of high impact nutrition interventions targeting women, infants and children	DOH	DBE, DSD, DHA, civil society, development partners
5	Influence people across the life-cycle to make informed food and nutrition decisions through an integrated communications strategy	DOH/GCIS	DBE, DSD, DAFF, COGTA, DHA, development partners
6	Develop a monitoring and evaluation system for FNS in South Africa and establish an integrated risk management system for monitoring FNS- related risks	Stats SA, DAFF	DPME, DAFF, DOH, DBE, Statistics SA, COGT

4.11.5 Enabling factors

(a) The enabling factors that will assist in implementation of the NFNSP include the following:
(b) Leveraging funding
(c) Empowerment through affirmative procurement
(d) Coordination roles by relevant stakeholders
(e) Improving on efficiencies of post-harvest losses
(f) Modeling/projections
(g) Consider tapping into unemployed graduates
(h) Agreement with all partners
(i) Involvement of financiers e.g. land bank.

4.12 Human resources for implementation of the NFNSP

4.12.1 Development workers (extension practitioners)

Extension practitioners are qualified personnel in different agricultural fields, e.g. animal health, extension and development, agricultural marketing, agricultural management, horticulture. They are deployed by Provincial Departments of Agriculture in all nine provinces across South Africa. The Provincial Departments of Agriculture play an important role in implementation of support programmes and therefore the human capacity is at District and local level to achieve their mandate. Thus, the mandate for extension personnel is as follows:

(a) Advise farmers on sustainable agricultural production

The specialisation that an extension practitioner holds determine the kind of advisory services that will rendered to the farmer e.g. if a producer has challenges with regard to maize production, information from a agronomist will be rendered. If it happens that the extension practitioner of that producer is not a specialist in that regard, a fellow colleague will assist in that regard

(b) Land Reform Specialists provide pre- and post-settlement support to land reform applicants and beneficiaries

This process where extension practitioners provide support to farmers that will occupy a government farm property acquired through the Department of Rural Development and Land Reform

(c) Assist farmers to form commodity groups or legal business entities

Advice farmers on the positive impacts of forming a commodity groups or legal business entities according to the enterprise they produce. This has a positive impact especially when buying production inputs in bulk and the benefits of bulk acquisitions and business principles are applied at the lowest levels apply.

(d) Assist farmers to access markets

This mandate is important in the extension process as it assists farmers to become sustainable and independent of government support. This assistance is over a period of time as more than one market opportunity is needed to make a farmer sustainable.

(e) Facilitate training for farmers in groups and as individuals

When frequent visits are made by extension practitioners to different producers, they are able to identify gaps that a certain producer experience and if there is a common problem thereof, training through formal and non-formal means are made. Extension advisors will facilitate through study groups, formal sessions, the use of subject matter specialists, mentorship and classroom sessions using experts from different entities.

(f) Link farmers to research-related information

This will depend on the relevance of the research information to the commodities they produce.

(g) Enhance the resilience and coping capacity of farmers

The importance of this aspect is to equip farmers for the realities of farming as a business and a science.

Extension practitioners are the backbone of agricultural development at the local community level for the DAFF. They are at the coalface of development within various communities in South Africa, the biggest human resource that the department has in reaching farming communities at local level with information for farmers. They also perform the vital and critical role of monitoring specific plans for farmer development. They are familiar with challenges that farmers face on a daily basis, and are in most cases the first people farmers contact when they experience problems.

4.12.2 Community Development Practitioners (CDPs)

A CDP facilitates activities that enable households and communities to manage their own development in order to achieve sustainable livelihoods. The roles and responsibilities of CDPs will vary according to their level of operation. However, all CDPs must have a clear understanding of their area of operation – be it a community, ward, municipality, district or province. Please note that the activities indicated below are iterative and not linear.

The roles of CDPs in community development include:

(a) Understanding stakeholders and developing effective partnerships with ward committees, community development workers, CBOs and other community-based stakeholders.
(b) Understanding the community, using a variety of tools such as household and community profiles or community-based planning; understanding their livelihoods; performing service delivery analysis, mapping community issues and dis-aggregating households.
(c) Developing community-based plans.
(d) Helping communities to identify livelihood opportunities, working with different stakeholders at community level, and linking to external stakeholders such as municipalities.
(e) Assisting communities to mobilise and manage resources to support their priorities
(f) Supporting initiatives, projects and services and conflict resolution in the community;
(g) Where they have compiled community-based plans, helping communities to implement their plans.
(h) Helping communities to reflect on what is happening in their community, monitoring progress, and holding service providers accountable.

CHAPTER 5: Implementation of the NFNSP 2018-2023

5.1 Introduction

The six strategic objectives of the Plan and their accompanying key interventions, were derived from an iterative consultative process (described in Chapter 2). This process took into account the Food and Nutrition Security policy approved in 2013; the recommendations from Cabinet and the Diagnostic/Implementation Evaluation of Nutrition Interventions for Children from Conception to Age 5 (2014).

5.2 Strategic Objective 1: Establish a multisectoral Food and Nutrition Security Council to oversee alignment of policies, legislation and programmes, coordination and implementation of programmes and services which address food and nutrition security

Despite the high number of FNS policies and programmes, household food insecurity, hunger and malnutrition levels are unacceptably high. Institutional mechanisms have been established to drive and facilitate coordination, integration, collaboration and accountability amongst different role players, but these have proved to be less effective than anticipated. By contrast, all successful efforts to reduce malnutrition have a single leadership and governance structure and a single national plan of action for food and nutrition security. It is imperative that responsibility for improvement of food and nutrition security is placed at the highest political levels: at the national, provincial and district levels. All the departments must be accountable to one oversight structure. The Strategic Objective 1 therefore focuses on strengthening national leadership and governance for food and nutrition security.

5.2.1 Proposed institutional framework

The implementation of the NFNS Plan 2018-2023 is dependent on, among others, the establishment, operationalisation and effective functioning of a co-coordinating institutional framework, involving entities both in and outside of government. The proposed institutional framework has the following components:

5.2.1.1 The National Council on Food and Nutrition Security (chaired by the Deputy President of South Africa). This council is modelled on the South African National AIDS Council (SANAC), also chaired by the Deputy President;

5.2.1.2. Nine Provincial Sub-councils on Food and Nutrition Security (chaired by of the Premier of the Province);

5.2.1.3 District/Metropolitan Sub-councils on Food and Nutrition Security (chaired by the Mayor of the District or Metropolitan Municipality).

5.2.2 Composition of Inter-Governmental structures

5.2.2.1 The National Council on Food and Nutrition Security will consist of:

(a) The Deputy President (as Chairperson);
(b) Ministers of Planning, Monitoring and Evaluation; Agriculture, Forestry and Fisheries; Basic Education; Cooperative Governance; Trade and Industry; Health; Social Development; Rural Development and Land Reform; Water and Sanitation; Statistics SA; Women and Trade and Industry.
(c) Provincial Premiers or their delegates (MECs);
(d) Private Sector and NGO/CBO representatives.

(e) Senior officials (of at least at DG/DDG level) from core national government departments, who serves as the secretariat.
(f) Experts outside government, each qualified and experienced in at least one of the following domains, with other fields still to be identified: agriculture, food security, nutrition, health, food safety, policy, law, markets and trade, public administration, and monitoring and evaluation.

5.2.2.2 Provincial Councils

The Provincial Sub-council on Food and Nutrition Security will be chaired by the Premier. It will consist of Members of Executive Councils (MECs) and senior provincial government officials and experts. It will meet quarterly to discuss all issues relating to food and nutrition security in the province concerned, and report bi-annually to the National Council on Food and Nutrition Security

5.2.2.3 Metropolitan/District Municipality Councils

The District/Metropolitan Sub-council on Food and Nutrition Security will be chaired by the Mayor of the District or Metropolitan municipality. It will consist of senior municipal officials and experts. It will meet quarterly to discuss all issues relating to food and nutrition security in the District/Metropolitan municipality concerned, and report monthly to the relevant Provincial Sub-council.

5.2.3.4 Consultative Forums

The National Consultative Forum on Food and Nutrition Security (chaired by the Deputy President) will consist of (a) the members of the National Council on Food and Nutrition Security, and (b) stakeholders representing interest groups and civil society. This forum will meet once every six months to discuss all matters relating to food and nutrition security. The recommendations emanating from its discussions will be forwarded to the National Consultative Forum on Food and Nutrition Security for consideration. Similarly, Provincial and District/Metropolitan Consultative Forums on Food and Nutrition Security will also meet once every six months to discuss all matters relating to food and nutrition security and attrition in the province or District/Metropolitan municipality concerned, and make recommendations to the National Council or Provincial Sub-council for consideration.

5.2.6 Core functions of the proposed implementing institutions

Core functions of the National Council on Food and Nutrition Security include, but are not limited to, the following:

(a) Provide leadership and oversight for the implementation of the National Food and Nutrition Security Plan 2018-2023.
(b) Ensure overall coordination of all food and nutrition security programmes and projects including planning, funding and implementation.
(c) Mobilise and track investment and support.
(d) Ensure development of a comprehensive data base of statistical information relating to food and nutrition security.
(e) Commission mid-term and end- term evaluations and impact assessment.
(f) Ensure adjustment of existing programmes in order to incorporate evaluation findings and enhance impacts.
(g) Ensure quarterly publication of the status of food and nutrition security in South Africa;
(h) Approve and make recommendations on proposed Intergovernmental coordination mechanisms.
(i) Oversee the general governance of the structure to ensure attainment of the outcomes as described in the implementation plans.
(j) Monitor the impact of interventions on food access by households, income generation and promotion of partnerships with both international and national development partners.
(k) Make decisions on and monitor integrated planning and implementation regarding food and nutrition security.

(l) Monitor alignment of government interventions with objectives of the National Food and Nutrition Security Plan 2018-2023 and the National Development Plan 2030.

5.2.7 Standing committees

The National Council on Food and Nutrition Security will establish standing committees for each of the above and other fields, as required, to carry out its activities. Relevant committees could include:

(a) Nutrition Committee
(b) National Food Security: Risks and Emergencies Committee
(c) Livelihoods and Household Food Security Committee
(d) Policy and Legislation Committee
(e) Monitoring, Evaluation, Reporting and Intervention Committee
(f) Systems and Operations Committee;
(g) Finance Committee.

The Provincial and the District/Metropolitan Sub-councils on Food and Nutrition Security will be responsible for performing similar functions as the National Council on Food and Nutrition Security, but at subnational levels, and may also establish standing committees. The National, Provincial, and District/Metropolitan Consultative Forums on Food and Nutrition Security will be responsible for, amongst others, inclusive public participation (stakeholders and civil society) in discussions on matters pertaining to food and nutrition security at national, provincial or municipal level.

Expected outcomes

(a) Improved coherence in FNS policies
(b) Improved coordination in implementation of programmes and services which address FNS
(c) Improved resources and capacity to implement NFNSP

Table 6: Strategic interventions, specific activities, outputs, output indicators and targets for Strategic Objective 1.

Strategic Objective 1: Establish a multi-sectoral governance and leadership structure for coordinating FNS policies and programmes							
Strategic intervention	**Specific activities**	**Responsibility**	**Output**	**Output indicator**	**Baseline 2016**	**Target 2020**	**Target 2023**
Establish a multisectoral FNS council	Facilitate the establishment the FNS Council, chaired by the Deputy President and consisting of: • 12 Ministers • Premiers/ Premiers' delegates • Private sector • NGOs • CBOs	Office of the Deputy President Department of Planning, Monitoring and Evaluation (DPME)	FNS Council established, chaired by the Deputy President	FNS Council convened and records of proceedings compiled	FNS Council not yet in place.	FNS Council established by March 2019 FNS Council convenes bi- annually (to provide oversight and ensure accountability for the delivery of FNS programmes)	Improved coordination of Government Food and Nutrition Security programmes resulting from: • FNS Council convening bi- annually to provide oversight for the delivery of Food and Nutrition Security programmes • FNS Council holding government departments accountable for coherent delivery of Food and Nutrition Security programmes across all government departments

Strategic Objective 1: Establish a multi-sectoral governance and leadership structure for coordinating FNS policies and programmes							
Strategic in-tervention	**Specific activities**	**Responsibility**	**Output**	**Output indicator**	**Baseline 2016**	**Target 2020**	**Target 2023**
							• FNS Council leading resource mobilisation efforts for the delivery of FNS programmes
Establish and operationalise an integrated FNS delivery structure	Facilitate the establishment of the Provincial Councils, chaired by Premiers	Offices of the Premiers Role players	Provincial Council established, chaired by the Offices of the Premier District; Metro Mayors; NGO's, civil society, business, labour, organised agriculture, SOE's	Provincial FNS Council approved by the Offices of the Premiers	Provincial FNS Councils not yet in place	Provincial FNS Councils established by September 2019 Provincial FNS Councils provide oversight and ensure accountability for the delivery of food and nutrition security	• Improved delivery of • Government Food and Nutrition Security programmes resulting from the effectiveness of Provincial FNS Councils

Table 6: Strategic interventions, specific activities, outputs, output indicators and targets for Strategic Objective 1. - continued

Strategic Objective 1: Establish a multi-sectoral governance and leadership structure for coordinating FNS policies and programmes							
Strategic intervention	**Specific activities**	**Responsibility**	**Output**	**Output indicator**	**Baseline 2016**	**Target 2020**	**Target 2023**
	Facilitate the establishment of District Councils, chaired by Mayors	Office of the Mayors Role players	District FNS Councils established, chaired by the Offices of the Mayors NGO's, civil society, business, labour, organised agriculture, SOE's	District FNS Council approved by the Offices of the Mayors	District FNS Councils not yet in place	District FNS councils established in 27 priority districts by December 2019 District FNS Councils convened in 44 districts (excluding Metros) to track progress with the implementation of FNS Programmes	Improved delivery of Government FNS programmes in 40 Districts, resulting from the effectiveness of District FNS Councils

5.3 Strategic Objective 2: Establishment of inclusive local food value-chains to support access to nutritious, affordable food

Access to nutritious, safe and affordable food is essential to reduce all forms of malnutrition. Transformation of the rural economy is essential for growth, poverty reduction, employment creation and overcoming inequalities in the country. Greater focus is on raising the productivity of Smallholder Holder Producers as a way of increasing local access to nutritious foods. Focusing on local value food chains increases employment opportunities and reduces dependence on imports.

Outcomes

The outcomes expected from the implementation of the identified strategic interventions are as follows:

(a) Market stimulation for smallholder-producers to participate in local value chains.
(b) Improved policy environment to enhance participation of small holder producers in local food value-chains.
(c) Improved access to nutritious, affordable food.
(d) Improved access to production and marketing infrastructure.

Table 7: Strategic interventions, specific activities, outputs, output indicators and targets for Strategic Objective 2

Strategic Objective 2: Establishment of inclusive local food value-chains to support access to nutritious, affordable food							
Strategic intervention	**Specific activities**	**Responsibility**	**Output**	**Output indicator**	**Baseline 2016**	**Target 2020**	**Target 2023**
1. Increased production of valued agricultural products and nutritious crops	Increased food production by smallholder and subsistence producers	DAFF DRDLR, DWS, DTI, National Treasury, Correctional Services, Civil Society, Development Partners, DST, DSBD Producers NAMC Commodity organisa-tions, DST Centres of Excellence DoH, DSD, DBE	Food produced by smallholder and subsistence producers	Quantity of food produced by smallholder and subsistence farmers by type of produce (tonnes)	1 068 904 tonnes per annum of fruit and vegetables produced	2 million tonnes of fruit and vegetables per annum	5 million tonnes of fruit and vegetables per annum
					479 990 tonnes of maize and beans produced annually	3 million tonnes of maize and beans per annum	6 million tonnes of maize and beans per annum

Strategic Objective 2: Establishment of inclusive local food value-chains to support access to nutritious, affordable food							
Strategic intervention	**Specific activities**	**Responsibility**	**Output**	**Output indicator**	**Baseline 2016**	**Target 2020**	**Target 2023**
Increased production of valued agricultural products and nutritious crops	Increased food production by smallholder and subsistence producers	DAFF, DRDLR, DWS, DTI, National Treasury, Correctional Services, civil society, development partners, DST, DSBD Producers NAMC Commodity organisations, DST Centres of Excellence DoH, DSD, DBE	Food produced by smallholder and subsistence producers	Number of Indigenous food crops developed and produced	5 African vegetable cultivars developed and produced	6 African vegetable cultivars developed and produced	8 African vegetable cultivars developed and produced
				Tonnage of Tilapia and Catfish produced by subsistence and smallholder producers	Currently not being produced at meaningful levels	700 tonnes of Tilapia and 1 500 tonnes of Catfish	1 700 tonnes of Tilapia and 3 300 tonnes of Catfish
	Increased food production by household producers	DAFF DRDLR DSD Stats SA	Households involved in agriculture	Number of households involved in agriculture	2329043	2,535,371.18	2,879,683
			Household food production	Number of households with vegetable gardens	873 355	1 004 358	1,48,026

Table 7: Strategic interventions, specific activities, outputs, output indicators and targets for Strategic Objective 2 - continued

Strategic Objective 2: Establishment of inclusive local food value-chains to support access to nutritious, affordable food							
Strategic intervention	**Specific activities**	**Responsibility**	**Output**	**Output indicator**	**Baseline 2016**	**Target 2020**	**Target 2023**
2. Stimulate markets for smallholder producers	Certifying smallholder producers for South African Good Agricultural Practices (SA GAP)	DAFF PPECB ARC	Smallholder producers SA GAP certified to access local markets	Number of smallholder producers certified for SA GAP	20 smallholder producers SA GAP certified	50 smallholder producers SA GAP certified	100 smallholder producers SA GAP certified
	Smallholder producers supplying nutritious food into institutional markets	DAFF DBE DSD NAMC Provincial Departments DRDLR Development partners Development banks	Institutional markets procuring directly from smallholder producers	The number of smallholder producers supplying food to institutional markets	346 smallholders (WFP market)	5% of 16 000 smallholder producers supplying food to institutional markets	10% of 16 000 smallholder producers supplying food to institutional markets

Strategic Objective 2: Establishment of inclusive local food value-chains to support access to nutritious, affordable food							
Strategic intervention	**Specific activities**	**Responsibility**	**Output**	**Output indicator**	**Baseline 2016**	**Target 2020**	**Target 2023**
				The value of food being procured from smallholder producers.	R 21 million (WFP market Budget of DBE: School Feeding Programme: R6. 2bn (30% = R1.6bn) Department of Social Development: CNDC Budget – R97m (46% = R44 620 000) 30% of R44 620 000 must be set aside for procurement for smallholder producers DSD: ECD R1bn (30% set aside = R 300 million)	30% value of the food procurement budget spent on smallholders	50% value of the food procurement budget spent on small holder producers

Table 7: Strategic interventions, specific activities, outputs, output indicators and targets for Strategic Objective 2 - continued

Strategic Objective 2: Establishment of inclusive local food value-chains to support access to nutritious, affordable food							
Strategic intervention	**Specific activities**	**Responsibility**	**Output**	**Output indicator**	**Baseline 2016**	**Target 2020**	**Target 2023**
				Quantity of food being procured from smallholder producers	4 372 tonnes (WFP market)	600 000 tonnes per annum of food supplied into government departments procuring food	1,200 000 tonnes per annum of food supplied into government departments procuring food
3. Establish, and strengthen producer development institutions	Strengthen colleges of agriculture and centres of excellence for producer development	DAFF DBE DHE DRDLR DST Seta's Development partners	Centres of excellence for producer development and Agricultural Training Institutes	Number of centres of excellence and Agricultural Training Institutes for producer development	11 Training colleges of agriculture	6 Agricultural Training Institutes (ATIs) as operating as Centres of Excellence	11 Agricultural Training Institutes (ATIs) operating as Centres of Excellence
	Provision of capacity development	DAFF	Increased number of extension personnel	Number of extension officers	2 800	3 500	5 600

Strategic Objective 2: Establishment of inclusive local food value-chains to support access to nutritious, affordable food							
Strategic intervention	**Specific activities**	**Responsibility**	**Output**	**Output indicator**	**Baseline 2016**	**Target 2020**	**Target 2023**
4.Employment in local agricultural value chains	Local value chain employment	DAFF DRDLR Private sector role players DOL STATS SA DTI DOW	Increased employment and participation in local agricultural value chains	Number of people employed in the agricultural sector	882 000 people employed across the agricultural sector in primary production –as a direct result of DAFF support 882000 are employed in primary agriculture alone	900 000 people employed across the agricultural sector as a direct result of DAFF support	1 million people across the agricultural sector
				Number of women agro-prenuers and participants	241 women agro-prenuers (DAFF FEA 2012-2016)	30% women of 16 000 small holder producers supported	50% women of 16 000 smallholder producers supported
				Number of youth participants	13 212 youth participated	30% of small holder producers supported are youth	50% of small holder producers supported are youth

Table 7: Strategic interventions, specific activities, outputs, output indicators and targets for Strategic Objective 2 - continued

Strategic Objective 2: Establishment of inclusive local food value-chains to support access to nutritious, affordable food							
Strategic intervention	**Specific activities**	**Responsibility**	**Output**	**Output indicator**	**Baseline 2016**	**Target 2020**	**Target 2023**
5. Create an enabling policy environment	Finalise and align PCPDS to enable the establishme nt of local food value chains	DAFF DRDLR DTI DSD DBE DSBD DoH DCS	Policy on Comprehensive Producer and Development Support	PCPDS approval by Cabinet	Fragmented comprehensive producer support	PCPD approved by Cabinet	Comprehensiv e Producer Development Support Bill

Strategic Objective 2: Establishment of inclusive local food value-chains to support access to nutritious, affordable food							
Strategic intervention	**Specific activities**	**Responsibility**	**Output**	**Output indicator**	**Baseline 2016**	**Target 2020**	**Target 2023**
	Develop, and up- scale instruments to support production and access to markets for smallholder producers • incentives schemes • matching grants scheme • credit guarantee scheme, • commodity approach • aquaculture development scheme • marine funding	DAFF, DRDLR, DTI, DSB Land Bank	Instruments that support production and access to markets developed and implemented	Number of Instruments developed	6 instruments (APAP, CASP, Ilima Letsema, MAFISA, RECAP, and Competitive Enhancement Programme (MCEP)	1 Agro Processing Incentive scheme developed	1 Agro Processing Incentive scheme operational

Table 7: Strategic interventions, specific activities, outputs, output indicators and targets for Strategic Objective 2 - continued

Strategic Objective 2: Establishment of inclusive local food value-chains to support access to nutritious, affordable food							
Strategic intervention	**Specific activities**	**Responsibility**	**Output**	**Output indicator**	**Baseline 2016**	**Target 2020**	**Target 2023**
				Number of matching credit grant schemes	1 matching credit grant scheme with Land Bank	5 matching credit grant schemes aligned to APAP commodities	9 matching credit grant schemes aligned to APAP commodities
				Credit guarantee scheme	Micro Agricultural Institutions of South Africa	Revised agricultural credit scheme	Operational credit guarantee scheme servicing 30% of smallholder producers
				Number of agricultural cooperatives benefiting from the instruments	100 agricultural cooperatives	160 agricultural cooperatives receiving incentives	300 agricultural cooperatives receiving incentives
				Number of commodity organisations benefiting from the instruments	4 commodity organisations (round tables)	5 commodity organisation	9 commodity organisation based

5.4 Strategic Objective 3: Expand targeted social protection measures and sustainable livelihood programmes

Social protection and sustainable livelihoods are essential for access to safe and nutritious food, safe water, sanitation and health care. Social protection programmes provide an important safety net for South Africans of low socio-economic status, who would otherwise have been forced deeper into poverty. Without these programmes, the country's GINI coefficient is 0.69. When these programmes are factored in, the GINI coefficient decreases to 0.67. Social protection is thus crucial in addressing food and nutrition security. Key actions include promoting the early registration of children born in public health facilities within the prescribed 30-day period; achieving a universal child grant for eligible children born in public facilities; and making public works programmes more nutrition sensitive; integrating social protection registration with food and nutrition education and improving provision of nutritious meals to targeted learners in to include at least 3 food groups per meal.

Outcomes

The outcomes expected from the implementation of the identified strategic interventions for Strategic Objective 3 are as follows:

(h) Increased access of nutritious food among PVM
(i) Improved coverage of children of PVM households by the child grant
(j) Improved coverage of PVM by social protection programmes
(k) Improve coverage of PVMs receiving food from food distribution centres
(l) Enhanced livelihoods assets/Enhanced assets for resilient and sustainable livelihoods
(m) Enhanced agency of PVMs for sustainable livelihoods development

Table 8: Strategic interventions, specific activities, outputs, output indicators and targets for Strategic Objective 3

Strategic Objective 3: Expand targeted social protection measures and sustainable livelihood programmes							
Strategic intervention	**Specific activities**	**Responsibility**	**Output**	**Output indicator**	**Baseline 2016**	**Target 2020**	**Target 2023**
1. Improve the child grant registration system	DHA, DOH, DSD	Review and improve registration system of infants at birth	Increase in number of children registered at public health facilities within 30 days	Number of infants born in public health facilities registered.	(70% infants register within 30 days of birth)	Review of registration system completed.	N/A
			Increased number of children registered within 30 days at public health facilities.	% of infants born in public and private health facilities registered within 30 days in population register.	70% of 1 000 000 infants born in public and private health facilities.	80% (5% increment/ annum	95%
		Develop a rigorous registration strategy of infants at birth	Strategy linking pre and post birth registration developed	Registration strategy developed	DoH & Home Affairs birth and ID registration systems	Comprehensive policy on pregnancy and maternity benefits	Approved policy on pregnancy and maternity benefits.

Strategic Objective 3: Expand targeted social protection measures and sustainable livelihood programmes							
Strategic intervention	**Specific activities**	**Responsibility**	**Output**	**Output indicator**	**Baseline 2016**	**Target 2020**	**Target 2023**
		Implement a universal child grant registration for eligible children	Universal Child Grant registration systems	Number of registered infants (<1 year) from PVM households	51-71% of eligible children registered for Child Support Grant	10% increase of children registered	15% increase of children registered.
2. Develop an integrated social protection information system to improve access to social assistance programmes	DSD DOH, DHA, DBE, Provinces and local government, civil society, development partners	Design an integrated and consolidated information system within and across departments	Integrated Social Protection Information System (ISPIS)	Integrated Social Protection Information System (ISPIS) developed	Fragmented sectoral information systems [38]	Integrated Social Protection Information System (ISPIS) piloted in key departments, DOH, DBE, DSD	Integrated Social Protection Information System expanded to 10 Departments: DOH, DBE: DSD, DAFF, DRDLR, DWS, CoGTA, DPME, DSBD, Stats SA

[38] HANIS = DHA; SOCPEN & NISIS = (DSD); EMIS/Lurits = (DBE); NHIS = (DH); Indigent register = (DCG)38

Table 8: Strategic interventions, specific activities, outputs, output indicators and targets for Strategic Objective 3 - continued

Strategic Objective 3: Expand targeted social protection measures and sustainable livelihood programmes							
Strategic intervention	**Specific activities**	**Responsibility**	**Output**	**Output indicator**	**Baseline 2016**	**Target 2020**	**Target 2023**
3. Expand a network of feeding and food distributions	DSD & DBE	Provide nutritious meals through community feeding centres	PVMs access nutritious food	Number of ECDs providing nutritious food to targeted PVMs.	27 728 ECDs	37 000	54 000
			PVMs access nutritious food	Number of schools providing nutritious food to targeted PVMs	21 177 schools	19 800 schools	19 800 schools
			PVMs access Nutritious food	Number of Community Nutrition and Development Centres (CNDCs) providing nutritious food to targeted PVMs	167 CNDCs	257 CNDCs	302 CNDCs

Strategic Objective 3: Expand targeted social protection measures and sustainable livelihood programmes							
Strategic intervention	**Specific activities**	**Responsibility**	**Output**	**Output indicator**	**Baseline 2016**	**Target 2020**	**Target 2023**
3. Expand a network of feeding and food distributions	DSD & DBE	Provide nutritious meals through community feeding centres	PVMs access Nutritious food	Number of children provided with food through ECDs	987 636 children	1 500 000	1 500 000
			PVMs access Nutritious food	Number of learners provided with nutritious food through NSNP	9 734 662 Learners	9.9 million	9.9 million
			PVMs access Nutritious food	Number of people provided with food through CNDCs	41 750 people received food in CNDCs	64 250 people	75 000 people
			PVMs access Social Relief of Distress	Number of PVMs accessing Social Relief of Distress	60 055 PVMs.	120 000 PVMs	180 000

5.5 Strategic Objective 4: Scale up high-impact nutrition interventions targeting women, infants and children

The situational analysis reflected in Chapter 2 shows the need for scaling up high-impact, evidence-based nutrition interventions, which target vulnerable periods in the life-cycle including preconception, pregnancy and lactation, infancy and childhood period. These interventions have improved nutrition outcomes globally. However, coverage rates of these programmes in South Africa are low. Key interventions include: Increased availability of micronutrient supplements, deworming tablets, fortified porridge and improved advocacy around exclusive breastfeeding. Improve ability of ECD centres, schools and CNDCs to address nutrition issues. Improvement of training and nutrition education focusing on community health workers and food handlers in ECD centres, schools and CNDCs.

Outcomes

The desired outcome is: Improved access, coverage and effectiveness of high-impact, nutrition-specific interventions targeting nutritionally vulnerable groups across the life course, with a focus on the first 1000 days.

Key indicators:

(a) Increased access and coverage:
  (i) Increased coverage of micronutrient supplements (folic acid and iron, calcium) for pregnant women and multiple micronutrient supplementation for undernourished
  (ii) Increased coverage of micronutrient supplements (vitamin A) in children
  (iii) Improved deworming coverage in children

(b) Fostering positive behaviour change and adoption of healthy lifestyle, food and nutrition choices among vulnerable groups across the life course (linked to SO5):

To track improvement in dietary diversity among vulnerable groups across the life course and particularly improvement in appropriate feeding practices among infants and young children, focus will be on key indicators such as: exclusive breastfeeding rates, Minimum Meal Frequency, Minimum Acceptable Diet (MAD) and increased dietary diversity for women of reproductive age (WRA), and Maternal Dietary Diversity Scores (MDD).

Targeted, focused and needs-based roll-out to scale will be tailor-made for food-secure and food-insecure communities, as reflected below:

Status	"Nutrition Secure"	"Nutrition Insecure"
Food Secure	Sustain interventions	• Improve utilization • Nutrition-specific interventions
Food Insecure	Agriculture, social protection and health interventions	Food and Nutrition sensitive synergistic interventions

Table 9: Strategic interventions, specific activities, outputs, output indicators and targets for Strategic Objective 4

Strategic Objective 4: Scale-up of high-impact nutrition interventions targeting women, infants and children							
STRATEGIC INTERVENTIONS	**SPECIFIC ACTIVITIES**	**RESPONSIBILITY**	**OUTPUT**	**OUTPUT INDICATOR**	**BASELINE 2016**	**TARGET 2020**	**TARGET 2023**
1. Improve access, coverage and effectiveness of high-impact nutrition specific interventions targeting nutritionally vulnerable groups across the life cycle	WRA and pregnant and lactating women (PLW) aged 15-49 years: 1.1 Increase the access and coverage of micronutrient supplements (folic acid and iron, *calcium) for pregnant and lactating women	DOH	Increased uptake and utilisation of micronutrient supplements for targeted pregnant and lactating women in public health facilities	Proportion of pregnant and lactating women receiving with micronutrient supplements	New indicator: no targets set for micronutrient (data source: Antenatal Care (ANC) register clinical audits	60% of pregnant and lactating women attending public health facilities receiving micronutrients supplements (folic acid and iron, calcium)	90% of pregnant and lactating women attending public health facilities receiving micronutrien ts supplements (folic acid and iron, calcium)
	1.2 Increase coverage of multiple micronutrient supplementation (MMNS) among special target populations: undernourished PLW HIV and TB patients						

Table 9: Strategic interventions, specific activities, outputs, output indicators and targets for Strategic Objective 4 - continued

Strategic Objective 4: Scale-up of high-impact nutrition interventions targeting women, infants and children							
STRATEGIC INTERVENTIONS	**SPECIFIC ACTIVITIES**	**RESPONSIBILITY**	**OUTPUT**	**OUTPUT INDICATOR**	**BASELINE 2016**	**TARGET 2020**	**TARGET 2023**
	1.3.Strengthen health systems effectiveness to ensure continuous supply of (a) micronutrients supplements (folic acid and iron, *calcium) and (b) multiple micronutrient supplements to reach the targeted population	DOH	Continuous supply of micronutrient supplements (iron, folate and calcium) and multiple micronutrient supplements at facility level	Effectiveness score to assess coverage micronutrient supplementation	Effectiveness score 66.7% for micronutrient supplements (Source: U5 Nutrition Evaluation, 2014)	Effectiveness score 80%	Effectivenes s Score 90%

Strategic Objective 4: Scale-up of high-impact nutrition interventions targeting women, infants and children							
STRATEGIC INTERVENTIONS	**SPECIFIC ACTIVITIES**	**RESPONSIBILITY**	**OUTPUT**	**OUTPUT INDICATOR**	**BASELINE 2016**	**TARGET 2020**	**TARGET 2023**
	1.4 Monitoring clinical effectiveness of micronutrient supplementations (iron and folate and calcium) and multiple micronutrient supplementation among PLW, HIV and TB clients	DOH	Improved micronutrient status among target populations	Proportion of pregnant women on iron and folate supplement ation with Hb >10 g/dL at delivery	New Indicator: Targets are not set for micronutrients among pregnant women (data source: Antenatal Care (ANC) register clinical audits (DCST work plan)	60% of women with Hb >10 g/dL at delivery	80% of women with Hb >10 g/dL at delivery

Table 9: Strategic interventions, specific activities, outputs, output indicators and targets for Strategic Objective 4 - continued

Strategic Objective 4: Scale-up of high-impact nutrition interventions targeting women, infants and children							
STRATEGIC INTERVENTIONS	**SPECIFIC ACTIVITIES**	**RESPONSIBILITY**	**OUTPUT**	**OUTPUT INDICATOR**	**BASELINE 2016**	**TARGET 2020**	**TARGET 2023**
	1.5 Increase access and coverage of high energy & nutrient dense nutritional supplements for target populations across the life course: undernourished infants and children, WRA (15-49) and people leaving with, including HIV and TB clients.	DOH	Increase uptake and utilisation of nutritional supplements among undernourished target populations	Proportion of target populations receiving nutritional supplements	U5 Children: 69% children with MAM received nutritional supplements (Source: U5 Nutrition Evaluation) WRA, PLW, HIV and TB: New Indicator: Targets are not set for nutritional supplements across the life course	U5 Children: 80% of children with MAM and SAM receiving nutritional supplements WRA, PLW, HIV and TB: 50% of the undernourished target population receiving nutritional supplements	U5 Children: 90% of children with MAM and SAM receiving nutritional supplements WRA, PLW, HIV and TB: 80% of the undernourished target population receiving nutritional supplements

Strategic Objective 4: Scale-up of high-impact nutrition interventions targeting women, infants and children							
STRATEGIC INTERVENTIONS	**SPECIFIC ACTIVITIES**	**RESPON SIBILITY**	**OUTPUT**	**OUTPUT INDICATOR**	**BASELINE 2016**	**TARGET 2020**	**TARGET 2023**
	1.6 Strengthen health systems effectiveness to ensure continuous supply of high energy and nutrient dense nutritional supplements to reach the targeted population: undernourished infants and children, WRA (15-49) and PLW, including HIV and TB clients.	DOH	Continuous availability and supply of nutritional supplements at facility level	Effectiveness score to assess coverage micronutrient supplementation	New Indicator: No Effectiveness score measured in Source: U5 Nutrition Evaluation, 2014	Effectiveness score 80%	Effectiveness Score 90%

Table 9: Strategic interventions, specific activities, outputs, output indicators and targets for Strategic Objective 4 - continued

Strategic Objective 4: Scale-up of high-impact nutrition interventions targeting women, infants and children							
STRATEGIC INTERVENTIONS	**SPECIFIC ACTIVITIES**	**RESPON SIBILITY**	**OUTPUT**	**OUTPUT INDICATOR**	**BASELINE 2016**	**TARGET 2020**	**TARGET 2023**
	1.6 Monitoring clinical effectiveness of nutritional supplementation among target population across the life course: undernourished infants and children and people leaving with HIV and TB clients	DH	Improvement in weight gain and overall nutritional status amongst the target population	U5 children: Proportion of MAM and SAM that die in facilities (case fatality rate, CFR)	Baseline: U5 SAM inpatient CFR (DHIS, 2015): 8.2% U5 MAM CFR: New indicator	U5 SAM inpatient CFR (DHIS): <7% U5 MAM inpatient CFR (DHIS): <6%	U5 SAM inpatient CFR (DHIS): <5% U5 MAM inpatient CFR (DHIS): <4%
				Older target groups: proportion of target groups receiving nutritional supplements achieving appropriate weight gain or improvement in anthropometric criteria	Older groups: New indicator	Older groups: >50% recovery rates	Older groups: >80% recovery rates

Strategic Objective 4: Scale-up of high-impact nutrition interventions targeting women, infants and children							
STRATEGIC INTERVENTIONS	**SPECIFIC ACTIVITIES**	**RESPON SIBILITY**	**OUTPUT**	**OUTPUT INDICATOR**	**BASELINE 2016**	**TARGET 2020**	**TARGET 2023**
	1.7 Undertake facility audits through the ideal clinic process to ensure availability of standard essential anthropometric equipment (MUAC tapes, infant scales, length boards, stadiometers, BMI wheels) at each facility and mobile teams (WBOTS and school health teams)	DOH	All facilities and mobile teams (WBOTS and school health teams) with functional anthropometric equipment	Number of primary health care facilities reported on the ideal clinic dashboard with functional anthropometric equipment	322 PHC ideal facilities with functional anthropometric equipment	2823 PHC ideal facilities with functional equipment	3477 PHC facilities with functional equipment

Table 9: Strategic interventions, specific activities, outputs, output indicators and targets for Strategic Objective 4 - continued

Strategic Objective 4: Scale-up of high-impact nutrition interventions targeting women, infants and children							
STRATEGIC INTERVENTIONS	**SPECIFIC ACTIVITIES**	**RESPONSIBILITY**	**OUTPUT**	**OUTPUT INDICATOR**	**BASELINE 2016**	**TARGET 2020**	**TARGET 2023**
	INFANTS AND CHILDREN AGED 0-59 MONTHS 1. Increase access and coverage of breastfeeding and complementary feeding counselling and support among women with CHW/WBOTS	DOH	Improvements in infant and young child feeding practices	Proportion of infants under 6 months exclusively breastfed as measured in DHIS at 14 weeks (Source: DHIS)	32% exclusively breastfed at 6 months weeks (SADHS 2016)	50% exclusively breastfed at 14 weeks	60% exclusively breastfed at 14 weeks

Strategic Objective 4: Scale-up of high-impact nutrition interventions targeting women, infants and children							
STRATEGIC INTERVENTIONS	**SPECIFIC ACTIVITIES**	**RESPON SIBILITY**	**OUTPUT**	**OUTPUT INDICATOR**	**BASELINE 2016**	**TARGET 2020**	**TARGET 2023**
	2. Establish high-quality Kangaroo mother care (KMC) units, implementing all components of KMC, by allocating dedicated staff and space for KMC babies and integrating KMC into existing initiatives such as MBFI & Newborn Care Plans	DOH	Improvement in the quality of KMC provided to low birth weight babies	Proportion of Low birth weight babies admitted to facility- based quality KMC who survived (discharged alive)	New indicator (Data source: audits of neonatal registers, Perinatal Problem Identification Programme (PPIP))	60% of low birth weight babies initiated on facility-based quality KMC survived	80% of low birth weight babies initiated on facility-based quality KMC survived

Table 9: Strategic interventions, specific activities, outputs, output indicators and targets for Strategic Objective 4 - continued

Strategic Objective 4: Scale-up of high-impact nutrition interventions targeting women, infants and children							
STRATEGIC INTERVENTIONS	**SPECIFIC ACTIVITIES**	**RESPON SIBILITY**	**OUTPUT**	**OUTPUT INDICATOR**	**BASELINE 2016**	**TARGET 2020**	**TARGET 2023**
	3. Improve the access and coverage of Growth Monitoring and Promotion (GMP) services and ensure effective and timely remedial actions are taken to prevent and manage acute malnutrition	DOH	Reduced number of children growth faltering	Proportion of under 5 children reached with GMP (coverage)	50% GMP coverage (Source: U5 Nutrition Evaluation)	70% GMP coverage	90% GMP coverage
				Proportion of children under 59 months with identified with growth faltering	New indicator	<50% of children under 5 with growth faltering	<30% of children under 5 with growth faltering
	4. Increase vitamin A and deworming coverage in children 12-59 months	DOH	Improved Vitamin A and deworming coverage among children 12-59 months	Number of children <12 months & 12-59 months receiving one dose of Vitamin A every 6 months	57.0 %	80% of children 12-59 months receiving one dose of vitamin A and deworming every 6 months	90% of children 12-59 months receiving one dose of vitamin A and deworming every 6 months

Strategic Objective 4: Scale-up of high-impact nutrition interventions targeting women, infants and children							
STRATEGIC INTERVENTIONS	**SPECIFIC ACTIVITIES**	**RESPON SIBILITY**	**OUTPUT**	**OUTPUT INDICATOR**	**BASELINE 2016**	**TARGET 2020**	**TARGET 2023**
	5. Implement food and nutrition interventions to comply with minimum nutritional standards for Early Child Development (ECD) (among other standards) to ensure children accessing ECD sites receive good quality and quantity of nutritious foods	DOH DSD	Children in ECD sites received good quality and quantity of nutritious food	Proportion of ECD sites providing good quality and quantity nutritious foods according to the minimum standards	"75% of ECD sites providing food" (quality not assessed) (Source: U5 Nutritional Evaluation, 2014).	70% of ECD sites providing good quality and quantity nutritious foods according to the minimum standards	90% of ECD sites providing good quality and quantity nutritious foods according to the minimum standards

Table 9: Strategic interventions, specific activities, outputs, output indicators and targets for Strategic Objective 4 - continued

Strategic Objective 4: Scale-up of high-impact nutrition interventions targeting women, infants and children							
STRATEGIC INTERVENTIONS	**SPECIFIC ACTIVITIES**	**RESPONSIBILITY**	**OUTPUT**	**OUTPUT INDICATOR**	**BASELINE 2016**	**TARGET 2020**	**TARGET 2023**
	SCHOOL GOING CHILDREN AGED 7 - 14 YEARS	DOH (school health) DBE UNICEF	Increased number of learners receiving deworming intervention at schools	Proportion of children in Grade R and Grade 1 in Q1, Q2 and Q3 Schools reached with deworming medication	57% children reached through campaign (ISHP Campaign Report, March 2016)	75% deworming coverage	90% deworming coverage
	2. Increase access and coverage of anthropometric screening for preventing and managing malnutrition (under- and over-nutrition) among learners in Q1 and Q2 schools (Grade 1 and Grade 8)	DOH DBE	Improved identification and referral of malnourished children	Proportion of Q1 and Q2 primary school children screened and appropriately referred in Grade 1 and Grade 8	Grade 1: 25% (Source: DHIS, APP 2015/16) Grade 8: 10% (Source: DHIS, APP 2015/16)	Grade 1: 45% Grade 8: 30%	Grade 1: 65% Grade 8: 60%

Strategic Objective 4: Scale-up of high-impact nutrition interventions targeting women, infants and children							
STRATEGIC INTERVENTIONS	**SPECIFIC ACTIVITIES**	**RESPONSIBILITY**	**OUTPUT**	**OUTPUT INDICATOR**	**BASELINE 2016**	**TARGET 2020**	**TARGET 2023**
	ADULTS>35 YEARS 1. Improve the quality and effectiveness of clinical screening and assessment, counselling and support for NCD, with focus on obesity prevention and control at all ideal clinics	DOH Health, partners and NGO's, private sector	Improved identification and appropriate management of NCD (obesity)	Proportion of ideal clinics conducting BMI, waist circumference and lifestyle counselling	322 ideal clinics (Ideal Clinic database, 2015)	2 823 ideal clinics (80% coverage)	3 477 ideal clinics (100% coverage)

Table 9: Strategic interventions, specific activities, outputs, output indicators and targets for Strategic Objective 4 - continued

Strategic Objective 4: Scale-up of high-impact nutrition interventions targeting women, infants and children							
STRATEGIC INTERVENTIONS	**SPECIFIC ACTIVITIES**	**RESPONSIBILITY**	**OUTPUT**	**OUTPUT INDICATOR**	**BASELINE 2016**	**TARGET 2020**	**TARGET 2023**
2. Capacitate health workers to provide appropriate nutrition support with a strong focus on preventing under and over-nutrition, including nutritional counselling and support, growth monitoring, counselling and support	Roll out e-learning methods to all community service health professionals (doctors, nurses, pharmacist and dieticians)	DOH Academic Universities UNICEF WFP FHI360 and other partners	Community-service health professionals competent in SAM case management	Proportion of registered users who have successfully completed the e-learning course	New indicator	50%	70%

5.6 Strategic Objective 5: Influence people across the life cycle to make informed food and nutrition decisions through an integrated communication strategy

The communication strategy focuses on the entire lifecycle. However ECD, school- going children, youth and adolescents are prioritised.

SO5 is about creating an awareness platform on the tail end of the food value chain but nothing about how people can become more self-sufficient, i.e. at the beginning part of the food value-chain.

The South African food system is rapidly changing and the dietary patterns of the increasingly urban population have also shifted. A national Behavior Change Communication (BCC) strategy is necessary to reduce the double burden of malnutrition. This will focus on tackling stunting and overweight through positively affecting the consumption of nutritious foods and promoting healthier lifestyles. Therefore, Strategic Objective 5 and its associated key activities described in Table 9 concentrates on behavioural change and the regulatory environment and the capacities of the outreach workers in the community.

Currently the National Department of Health is developing a Breastfeeding Communication Strategy, updating the Road to Health Booklet (RTHB) and developing a RTHB app. It will then roll out a communication plan, targeted at healthcare workers and mothers, to drive more effective use of the RTHB.

The South African Civil Society for Women, Adolescent' and Children's Health Coalition (SACSoWACH) is also developing an advocacy and communications plan, with DOH, for Maternal and Child Health (MCH). The aim is to incorporate all of these strategies into the national BCC, in addition to developing obesity, non-communicable disease (NCD) and WASH components.

Nutrition education has been the role of health workers at hospital, PHC and at community level and teachers in schools Competing priorities, lack of knowledge and skills have all proved to be a hindrance to effective communication and a change in behaviour. New methodologies are required to be developed and a broad range of communication channels should be used. These could include media (TV, radio, social media, mobile phone-based communication, counselling aids and outdoor advertising), community platforms (schools, churches, stokvels, ECDs, home visits), infrastructure development (e.g. improve WASH facilities), existing school heath/departmental platforms (national health calendar, annual health campaigns, imbizos).

An in-depth look at what would inspire South Africans to change their eating practices is necessary to create a demand for communication on good nutrition, health and WASH practices, as well as the uptake of government-driven interventions. The communication strategy should get South Africans excited about healthier eating and good health practices including breastfeeding, and should support the social protection, food and nutrition interventions of the public system. The communication strategy will be geared to raise awareness and thus demand regarding health care access, growth monitoring, assisting with birth registration, nutrition advice and hygiene advice.

Strategic objective 5: Influence people across the life cycle to make informed food and nutrition decisions through an integrated communication strategy
Outcome: Improved knowledge, attitudes and practices on FNS issues

Table 10: Strategic interventions, specific activities, outputs, output indicators and targets for Strategic Objective 5

Strategic objective 5: Influence people across the life cycle to make informed food and nutrition decisions through an integrated communication strategy							
STRATEGIC INTERVENTIONS	**SPECIFIC ACTIVITIES**	**RESPONSIBILITY**	**OUTPUT**	**OUTPUT INDICATOR**	**BASELINE 2016**	**TARGET 2020**	**TARGET 2023**
Develop and implement an integrated advocacy and communication FNS strategy	DoH, DSD, DAFF, GCSI, DPME, DBE	Develop and implement an integrated advocacy and communication plan led by the Deputy President of RSA. (Key technical messages collated and developed into a message briefing document)	Integrated advocacy and communication FNS strategy (Key technical messages collated)	integrated advocacy and communication FNS strategy approved by office of the DP (Key technical messages compiled and collated)	Different sectoral strategies exist	Integrated strategy approved 2017	Integrated advocacy and communication FNS strategy implemented in all 52 districts Empirical surveys reflect improved knowledge, attitudes and practices on food and nutrition security issues
				Increased number of media platforms conveying food and nutrition messages	No integrated strategy for delivering Food and Nutrition Security messages Potentially 32.7 million listeners in SA (top 10 biggest radio stations) can receive FNS messages	FNS messages communicated through all 256 Community Radio Stations and 20 commercial radio stations	FNS messages communicated through all 256 Community Radio Stations station and 40 commercial radio stations

Strategic objective 5: Influence people across the life cycle to make informed food and nutrition decisions through an integrated communication strategy							
STRATEGIC INTERVENTIONS	**SPECIFIC ACTIVITIES**	**RESPON SIBILITY**	**OUTPUT**	**OUTPUT INDICATOR**	**BASELINE 2016**	**TARGET 2020**	**TARGET 2023**
	DSD, DOH, DBE	Implement nutrition education at ECD and schools	caregivers in registered ECDs are knowledgeable on nutrition	Number of ECD sites registered with DSD where nutrition education is given	27 728 (current no. of ECD sites)	50% of the total number of ECD caregivers in registered ECDs	80% of the total number of ECD caregivers in registered ECDs
Youth and adolescents: Include nutrition education on healthy food choices and food diversity in adolescent and youth-friendly services and BE WISE MOBISITE App	DOH, DBE, DHET	Promote the Nutrition Interactive Application among youth and adolescents	Nutrition education messages incorporated into the BE WISE MOBISITE App	Number of youth and adolescents who are registered to use the (BE WISE MOBISITE)	142 123 users (August 2016)	500 000	1 million
			Food and Nutrition messages for Adolescent incorporated in the youth friendly services	Number of facilities in which Youth Friendly Services have incorporate food and nutrition messages.	0%	407 (25%) facilities	570 (35%) facilities

CHAPTER 6: Monitoring and Evaluation (M&E) of the NFNS Plan 2018-2023

6.1 Strategic Objective 6: Develop a monitoring and evaluation system for food and nutrition security, including an integrated risk-management system for monitoring FNS- related risks

6.1.1 Inadequate information systems

Improving food and nutrition security is a priority for South Africa. Timely, reliable and accurate data on the status of and trends in food insecurity and nutrition must inform policy, programmes and strategies. However, South Africa does not have a reliable and accurate system for identifying and analysing the conditions of the food insecure. Other challenges include the following:

(a) Competing approaches to food insecurity measurement have emerged over time and no generally accepted framework exists on which to base the measurement.
(b) Multiple contributing causes such as social norms, individual behaviour and stages in the human life cycle, food availability and quality – make it a problem that requires a comprehensive approach.
(c) Nutrition is most accurately measured through costly anthropometric measures and biochemical analysis. The Global Nutrition Report 2015 states that South Africa has 22 missing indicators (listed in Chapter 7).
(d) While many state-funded programmes have increased the ownership of productive assets and participation in the economy by food-insecure smallholders, employment levels and engagement in the agricultural sector have not realised the expected results. Although recent efforts to establish a Vulnerability Assessment Committee have explored the development of a national framework through DAFF, efforts are constrained by lack of funding, capacity shortages and inaccessibility of data – particularly when the data is under the custodianship of non-state actors.

A simple, unified monitoring system needs to be established to guide action and hold stakeholders accountable. This system will also be utilised for tracking outcomes and inputs. The monitoring system should track food and nutrition status, but also indicators related to the other six strategic objectives.

6.1.2 Benefits of an effective and efficient M&E system

A sound monitoring and evaluation system for food and nutrition security is essential, as it will:

(a) Provide knowledge management to mobilise existing networks and expertise to assemble the needed capacities and knowledge and provide first-rate analytical and advisory services regarding the design, implementation, and evaluation of the Plan;
(b) Collect, collate and analyse data to support the implementation, performance appraisal, review and evaluation of the Plan and its components;
(c) Generate, disseminate, and provide knowledge products to support implementation of the Plan, particularly shared standards and protocols for the collection, storage, and exchange of data as well as cutting-edge methodologies for policy and strategy analysis and integrated data system management for programmes;
(d) Support the review and dialogue process to provide relevant and timely information to guide performance appraisal, review and impact evaluations.

6.1.3 Monitoring and evaluation coordination

The effectiveness of the Plan will therefore be monitored through a national monitoring and evaluation system and learning from the lessons of the DPME outcomes-based

approach and the national evaluation system that will be led by the M&E Unit of the Council. The M&E Unit needs to be appropriately funded and as independent as possible.

6.1.4 Establishing the M&E Unit

This will require:

(a) Integration of relevant data and knowledge into a coherent knowledge management system;
(b) Identifying gaps in information that are critical to decision making;
(c) Establishment of a country knowledge-network among researchers, policymakers, and other key stakeholders;
(d) Synthesis of rural and agricultural information and knowledge;
(e) Improving the data-base in the country through better integration and enhanced access to information available at the micro, meso, and macro levels (where possible, spatially referenced);
(f) Identifying, applying, and disseminating an array of scientific tools and spatially-based information systems to help in generating improved rural strategies and in assessing best investment options available for the country as a whole, for different regions and by development domain;
(g) Building the necessary capacity for these tasks.

6.1.5 Functions of the M&E Unit

Once established, the M&E Unit will:

(a) Be located in DPME and collaborate with Stats SA and various statistical units in the collaborating departments. This will contribute to ensuring the integration of existing information systems.
(b) Be accountable to the Food and Nutrition Security Council
(c) Be responsible for the establishment, maintenance and delivery of data and knowledge products, reports and information.
(d) Operate as per the model for Outcomes Data Management Systems, including a Data Forum for discussion and review of indicators and methods.
(e) Be supported by the skills and capacity of researchers at South African Universities and responsible Public Entities in partnership with the private sector
(f) Take the responsibility for reporting on SADC Vulnerability Assessments, SDGs, African Union Commission's Agenda 2063 and CAADP, among others to avoid duplication of efforts, streamline reporting and its content and ensure accuracy.

6.2 Impact Indicators to be monitored

The NFNS Plan 2018-2023 aims to achieve a huge positive impact in the lives of South Africans, and has therefore set ambitious targets. Table 11 below reflects a total of 17 impact indicators and the targets for 2023.

Table 11: SMART Impact Indicators

Impact Indicators		Baseline	Target for 2023	Data Source
1	Percentage (%) of households vulnerable to hunger	11.8%	5.7%	General Household Survey (GHS) 2016
2	% of individuals vulnerable to hunger	13.4%	6.6%	GHS 2016
Additional indicators				
3	% of households experiencing hunger	New	TBD	GHS 2018
4	% of individuals experiencing hunger	New	TBD	GHS 2018
Decrease in months of food shortages among the poor, vulnerable and marginalised				
5	% of households with inadequate or severely inadequate access to food	22.3%	<10%	GHS 2016
6	% of individuals with inadequate or severely inadequate access to food	24.9%	<5%	GHS 2016
Additional indicators				
7	Number of months (and actual months) in which the household experienced food shortages	New	TBD	GHS 2018
Reduced prevalence of under-nutrition in children (acute)				
8	Wasting: Proportion of children below 5 years of age with height for weight <-2 Z-scores of the median WHO child growth standards	3% (increase from 2.2% in 2012, SANHANES-1, HSRC 2013)	No increase in wasting	South African Demographic and Health Survey (SADHS)
9	Stunting: Proportion of children below 5 years of age with height for age <-2 Z-scores of the median WHO child growth standards	27% (was 26,9% amongst children aged 1-3 years SANHANES-1, HSRC 2013)	<20% in 2020 <15% in 2023	SADHS 2016

Impact Indicators		Baseline	Target for 2023	Data Source
Reduced prevalence of over-nutrition in children				
10	Overweight: Proportion of children less than 5 years of age with height for weight >+2 Z-scores of the median WHO child growth standards	13% in 2016 (decrease from 14% in 2012, SANHANES-1 2013)	No increase in child overweight by 2020, 10% reduction by 2022	SADHS
Reduced prevalence of Low Birth Weight				
11	Prevalence of infants born <2500g (%, proportion of total live births)	13% (117 510 of 901 652 live births)	30% reduction By 2023	DHIS
12	Prevalence of exclusive breastfeeding (%) at 6 months	32%	50% by 2023	SADHS 2016
Reduced prevalence of over-nutrition in adults (Women aged 15 years and above))				
Overweight: Women				
13	Body Mass Index (BMI): Weight in kilograms divided by the square of height in metres (kg/m2	26.6% in 2016 decreased from 39% in 2012 (women over 15 years and above)	10% reduction by 2020 15% reduction by 2023	SADHS 2016 SANHANES 2012
Obesity: Women				
14	BMI	41% in 2016 worsened from 24.8% (women aged 15 years and above)	10% reduction by 2020 15% reduction by 2023	SADHS 2016 SANHANES 2012

Impact Indicators		Baseline	Target for 2023	Data Source
Reduced prevalence of over-nutrition in adults (Men aged 15 years and above))				
Overweight: Men (aged 15 years and above)				
15	BMI	20.3% in 2016 (was 19,6% in 2012) (men aged 15 years and above)	10% reduction by 2020 15% reduction by 2023	SADHS 2016 SANHANES 2012
Obesity: Men (aged 15 years and above)				
16	BMI	11% in 2016 (was 11.6% in 2012)	10% reduction by 2020 15% reduction by 2023	SADHS 2016 SANHANES 2012
Reduced prevalence of Vitamin and Mineral Deficiencies				
17	Percentage (%) of women of reproductive age (16-35 years) who have a haemoglobin level of less than 11g/dl	23.1% (SANHANES 2013)	25% reduction by 2020 (to 17.3%) 50% reduction by 2023 (to 11.5%)	SADHS

6.5 Evaluation of the effectiveness of interventions

A follow-up evaluation study will be commissioned in 2020, to assess the country's progress on the implementation of the high-impact nutrition interventions as recommended in the diagnostic evaluation of nutrition interventions for children under 5 years of age.

Strategic Objective 6: Develop a monitoring and evaluation system for FNS, including an integrated risk-management system for monitoring FNS-related risks

Intended Outcomes:

(a) Improved availability and quality of FNS information
(b) Improved accountability for results of FNS interventions
(c) Improved FNS risk management
(d) Improved utilisation of FNS information in strategic decision-making.

Table 12: Strategic interventions, specific activities, outputs, outputs indicators and targets for strategic objective 6

Strategic Objective 6: Develop a monitoring and evaluation system for Food and Nutrition Security in South Africa and establish an integrated risk-management system for monitoring FNS related risks.							
Strategic interventions	**Responsibility**	**Specific Activities**	**Output**	**Output Indicator**	**Baseline 2016**	**Target 2020**	**Target 2023**
Establish a core set of indicators for monitoring FNS progress and risks	Stats SA / DAFF Other key departments and social partners: DPME, DOH, DBE, COGTA	Identify, review and integrate a core set of FNS indicators in national surveys for continuous surveillance of FNS interventions and their impacts	Consistent set of core indicators incorporated in national surveys, which include: • % of households experiencing hunger • % of individuals experiencing hunger	Report of the GHS 2017 and subsequent surveys incorporating set of core indicators	Core set of FNS indicators included in previous GHS, but not comprehensive	GHS 2017 GHS 2018 GHS 2019 collecting data on the expanded set of core indicators Food and Nutrition statistics publication produced annually	All subsequent GHS collecting data on the expanded set of core indicators Food and Nutrition statistics publication produced annually

Strategic Objective 6: Develop a monitoring and evaluation system for Food and Nutrition Security in South Africa and establish an integrated risk-management system for monitoring FNS related risks.							
Strategic interventions	**Responsibility**	**Specific Activities**	**Output**	**Output Indicator**	**Baseline 2016**	**Target 2020**	**Target 2023**
Conduct evaluations of the NFNS Plan 2018-2023	DPME Stats SA DoH DAFF DSD DBE	Conduct an implementation evaluation of the NFNS Plan 2018-2023	Implementation evaluation of the NFNS Plan 2018-2023 completed	Report on the implementation evaluation of the NFNS Plan 2018-2023 approved by the FNS Council	None. NFNS Plan 2018-2023 newly developed	Implementation evaluation of the NFNS Plan 2018-2023 completed by December 2020 Results of the Evaluation of the NFNS Plan 2018-2023 used to improve delivery of FNS programmes	Summative evaluation of the NFNS Plan 2018-2023 completed Report on the summative evaluation of the NFNS Plan 2018-2023 approved by the FNS Council

6.4 Creation of an integrated risk-management system for monitoring FNS- related risks

National food security is foundational to ensuring household food security and sound nutrition, and essential for peace and stability. Food and nutrition outcomes are sensitive to shocks related to weather, prices, crop and animal diseases, and conflict. The establishment of a risk register is essential to guide action. The state has an important role in protecting and ensuring national food supply and supporting the self- provisioning of households. This is achieved through various means, including deliberate policies, strategies, legislation and programmes to encourage sustainable food production, technology development and research into production, processing, storage and food safety.

Food production, processing, storage, distribution and trade are prone to multiple risks throughout the entire food system (from farm to fork) and across all elements of value chains. These risks need to be identified, mitigation measures need to identified and contingency plans and funds established.
Monitoring of risks and analysis of their potential impact is essential to inform preventative measures to reduce risk, early warning systems to alert the state and the population of impending hazards and crises, and emergency response mechanisms.

While a national disaster risk unit does exit, it does not currently deal with food insecurity risks except for responding to emergency situations related to natural disasters and diseases.

In cases of emergency, survival and management depend on the rapid assessment of the severity and extent (number of people affected) of the impact and having the resources (financial, human and provisions) to respond. Emergency readiness requires careful planning, coordination and mobilisation of a range of services. This demands budgeting for contingency funds.

The current drought demands immediate planning for a possible emergency situation with regard to food and water supply. A regional food emergency is possible in the SADC region, which could put significant pressure on the country from both within the country and within the region. Climate change and climate uncertainty increase risk (risks to production as well disease risks) in all agricultural systems. Climate change also creates greater uncertainties for farmers, fisherfolk and foresters, as well as the insurers and financial lending institutions that underpin production.

New forms of risk are also emerging related to foreign interest in agricultural production and export of agricultural products, including fresh milk and fish, to meet food demands and food security needs in other countries. Many of these intensive production systems impose additional risks to the environment and livelihoods of local populations.

Table 13: Strategic interventions, specific activities, outputs, output indicators and targets for Strategic Objective 6

Strategic interventions	Responsibility	Specific Activities	Output	Output Indicator	Baseline 2016	Target 2020	Target 2023
Establish a FNS risk register for the country	DAFF, DoH, DPME, National Disaster Management Centre, National Intelligence Agency	Analyse potential FNS hazards and risks and their impacts, including climate change, drought, price increases/fluctuations, pests, food safety / biotechnology, risks for nutrition, food industry cartels etc. Profile risks to which the country is vulnerable and how they should be addressed as part of the FNS disaster preparedness and management mechanism	Analysis and rating of different hazards and their impacts	Report on analysis and rating of different hazards and their impacts	NAMC price monitoring reports, Supply and Demand Committee, Crop Estimates Committee reports, Stats SA Reports and other Disaster related reports under SA National Disaster Management Centre	Risks and Hazards Analysis completed	Updated Risks and Hazards Analysis

Table 13: Strategic interventions, specific activities, outputs, output indicators and targets for Strategic Objective 6

Table 13: Strategic interventions, specific activities, outputs, output indicators and targets for Strategic Objective 6

Strategic interventions	Responsibility	Specific Activities	Output	Output Indicator	Baseline 2016	Target 2020	Target 2023
		Develop mechanisms to address food and nutrition security risks and hazards by: 1. Establishing a strategic grain. reserve facility, 2. Instituting consumer and producer price support mechanism for the benefit of the poor. 3. Review Marketing of Agricultural Produce Act of 1996 and other relevant legislation impacting on food security 4. Establish effective smallholder and community farming support programmes, including farmer led seed system	Mechanisms of addressing risks and hazards including grain reserve facility, price support mechanism and legislation to enable State participation in the food System	Reports on implementation of different mechanisms to address FNS risks (Establishing a grain reserve facility, Instituting price support mechanism etc, Review Marketing Agricultural produce act of 1996 and other relevant marketing legislation)	1. SAFEX system 2. Current legislation on marketing of agricultural commodities	1. Grain reserve facility designed 2. Food price support mechanism designed 3. Review Marketing of Agricultural Produce Act of 1996 and other relevant legislation	1. Grain reserve facility implemented 2. Price support mechanism implemented 3. Amended Marketing of Agricultural Produce Act implemented

Table 13: Strategic interventions, specific activities, outputs, output indicators and targets for Strategic Objective 6 - continued

Table 13: Strategic interventions, specific activities, outputs, output indicators and targets for Strategic Objective 6

Strategic interventions	Responsibility	Specific Activities	Output	Output Indicator	Baseline 2016	Target 2020	Target 2023
Enhance capacity for generating and using FNS and risk monitoring and evaluation information	Stats SA, DAFF, DoH, DPME, PDA's, other departments & agencies	Identify groups vulnerable to different FNS risks and profile them	Risk profiles for vulnerable groups completed	Reports on the Risk profiles of vulnerable groups	South African Vulnerability Assessment System (SAVAC) in place	Risk profiles for vulnerable groups completed annually Interventions of the FNS 2018-2023 modified to prioritise profiled vulnerable groups	Risk profiles for vulnerable groups completed bi-annually

6.5 Research

South Africa need to develop strong evidence-based interventions to effectively guide policy and ensure that it makes the best use of the county's limited resources. There is a dearth of food security and nutrition-related research being undertaken in the country. Researchers and policy makers together need to agree on research priority areas around health, nutrition, food security and social policy including ECD. Furthermore, a number of key indicators are not routinely collected in South Africa (See Table 14). This makes it difficult to mark progress and assess achievements against other countries. There is a need for specific indicators to be included in future surveys and research agendas where their absence is a constraint to effective action.

Table 14 Key indicators not routinely collected in South Africa

	Indicator
1	Changes in stunting prevalence over time, by wealth quintile
2	Overweight and obesity among children
3	Adolescent and adult anthropometry (% population), overweight, obesity
4	Women of reproductive age, thinness
5	Women of reproductive age, short stature
6	Micronutrient status of population including anaemia among children and women of reproductive age
7	Vitamin A deficiency in preschool-age children (%)
8	Population classification of iodine nutrition (age group 6-12)
9	Intervention coverage and child-feeding practices
10	Continued breastfeeding at 1 year
11	Iodized salt consumption and iodine nutrition
12	Infant and young-child feeding practices (% 6-23 months); Minimum acceptable diet
13	Infant and young-child feeding practices (% 6-23 months); Minimum dietary diversity
14	Aquaponics

CHAPTER 7: Priority Districts

The National Food and Nutrition Security Plan 2018-2023 seeks to achieve a national footprint, in which the identified interventions are consulted and implemented across all Provinces and municipalities. However, the plan takes into acount that the burden of food insecurity and concomitant poor nutrition is not equally prevalent across the entire country. In keeping with the principles of equity and social solidarity, the interventions outlined in the foregoing chapters of the plan will in the immediate term be dedicated to districts that have been identified as priority districts.

7.1 The 27 Priority District areas

In June 2011, Cabinet identified 21 Priority District areas having less than 30% access to basic services. This was subsequently extended to 24 district areas, which include Amathole, Xhariep, and uMgungundlovu District Municipalities. An additional 3 Priority District areas have been identified, but the focus for these areas is on ensuring that they develop economically, based on current and potential mining activities.

Below is the list of Priority District areas, indicating the number of households below basic level of service (water, sanitation, refuse removal and electricity) as informed by the Census of 2011.

Table 15: Original 27 Priority Districts

No.	Name of Municipality	Total households	Backlog - Access to Basic Services			
			Below Basic Water	Below Basic Sanitation	Below Basic electricity	Below Basic Refuse Removal
1	Amathole	237 776	86 580	125 438	59 499	156 883
2	Chris Hani	210 852	48 367	80 571	42 698	118 714
3	Joe Gqabi	97 775	31 164	39 170	26 313	56 143
4	OR Tambo	298 229	150 277	131 242	75 566	207 047
5	Xhariep	45 368	1 181	5 758	3 162	10 610
6	Ugu	179 440	48 587	66 435	42 456	99 482
7	uMgungundlo vu	272 666	29 480	54 785	31 366	107 881
8	Uthukela	147 286	36 552	43 461	30 450	73 608
9	Umzinyathi	113 469	41 292	39 595	47 153	69 341
10	Amajuba	110 963	10 454	30 978	14 274	34 854

No.	Name of Municipality	Total households	Backlog - Access to Basic Services			
			Below Basic Water	Below Basic Sanitation	Below Basic electricity	Below Basic Refuse Removal
11	Zululand	157 748	44 165	56 934	36 428	87 661
12	uMkhanyaku de	128 195	48 535	44 541	63 692	86 334
13	uThungulu	202 976	35 227	64 313	38 146	100 260
14	Ilembe	157 692	38 110	45 477	36 188	75 979
15	Ehlanzeni	445 087	101 653	203 251	42 091	245 953
16	Mopani	296 320	73 387	147 470	29 299	195 163
17	Vhembe	335 276	84 584	165 045	37 676	222 972
18	Capricorn	342 838	53 526	158 292	35 278	180 562
19	Waterberg	179 866	18 015	55 219	17 867	70 776
20	Bojanala Platinum	501 696	59 038	169 403	57 744	160 970
21	Ngaka Modiri Molema	227 001	46 164	97 333	37 747	108 862
22	Dr Ruth Segomotsi Mompati	125 270	21 437	41 260	19 722	69 790
23	Sisonke	112 282	41 819	45 729	35 260	68 890
24	Alfred Nzo	169 261	86 435	82 346	76 534	126 571
25	John Taolo Gaetsewe	61 331	11 061	20 672	6 601	31 829
26	Sekhukhune	263 802	77 765	156 520	30 165	177 479
27	West Rand	267 397	15 333	26 845	40 021	40 316
Total		**8 283 239**	**1 460 759**	**2 587 477**	**1 253 444**	**3 468 183**

Focused implementation of the 6 strategic objectives of the NFNSP 2018-2023 will take place in these 27 districts. Using other criteria inclusive of health indicators, the list was expanded to 32 districts. The NFNSP 2018-2023 was tabled before the Technical Committee of the Department of Cooperative Governance and Traditional Affairs (COGTA), consisting of the Director-General and Provincial Heads of Department (HoDs), in July 2017. It was endorsed.

The NFNSP 2018-2023 was subsequently presented to the MinMEC (meeting of the Minister and the Members of the Executive Councils) of COGTA in August 2017. The COGTA MinMEC also endorsed the Plan.

Table 16: Priority Districts for implementation of the Food and Nutrition Security Plan

No.	DISTRICT	SEQ LEVEL	COGTA PRIORITY DISTRICT	IN-FACILITY SEVERE ACUTE MALNUTRITION CASE FATALITY RATE (2015/16)
1.	A Nzo: DC44	1	yes	High
2.	Amathole: DC12	1	yes	High
3.	C Hani: DC13	1	yes	High
4.	Joe Gqabi: DC14	1	yes	High
5.	OR Tambo: DC15	1	yes	High
6.	uMkhanyakude: DC27	1	yes	High
7.	uMzinyathi: DC24	1	yes	High
8.	Zululand: DC26	1	yes	High
9.	Harry Gwala: DC43	1	yes	High
10.	Sekhukhune: DC47	1	yes	High
11.	RS Mompati: DC39	1	yes	High
12.	iLembe: DC29	2	yes	High
13.	Ugu: DC21	2	yes	High
14.	uThukela: DC23	2	yes	High
15.	uThungulu: DC28	2	yes	High
16.	Capricorn: DC35	2	yes	High
17.	Mopani: DC33	2	yes	High
18.	Vhembe: DC34	2	yes	High
19.	JT Gaetsewe: DC45	2	yes	High

No.	DISTRICT	SEQ LEVEL	COGTA PRIORITY DISTRICT	IN-FACILITY SEVERE ACUTE MALNUTRITION CASE FATALITY RATE (2015/16)
20.	Pixley ka Seme: DC7	2	no	High
21.	NM Molema: DC38	2	yes	High
22.	S Baartman: DC10	3	no	Low
23.	Xhariep: DC16	3	yes	High
24.	T Mofutsanyana: DC19	3	no	Low
25.	Amajuba: DC25	3	yes	High
26.	uMgungundlovu: DC22	3	yes	High
27.	Waterberg: DC36	3	yes	High
28.	Ehlanzeni: DC32	3	yes	High
29.	G Sibande: DC30	3	no	High
30.	ZF Mgcawu: DC8	3	no	within national target
31.	Bojanala: DC37	3	yes	High
32.	West Rand: DC48	4	yes	Low

CHAPTER 8: Costing and financing the NFNSP 2018-2023

8.1 Introduction

For each of the 6 strategic objectives of the NFNS Plan 2018-2023, the plan has set out several interventions, activities and outputs, with indicators and targets that explain how the objectives will be achieved and what success will look like. To ensure that these targets are realised, the required interventions need to be costed to estimate the resources required to implement the plan.

This chapter presents the estimates of the costs of implementing the NFNS Plan. In doing so, it provides policy-makers with the information and evidence they need to make informed choices about the plan's implementation, and to understand the resourcing requirements and trade-offs associated with the plan's inherent choices.

The estimates presented in this report are based on information gathered in the course of several workshops with the various departments and agencies involved in the NFNS Plan. Over the course of these engagements, additional information has been collected that elaborates on the high-level activities and outputs in the NFNS Plan. This level of detail was not only beneficial to the costing exercise, but also provided an opportunity for departments and agencies to think through their approach to implementing the NFNS Plan over the next 5 years.

8.2 Approach to costing

Any costing exercise relies on the best available information at the time. The NFNS Plan is a comprehensive plan insofar as it covers a wide range of interventions across various sectors and departments. That said, it lacks the detail of an implementation plan that specifies how and when activities will happen and what types of resources will be required. In the absence of this level of detail, the costing exercise makes assumptions about the quantity and prices of inputs. Thus, the estimates in this report provide an approximate cost associated with each of the strategic objectives mentioned in the NFNS Plan, based on estimates of unit costs and quantities.

The cost estimates serve two purposes. First, they identify the cost drivers under each strategic objective. Cost drivers are causal factors in programmes that influence the cost of producing a services or product. For instance, a key cost driver in the SA-GAP certification process is the number of audits required by the PPECB to reach the certification targets. Second, the cost estimates provide an indication of the resources required to implement each activity. By providing this information, this costing report makes the trade-offs between the different policy options and implementation approaches in the NFNS Plan explicit, so that they can be deliberated and discussed by all stakeholders.

The costing model has been created in an Excel Workbook to make it is accessible to a wide range of users. The model contains spreadsheets for each strategic objective and presents the costing results by year according to the various assumptions made. The section below presents the costing results estimated by the model. The cost estimates are based on the overarching assumption that all targets presented in the NFNS Plan's implementation plan are achieved. Further parameter assumptions underlying the results are presented in Annexure 5.

8.3 Costing results

8.3.1 Aggregate costs

Table 17 below displays a summary of the aggregate costs associated with each of the plan's strategic objectives and an indication of the percentage contribution each makes to the total cost of the plan over the period.

Table 17: Aggregate costs

R millions	2018/19	2019/20	2020/21	2021/22	2022/23	Total	% of total
SO1: Establish a multi-sectoral governance and leadership structure for coordinating FNS policies and programmes	R2.38	R3.31	R3.80	R4.34	R4.93	R18.76	0.02%
SO2: Establish inclusive local food-value chains to support access to nutritious, affordable food	R3 955.23	R10 277.92	R14 459.41	R17 627.40	R21 559.43	R67 879.39	78.20%
SO3: Expand targeted social protection measures and sustainable livelihood programmes	R626.84	R1 403.28	R2 193.70	R2 940.63	R3 991.73	R11 156.17	12.85%
SO4: Scale up high-impact nutrition interventions targeting women, infants, and children	R392.91	R816.23	R1 335.34	R1 908.11	R2 572.33	R7 024.92	8.09%
SO5: Influence people across the life- cycle to make informed food and nutrition decisions through an integrated communications strategy	R94.37	R108.41	R142.35	R157.38	R201.28	R703.79	0.81%
SO6: Establish the NFNS Plan M&E Unit	R5.71	R3.25	R5.18	R3.77	R5.78	R23.70	0.03%
Total	**R5 077.43**	**R12 612.40**	**R18 139.79**	**R22 641.63**	**R28 335.48**	**R86 806.72**	

Upon examination, it is evident that not all the strategic objectives contribute equally to the plan's overall costs. While strategic objectives two, three and four are the largest components, accounting for 99.16% of the total costs between the three of them, the other three objectives contribute just 0.84%. In the subsequent sections, the detailed costs for each of the strategic objectives will be provided.

8.4 Strategic Objective 1

8.4.1 SO1-A: Establish the National FNS Council

The tasks required to achieve this objective are presented in table 18 below.

Table 18: SO1-A: Establish the National FNS Council

Strategic intervention	Specific activities	Outputs	Output indicator	Tasks
Establish a multisector FNS Council	Facilitate the establishment of the FNS Council	FNS Council established, chaired by the Deputy President	FNS Council as envisioned in the Food and Nutrition Security Policy of 2013	**(1) National FNS Council meetings** **(2) National FNS Council consultative forums** **(3) National FNS Council international conferences**

Source: Consultations with the NFNS Plan Coordinating Committee

Through the key tasks outlined in Table 18, the National FNS Council seeks to improve the coordination of government FNS programmes.

8.4.1.1 Costing results

As per Table 19, the total cost for Strategic Objective 1-A is R4.74 million over the period 2018/19 to 2022/23, which is the second-smallest implementation cost of the NFNS Plan's objectives. The FNS Council consultative forum is the largest cost component, accounting for R2.99 million over the period, due to the relatively large number of national and provincial delegates included in this forum. All public-sector employees appointed to this council are expected to absorb this work within their existing mandates, meaning that the sector experts and logistics-related expenditure (travel, accommodation, catering, etc.) are the main cost drivers. Following the establishment of the council, the costs are forecast to increase in line with inflation as the operational structure of SO1-A is set to remain constant over the period.

Table 19: SO1-A cost estimates

R Millions	2018/19	2019/20	2020/21	2021/22	2022/23	Total
SO1-A: Establish a national multi-sectoral food and nutrition security council	R 0.84	R 0.89	R 0.94	R 1.00	R 1.06	R 4.74
National FNS Council meetings	R 0.10	R 0.10	R 0.11	R 0.12	R 0.12	R 0.55
National FNS Council consultative forums	R 0.53	R 0.56	R 0.60	R 0.63	R 0.67	R 2.99
International cooperation and knowledge exchange	R 0.21	R 0.23	R 0.24	R 0.25	R 0.27	R 1.20

Source: Costing outputs from FNS Costing Model

8.4.1.2 Key considerations

(a) The DPME needs to ensure that the sector experts working with these councils are willing to do so for an honorarium payment, rather than full consultant rates. This greatly reduces the governance and operational cost of the NFNS Plan.

(b) Given the relatively low number of attendees, it is practical and advisable that all meetings are held at internal venues. This will minimise unnecessary expenditure.

(c) The option to host international cooperation and knowledge-exchange events does increase the cost of this activity, but the benefit in terms of expanding the profile of food and nutrition security in South Africa may be worth it. This is especially true if external funding or sponsorships can be secured to host the events.

8.4.2 SO1-B: Establish the Provincial and local FNS Councils

The tasks required to achieve this objective are presented in Table 20 below.

Table 20: SO1-B: Establish the Provincial and local FNS Councils

Strategic intervention	Specific activities	Outputs	Output indicator	Tasks
Establish and operationalise an integrated FNS delivery structure	Facilitate the establishment of the Provincial Councils, chaired by Premiers	Provincial Councils established, chaired by the Offices of the Premiers, including District Metro Mayors; NGO's, civil society, business, labour, organised agriculture, SOE's.	Provincial FNS Councils approved by the Offices of the Premiers.	(1) Provincial FNS council meetings (2) Provincial FNS council consultative forums
	Facilitate the establishment of District Councils, chaired by Mayors	District FNS Councils established, chaired by the Offices of the Mayors, including NGO's, civil society, business, labour, organised agriculture, SOE's	District FNS Councils approved by the Offices of the Mayors	(1) District FNS council meetings

8.4.2.1 Costing results

As shown in Table 21 below, the total cost for Strategic Objective 1-B is R14.02 million over the period 2018/19 to 2022/23. The costs of the Provincial FNS Council meetings and the Provincial FNS Council consultative forums, which take place separately in each province, increase in line with inflation as the structure of these groups is set to remain constant over the 5-year analysis period. The District FNS Councils, however, grow to 27 by the end of year 2 and then to 40 by the end of year 5. This explains the steep increases in the cost of District FNS Councils.

Table 21: SO1-B cost estimates

R Millions	2018/19	2019/20	2020/21	2021/22	2022/23	Total
SO1-B: Establish Provincial and District Food and Nutrition Security Councils	R1.54	R2.42	R2.86	R3.34	R3.87	R14.02
Provincial FNS Council meetings	R0.32	R0.34	R0.37	R0.39	R0.42	R1.85
Provincial FNS Council consultative forums	R0.48	R0.51	R0.54	R0.57	R0.61	R2.71
District FNS Council meetings	R0.73	R1.57	R1.95	R2.37	R2.84	R9.46

Source: Costing outputs from FNS Costing Model

8.4.2.2 Key considerations

(a) The DPME needs to ensure that the sector experts working with these councils are willing to do so for an honorarium payment, rather than full consultant rates. This greatly reduces the governance and operational cost of the NFNSP.

(b) Given the large number of people expected to attend the Provincial FNS Council consultative forums, it may not be possible to host these events at internal venues. If the venues shift to external sites this puts some cost pressure on the activity, but not enough to completely alter its affordability.

(c) Given that much of the work will be done at the provincial and district levels, these bodies are expected to play a pivotal role in the success of the NFNS Plan. The costs also appear affordable, especially in light of the important role of these bodies, as most attendees are existing public officials. The few sector experts are justified, given the technical nature of the work and the importance of these sub-national bodies.

8.5 Strategic Objective 2: Establishment of inclusive local food value- chains to support access to nutritious, affordable food

8.5.1 SO2-A: Increase food produced by smallholder producers

The tasks required to achieve this objective are presented in Table 22 below.

Table 22: SO2-A: Increase food produced by smallholder producers

Strategic intervention	Specific activities	Outputs	Output indicator	Tasks
Increased production of high-value agricultural products and nutritious food	Increased food production by smallholder and subsistence producers	Food produced by smallholder and subsistence producers	Quantity of food produced by smallholder and subsistence producers by type of produce	1) **Provision of the required inputs to increase production of fruit, vegetables, maize and beans** 2) **Provision of land for smallholder producers**

Source: Government of the Republic of South Africa, 2017, and consultations with DAFF

8.5.1.1 Costing results

The costing model utilises the production targets in the NFNS Plan as the driver of costs and estimates the additional expenditure required to provide the necessary support to smallholder producers, based on average production costs per tonne per type of commodity. Production costs include the costs of seeds and other plant material, fertiliser, pesticides, labour, irrigation, packaging, marketing, transport, repairs and maintenance. The costing model assumes that support is tapered down over a 3-year period in which 100% support is provided in year 1, 75% in year 2 and 50% in year 3. After this 3-year period, it is assumed that the smallholder farmer is self-reliant.

Given the ambitious production targets set by the NFNS Plan for the acquisition of land, the model focuses on government's land acquisition plans for smallholder farmers in general, as the majority of this land will likely have to be directed towards the smallholder producers of the targeted commodities. For the projection we have used the average cost per hectare and the average hectares of land acquired between 2009/10 and 2015/16 to estimate the total costs of land acquisition for smallholder producers. Table 23 below sets out the cost of support to smallholder producers if the targets in the NFNS Plan are to be reached.

Table 23: SO2-A cost estimates

R Millions	2018/19	2019/20	2020/21	2021/22	2022/23	Total
SO2-A: Increase food produced by smallholder producers	R2 836.21	R8 480.52	R11 508.66	R13 598.68	R16 227.01	R52 651.08
Provision of support to smallholder producers of fruit and vegetables	R1 078.83	R2 421.91	R4 051.98	R5 797.99	R8 314.22	R21 664.93
Provision of support to smallholder producers of maize and beans	R1 757.38	R6 058.60	R6 832.35	R7 176.37	R7 288.46	R29 113.16
Provision of land	R0.00	R0.00	R624.33	R624.33	R624.33	R1 872.98

Source: Costing outputs from FNS Costing Model

As shown in Table 23, if we assume that the NFNS Plan's targets are reached, the cost implications are substantial. To reach the targets, the annual tonnes of fruit and vegetables produced would have to increase by 29.3% per year. Similarly, the production of maize and beans would have to increase by 52.3% per year.

8.5.1.2 Key considerations

(a) Given the large cost implication of achieving these all-important targets, an analysis that provides the information to prioritise the different types of support and considers the difference between regions and settings is highly recommended.

(b) Consider the consolidation of the various agricultural producer support programmes into a single function. This could contribute immensely to the effectiveness of support provided to smallholder producers in South Africa and potentially decrease costs.

(c) The provision of production inputs without the required knowledge and skill transfer will lead to a situation in which smallholder producers are perpetually reliant on the state to provide. Due consideration should be given to the knowledge and skills transfer challenges faced by the current programmes.

(d) Implementation of a service-level agreement could therefore be considered, in which the supported smallholder farmer agrees to sell back the produce to government at regulated prices - a quid pro quo relationship. Substantial research would have to be conducted to determine the potential impact and unintended consequences of such an approach.

(e) Reducing or postponing targets should be considered.

8.5.2 SO2-B: Increase production of aquaculture by smallholder producers

The tasks required to achieve this objective are presented in Table 24 below.

Table 24: SO2-B: Increase production of aquaculture by smallholder producers

Strategic intervention	Specific activities	Outputs	Output indicator	Tasks
Increased production of high-value agricultural products and nutritious food	Increased food production by smallholder and subsistence producers	Food produced by smallholder and subsistence producers	Tonnage of aquaculture produced by subsistence and smallholder producers	Provision of the required inputs to increase production of Tilapia and Catfish

8.5.2.1 Costing results

In a study done for the Industrial Development Corporation (IDC), it was estimated that, if it is assumed that feed costs R15 000 per tonne, the Food Conversion Ratio (FCR) equals 1.5 and feed costs are between 50% and 70% of total production costs, then Tilapia could be produced at a cost ranging between R32 000 and R45 000 per tonne41 This is also approximately in line with ongoing feasibility studies for Tilapia production currently being conducted by DAFF. Unfortunately, the same type of study has not been performed for Catfish.

The costing model has therefore assumed the same parameters as the IDC study for both Tilapia and Catfish, except that feed cost has been adjusted for inflation at 6% p.a. and feed costs are assumed at 60% of total production costs. Table 25 below sets out the cost estimates based on these parameter values.

Table 25: SO2-B cost estimates

R Millions	2018/19	2019/20	2020/21	2021/22	2022/23	Total
SO2-B: Increase production of aquaculture by smallholder producers	R49.12	R104.12	R145.10	R202.17	R281.88	R782.37
Provision of production inputs for Catfish production	R15.63	R33.13	R47.21	R67.25	R95.84	R259.05
Provision of production inputs for Tilapia production	R33.49	R70.99	R97.89	R134.92	R186.04	R523.32

Source: Costing outputs from FNS Costing Model

8.5.2.2 Key considerations

(a) Although food security is the main objective within the context of the NFNS Plan, profitability is essential for the sustainability of the industry and decreasing the need for government support. Special attention will therefore have to be paid to ensuring the affordability of feed and setting-up operations so that the Food Conversion Ratio (FCR) is kept as low as possible.

8.5.3 SO2-C: Increase food produced by subsistence (household) producers

Table 26: SO2-C: Increase food produced by subsistence (household) producers

Strategic intervention	Specific activities	Outputs	Output indicator	Tasks
Increased production of value agricultural products and nutritious food	Increased food production by household producers	Household involved in agriculture	% of households involved in agriculture	**1) Provision of training** **2) Provision of production inputs** **3) Provision of land**
		Household food production	% increase in the number of households with vegetable gardens	

Source: Consultations with DAFF

8.5.3.1 Costing results

For the provision of training, it is assumed that there will be four information days per annum for every 100 subsistence farmers. Over the period, 502 353 households will be provided with the equipment and infrastructure required to start subsistence farming, on a once-off basis. Each of these households will also be provided with the required consumable production inputs on an annual basis. Based on these assumptions, Table 27 below presents the estimated costs over the period of the NFNS Plan:

Table 27: SO-2C cost estimates

R Millions	2018/19	2019/20	2020/21	2021/22	2022/23	Total
SO2-C: Increase food produced by subsistence (household) producers	R664.10	R793.53	R1 302.78	R1 586.81	R1 911.10	R6 258.31
Provision of training	R9.96	R11.02	R12.19	R13.48	R14.91	R61.56
Provision of production equipment and infrastructure	R591.31	R648.87	R883.66	R978.59	R1 083.67	R4 186.10
Provision of production consumables	R62.82	R133.64	R294.92	R482.73	R700.50	R1 674.61
Provision of land	R0.00	R0.00	R112.01	R112.01	R112.01	R336.04

Source: Costing outputs from FNS Costing Model

8.5.3.2 Key considerations

(a) Studies have shown that the costs of consumables input-subsidy programmes often outweigh the costs, while capital-related inputs prove to be more effective. Consideration should therefore be given to a stronger focus on capital input provision.

(b) Given the large cost implication of achieving these all-important targets, an analysis that provides the information to prioritise the different types of support and considers the difference between regions and settings is highly recommended.

8.5.4 SO2-D: Certify smallholder producers with SA GAP to access local markets

The tasks required to achieve this objective are presented in Table 28 below.

Table 28: SO2-D: Certify smallholder producers with SA GAP to access local markets

Strategic intervention	Specific activities	Outputs	Tasks
Stimulate Markets for smallholder farmers	Certifying smallholder producers with SA GAP	Smallholder farmers SA GAP certified to access local markets	**1) Conduct audits** **2) Conduct workshops** **3) Conduct Water Analysis and Maximum Residue Test** **4) Certify complying smallholder producers**

8.5.4.1 Costing results

The major cost drivers of the activities necessary to achieve the SO2-D target in the NFNS Plan are the cost per audit and workshop, and the number of audits and workshops required to achieve the certification target. Not every smallholder producer that is recommended for audit and audited will necessarily be able to meet the criteria required for certification. Historical results show that one out of every five smallholder producers recommended for audit achieve certification status by the end of the process. For the costing results presented in the table below, we assumed that this ratio remains constant over the period of the NFNS Plan. Lastly, two workshops per type of workshop will be conducted over the period.

The types of workshops include:

(a) Food safety and responsible use
(b) Good Agricultural Practices
(c) Legislation
(d) SA-GAP audit forms
(e) Product quality

Table 29 below sets out the costs over the NFNS Plan's period given these assumptions.

Table 29: SO2-D cost estimates

R Millions	2018/19	2019/20	2020/21	2021/22	2022/23	Total
SO2-D: Certify smallholder producers with SA GAP to access local markets	R1.91	R2.67	R3.54	R4.96	R6.61	R20.31
Certify smallholder farmers	R1.83	R2.55	R3.37	R4.71	R6.27	R19.26
Conduct Water Analysis and Maximum Residue Test	R0.09	R0.12	R0.18	R0.25	R0.34	R1.05

Source: Costing outputs from FNS Costing Model

8.5.4.2 Key considerations

(a) Smallholder producers are being recommended for audit even when they have very little chance of conforming to the criteria for SA-GAP within the allotted time. It is possible that the reasons for this are that extension officers are spread too thin and/or do not have the knowledge to accurately judge the readiness of a smallholder producer for certification.

Increasing the number of extension officers employed and improving the agricultural colleges could therefore go a long way to improving the audit-certification ratio.

(b) Although we have not looked into how the performance of extension officers is measured, if the number of recommendations are used without any measure of the number of certifications, this will incentivise the recommendation of unlikely candidates.

(c) Given the cost implications of auditing smallholder producers that are unable to conform, a further investigation into this phenomenon is highly recommended.

8.5.5 SO2-F: Increase the number of Extension Officers

The tasks required to achieve this objective are presented in table 30 below.

Table 30: SO2-F: Increase the number of Extension Officers

Strategic intervention	Specific activities	Outputs	Tasks included
Establish and strengthen producer-development institutions	Provision of capacity development	Increased number of extension personnel	Recruit and employ more Extension Officers

8.5.5.1 Costing results

For estimation of the cost of increasing the number of Extension Officers, it is assumed that there is a sufficient number of qualified candidates available to fill the positions or that there will be, due to the improvement of agricultural colleges. The only drivers of the costs are therefore the distribution across the levels of employment and the annual operational cost per Extension Officer. The table below presents the status quo of these cost drivers according to information received from the DAFF.

Table 31 below presents the additional costs required to increase the number of Extension Officers from 2 800 currently to 5 600 by 2022. It is assumed that the distribution of Extension Officers across the three levels remains the same, and that the costs per Extension Officer per annum increases at an average rate of 6% per annum.

Table 31: SO2-F cost estimates

R Millions	2018/19	2019/20	2020/21	2021/22	2022/23	Total
Increase the number of Extension Officers	R403.89	R897.08	R1 499.34	R2 234.77	R3 132.83	R8 167.92

8.5.5.2 Key considerations

If the costs of increasing the number of extension officers is deemed to be too far beyond the current budget, consideration could be given to contracting NGOs and other local service providers to fill the gap[39]. Although this would require additional funding it is possible that it might be a less expensive option than insourcing and is therefore worth considering.

8.6 Strategic Objective 3: Expand targeted social protection measures and sustainable livelihood programmes

8.6.1 SO3-A:Promote early registration of children born in public health facilities within the prescribed 30-day period

The tasks required to achieve this objective are presented in Table 32 below.

Strategic intervention	Specific activities	Outputs	Output indicator	Tasks
Improve the child grant registration system	Review and improve registration system of infants at birth	Increase the number of children born in public health facilities that are registered within 30 days	Number of infants born in public health facilities registered	**1) Development of registration system** **2) Roll-out of registration system in health facilities**
			% of infants born in public and private health facilities registered within 30 days in population register	**3) Registration of births**

[39] lder producers. Costing Model SO2-D estimates the costs related

The key activity component of the Strategic Objective of promoting early birth registration is the development of the birth registration system. The cost of this activity drives the total cost of this Strategic Objective. Through this key task, the early registration of children born in public health facilities within the prescribed 30-day period will be promoted.

8.6.1.1 Costing results

As shown in Table 33, the total cost for Strategic Objective 3-A is R148.50 million over the period 2018/19 to 2022/23. The majority of this cost (R92.76 million) is borne in 2018/19, due to the large up-front capital expenditure which is required to purchase and develop all of the hardware and software necessary for the operation of the registration system – all of which occurs in the first year of its implementation. For the remaining years, there is no capital expenditure, but only operational expenditure – with the key differential cost driver being the increased number of records stored on the registration system, with each acquiring a unit storage cost.

Table 33: SO3-A cost estimates

R Millions	2018/19	2019/20	2020/21	2021/22	2022/23	Total
SO3-A: Promote early registration of children born in public health facilities within the prescribed 30- day period	**R 92.76**	**R 21.57**	**R 10.35**	**R 11.09**	**R 12.73**	**R 148.50**
Development of registration system	R 92.76	R 21.57	R 10.35	R 11.09	R 12.73	R 148.50

Source: Costing outputs from FNS Costing Model

8.6.1.2 Key considerations

(a) If possible, a shift in government policy to allow for cloud-based storage of personal information would lead to significant cost savings.

(b) The departments involved with this activity, notably the DoH and the DHA, will need to coordinate their efforts for this activity to be a success. Policy conversations will likely be required in this regard.

(c) This system should be linked with the Integrated Social Protection Information System discussed in SO3-C. If the two systems are developed concurrently, there are important synergies that can lead to significant cost saving.

(d) There are also synergies between SO3-A and SO3-B (achieve a universal child grant registration for eligible children born in public facilities). If children born in public health facilities can be registered on-site, this will improve access to the child support grant from an early age. Achieving universal child grant registration requires that all births are registered, and the earlier this is done the better.

8.6.2 SO3-B: Achieve a universal child support grant registration for eligible children

The tasks required to achieve this objective are presented in table 34 below.

Strategic intervention	Specific activities	Outputs	Output indicator	Tasks
Improve the child grant registration system	Implement universal child grant registration for eligible children	Universal child grant registration systems	Number of registered infants (<1 year) from PVM households	1) **Increased CSG uptake rates**

8.6.2.1 Costing results

As shown in Table 35, the total cost for Strategic Objective 3-B is R5.15 billion over the period 2018/19 to 2022/23. This cost reflects the additional funds that will be required to accommodate the increased number of CSG recipients. The number of additional CSG recipients is cumulative, with all extra recipients carried throughout the period. There are no additional capital or current costs as it is possible to achieve the outcomes of SO3-B through the capital investment from SO3-A and existing staff capacity. In addition to the standard inflationary impact on costs, the core cost drivers are the increased child support grant payments due, owing to increased uptake rates facilitated by the new registration system.

Table 35: SO3-B cost estimates

R Millions	2018/19	2019/20	2020/21	2021/22	2022/23	Total
SO3-B: Achieve a universal child grant registration for eligible children born in public facilities	**R 286.35**	**R 612.23**	**R 981.75**	**R 1 399.38**	**R 1 870.00**	**R 5 149.71**
Increased CSG uptake rates	R 286.35	R 612.23	R 981.75	R 1 399.38	R 1 870.00	R 5 149.71

Source: Costing outputs from FNS Costing Model

8.6.2.2 Key considerations

(a) The realisation of SO3-B is linked with the successful development of a system to register children born in public health facilities within the prescribed 30-day period.

(b) The cost associated with this activity should not be seen as an extension of a service, but rather enhanced performance of the CSG through a more accurate uptake rate.

(c) The option of giving universal access to the CSG to all children below the age of 2 or 3 has the potential to remove the current administrative obstacles preventing access during this critical period in children's lives.

8.6.3 SO3-C: Develop an integrated social protection information system (ISPIS) to improve access to social assistance programmes

The tasks required to achieve this objective are presented in table 36 below.

Table 36: SO3-C: Develop ISPIS to improve access to social assistance programmes

Strategic intervention	Specific activities	Outputs	Output indicator	Tasks
Develop an integrated social protection information system to improve access to social assistance programmes	Design an integrated and consolidated information system within and across departments	Integrated Social Protection Information System (ISPIS)	Integrated Social Protection Information System (NISPIS) developed	**1) Development of NISPIS** **2) Roll-out of ISPIS in departments** **3) Registration of births**
			% of infants born in public and private health facilities registered within 30 days in population register.	

8.6.3.1 Costing results

As shown in Table 37, the total cost for Strategic Objective 3-C is R368.30 million over the period 2018/19 to 2022/23. Similar to Strategic Objective 3-A, this cost is split between annual operating expenditure and capital expenditure – which comprises the majority of the total expenditure for this activity. Like Strategic Objective 3-A, this capital expenditure covers the up-front costs necessary for the purchase and development of the requisite hardware and software for the implementation of the social protection information system. Unlike Strategic Objective 3-A, however, this cost is not borne in a single year of the plan, but rather occurs across a number of years – in 2018/19, 2020/21 and 2022/23 – causing large spikes in the total costs during these years. This additional capital expenditure is necessitated by the increased software and hardware requirements that accrue due to the increased capacity of the information system caused by the addition of further departmental information systems and records to the system. In the years without any capital expenditure, the main differential cost driver is the storage cost of the additional records stored on the system – again driven by the addition of further departmental information systems and records to the integrated system.

Table 37: SO3-C cost estimates

R Millions	2018/19	2019/20	2020/21	2021/22	2022/23	Total
SO3-C: Develop an integrated social protection information system to improve access to social assistance programmes	**R 78.73**	**R 22.23**	**R 107.83**	**R 33.06**	**R 126.45**	**R 368.30**
Development of NISPIS	R 78.73	R 22.23	R 107.83	R 33.06	R 126.45	R 368.30

Source: Costing outputs from FNS Costing Model

8.6.3.2 Key considerations

(a) The development of ISPIS has been challenging given the diversity of stakeholders involved in the process. To overcome this issue, it is imperative that the different departments all work together and coordinate their data collection, storage, and analysis efforts. There is currently a technical working committee, chaired by the Department of Social Development, who should take responsibility for and drive this process.

(b) It is recommended that the initial roll-out of the system amongst the first three departments (Health, Basic Education, and Social Development) be used as a pilot phase. Based on the success of this pilot and the lessons learned, the system can be expanded accordingly to accommodate the remaining departments.

(c) The most challenging aspect of ISPIS is not the process of setting it up, but rather ensuring that it is maintained and meaningfully used on an ongoing basis. More thought needs to be given to this aspect of ISPIS.

8.6.4 SO3-D: Improve provision of nutritious meals through an expanded network of feeding and food distribution centres

The tasks required to achieve this objective are presented in table 38 below.

Table 38: SO3-D: Improve provision of nutritious meals through an expanded network of feeding and food distribution centres

Strategic intervention	Specific activities	Outputs	Output indicator	Tasks
Expand a network of feeding and food distributions	Total children provided with meals through ECDCs (total number of ECDCs providing meals)	PVMs access nutritious food	Number of children provided with food through ECDs	**1) ECDC growth and provision** **2) NSNP growth and provision** **3) CNDC growth and provision** **4) SRD uptake growth rate**
	Total learners provided with meals through schools (total number of schools providing meals)		Number of learners provided with nutritious food through NSNP	
	Total number of people provided with meals through CNDCs (total number of CNDCs providing meals)		Number of people provided with food through CNDCs	
	Total number of PVMs accessing Social Relief of Distress	PVMs access Social Relief of Distress	Number of PVMs accessing Social Relief of Distress	

8.6.4.1 Costing results

As shown in Table 39, the total cost for Strategic Objective 3-D is R5.65 billion over the period 2018/19 to 2022/23. The largest component of this activity is payments made through the social relief of distress grant, which, at R3.42 billion over the whole period, accounts for slightly more than 60% of the total activity cost. The core cost driver in this instance, as it is for all of the items in this activity, is the increased rates of provision that are outlined in the above table. The increases in the number of children being provided with meals at schools and Early Childhood Development centres; the increases in the number of people being provided with meals through Community Nutrition and Development centres; the increases in the number of these facilities; and the aforementioned increase in the number of poor, vulnerable and marginalized people accessing the social relief of distress grant – all of which are core targets of the Plan itself – contribute to the growth in total cost that occurs over the period 2018/19 to 2022/23.

Table 39: SO3-D cost estimates

R Millions	2018/19	2019/20	2020/21	2021/22	2022/23	Total
SO3-D: Improve provision of nutritious meals through an expanded network of feeding and food distribution centres	**R 318.92**	**R 758.46**	**R 1 093.03**	**R 1 496.31**	**R 1 982.55**	**R 5 649.28**
ECDC growth and provision	R 92.26	R 195.04	R 321.73	R 471.93	R 652.06	R 1 733.01
NSNP growth and provision	R 21.28	R 45.34	R 72.46	R 102.94	R 137.11	R 379.12
CNDC growth and provision	R 9.51	R 20.74	R 24.07	R 29.07	R 34.80	R 118.19
SRD uptake growth rate	R 195.87	R 497.34	R 674.77	R 892.38	R 1 158.59	R 3 418.95

Source: Costing outputs from FNS Costing Model

8.6.4.2 Key considerations

(a) While donations do help to alleviate some of the cost of NSNP, most of the costs are still borne by government. These donations and sponsorships, however, have served as useful pilots to extend the NSNP programme to include breakfast prior to any formal policy decision.

(b) The decision to keep school kitchens open on the weekends and during school holidays would go a long way to ensuring vulnerable children are able to regularly access meals outside of school periods. Given that these children still need to access meals, either through CNDCs or other initiatives, this may be a cost-effective means to reach these vulnerable children given the school kitchens are already established and staffed mostly by volunteers. The extent of this benefit may, however, be curtailed in areas where children use scholar transport to get to school – which would not be available over weekends and school holidays.

(c) The uptake in social relief of distress grants is to some extent limited by the number of social workers. The need for these grants is much higher than the current payment levels suggest, but the issue has been to have social workers evaluate all potential recipients. Addressing this issue, which is currently hampered by the moratorium on new hiring, is key to unlocking more effective application of the grant.

8.7 Strategic Objective 4: Scale up high-impact nutrition interventions targeting women, infants, and children

8.7.1 SO4-A: Improve nutrition training for health promoters and food handlers in community nutrition centres (ECDs, Schools, and CNDCs), and improve the ability of ECDs to address nutrition issues

The tasks required to achieve this objective are presented in table 40 below.

Table 40: SO4-A: Improve nutrition training for health promoters and food handlers in community nutrition centres (ECDs, Schools, and CNDCs), and improve the ability of ECDs to address nutrition issues

Strategic intervention	Specific activities	Outputs	Output indicator	Tasks
Improve access, coverage and effectiveness of high impact nutrition specific interventions targeting nutritionally vulnerable groups across the life cycle	Implement food and nutrition interventions to comply with minimum nutritional standards for Early Child Development (ECD) (among other standards) to ensure children accessing ECD sites receive good quality and quantity of nutritious foods	Children in ECD sites received good quality and quantity of nutritious food	Proportion of ECD sites providing good quality and quantity nutritious foods according to the minimum standards	**1) Audit of CNDCs & ECDCs** **2) Development of training material for CNDC/ECDC workers** **3) Administering training to CNDC/ECDC workers**

8.7.1.1 Costing results

As shown in Table 41, the total cost for Strategic Objective 4-A is R51.2 million over the period 2018/19 to 2022/23. By far the largest cost component is the audit of Early Childhood Development Centres, comprising nearly 98% of the total cost for the entire activity. This cost component is driven by the number of Early Childhood Development Centres which need to be audited and registered, as per the Plan. The significant jump in costs between 2019/20 and 2020/21 is similarly driven by the increase in the number of newly registered Early Childhood Development Centres added annually, as per the targets set out by the Plan.

Table 41: SO4-A cost estimates

R Millions	2018/19	2019/20	2020/21	2021/22	2022/23	Total
SO4-A: Improve training on nutrition and focus of community health workers and food handlers in community nutrition centres	**R5.86**	**R6.27**	**R12.16**	**R13.01**	**R13.91**	**R51.21**
Audit of CNDCs	R0.08	R0.09	R0.03	R0.03	R0.04	R0.27
Audit of ECDCs	R5.68	R6.08	R11.93	R12.77	R13.66	R50.12
Development of training material for CNDC/ECDC workers	R0.10	R0.10	R0.19	R0.21	R0.22	R0.82
Administering training to CNDC/ ECD workers	R0.00	R0.00	R0.00	R0.00	R0.00	R0.00

Source: Costing outputs from FNS Costing Model

8.7.1.2 Key considerations

(a) It is important to leverage, to the extent possible, existing training material and internal capacity to either revise or develop new training materials. Much of this material exists, or is part of key staff member and institutional knowledge, which means that consulting costs or reliance on NGOs/NPOs can be avoided.

8.7.2 SO4-B: Increase coverage and availability of multiple micronutrient supplements (MMNS) (folic acid, iron, calcium, vitamin A), deworming tablets, and fortified porridge across the life course for undernourished infants and children, WRA, and people living with HIV and TB

The tasks required to achieve this objective are presented in Table 42 below.

Table 42: SO4-B: Increase coverage and availability of multiple micronutrient supplements across the life course for undernourished infants and children, WRA, and people living with HIV and TB

Strategic intervention	Specific activities	Outputs	Output indicator	Tasks
Improve access, coverage and effectiveness of high impact nutrition specific interventions targeting nutritionally vulnerable groups across the life cycle	Increase access and coverage of high energy & nutrient dense nutritional supplements for target populations across the life course: undernourished infants and children, WRA (15-49) and PLW, including HIV and TB clients.	Increase uptake and utilisation of nutritional supplements among undernourished target populations	Proportion of target populations receiving nutritional supplements	**1) Cost of provision and increased uptake rates**

8.7.2.1 Costing results

As shown in Table 43, the total cost for Strategic Objective 4-B is R6.83 billion over the period 2018/19 to 2022/23. The key cost drivers here, over and above the influence of inflation on the price of the supplements provided, are the increased levels of provision, as stated in the Plan's targets, and spelled out in the table above. Moreover, the significant cost jump between 2019/20 and 2020/21 in the deworming cost component of the activity is caused by the end of a sponsored deworming programme for primary school children, currently provided by Johnson and Johnson, and the shifting of this cost burden over to the Department of Health.

Table 43: Cost estimates to increase coverage and availability of MMNS across the life course for undernourished infants and children, pregnant and lactating women, and people living with HIV and TB

R Millions	2018/19	2019/20	2020/21	2021/22	2022/23	Total
SO4-B: Increase coverage and availability of MMNS, deworming tablets, and fortified porridge across the life course for undernourished infants and children, pregnant and lactating women, and people living with HIV and TB	**R 359.68**	**R 780.03**	**R 1 296.68**	**R 1 866.33**	**R 2 527.13**	**R 6 829.86**
Vitamin A Supplementation	R 1.16	R 2.21	R 2.70	R 3.26	R 4.01	R 13.33
Deworming	R 4.10	R 7.84	R 40.13	R 46.65	R 54.39	R 153.12
Multiple Micronutrient Supplementation	R 23.49	R 51.24	R 83.72	R 121.78	R 166.28	R 446.50
Iron Supplementation	R 205.46	R 445.83	R 725.26	R 1 049.39	R 1 424.25	R 3 850.18
Calcium Supplementation	R 26.25	R 57.16	R 93.28	R 135.48	R 184.67	R 496.83
Folic Acid Supplementation	R 36.12	R 78.10	R 126.67	R 182.61	R 246.81	R 670.30
Fortified Porridge	R 63.12	R 137.66	R 224.93	R 327.17	R 446.72	R 1 199.59

Source: Costing outputs from FNS Costing Model

8.7.2.2 Key considerations

(a) If possible, the sponsorship of deworming tablets by Johnson & Johnson should look to be extended. This sponsorship might also be deepened to include children of all ages.

(b) Cost savings could be realised for this activity if sponsorship/donor partnerships, similar to that with Johnson & Johnson for deworming tablets, can be forged for other supplements.

8.7.3 SO4-C: Improve access and coverage of breastfeeding, complimentary feeding counselling, and the provision of KMC

The tasks required to achieve this objective are presented in table 44 below

Table 44: SO4-C: Improve access and coverage of breastfeeding, complimentary feeding counselling, and the provision of KMC

Strategic intervention	Specific activities	Outputs	Output indicator	Tasks
Improve access, coverage and effectiveness of high impact nutrition specific interventions targeting nutritionally vulnerable groups across the life cycle	Increase access and coverage of breastfeeding and complementary feeding counselling and support among PLW by linking then with CHW/ WBOTS	Improvements in infant and young child feeding practices	Proportion of infants under 6 months exclusively breastfed as measured in SADHS at 6 months	**1) Development of breastfeeding counselling training material** **2) Administering training to breastfeeding counsellors** **3) Provision of breastfeeding counselling to mothers** **4) Provision of breastfeeding counselling materials (see SO5)**
	Establish high quality KMC units (implementing all components of KMC) by allocating dedicated staff and space for KMC babies and integrating KMC into existing initiatives such as MBFI & Newborn Care Plans	Improvement in the quality of KMC provided to low birth weight babies	Proportion of Low Birth Weight babies admitted to facility based quality KMC who survived (discharged alive)	**1) Development of KMC training material** **2) Administering KMC training** **3) Expansion of KMC services** **4) post-graduation support for mothers by community healthcare workers**

8.7.3.1 Costing results

As shown in Table 45, the total cost for Strategic Objective 4-C is R123.71 million over the period 2018/19 to 2022/23. By far the largest cost component in this activity is the provision of Kangaroo Mother Care binders to mothers of low birth weight babies. At R110.70 million over the period 2018/19 to 2022/23, this component makes up 89% of the total cost of the activity. This is primarily driven by the high number of low birth weight babies, and the Plan's stated target to increase provision of Kangaroo Mother Care to such babies over the course of the period.

Table 45: SO$-C cost estimates

R Millions	2018/19	2019/20	2020/21	2021/22	2022/23	Total
SO4-C: Improve access and coverage of breastfeeding and complimentary feeding counselling	**R 20.56**	**R 22.67**	**R 24.60**	**R 26.75**	**R 29.13**	**R 123.71**
Development of breastfeeding counselling training material	R 0.03	R 0.03	R 0.01	R 0.01	R 0.01	R 0.10
Administering training to breastfeeding counsellors	R 0.00	R 0.00	R 0.00	R 0.00	R 0.00	R 0.00
Provision of breastfeeding counselling to mothers	R 1.67	R 2.25	R 2.57	R 2.93	R 3.38	R 12.81
Development of KMC training material	R 0.03	R 0.03	R 0.01	R 0.01	R 0.01	R 0.10
KMC training	R 0.00	R 0.00	R 0.00	R 0.00	R 0.00	R 0.00
KMC services provision	R 18.83	R 20.35	R 22.01	R 23.79	R 25.72	R 110.70

Source: Costing outputs from FNS Costing Model

8.7.3.2 Key considerations

(a) It is important to leverage, to the extent possible, existing training material and internal capacity to either revise or develop new training materials. Much of this material exists, or is part of key staff member and institutional knowledge, which means that consulting costs or reliance on NGOs/NPOs can be avoided.

(b) It is also feasible that existing internal capacity can be utilised to administer all training. There are public officials who regularly visit these facilities to conduct inspections and meet with the relevant staff members. These trips could be combined with training activities, or other internal resources could absorb this task within their current mandates.

(c) It is important to ensure community health workers are fully engaged in this activity. Their involvement will be key to realising the desired outcomes.

8.7.4 SO4-D: Improve access and coverage of growth monitoring and promotion services via facility audits

The tasks required to achieve this objective are presented in table 46 below.

Table 46: SO4-D: Improve access and coverage of growth monitoring and promotion services via facility audits

Strategic intervention	Specific activities	Outputs	Output indicator	Tasks
Improve access, coverage and effectiveness of high impact nutrition specific interventions targeting nutritionally vulnerable groups across the life cycle	Undertake facility audits through the ideal clinic process to ensure availability of standard essential anthropometric equipment (MUAC tapes, infant scales, length boards, stadiometers, BMI wheels) at each facility and mobile teams (WBOTS and school health teams)	All facilities and mobile teams (WBOTS and School health teams) with functional anthropometric equipment	Number of primary health care facilities reported on the ideal clinic dashboard with functional anthropometric equipment	**1) Audit of existing facilities** **2) Growth in facilities and provision** **3) GMP equipment cost**

8.7.4.1 Costing results

As shown in Table 47, the total cost for Strategic Objective 4-D is R19.67 million over the period 2018/19 to 2022/23. The number of audits is set to zero over the period as this activity had already been conducted. The entire cost of this activity is therefore captured in a single component, namely the cost of purchasing growth, monitoring and promotion equipment for public health facilities. Over and above the effect of inflation on medical equipment, these costs are driven by the increased number of health care facilities requiring functional growth, monitoring and promotion equipment, as per the targets of the Plan, outlined in the table above.

Table 47: SO4-D cost estimates

R Millions	2018/19	2019/20	2020/21	2021/22	2022/23	Total
SO4-D: Improve the access and coverage of growth monitoring and promotion services via facility audits	**R 6.67**	**R 7.10**	**R 1.85**	**R 1.96**	**R 2.09**	**R 19.67**
Audit of existing facilities	R 0.00	R 0.00	R 0.00	R 0.00	R 0.00	R 0.00
GMP equipment cost	R 6.67	R 7.10	R 1.85	R 1.96	R 2.09	R 19.67
Growth in facilities and provision	R 0.00	R 0.00	R 0.00	R 0.00	R 0.00	R 0.00

Source: Costing outputs from FNS Costing Model

8.7.5 SO4-E: Ensure effective and timely remedial actions are taken to prevent and manage acute malnutrition

The tasks required to achieve this objective are presented in table 48 below.

Table 48: SO4-E: Ensure effective and timely remedial actions are taken to prevent and manage acute malnutrition

Strategic intervention	Specific activities	Outputs	Output indicator	Tasks
Improve access, coverage and effectiveness of high impact nutrition specific interventions targeting nutritionally vulnerable groups across the life cycle	Improve the access and coverage of Growth Monitoring and Promotion (GMP) services and ensure effective and timely remedial actions are taken to prevent and manage acute malnutrition	Reduced number of children growth faltering	Proportion of under 5 children reached with GMP (coverage)	**1) Development of IMAM training material** **2) Administering IMAM training** **3) Provision of IMAM services** **4) Provision of anthropometric screening at schools**
			Proportion of children under 59 months with identified with growth faltering	
	Increase access and coverage of anthropometric screening for preventing and managing malnutrition (under- and over-nutrition) among learners in Q1 and Q2 schools (Grade 1 and Grade 8)	Improved identification and referral of malnourished children	Proportion of Q1 and Q2 primary school children screened and appropriately referred in Grade 1 and Grade 8	

8.7.5.1 Costing results

As shown in Table 49, the total cost for Strategic Objective 4-E is R0.21 million over the period 2018/19 to 2022/23. The minimal cost of the entire activity is captured entirely in a single component, namely the development of training material. Granted that the material is, under the baseline scenario, developed and administered entirely by internal resources, this cost comprises only the printing of training materials. The effect of inflation on these printing costs, together with the amount of material required, therefore encompass the cost drivers in this instance.

Table 49: SO4-E cost estimates

R Millions	2018/19	2019/20	2020/21	2021/22	2022/23	Total
SO4-E: Ensure effective and timely remedial actions are taken to prevent and manage acute malnutrition	**R 0.06**	**R 0.07**	**R 0.02**	**R 0.03**	**R 0.03**	**R 0.21**
Development of IMAM training material	R 0.06	R 0.07	R 0.02	R 0.03	R 0.03	R 0.21
Administering IMAM training	R 0.00	R 0.00	R 0.00	R 0.00	R 0.00	R 0.00
Provision of IMAM services	R 0.00	R 0.00	R 0.00	R 0.00	R 0.00	R 0.00
Provision of anthropometric screening at schools	R 0.00	R 0.00	R 0.00	R 0.00	R 0.00	R 0.00

Source: Costing outputs from FNS Costing Model

8.7.5.2 Key considerations

(a) It is important to leverage, to the extent possible, existing training material and internal capacity to either revise or develop new training materials. Much of this material exists, or is part of key staff member and institutional knowledge, which means that consulting costs or reliance on NGOs/NPOs can be avoided.

(b) It is also feasible that existing internal capacity can be utilised to administer all training. There are public officials who regularly visit these facilities to conduct inspections and meet with the relevant staff members. These trips could be combined with training activities, or other internal resources could absorb this task within their current mandates.

8.7.6 SO4-F: Improve the quality and effectiveness of clinical screening and assessment, counselling, and support for NCDs, with focus on preventing under- and over-nutrition (obesity) and control at all ideal clinics

The tasks required to achieve this objective are presented in table 50 below.

Table 50: SO4-F: Improve the quality and effectiveness of clinical screening and assessment, counselling, and support for NCDs, with focus on preventing under- and over-nutrition (obesity) and control at all ideal clinics

Strategic intervention	Specific activities	Outputs	Output indicator	Tasks
Capacitate health workers to provide appropriate nutrition support with a strong focus on preventing under and over-nutrition, including nutritional counselling and support, growth monitoring, counselling, and support	Roll out e- learning methods to all community service health professionals (doctors, nurses, pharmacists, and dieticians)	Community service health professionals competent in SAM case management	Proportion of registered users who have successfully completed the e-learning course	**1) Development of e-learning course material** **2) Cost to administer e-learning course**

8.7.6.1 Costing results

As shown in Table 51, the total cost for Strategic Objective 4-F is R0.26 million over the period 2018/19 to 2022/23. Akin to Strategic Objective 4-E, the minimal cost of the entire activity is capture entirely in a single component, namely the development of training material. Granted that the material is, under the baseline scenario, developed entirely by internal resources, this cost comprises only the printing of training materials. The effect of inflation on these printing costs, together with the amount of material required, therefore encompass the cost drivers in this instance.

Table 51: SO4-F cost estimates

R Millions	2018/19	2019/20	2020/21	2021/22	2022/23	Total
SO4-F: Capacity building to Improve the quality and effectiveness of clinical screening, care and support for over- nutrition at ideal clinics	**R 0.08**	**R 0.09**	**R 0.03**	**R 0.03**	**R 0.04**	**R 0.26**
Development of e-learning course material	R 0.08	R 0.09	R 0.03	R 0.03	R 0.04	R 0.26
Cost to administer e- learning course	R 0.00	R 0.00	R 0.00	R 0.00	R 0.00	R 0.00

Source: Costing outputs from FNS Costing Model

8.7.6.2 Key considerations

(a) It is important to leverage, to the extent possible, existing training material and internal capacity to either revise or develop new training materials. Much of this material exists or is part of key staff and institutional knowledge, which means that consulting costs or reliance on NGOs/NPOs can be avoided.

(b) It is also feasible that existing internal capacity can be utilised to administer all training. There are public officials who regularly visit these facilities to conduct inspections and meet with the relevant staff members. These trips could be combined with training activities, or other internal resources could absorb this task within their current mandates.

8.8 Strategic Objective 5: Influence people across the life-cycle to make informed food and nutrition decisions through an integrated communications strategy

8.8.1 SO5-A: Develop and implement an integrated FNS advocacy and communication strategy

The tasks required to achieve this objective are presented in table 52 below.

Table 52: SO5-A: Develop and implement an integrated FNS advocacy and communication strategy

Strategic intervention	Specific activities	Outputs	Tasks
Develop and implement an integrated advocacy and communication FNS strategy	Develop and implement an integrated advocacy and communication plan led by the Deputy President of RSA	Integrated advocacy and communication FNS strategy	Development of a communication strategy

8.8.1.1 Costing results

In order to ensure the BCC resonates with all who will be responsible for its implementation, a series of consultative meetings will need to be arranged to facilitate the strategy's drafting process between relevant national, provincial and local representatives. The point of these meetings will be to ensure agreement between national and provincial representatives on the strategy. Two consultative meetings are intended to take place, the first being two to three full days while the second will take place over two full days.

Table 53: Cost estimates for SO5-A: Develop an integrated FNS advocacy and communication strategy

R Millions	2018/19	2019/20	2020/21	2021/22	2022/23	Total
Total Consultative Meetings Cost	**R0.20**	**R0.00**	**R0.00**	**R0.00**	**R0.00**	**R0.20**

Source: Costing outputs from FNS Costing Model

Once the communication and advocacy strategy has been developed, the actual advertising materials will need to be produced. Although substantial work still has to go into the BCC strategy, based on experience from previous communication strategies, there are certain platforms that are expected to be utilised. Research shows that the greater variety of communication mediums used in media campaigns, the more effective the results.[40]

The preliminary communications strategy has been developed with a lower income target market in mind, as these are the people that are most vulnerable to malnutrition and in most need of food security assistance. Hence, the strategy envisions the usage of a wide range of communication platforms that are easily accessible and highly visible to the intended beneficiaries, including television and newspaper adverts. These will be displayed not only on commercial platforms but also community platforms that cover a wide geographical and socio- economic audience. Table 54 below presents the cost estimates for the currently envisioned BCC and advocacy strategy.

Table 54: Cost Estimates for SO5-A: Implement an integrated FNS advocacy and communication strategy

R Millions	2018/19	2019/20	2020/21	2021/22	2022/23
Total radio advert costs	R3.71	R3.94	R4.17	R4.42	R4.69
Total pre-recorded radio interview costs	R3.44	R3.65	R3.87	R4.10	R4.35
Total television advert costs	R30.06	R31.87	R33.78	R35.80	R37.95
Total press advert costs	R2.12	R2.25	R2.38	R2.52	R2.67
Total long-distance taxi advert costs	R0.76	R1.58	R2.49	R3.51	R4.64
Total banner costs	R0.01	R0.01	R0.01	R0.01	R0.01
Total gazebo costs	R0.00	R0.00	R0.00	R0.00	R0.00
Total billboard costs	R23.89	R36.96	R51.52	R67.69	R85.62
Total management fee costs	R16.05	R20.06	R24.55	R29.51	R34.98
TOTAL COST	**R80.04**	**R100.32**	**R122.77**	**R147.56**	**R174.91**

Source: Costing outputs from FNS Costing Model

8.8.1.2 Key considerations

(a) Research has shown that effective marketing and communication campaigns are "simple, straightforward and framed in such a way that campaign planners successfully redefine the issue for the target audience".

(b) Furthermore, it is very important that marketing materials are customised to their specific target audiences, particularly in South Africa with a myriad of different cultures and ethnicities living alongside one another.

(c) Marketing materials should not just emphasise the nutritional messages, but also direct people towards the services offered by government in this regard and highlight steps people can take to improve their nutrition. It has been found that marketing campaigns are more likely to result in behavioural changes when they are combined with points of easy, actionable behaviour that people can then implementx.

(d) There is evidence that billboards are not as effective as other forms of media due to their high costs, limited ability to target niche markets, and the brief time-period during which people interact with them. It might be beneficial for the plan to focus more on electronic billboards than standard print billboards, as these are easier to customise, are able to keep catching the public eye with new designs, and tend to be more affordable.

(e) Television adverts, despite their costs, are an effective means of communication and are thus justified.

(f) It is of utmost importance, because of lack of evidence of the effectiveness of marketing campaigns upon behavioural changes, that the plan incorporates points of review to assess the impact of the communication strategy. This will assist in determining the correct communication mix, length and breadth, as research shows that the impact of advocacy programmes is not sustainable after they end and this needs to be mitigated.

8.8.2 SO5-B: Implement nutrition education at ECD centres and schools

The tasks required to achieve this objective are presented in table 55 below.

Table 55: SO5-B: Implement nutrition education at ECD centres and schools

Strategic intervention	Specific activities	Outputs	Tasks
Develop and implement an integrated FNS advocacy and communication strategy	Implement nutrition education at ECD centres and schools	Caregivers in registered ECDs are knowledgeable on nutrition	Development of ECD training materials

8.8.2.1 Costing results

As mentioned, healthcare workers and government officials will need various promotional and educational materials to promote the messages and lessons of the NFNS Plan. These include items such as banners, posters, flipcharts and educational books and games. Displayed in Table 56, the development of flipcharts and educational information booklets are the two biggest costs of strategic objective 5-B.

Table 56: SO5-B cost estimates

R Millions	2018/19	2019/20	2020/21	2021/22	2022/23	Total
Educational poster costs	R0.59	R1.10	R0.01	R1.79	R0.02	R3.51
Educational leaflet costs	R0.96	R1.53	R1.62	R1.72	R1.82	R7.65
Educational information booklet costs	R2.44	R3.86	R4.10	R4.33	R4.61	R19.34
Total flipchart costs	R7.32	R -	R9.92	R -	R14.65	R31.89
Total management fee costs	R2.83	R1.62	R3.92	R1.96	R5.27	R15.60
TOTAL COSTS	**R14.14**	**R8.11**	**R19.57**	**R9.80**	**R26.37**	**R77.99**

Source: Costing outputs from FNS Costing Model

8.8.2.2 Key considerations

(a) Strategic Objective 5-B is relatively affordable and its major cost drivers can be well justified. For example, although the production of flipcharts constitutes one of the largest expenses, these are necessary teaching aids. Community health workers and ECD practitioners often operate in rural areas where verbally explaining and visually demonstrating key concepts are more effective teaching methods than written communication.

(b) It is a concern that sending leaflets home with children might constitute a waste of resources as there is no guarantee that the leaflets will actually reach the parents and, if they do, the chances of parents properly engaging with the material to change their behaviour are limited.

8.9 Strategic Objective Six: Developing a monitoring and evaluation system for FNS, including an integrated risk-management system for monitoring FNS-related risks

8.9.1 SO6-A: Establish the NFNS Plan M&E Unit

The stablishment of a team dedicated to the monitoring and evaluation of the NFNS Plan is essential for not only the performance of the tasks required to achieve Strategic Objective 6, but also for the success of the NFNS Plan in general. Therefore, before any activities set out under Strategic Objective 6 are performed, the NFNS Plan's M&E unit has to be established. The NFNS Plan proposes the establishment of an M&E Unit located within the DPME and collaborating with Stats SA and the M&E directorates of other line ministries.

Table 57 below presents the cost estimates associated with adding one administrator at DPSA level 8, two technical researchers at level 11, and one technical expert at level 13 to the DPME's M&E Unit. These costs include the salaries and the setting-up of a formal office space. It is recommended that these officials are recruited as soon as possible and the model therefore assumes they will be employed by the beginning of the 2018/19 financial year.

Table 57: SO6-A cost estimates

R Millions	2018/19	2019/20	2020/21	2021/22	2022/23	Total
A - Establish the NFNS Plan M&E Unit	R3.13	R3.25	R3.50	R3.77	R4.06	R17.71
Staff salary packages (R'm)	R3.02	R3.25	R3.50	R3.77	R4.06	R17.60
Cost of furniture and equipment	R0.10	R0.00	R0.00	R0.00	R0.00	R0.10

Source: Costing outputs from FNS Costing Model

8.9.2 SO6-B: Incorporate a consistent set of core indicators in National Surveys

8.9.3 The tasks required to achieve this objective are presented in table 58 below.

Table 58: SO6-B: Incorporate a consistent set of indicators in National Surveys

Strategic intervention	Specific activities	Outputs	Tasks
Establish a core set of indicators for monitoring FNS interventions and risks.	Identify and integrate a core set of FNS indicators in national surveys for continuous surveillance of FNS.	Expanded set of core indicators incorporated in national surveys, to include: • % of households experiencing hunger • of individuals Experiencing hunger.	**1) Identify databases with indicators relevant to food security and consolidate relevant indicators on central database as they become available.** **2) Review measurement methodology of all indicators to ensure consistency across databases, regions and time.**

Strategic intervention	Specific activities	Outputs	Tasks
			3) Identify FNS-related indicators for which data should be collected but currently are not. 4) Propose and negotiate new indicators to be integrated into relevant existing surveys.

A cost estimate for the above activities is provided in Table 59 below. While there is some flexibility regarding the selection of an internal or external consultant to review the datasets, the same is not true in respect to facilitating a workshop to present on the results of the review. The cost estimate of this stands at roughly R200 000 over a 2-day period. Annexure 5 provides an overview of the parameters assumed in terms of attendance, catering and transport requirements.

Table 59: SO6-B cost estimates

R Millions	2018/19	2019/20	2020/21	2021/22	2022/23	Total
B - Incorporate a consistent set of core indicators in National Surveys	R1.20	R0.00	R0.00	R0.00	R0.00	R1.20
Consultant	R1.00	R0.00	R0.00	R0.00	R0.00	R1.00
Workshops	R0.20	R0.00	R0.00	R0.00	R0.00	R0.20

Source: Costing outputs from FNS Costing Model

8.9.4 SO6-C:Conduct implementation evaluations of the FNS 2017- 2022 completed

The tasks required to achieve this objective are presented the table 60 below.

Table 60: SO6-C: Conduct implementation evaluations of the NFNS Plan

Strategic intervention	Specific activities	Outputs	Tasks
Conduct evaluations of the FNS 2018-2023	Increased food production by household producers	Conduct an implementation evaluation of the FNS 2018-2023	Conduct an implementation evaluation of the FNS 2018-2023

Source: (The Government of the Republic of South Africa, 2017)

The cost associated with the midline evaluation in 2020/21 and endline evaluation in 2022/23 are presented in table 61 below.

Table 61: SO6-C cost estimates

R Millions	2018/19	2019/20	2020/21	2021/22	2022/23	Total
C - Conduct implementation evaluations of the NFNS Plan	R0.00	R0.00	R0.77	R0.00	R1.10	R1.86
Midline Implementation Evaluation	R0.00	R0.00	R0.77	R0.00	R0.00	R0.77
Endline Implementation Evaluation	R0.00	R0.00	R0.00	R0.00	R1.10	R1.10

Source: Costing outputs from FNS Costing Model

8.9.5 SO6-D: Analyse and rate hazards and risks associated with FNS, and their impacts

The tasks required to achieve this objective are presented in table 62 below.

Table 62: SO-6D: Analyse and rate hazards and risks associated with FNS, and their impacts

Strategic intervention	Specific activities	Outputs	Tasks
Establish a FNS risk register for the country, by profiling FNS risks to which the country is vulnerable and how they should be addressed as part of the FNS disaster preparedness and management mechanism	Analyse potential FNS hazards and risks and their impacts, including climate change, drought, price increases / fluctuations, pests, food safety / biotechnology, risks for nutrition, food industry cartels etc.	Analysis and rating of hazards and their impacts	Profile the risks to which the country is vulnerable, and how they should be addressed as part of the FNS disaster preparedness and management mechanism
	Develop mechanisms to address FNS risks and hazards by: 1. **Establishing (design) a strategic grain reserve facility,** 2. **Instituting food price-support mechanism for the benefit of the poor,** 3. **Review Marketing of Agricultural Products Act, 1996 and other relevant legislation impacting on food security**	Mechanisms of addressing risks and hazards including grain reserve facility, price support mechanism, and legislation to enable State participation in the food system	
Enhance capacity for generating and using FNS and risk-monitoring and evaluation information	Identify groups vulnerable to various FNS risks and profile them	Risk profiles for vulnerable groups completed	

The estimated cost of these tasks includes a once-off cost of R2.51m in the year that risks to food and nutrition security are analysed originally. It is expected that in each subsequent year of the plan, this analysis along with the data already on the register will have to be updated at an average annual cost of R850 000. Once risks and hazards have been identified and the report has been prepared, there will be a need to develop specific measures and mechanisms to address these. Development of these mechanisms will fall outside the scope of this costing model, as their costs will ultimately be based on the findings of the risk and hazard analysis.

Table 63: O6-D cost estimates

R Millions	2018/19	2019/20	2020/21	2021/22	2022/23	Total
D - Analyse and rate hazards and risks associated with FNS, and their impacts	R2.51	R0.86	R0.92	R0.98	R0.63	R5.89
Analysing risks	R2.51	R0.00	R0.00	R0.00	R0.00	R2.51
Updating risk and hazard analysis	R0.00	R0.86	R0.92	R0.98	R0.63	R3.39

Source: Costing outputs from FNS Costing Model

The work involved in performing the initial analysis in 2018/19 will be of an extremely technical nature requiring very specialised skill and competencies and a significant amount of time. Although we expect that the M&E unit will commission the research and ensure that it is comprehensive and of sufficient quality, its outsourcing is highly recommended. The annual updates, which contribute to the majority of the costs over the period could potentially be performed by the M&E unit. This will however have to be done in collaboration with various state agencies and entities such as Stats SA, ARC, SANBI, relevant Civil Society Organisations and the M&E functions within those line ministries involved in the NFNS Plan. The potential for insourcing this work will however depend on the degree of knowledge transfer that occurs during the initial analysis and the level of complexity of the work required. As it is not really possible at this stage to predict whether sufficient knowledge could be transferred or how complex this work might be, we deemed it necessary to include the costs of an external expert for all the work required.

CONCLUSION

The NFNS Plan 2018-2023 aims to "Implement a priority set of actions, and establish the necessary institutional architecture to lead, coordinate, budget and monitor the implementation of these actions, to deliver significant improvements in food and nutrition status by 2030".

It is widely recognised that food security and nutrition is a major challenge in South Africa disproportionately affecting poor

and vulnerable households and individuals. The overall objective of the NFNS Plan is therefore not only commendable but also a pressing priority for the country. Nevertheless, addressing a challenge of this scale will require significant resources. The aggregate cost estimates for the NFNS Plan are presented in Table 64 along with the estimates of the funding41 over the period.

Table 64: Aggregate affordability (2018/19 – 2022/23)

R Millions	Total additional costs	Total funding[42]	% additional funding requirement
Strategic Objective 1	R18.76	R222.84	8.4%
Strategic Objective 2	R66 256.15	R39 994.55	165.7%
Strategic Objective 3	R11 234.91	R443 229.48	2.5%
Strategic Objective 4	R7 024.92	R138 805.87	5.1%
Strategic Objective 5	R703.79	R515.94	136.4%
Strategic Objective 6	R23.70	R350.38	6.8%
Total	**R85 262.23**	**R623 119.06**	**13.7%**

Source: Researcher's calculations

Funding is based on estimates of the funding of the budget programmes that are most likely to fund the activities as set out in the plan.

[42] (National Treasury, 2017)

Overall, the NFNS Plan will require an average increase in funding of 13.7% over the 5-year period of the plan. Although significant funding will be required for Strategic Objectives 3 and 4, these are generally well-funded functions and the required increase in funding is somewhat marginal. Relative to the NFNS Plan's total cost, the cost of implementing Strategic Objectives 1 and 6 is also low. It is also expected that the additional funding requirement will be low relative to the budget programmes that will fund the activities of these objectives. Strategic Objectives 1 and 6 will require very little compared to both the current funding and the NFNS Plan's total cost.

Although Strategic Objective 5 will necessitate substantial additional funding, as mentioned, for the advocacy and BCC strategy of Strategic Objective 5 to be effective there is a certain minimum threshold of resources that must be employed. Therefore, instead of attempting to narrow the scope of the strategy, additional funding could be unlocked through a collaborative funding approach in which all departments involved in the NFNS Plan contribute to the funding of the strategy.

The largest drivers of the costs and additional funding requirement of the NFNS Plan are the activities and targets of Strategic Objective 2. Increasing funding by more than 2.5 times over the NFNS Plan's period is highly unlikely. The targets set out in the plan are important, but given current constraints on Government's budget, it is likely that the extent of additional funding could delay or hamstring implementation of the plan.

As discussed, meaningfully addressing food security and nutrition in South Africa is an important but challenging undertaking. Due to the scale of the problem, the resource requirement is tremendous. This, along with the reality of a finite government budget with multiple priorities, makes focused and specific planning all-important, within the constraints of the current resources envelope. In the words of the President of South Africa, "The real work starts now, with the earnest implementation of the plan, to improve the lives of our people".

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Annexure 1: Programmes implemented by government departments to address food and nutrition security

#	Programme	Description of programme
Department of Agriculture, Forestry & Fisheries		
1	AgriBEE	Developed to support Black South Africans to actively participate in the agricultural sector as owners, managers, professionals, skilled employers in all business interfaces; and to encourage inclusive processes, a participatory culture and collective efforts towards growth and development of the South African economy
2	Agro-processing strategy	To create an enabling environment for SME agro-processors to fully and actively participate in the mainstream economy.
3	Animal and Veld Management Programme	Improvement of the livelihoods of rural poor through coordinating the effective implementation of socio-economic infrastructure.
4	Comprehensive Agriculture Support Programme (CASP)	To provide effective agricultural support services, promoting and facilitating agricultural development, by targeting beneficiaries of land reform's restitution and redistribution and other black producers who have acquired land through private means and are engaged in value-adding enterprises.
5	Fetsa Tlala	The Initiative is aimed at implementing the food-production pillar of the National Policy, maximisation of food cultivation, by putting a million hectares of land under production by the 2018/19 production season.
6	Integrated Food Security and Nutrition Programme	Government approved the National Policy on Food and Nutrition Security and the Household Food and Nutrition Security Strategy in 2013 to continue responding to the hunger challenges of the country.
7	Irrigation scheme rehabilitation	DAFF is currently preparing a plan for irrigation scheme rehabilitation.

#	Programme	Description of programme
8	LandCare Programme	Department to coordinate effectively all relevant departments or units across all spheres of government in a manner that fosters the intergovernmental approach to rural development. This was especially necessary, and continued to be, to avoid duplication of services as is the case in Animal and Veld Management Programme (DRDLR) and the Land Care Programme (DAFF).
		Focuses on land-resource management through the promotion of sustainable-use practices.
9	Masibambisane Rural Development Initiative (MRDI)	Aims to develop rural communities through infrastructure development, skills development and transfer, as well as access to markets for small-scale farmers.
10	Micro-agricultural Financial Institutions of South Africa (Mafisa)	Provides access to finance for farmers, especially beneficiaries of the land restitution, redistribution and land-tenure reform programmes.
11	Participative Forestry Projects	The DAFF Directorate: Forestry Development (Participative Forestry) in conjunction with Danida is supporting the establishment of community projects through regional forestry staff. An estimated R2 million has already been spent from the Community Facilitation Fund to support the establishment of projects on the ground. Current projects include beekeeping, which is a partnership with the Agricultural Research Council, and the establishment of medicinal nurseries in partnership with various stakeholders.
12	Recapitalisation and Development Programme	This contravenes the policy provision for Recapitalisation and Development. Further, the Report did not give evidence of the link between the grants and section 42C approvals, whether similar communities received support.
13	Recapitalisation and Development Programme	In relation to adequate budget for new claims, the DRDLR has reprioritised R571 million over the 2015 Medium-Term Expenditure Framework (MTEF) period from the existing baseline to fund new claims. With recapitalisation and development, an amount of R4.7 billion has been proposed.
14	Zero Hunger	The Programme seeks optimal use of land and agrarian reform, ensuring land tenure for food security, enhancement of government's food purchase programme and better production inputs.
15	Nguni Cattle project	Involves loans of 30 pregnant Nguni heifers and one breeding bull to qualifying farmers.

Annexure 1: Programmes implemented by government departments to address food and nutrition security - continued

#	Programme	Description of programme
Department of Basic Education		
16	National School Nutrition Programme (NSNP)	The programme is implemented within the larger framework of the National Integrated Food and Nutrition Security Policy. It is intended to enhance learning capacity and improve access to education. During the 2015/16 financial year the NSNP reached nearly 9 million learners in 21 000 schools. About 56 000 volunteer food handlers (VFHs) support the programme and earn a stipend, which is reviewed annually. The NSNP serves one cooked meal per day that consists of a protein dish, a starch and a fresh vegetable or fruit. Three pillars form the basis of the programme: • School feeding to provide nutritious meals • Establishment and maintenance of school food- gardens • Nutrition education, to encourage healthy eating habits and lifestyle choices. • The NSNP and Integrated School Health Programme (ISHP) further support a deworming programme in schools.
17	School Food- Gardens Programme	School food-gardens are a second pillar of the NSNP. The initiative presents an opportunity to educators and learners for hands-on experience and give insights into small-scale agricultural initiatives. It also has the potential to develop positive attitudes and instil values towards active citizenry, skills for natural-resource management, and interest in careers related to agriculture and nutrition. The recommendation of a report on the NSNP Evaluation (DPME, 2016) is to reinvigorate the food-production component of the NSNP by dedicating funding and mobilising partnerships to expand the resource-base for implementing the programme.
Department for Public Works		
18	The Infrastructure Delivery Improvement Programme (IDIP)	A capacity-building programme to address problems relating to the planning and management of public-sector infrastructure delivery. The goal of IDIP is to improve the efficiency and effectiveness of the delivery of public-sector infrastructure through developing and institutionalising best-practice systems and tools.

#	Programme	Description of programme
Department of Public Works		
19	Road Maintenance Programme	Will enhance service delivery capacity, thereby impacting positively on the population.
20	The Expanded Public Works Programme	Provides poverty and income relief through temporary work for the unemployed, carrying out socially-useful activities.
Department of Small Business Development		
21	Cooperative Incentive Scheme	Provides financial support to qualifying companies in various sectors of the economy.
Department of Transport		
22	Integrated urban space and public transport programme	Coordinates planning and implementation of public transport, human settlement, economic and social infrastructure, and location decisions into sustainable urban settlements connected by densified transport corridors.
Department of Water Affairs and Sanitation		
23	Working for Water	Spearheads the fight against invasive alien plants. This programme works in partnership with local communities, to whom it provides jobs.
Department of Health		
24	Calcium supplementation, Iron folate supplementation (or multiple micronutrients)	Distribution of supplements at ante-natal clinics in primary healthcare clinics (PHCs) and hospitals.
25	Child Healthcare Problem Identification Programme	An audit of child deaths in participating hospitals found that about 63% of under 5s who died were malnourished, with the majority of them infected with HIV.
26	Deworming (situational*)	Child Health Weeks, Routine PHC services and outreach
27	Exclusive Breastfeeding promotion*	Community nutrition programmes delivered through PHCs and hospitals
28	Fortification of staples*	Market-based strategy

Annexure 1: Programmes implemented by government departments to address food and nutrition security - continued

#	Programme	Description of programme
29	Integrated Nutrition Programme	Provided a broad framework for the reorientation of nutrition services in South Africa since 1994. Significant gains were made in this period, particularly in the development of specific policies and the implementation of micronutrient strategies.
30	Multiple micronutrient supplements and targeted supplementary feeding to undernourished individuals	Community nutrition programmes, clinics, PHCs and hospitals.
31	Salt iodisation	Market-based strategy
32	Therapeutic zinc supplementation	Diarrhoea treatment – PHCs, hospitals
33	Vitamin A supplementation	Hospital services, child health weeks, Routine PHC services and outreach.
Department of Rural Development and Land Reform		
34	Agri-Parks	Roll out of Agri-Parks in all 44 districts across the country. This is a Rural Development Programme that will serve as a catalyst for the revitalisation of the rural economy.
35	Animal and Veld Management Programme	The Department must develop mechanisms to enhance its capacity to coordinate effectively all relevant departments or units across all spheres of government in a manner that fosters the intergovernmental approach to rural development. This continues to be necessary to avoid duplication of services as is the case in Animal and Veld Management Programme and the DAFF Land Care Programme.
36	Comprehensive Rural Development Programme (CRDP)	Tackles issues such as underdevelopment, hunger, poverty, joblessness, lack of basic services and other social ills which have become synonymous with rural areas and redistribution of 30% of the country's agricultural land.
37	Land Reform for Agricultural Development	Identify strategically-located land acquired, provide farm development support to smallholder farmers and establish a functional system and institutional arrangements.
38	Proactive Land Acquisition Strategy (PLAS)	Aims to support local government to develop area-based planning and improve coordination among the institutions responsible for land reform.

#	Programme	Description of programme
39	Recapitalisation and development programme	To increase production and food security, graduate emerging farmers into commercial farmers, create job opportunities within the agriculture sector and establish rural development monitors.
40	Restitution Programme	Responsible for the settlement of land restitution claims under the Restitution of Land Rights Act, No. 22 of 1994, as amended, and the provision of settlement support to beneficiaries.
Department of Social Development		
41	Comprehensive ECD Programme	The ECD Policy was approved by Cabinet in February 2015 and subsequently gazetted for public comment. The Comprehensive ECD Programme will be finalised after approval of the ECD Policy.
42	Early Childhood Development Programmes	These programmes include some aspects of basic services provision, citizenship (birth registration), social security, health care for women and children, early child care and education, and preparation for formal schooling.
43	Food Banks	Each food bank acts on behalf of social services agencies, by procuring food which is mainly donated by the food and grocery industries, government agencies, individuals and other organisations.
44	Food parcels	DSD provides funding to home-based community-based care (HBCBC) organisations to enable them to provide food parcels, among other services, to people living with HIV
45	Food vouchers	Part of the Social Relief from Distress Programme provided for the procurement of food from specific retailers.
46	Government Food-Purchasing Programme	Establishment of food value-chains for improved rural economies. This outcome of the Food-Purchasing Programme focuses on promotion of rural food value-chain development in order to ensure better market access for both subsistence and smallholder producers.
47	Social grants	Provides monetary assistance to those most in need.
48	Social relief of distress programmes	Social relief of distress is temporary provision of assistance intended for persons in such dire material need that they are unable to meet their families' most basic needs.
49	Soup Kitchens / Drop-in centres	DSD makes funding available to soup kitchens and drop-in-centres to run food-provision points across the province
50	War on Poverty	The most deprived households identified in the poorest wards would be visited periodically during this campaign by a team of professionals and community workers to identify their specific needs, accelerate their access to government services, and provide safety nets.

Annexure 1: Programmes implemented by government departments to address food and nutrition security - continued

#	Programme	Description of programme
Department of Trade and Industry		
51	Aquaculture Development and Enhancement Programme (ADEP)	An incentive programme available to South African-registered entities engaged in primary, secondary and ancillary aquaculture activities in both marine and freshwater, classified under SIC 132 (fish hatcheries and fish farms) and SIC 301 and 3012 (production, processing and preserving of aquaculture fish).
52	Black Business Supplier Development Programme (BBSDP)	A cost-sharing grant offered to small black-owned enterprises to assist them to improve their competitiveness and sustainability.
53	Local Economic Development	The DTI initiated the Incubation Support Programme (ISP) to develop incubators and create successful enterprises with the potential to revitalise communities and strengthen local and national economies.
54	Technology Demonstration Centres (TDCs)	TDCs focus on demonstrating, exhibiting and providing training in the use of available technologies – especially with regards to value-addition processes.
Human Rights Commission		
55	PAIPS	The programme seeks to promote and facilitate interaction between the SAHRC, civil society and Parliament on human rights issues; to engage with the legislative drafting and oversight function of Parliament; and to monitor and raise awareness about South Africa's international and regional treaty obligations.
Presidency		
56	Community Works Programme	Employs community members to serve as food preparers and/or brings in other service providers or agencies to organise food distribution and feeding on behalf of ECD centres and service providers, such as those operating food distribution centres.
Department of Public Works		
57	Expanded Public Works Programme (EPWP)	The EPWP supports National Development Plan Outcome 4: "Decent employment through inclusive economic growth".

Annexure 2: Global policy environment for Food Security and Nutrition

Title	Brief description	Year
UN General Assembly (UNGA): Sustainable Development Goals (SDGs)	Member states discussed and adopted 17 goals. Goal 2 aims to: "End hunger, achieve food security and improve nutrition and promote sustainable agriculture". Relevant targets: **2.1 By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round.** **2.2 By 2030, end all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age; and address the nutritional needs of adolescent girls, pregnant and lactating women and older persons.**	2015
Draft High-Level Strategy of the Scaling Up Nutrition (SUN) Movement (2016-2020)	The group reaffirmed the ambition of the SUN Movement as an inclusive, multi-stakeholder, multi-sectoral movement open to all countries committed to achieving nutrition justice and an end to malnutrition in all its forms.	2015
WHA66.10: Follow-up to the Political Declaration of the High-level Meeting of the UN General Assembly on the Prevention and Control of Non-Communicable Diseases	Endorsed the WHO Global Action Plan for the prevention and control of NCDs 2013-2020; adopted the comprehensive Global Monitoring Framework for the prevention and control of NCDs, including the set of 25 indicators capable of application across regional and country settings to monitor trends and assess progress; and adopted nine voluntary global targets for achievement by 2025 for the prevention and control of NCDs. Relevant indicator: halt the rise in diabetes and obesity.	2013
WHA65.6: Comprehensive Implementation Plan on Maternal, Infant and Young Child Nutrition	Endorsed the comprehensive implementation plan on maternal, infant and young child nutrition and urges member states to put the plan into practice, as appropriate. Includes six global targets to be achieved by 2025 and five corresponding actions. Targets: • 40% reduction in the number of children under 5 who are stunted • 50% reduction of anaemia in women of reproductive age • 30% reduction in low birthweight • No increase in childhood overweight • Increase the rate of exclusive breastfeeding in the first 6 months to at least 50% • Reduce and maintain childhood wasting to less than 5%.	2012

Annexure 2: Global policy environment for Food Security and Nutrition

Title	Brief description	Year
UNGA Resolution 67/174	Reaffirmed the importance of the right to food as part of the right to an adequate standard of living. Member states recommitted the international world to focus on the realisation of the right to food.	2012
Copenhagen Consensus: hunger and malnutrition	Reiterated the scaling-up of cost-effective interventions such as breastfeeding as the best investment in reducing childhood undernutrition.	2012
Revised SUN Road Map	The 2012 Road Map complements the SUN Movement Strategy 2012-2015. It provides a greater level of detail on how the movement's stakeholders will work together to ensure greatest impact of their collective actions on nutrition outcomes in SUN countries. The 2012 Road Map is a revision of the 2012 version, and continues to evolve as strategies and approaches are refined. Until recently, South Africa had not signed the SUN Road Map.	2012
WHA63.23: Infant and Young Child Nutrition.	Urged member states to increase political commitment to preventing and reducing malnutrition in all its forms, to expedite implementation of the global strategy on infant and young child feeding, and to expand interventions.	2010
SUN Road Map	Developed as a key contribution to realising the MDGs, the Road Map proposed a multi- stakeholder global effort to Scale Up Nutrition. Until recently, South Africa had not signed the SUN Roadmap.	2010
SUN Framework for Action to Scale-Up Nutrition	Based on a collaborative effort of a wide range of developing country partners, community service organisations, UN, multilateral and bilateral agencies.	2010
Framework for Scaling Up Nutrition	Developed in 2010 to put nutrition back on the international agenda.	2010
127th Session of the FAO Council: Voluntary Guidelines to Support the Progressive Realization to Adequate Food in the Context of National Food Security	Provide practical guidance to states in their implementation of the progressive realization of the right to adequate food in the context of national food security, to achieve the goals of the World Food Summit Plan of Action.	2004
UNGA: Millennium Development Goals (MDGs)	Member states adopted 8 goals. Relevant goals: • Eradicating extreme poverty and hunger • Ensuring environmental sustainability	2001

Title	Brief description	Year
World Food Summit	Defined food security as existing "when all people at all times have access to sufficient, safe, nutritious food to maintain a healthy and active life".	1996
International Covenant on Economic, Social and Cultural Rights (ICESCR): Article 11.	Member states recognised the right to food as part of the right of everyone to an adequate standard of living for himself and his family. • 11.1 refers to the right to food: "Including adequate food, clothing and housing, and to the continuous improvement of living conditions". • 11.2 refers to the fundamental right of everyone to be free from hunger: "The fundamental right of everyone to be free from hunger"	1976
Universal Declaration of Human Rights: Article 25	"Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing, medical care and social services..."	1948

Annexure 3: Africa regional policy environment for food and nutrition security

Title	Brief description	Year
Malabo Declaration on Accelerated Agricultural Growth and Transformation for Shared Prosperity and Improved Livelihoods	Expressed concerns relating to, among others, child under-nutrition, child stunting, child underweight and hunger, and recommitted to reaching the goal of effecting nutritional security for inclusive economic growth and sustainable development.	2014
Brazzaville Declaration on Non-Communicable Diseases	The "Brazzaville Declaration" committed member states to develop integrated national action plans and strengthen institutional capacities for NCD prevention and control.	2011
Protocol to the African Charter on Human and Peoples' Rights on the Rights of Women in Africa: Article 15	Member states should "Ensure that women have the right to nutritious and adequate food," and implement specific steps to fulfil these obligations.	2003
Comprehensive Africa Agriculture Development Programme (CAADP)	CAADP provides for strong state commitment and investment in agricultural development. The CAADP initiative is structured around the following four pillars ("areas of primary action"): • Land and Water Management • Rural infrastructure and trade-related capacities for markets • Increasing food supply and reducing hunger • Agricultural research technology dissemination and adoption	2003
New Partnership for Africa's Development (NEPAD)	NEPAD manages a number of programmes and projects in six theme areas. The relevant theme: • Agriculture & Food Security	2002
African Charter on the Rights and Welfare of the Child (ACRWC): Article 14	Obliges member states to: • 14(2)(c) Ensure the provision of adequate nutrition and safe drinking water • 14(2)(d) Combat disease and malnutrition within the framework of primary healthcare	1999

Annexure 4: Existing policy environment for food and nutrition security in South Africa

Title	Brief description	Year
National strategic plan for the prevention and control of obesity 2015-2020	1. Due to the high levels of obesity in the country, a strategic plan was created to reduce this increasing burden. The strategy focuses on 6 six broad goals. These are: 2. Create an institutional framework to support inter-sectoral engagement 3. Create an enabling environment that supports availability and accessibility to healthy food choices in various settings 4. Increase the percentage of the population engaging in physical activity (PA) 5. Support obesity prevention in early childhood (in-utero – -12 years) 6. Communicate with, educate and mobilise communities 7. Establish a surveillance system and strengthen monitoring, evaluation and research	2015
South African National Policy on Food, Nutrition and Security	Approved by cabinet in 2014. It identifies five pillars to achieve food security: • Availability of improved nutritional safety nets; • Improved nutrition education • Alignment of investment in agriculture towards local economic development • Improved market participation of the emerging agricultural sector • Risk management	2014

Annexure 4: Existing policy environment for food and nutrition security in South Africa

Title	Brief description	Year
Medium Term Strategic Framework Priority 2014-2019 (MTSF)	Strategic Objective 2 is rural development, land and agrarian reform and food security. In addition, it indicates that: • Food security is part of a long and healthy life for all South Africans (par. 6.2) • The rural economy (agriculture) is to create one million new jobs by 2030 as part of vibrant, equitable, sustainable rural communities contributing towards food security for all (par. 6.7) • The protection and enhancement of environmental assets and natural resources are required in order to manage threats relating to, amongst others, food security (par.6.10) • A strong emphasis should be placed on the school nutrition programme (par. 6.13). • Relevant outcomes: • Outcome 7 is formulated as: "Vibrant, equitable, sustainable rural communities contributing to food security for all" • Outcome 13 deals with: "A comprehensive, responsive and sustainable social protection system".	2014-2019
Roadmap for Nutrition in South Africa 2013-2017	The roadmap lists a number of priority interventions, including: • Exclusive breastfeeding; • Healthy eating for optimal weight during pregnancy and breastfeeding; • Nutritional education; • Therapeutic zinc, A, iron folate and calcium supplements; and • Micronutrient supplements for undernourished people, particularly those with HIV and TB	2013
National Strategic Plan for the Prevention and Control of NCDs 2013-2017	Strategic plan developed to combat NCDs, both risk factors and diseases are addressed. Relevant target: Reduce the percentage of people who are obese and/or overweight by 10% by 2020	2013

Title	Brief description	Year
Infant and Young Child Feeding Policy	These guidelines, which replace those issued by the government in 2007, cover six main topics including: • Early initiation of breastfeeding in health facilities; • Continued breastfeeding for at least two years; • Infant feeding for mothers living with HIV; • Use of commercial formula; • The introduction of complimentary foods from six months; and • Feeding infants and young children in difficult circumstances.	2013
Strategic Plan for Maternal, Neonatal, Child and Women's Health (MNCWH) and Nutrition in South Africa	This plan is aligned to and supports the process of Primary Health Care (PHC) re-engineering. The three strands of the PHC – expanded school health services, ward-based outreach teams, and district clinical specialist teams – will play a key role in delivering community-based MNCWH services to communities and households, and will facilitate access to services at PHC- and hospital-levels. Relevant goal: eradicate extreme hunger and poverty;	2012
National Development Plan (NDP) 2012-2030	One of the key focus areas of the NDP is agriculture. It aims at eliminating income poverty by 2030 and indicates a strong commitment to household food and nutrition security. It is of the view that the ability to access food determines household food security.	2012
Integrated School Health Policy	The Integrated School Health Programme aims to provide a more comprehensive package of services, which addresses not only barriers to learning, but also other conditions which contribute to morbidity and mortality amongst learners during both childhood and adulthood. The programme also includes a new, more prominent emphasis on the provision of health services in schools, which previously only conducted health screenings and referrals.	2012
Regulations (R991/2012): international code on marketing of breast milk substitutes	Following guidelines from UNICEF and the Tshwane declaration South Africa introduced regulations to enforce the international code on marketing of breast milk substitutes.	2012
The Tshwane Declaration	Besides promoting, protecting and supporting breastfeeding generally, the declaration specifically adopts breastfeeding as the default feeding method for HIV-exposed infants and promotes human milk banks to support breastfeeding and breast milk feeding.	2011

Annexure 4: Existing policy environment for food and nutrition security in South Africa

Title	Brief description	Year
National Health Act 61	• s 2(c)(iii) The protection of, respect for, promotion of and fulfilment of the section 28(1)(1(c) constitutional right of children to basic nutrition • s 21(2)(b) The duty of the Director-General of the Department of Health to, in accordance with the National Health Policy, "issue, and promote adherence to, norms and standards on health matters, including (i) nutritional intervention"	2003
Food Fortification Legislation	The fortification of all maize meal and wheat flour in South Africa became mandatory.	2003
Integrated Nutrition Programme Strategic Plan	Upon consultation with experts, a strategic plan was required for the INP. This plan set out targets and objectives following expert consultation. The targets were revised annually.	2001
Integrated Sustainable Rural Development Strategy (ISRDS)	Addresses rural development in a broader framework of intersectoral cooperation to improve health and social development. One of its key activities is the development of income-generating projects. The Nutrition Directorate is one of many directorates providing technical support such as nutrition knowledge and food management expertise and skill.	2001
Guidelines for the in-patient management of acute, severe Protein Energy Malnutrition (PEM)	Based on the WHO Ten Steps. The guidelines include primary and secondary interventions, products for nutritional rehabilitation, entry and exit criteria for food supplementation and the management and treatment of under-nutrition. The WHO Ten Steps, together with the Guidelines on Nutrition Interventions and the Integrated Management of Childhood Illnesses, have been implemented and expanded to all health facilities in the nine provinces.	2000
Integrated Nutrition Programme (INP)	The INP encourages and supports programmes that are integrated, sustainable and community-driven as opposed to the fragmented and mostly food-based approaches of predecessors. The INP focuses on seven focus areas/strategies, namely: 1. Contribution to household food security 2. Disease-specific nutrition support, treatment and counselling 3. Growth monitoring and promotion 4. Nutrition promotion, education and advocacy 5. Promotion, protection and support of breastfeeding 6. Micronutrient malnutrition control and 7. Food service management.	1998

Title	Brief description	Year
Constitution of South Africa: Section 27	The right to health care, food, water and social security is enshrined in section 27, which also obliges the State to take reasonable legislative and other steps, within the context of its available resources, to progressively give content to each of these rights: (1) (b) Everyone has the right to have access to sufficient food and water. (2) The state must take reasonable legislative and other measures, within its available resources, to achieve the progressive realisation of these rights.	1996
Division of Revenue Act (DoRA)	The National School Nutrition Programme's Conditional Grant Framework (CGF) is an Annexure of the Division of Revenue Act (DoRA)43, which is published annually and outlines minimum requirements with respect to: • complying with recommended food specifications and an approved menu of meals providing starch, protein and fresh vegetables/fruit • varying servings of fresh fruit/vegetables daily between green and yellow/red, and varying of protein-rich foods such as sugar beans, soya mince • mandatory serving of pilchards at least once a week • Ultra-High Temperature (UHT) pasteurised milk or maas should be served once a week. Milk should be approved in line with dairy standards set by Milk South Africa.	Published annually

ANNEXURE 5: Parameters for the costing of the National Food and Nutrition Security (FNS) Council

Establish the National Food and Nutrition Security (FNS) Council

Table 2: Cost components to establish a national multi-sectoral food and nutrition security council

R millions	2018/19	2019/20	2020/21	2021/22	2022/23
National FNS Council meetings					
Number of FNS Council meetings per year	1	1	1	1	1
Number of days per FNS Council meeting	1	1	1	1	1
Number of delegates at FNS Council meetings	24	24	24	24	24
Number of sector experts at FNS Council meetings	6	6	6	6	6
Seating allowance (honorarium) for sector expert	R6 000	R6 420	R6 869	R7 350	R7 864
Number of attendees requiring flights	5	5	5	5	5
Cost of return flight per attendee	R3 860	R4 033	R4 215	R4 404	R4 603
Number of attendees travelling by car	3	3	3	3	3
Cost of accommodation per distance attendee per night	R1 500	R1 691	R1 796	R1 908	R2 026
Cost of venue hire	Internal	Internal	Internal	Internal	Internal
Catering cost per day per head	R200	R200	R200	R200	R200
National FNS Council consultative forums					
Number of FNS consultative forums per year	1	1	1	1	1
Number of days per FNS consultative forums	2	2	2	2	2
Number of delegates at FNS consultative forums	70	70	70	70	70
Number of sector experts at FNS consultative forums	6	6	6	6	6
Seating allowance (honorarium) for sector experts'	R6 000	R6 420	R6 869	R7 350	R7 864
Number of attendees requiring flights	30	30	30	30	30

R millions	2018/19	2019/20	2020/21	2021/22	2022/23
Cost of return flight per attendee	R3 860	R4 033	R4 215	R4 404	R4 603
Number of attendees travelling by car	18	18	18	18	18
Cost of accommodation per distance attendee per night	R1 500	R1 691	R1 796	R1 908	R2 026
Cost of venue hire	Internal	Internal	Internal	Internal	Internal
Catering cost per day per head	R200	R200	R200	R200	R200
National FNS Council international conference preparatory meetings					
Number of preparatory meetings per year	2	2	2	2	2
Number of days per preparatory meeting	1	1	1	1	1
Number of delegates at preparatory meetings	8	8	8	8	8
Number of sector experts	2	2	2	2	2
Seating allowance (honorarium) for sector expert	R6 000	R6 420	R6 869	R7 350	R7 864
Cost of venue hire	Internal	Internal	Internal	Internal	Internal
Catering cost per day per head	R200	R200	R200	R200	R200
International cooperation and knowledge exchange					
Number of conferences per year	1	1	1	1	1
Number of days per conference	5	5	5	5	5
Number of delegates attending the conference	4	4	4	4	4
Cost of return flight per attendee	R25 000	R26 125	R27 300	R28 529	R29 812
Cost of accommodation per attendee	R1 659	R1 775	R1 899	R2 032	R2 174
Daily allowance per attendee	R1 540	R1 648	R1 763	R1 886	R2 018

SO1-B: Establish the Provincial and local Food and Nutrition Security (FNS) Councils

Table 64: Cost components to establish the Provincial and local Food and Nutrition Security Councils

R millions	2018/19	2019/20	2020/21	2021/22	2022/23
National FNS Council meetings					
Number of FNS Council meetings per year	2	2	2	2	2
Number of days per FNS Council meeting	1	1	1	1	1
Number of delegates at FNS Council meetings	24	24	24	24	24
Number of sector experts at FNS Council meetings	4	4	4	4	4
Seating allowance (honorarium) for sector experts	R6 000	R6 420	R6 869	R7 350	R7 864
Cost of venue hire	Internal	Internal	Internal	Internal	Internal
Catering cost per day per head	R200	R200	R200	R200	R200
Provincial FNS Council consultative forums					
Number of FNS consultative forums per year	1	1	1	1	1
Number of days per FNS consultative forums	1	1	1	1	1
Number of delegates at FNS consultative forums	100	100	100	100	100
Number of sector experts at FNS consultative forums	4	4	4	4	4
Seating allowance (honorarium) for sector experts	R6 000	R6 420	R6 869	R7 350	R7 864
Number of attendees travelling by car	50	50	50	50	50
Cost of venue hire	Internal	Internal	Internal	Internal	Internal
Catering cost per day per head	R200	R200	R200	R200	R200
District FNS Council meetings					
Number of meetings per year	2	2	2	2	2

R millions	2018/19	2019/20	2020/21	2021/22	2022/23
Number of days per meeting	1	1	1	1	1
Number of sector experts	4	4	4	4	4
Seating allowance (honorarium) for sector experts	R6 000	R6 420	R6 869	R7 350	R7 864
Cost of venue hire	Internal	Internal	Internal	Internal	Internal
Number of attendees travelling by car	4	4	4	4	4

SO2-A: Increase food produced by smallholder producers

Table 65: Annual production of fruit and vegetables (in tonnes)

R millions	2018/19	2019/20	2020/21	2021/22	2022/23
Total production, including current production	1 462 124	2 000 000	2 714 418	3 684 031	5 000 000
Number of tonnes produced in addition to current production	393 220	931 096	1 645 514	2 615 127	3 931 096
Total tonnes produced receiving support (3-year support cycle)	393 220	931 096	1 645 514	2 221 907	2 606 780

Table 66: Annual production of maize and beans (in tonnes)

R millions	2018/19	2019/20	2020/21	2021/22	2022/23
Total production including current production	1 198 862	3 000 000	3 779 763	4 762 203	6 000 000
Number of tonnes produced in addition to current production	719 772	2 520 910	3 300 673	4 283 113	5 520 910
Total tonnes produced receiving support (3-year support cycle)	719 772	2 520 910	3 300 673	3 563 341	2 280 228

Table 67: Annual additional production by smallholder producers supported (in tonnes), by type of commodity

Commodity	Production cost per tonne	Percentage of additional production per commodity	2018/19	2019/20	2020/21	2021/22	2022/23
Strawberries	R13 888.75	0.0%	-	-	-	-	-
Citrus	R411.99	8.9%	34 953	82 764	146 268	197 503	231 714
Cabbage	R1 440.85	8.9%	34 953	82 764	146 268	197 503	231 714
Carrots	R1 633.53	8.9%	34 953	82 764	146 268	197 503	231 714
Tomatoes	R4 095.46	2.0%	7 864	18 622	32 910	44 438	52 136
Butternut	R2 052.54	8.9%	34 953	82 764	146 268	197 503	231 714
Onions	R2 104.84	8.9%	34 953	82 764	146 268	197 503	231 714
Spinach	R2 268.86	8.9%	34 953	82 764	146 268	197 503	231 714
Beetroot	R2 471.18	8.9%	34 953	82 764	146 268	197 503	231 714
Sweet potatoes	R2 564.46	8.9%	34 953	82 764	146 268	197 503	231 714
Potatoes	R2 926.52	8.9%	34 953	82 764	146 268	197 503	231 714
Brinjal	R3 758.34	2.0%	7 864	18 622	32 910	44 438	52 136
Lettuce	R3 937.33	2.0%	7 864	18 622	32 910	44 438	52 136
Cauliflower	R4 248.88	2.0%	7 864	18 622	32 910	44 438	52 136
Amadumbe	R5 092.65	2.0%	7 864	18 622	32 910	44 438	52 136
Green beans	R5 403.59	2.0%	7 864	18 622	32 910	44 438	52 136
Green peas	R5 748.78	2.0%	7 864	18 622	32 910	44 438	52 136
Broccoli	R8 040.96	2.0%	7 864	18 622	32 910	44 438	52 136

Table 68: Annual additional production by smallholder producers supported (in tonnes), by type of commodity

Commodity	Production cost per tonne	Percentage of additional production per commodity	2018/19	2019/20	2020/21	2021/22	2022/23
Maize	R1 685.40	50.0%	359 886	1 260 455	1 650 337	1 781 671	1 140 114
Beans	R2 921.36	50.0%	359 886	1 260 455	1 650 337	1 781 671	1 140 114

Table 69: Parameter assumptions for land acquired for smallholder producers

	2018/19	2019/20	2020/21	2021/22	2022/23
Number of hectares acquired	90 000	95 000	159 312	159 312	159 312
% of hectares allocated to smallholder producers	50%	50%	50%	50%	50%
Number of hectares allocated to smallholder producers	45 000	47 500	79 656	79 656	79 656
Average cost per hectare	R7 837.80	R7 837.80	R7 837.80	R7 837.80	R7 837.80
% already budgeted for by government	100%	100%	0%	0%	0%

SO2-B Increase production of aquaculture by smallholder producers

Neither Tilapia nor Catfish are currently produced at meaningful levels in South Africa. Consultations with the aquaculture sub-programme in DAFF revealed that a meaningful target for Catfish and Tilapia production for 2022 is 5 000 tonnes. According to the DAFF Aquaculture Yearbook, in 2014, approximately 1 700 tonnes of Tilapia was imported. It has therefore been assumed that this would be a reasonable target for local production. This would therefore imply Catfish production of 3 300 tonnes in 2022/23 to reach the 5 000 tonnes target.

It is assumed that production increases gradually for the first two years and then more rapidly in the last three as production. Feed costs and the FFC are assumed to remain constant and are based on research done for the IDC on the potential for the production, processing and export of Tilapia for the Southern African market44.

Table 70: Parameter values assumed in the estimation of the costs of increasing aquaculture production

R millions (excl. unit costs)	2018/19	2019/20	2020/21	2021/22	2022/23
Tilapia production					
Annual tonnes of Tilapia produced	350	700	941	1 265	1 700
Cost of feed per kg	R17.86	R18.93	R20.07	R21.27	R22.55
Feed conversion ratio (FFC)	1.5	1.5	1.5	1.5	1.5
Cost of feed as a % of total production costs	60%	60%	60%	60%	60%
Cost per tonne of production	R44 650.00	R47 325.00	R50 175.00	R53 175.00	R56 375.00
Catfish production					
Annual tonnes of Catfish produced	750	1 500	1 951	2 537	3 300
Cost of feed per kg	R17.86	R18.93	R20.07	R21.27	R22.55
Feed conversion ratio	1.5	1.5	1.5	1.5	1.5
Cost of feed as a % of total production costs	60%	60%	60%	60%	60%
Cost per tonne of production	R44 650.00	R47 325.00	R50 175.00	R53 175.00	R56 375.00

SO2-C: Increase food produced by subsistence (household) producers

Parameter assumptions

Table 71: Annual cost model parameter values for the increase in the number of subsistence producers

R millions (excl. unit costs)	2018/19	2019/20	2020/21	2021/22	2022/23
Total number of households	16 923 308	16 923 308	16 923 308	16 923 308	16 923 308
Number of households involved in subsistence agriculture	2 217 106	2 313 229	2 413 519	2 518 157	2 627 331
Number of households with vegetable gardens	856 362	918 346	931 467	944 775	958 274
Percentage of households involved in subsistence agriculture	13.1%	13.7%	14.3%	14.9%	15.5%
Increase the number of households involved in agriculture					
Provision of training					
Percentage of agricultural households requiring subsistence farming training	100%	100%	100%	100%	100%
How many farmers per information day	100	100	100	100	100
How many information days per year	4	4	4	4	4
Cost per farmer per information day if lunch is provided	R112.36	R119.10	R126.25	R133.82	R141.85
Vegetable gardens					
Provision of equipment and infrastructure					
Number of new households involved	57 800	61 984	13 121	13 308	13 499
Cost of provision per new household per annum	R5 350.25	R5 671.26	R6 011.54	R6 372.23	R6 754.56
Provision of production consumables	-	-	-	-	-
Cumulative number of new households involved in agriculture	57 800	119 784	132 905	146 214	159 712
Annual cost per farmer p.a.	R173.03	R183.42	R194.42	R206.09	R218.45

ANNEXURE 5: Parameters for the costing of the National Food and Nutrition Security (FNS) Council - continued

R millions (excl. unit costs)	2018/19	2019/20	2020/21	2021/22	2022/23
Other subsistence farming					
Provision of equipment and infrastructure	-	-	-	-	-
Number of new households involved	34 328	34 139	87 169	91 330	95 676
Cost of provision per new household per annum	R8 216.80	R8 709.81	R9 232.40	R9 786.34	R10 373.53
Provision of production consumables					
Cumulative number of new households involved in agriculture	34 328	68 467	155 635	246 965	342 641
Annual cost per farmer p.a.	R1 538.72	R1 631.04	R1 728.90	R1 832.64	R1 942.60
Provision of land					
Number of hectares acquired	90 000	95 000	159 312	159 312	159 312
% of hectares allocated to subsistence producers	10%	10%	10%	10%	10%
Average cost per hectare	R7 031.13	R7 031.13	R7 031.13	R7 031.13	R7 031.13
% already budgeted for	100%	100%	0%	0%	0%

Production input packages

Table 3: Standard production input package for vegetable farming

Gardens			
ITEM DESCRIPTION	ITEM QUANTITY	UNIT COST	TOTAL COST
Consumables			
Seed pack	1	R39.82	R39.82
Fertiliser and LAN (5kg)	1	R123.42	R123.42
Total annual consumables	-	-	R163.24
Equipment and infrastructure			
Treated poles (2.4mX15cm)	21	R94.26	R1 508.16
wire mash	45M	R155.29	R6 988.05
Unails	1packet (500g)	R110.00	R110.00
pedestrian gate	1	R660	R660
Watering can	1	R56.87	R56.87
Harvesting crate	1	R73.88	R73.88
Rake	1	R113.30	R113.30
Fork	1	R113.30	R113.30
Hand hoe and handle	1	R98.86	R98.86
Water tank 2500l	1	R3 850	R3 850
Contingency	10%	R15 697.89	R1 569.79
Total equipment and infrastructure costs			

Source: (KZN Department of Agriculture and Land Reform, 2017)

Table 3: Standard production input package for vegetable farming

Indigenous chickens (Approximation used for all "other" farming			
INPUT	QUANTITY/ PROJECT	UNIT COST	TOTAL COST
		(IN R)	(IN R)
Consumables			
Vaccines (250ml)	2	R90	R180
Deworming (150ml)	2	R80	R160
Crushed yellow maize	6	R400	R2400
Total annual consumables	-	-	R2740
Equipment and infrastructure			
Indigenous Hens	9	R170	R1530
Indigenous Cockerel	1	R250	R250
Corrugated Iron (sheets of 2mx2m)	8	R89	R712
Chicken wire (13mm whole size and 2mm thickness) x8meters	1	R250	R250
Treated Poles (2.4mx15cm)	10	R100	R1000
U-nails	1	R100	R100
Water Tank 2000lt	1	R4 000	R4000
Total equipment and infrastructure costs	**-**	**-**	**R10 456.00**

urce: (KZN Department of Agriculture and Land Reform, 2017)

SO2-D: Establish and strengthen producer development institutions

Costs estimated by the Department of Agriculture, Forestry and Fisheries

Table 73: Cost of establishing and strengthening producer development institutions

R Millions	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	Total
SO2-E: Establish and strengthen producer development institutions	**R823.69**	**R1 016.52**	**R1 072.77**	**R1 150.65**	**R1 192.40**	**R1 171.12**	**R6 427.15**
Accreditation and registration of Colleges	R2.36	R5.21	R5.55	R5.85	R5.68	R6.02	R30.66
Administration support	R42.40	R44.73	R47.42	R50.31	R53.37	R56.61	R294.83
Compensation of Employees	R356.51	R394.42	R420.96	R449.04	R479.06	R508.73	R2 608.74
Curriculum review with emphasis on value addition	R15.19	R18.40	R19.59	R21.04	R22.97	R21.24	R118.42
Leadership development and change management	R33.68	R46.23	R51.25	R55.72	R59.78	R64.86	R311.53
Library expenses	R6.49	R6.85	R7.26	R7.70	R8.17	R8.67	R45.15
Operational expenses	R231.15	R244.22	R258.92	R274.60	R291.22	R298.73	R1 598.85
Improvement of infrastructure and equipment	R135.91	R256.46	R261.81	R286.39	R272.14	R206.26	R1 418.98

Source: Colleges Revitalisation Plan

SO2-E: Create an enabling policy environment

Costs estimated by the Department of Agriculture, Forestry and Fisheries

Table 74: Cost of creating and enabling policy environment

R Millions	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	Total
SO2-G: Create enabling policy environment	**R48.27**	**R12.16**	**R1.83**	**R1.94**	**R1.85**	**R1.96**	**R68.02**
Appoint drafting team led by registrars of relevant departments	R0.00	R0.00	R0.00	R0.00	R0.00	R0.00	R0.00
Approve South African Producer Support Policy	R4.26	R0.00	R0.00	R0.00	R0.00	R0.00	R4.26
Conduct Regulatory Diagnostic Impact Analysis by appointing an external service provider (for and all other relevant Acts)	R11.72	R0.00	R0.00	R0.00	R0.00	R0.00	R11.72
Conduct Regulatory Diagnostic Impact Analysis by appointing an external service provider (for prioritised Acts)	R8.84	R0.00	R0.00	R0.00	R0.00	R0.00	R8.84
Develop concept document by drafting team of registrars including legal services (in-house)	R7.48	R1.57	R1.67	R1.77	R1.66	R1.76	R15.91
Develop single online application for participants across	R11.49	R10.59	R0.17	R0.18	R0.19	R0.20	R22.82
Development of South African Agricultural Producer Support Bill	R4.48	R0.00	R0.00	R0.00	R0.00	R0.00	R4.48
Implement recommendations according to Impact Analysis*	R0.00	R0.00	R0.00	R0.00	R0.00	R0.00	R0.00

SO2-F: Develop and up-scale instruments to support production and access to markets for smallholder producers

Costs estimated during Operation Phakisa

Table 75: Cost of the development of instruments that support production and improve access to markets for smallholder producers

R Millions	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	Total
SO2-H: Develop and up- scale instruments to support production and access to markets for smallholder producers	**R5.89**	**R9.20**	**R14.69**	**R17.16**	**R20.24**	**R0.00**	**R67.17**
Re-engineering Agricultural Development Finance	R1.38	R0.56	R0.56	R0.56	R0.56	R0.00	R3.61
Unlocking Finance for Grains through PPP - Grains	R4.51	R8.64	R14.13	R16.60	R19.69	R0.00	R63.56

Source: Agric Operation Phakisa

SO3-A: Promote early registration of children born in public health facilities within the prescribed 30-day period

Table 76: Cost components to promote early registration of children born in public health facilities within the prescribed 30-day period

R millions	2018/19	2019/20	2020/21	2021/22	2022/23
Development of birth registration system - Capex					
Cost of server hardware	R34 220 732	-	-	-	-
Cost of disaster recovery hardware	R33 449 148	-	-	-	-
	R14 321	R14 321	-	-	-
	127	127	-	-	-
	R42 789	R42 789	-	-	-
	236	236	-	-	-
	R1 711 037	-	-	-	-
	R1 672 457	-	-	-	-
	R295 000	-	-	-	-
	R468 000	-	-	-	-
Development of birth registration system - Opex					
Cost of server	R150 000	R150 000	R150 000	R150 000	R150 000
Cost of active ID verification	R600 000	R600 000	R600 000	R600 000	R600 000
Storage cost per record	R0.69	R0.69	R0.69	R0.69	R0.69
Number of records stored	836 713	1 747 713	2 735 190	3 801 380	4 948 576
Bio-component costs	R377	R377	R377	R377	R377
Number of bio-component licenses required	96	96	96	96	96
On-site resource cost	R7 500 000	R7 500 000	R7 500 000	R7 500 000	R7 500 000
Support and maintenance cost	R180 000	R180 000	R180 000	R180 000	R180 000

SO3-B: Achieve a universal child support grant registration for eligible children

Table 77: Cost components to achieve a universal child grant registration for eligible children

R millions	2018/19	2019/20	2020/21	2021/22	2022/23
Child Support Grant					
Number of additional recipients	59 691	121 316	184 923	250 558	318 271
Value of grant	R4 797	R5 046	R5 309	R5 585	R5 875

SO3-C: Develop an integrated social protection information system (ISPIS) to improve access to social assistance programmes

Table 78: Cost components to develop an integrated social protection information system

R millions	2018/19	2019/20	2020/21	2021/22	2022/23
Development of ISPIS - Capex					
Cost of server hardware	R34 220 732	-	R38 450 415	-	R43 202 886
Cost of disaster recovery hardware	R33 449 148	-	R37 583 462	-	-R42 228 778
Cost to develop server hardware	R1 711 037	-	R1 922 521	-	R2 160 144
Cost to develop disaster recovery hardware	R1 672 457	-	R1 879 173	-	R2 111 439
Development of ISPIS - Opex					
Cost of server	R150 000	R150 000	R150 000	R150 000	R150 000
Cost of active ID verification	R600 000	R600 000	R600 000	R600 000	R600 000
Storage cost per record	R0.69	R0.69	R0.69	R0.69	R0.69
Number of records stored	20 000 000	28 000 000	35 000 000	40 000 000	45 000 000
On-site resource cost	R7 500 000	R7 500 000	R7 500 000	R7 500 000	R7 500 000
Support and maintenance cost	R180 000	R180 000	R180 000	R180 000	R180 000

SO3-D:Improve provision of nutritious meals through an expanded network of feeding and food distribution centres

Table 794: Cost components to improve provision of nutritious meals through an expanded network of feeding and food distribution centres

R millions	2018/19	2019/20	2020/21	2021/22	2022/23
NSNP – Primary schools					
Number of new kitchen staff	82	165	247	330	413
Annual salary of kitchen staff	Volunteer	Volunteer	Volunteer	Volunteer	Volunteer
Average meal cost per day	R2.95	R3.15	R3.35	R3.57	R3.81
Additional meals per day	20 628	41 326	62 094	82 931	103 840
Feeding days per year	194	194	194	194	194
NSNP – Secondary schools					
Number of new kitchen staff	91	181	273	364	456
Annual salary of kitchen staff	Volunteer	Volunteer	Volunteer	Volunteer	Volunteer
Average meal cost per day	R4.03	R4.30	R4.59	R4.90	R5.23
Additional meals per day	12 217	24 475	36 775	49 116	61 498
Feeding days per year	194	194	194	194	194
Community Nutrition and Development Centres					
New CNDCs required	45	45	15	15	15
Cost to set up a CNDC	R32 280	R33 959	R35 725	R37 582	R39 537
Meal cost at CNDCs	R2.20	R2.34	R2.49	R2.65	R2.82
Meals per day at CNDCs	10 042	22 500	25 900	29 480	33 250
Feeding days per year at CNDCs	365	365	365	365	365
Social relief of distress					
New beneficiaries added	24 837	59 945	77 311	97 189	119 945
Annual cost per beneficiary	R7 886	R8 297	R8 728	R9 182	R9 659

SO4-A: Improve nutrition training for health promoters and food handlers in community nutrition centres (ECDs, Schools, and CNDCs) and improve the ability of ECDs to address nutrition issues

Table 80: Cost components to improve training on nutrition and focus of community health workers and food handlers in community nutrition centres

R millions	2018/19	2019/20	2020/21	2021/22	2022/23
Development of training material					
Resource days for development of material	160	-	-	-	-
Resource cost for development of material	Internal	-	-	-	-
Development and printing of material	R95 502	R101 232	R194 449	R206 116	R218 483
Community Nutrition Development Centre training					
Number of new CNDCs	45	45	15	15	15
Health promoters per CNDC	1	1	1	1	1
Cost to administer training to health promoter	Internal	Internal	Internal	Internal	Internal
Food handlers per CNDC	3	3	3	3	3
Cost to administer training to food handler	Internal	Internal	Internal	Internal	Internal
Early Childhood Development Centre training					
ECDCs to be newly registered	3 091	3 091	5 667	5 667	5 667
Caregivers per ECDC	4	4	4	4	4
Cost to administer training to caregiver	Internal	Internal	Internal	Internal	Internal
School kitchens training					
Number of new school kitchens	0	0	0	0	0
Food handlers per school kitchen	-	-	-	-	-
Cost to administer training to food handler	Internal	Internal	Internal	Internal	Internal

SO4-A: Improve nutrition training for health promoters and food handlers in community nutrition centres (ECDs, Schools, and CNDCs) and improve the ability of ECDs to address nutrition issues

Table 80: Cost components to improve training on nutrition and focus of community health workers and food handlers in community nutrition centres

R millions	2018/19	2019/20	2020/21	2021/22	2022/23
Community Nutrition Development Centre audit					
Number of CNDCs to be audited	45	45	15	15	15
Cost to inspect a CNDC	R1 839	R1 967	R2 105	R2 253	R2 410
Early Childhood Development Centre audit					
Number of ECDCs to be audited	3 091	3 091	5 667	5 667	5 667
Cost to inspect an ECDC	R1 839	R1 967	R2 105	R2 253	R2 410

SO4-B: Increase coverage and availability of multiple micronutrient supplements (MMNS) (folic acid, iron, calcium, vitamin A), deworming tablets, and fortified porridge across the life course for undernourished infants and children, WRA, and people living with HIV and TB

Table 81: Cost components to increase coverage and availability of MMNS, deworming tablets, and fortified porridge across the life course for undernourished infants and children, pregnant and lactating women, and people living with HIV and TB

R millions	2018/19	2019/20	2020/21	2021/22	2022/23
Vitamin A supplementation					
Unit (dose) cost of Vitamin A	R0.70	R0.75	R0.79	R0.84	R0.90
Children (12-59 months) requiring Vitamin A	824 964	1 483 197	1 703 819	1 931 200	2 233 173
Doses of Vitamin A per child (12-59 months)	2	2	2	2	2
Deworming					
Unit (dose) cost of deworming	R2.63	R2.80	R2.98	R3.17	R3.37
Children (12-59 months) requiring deworming	780 109	1 402 552	1 611 178	1 826 196	2 111 751
Doses of deworming per child (12-59 months)	2	2	2	2	2

R millions	2018/19	2019/20	2020/21	2021/22	2022/23
Children (7-14 years) requiring deworming	-	-	5 123 613	5 541 746	5 962 789
Doses of deworming per child (7-14 years)	2	2	2	2	2
Multiple micronutrient supplementation					
Unit (dose) cost of MMNS	R0.30	R0.32	R0.34	R0.36	R0.38
Pregnant and lactating women requiring MMNS	91 100	185 152	282 227	382 399	485 742
Doses of MMNS per pregnant and lactating woman	90	90	90	90	90
People living with HIV/TB requiring MMNS	762 653	1 568 319	2 418 819	3 316 040	4 261 940
Doses of MMNS per person living with HIV/TB	90	90	90	90	90
Children <5 with MAM/SAM requiring MMNS	18 220	33 944	43 902	54 173	68 004
Doses of MMNS per child <5 with MAM/SAM	90	90	90	90	90
Iron supplementation					
Unit (dose) cost of iron	R0.20	R0.21	R0.22	R0.24	R0.25
Pregnant and lactating women requiring iron	91 100	185 152	282 227	382 399	485 742
Doses of iron per pregnant and lactating woman	7 290	7 290	7 290	7 290	7 290
People living with HIV/TB requiring iron	762 653	1 568 319	2 418 819	3 316 040	4 261 940
Doses of iron per person living with HIV/TB	480	480	480	480	480
Children <5 with MAM/SAM requiring iron	18 220	33 944	43 902	54 173	68 004
Doses of iron per child <5 with MAM/SAM	480	480	480	480	480

SO4-A: Improve nutrition training for health promoters and food handlers in community nutrition centres (ECDs, Schools, and CNDCs) and improve the ability of ECDs to address nutrition issues

Table 80: Cost components to improve training on nutrition and focus of community health workers and food handlers in community nutrition centres

R millions	2018/19	2019/20	2020/21	2021/22	2022/23
Calcium supplementation					
Unit (dose) cost of calcium	R0.28	R0.29	R0.31	R0.33	R0.35
Pregnant and lactating women requiring calcium	91 100	185 152	282 227	382 399	485 742
Doses of calcium per pregnant and lactating woman	270	270	270	270	270
People living with HIV/TB requiring calcium	762 653	1 568 319	2 418 819	3 316 040	4 261 940
Doses of calcium per person living with HIV/TB	90	90	90	90	90
Children <5 with MAM/SAM requiring calcium	18 220	33 944	43 902	54 173	68 004
Doses of calcium per child <5 with MAM/SAM	90	90	90	90	90
Folic acid supplementation					
Unit (dose) cost of folic acid	R0.73	R0.78	R0.83	R0.88	R0.94
Pregnant and lactating women requiring folic acid	91 100	185 152	282 227	382 399	485 742
Doses of folic acid per pregnant and lactating woman	540	540	540	540	540
Fortified porridge					
Unit (serving) cost of porridge	R2.42	R2.57	R2.74	R2.92	R3.10
Pregnant and lactating women requiring porridge	91 100	185 152	282 227	382 399	485 742
Servings of porridge per pregnant and lactating woman	30	30	30	30	30

R millions	2018/19	2019/20	2020/21	2021/22	2022/23
People living with HIV/TB requiring porridge	762 653	1 568 319	2 418 819	3 316 040	4 261 940
Servings of porridge per person living with HIV/TB	30	30	30	30	30
Children <5 with MAM/SAM requiring porridge	18 220	33 944	43 902	54 173	68 004
Servings of porridge per child <5 with MAM/SAM	30	30	30	30	30

SO4-C: Improve access and coverage of breastfeeding, complimentary feeding counselling, and the provision of KMC

Table 82: Cost components to improve access and coverage of breastfeeding, complimentary feeding counselling, and the provision of KMC

R millions	2018/19	2019/20	2020/21	2021/22	2022/23
Development of breastfeeding counselling training material					
Resource days for development of material	80	-	-	-	-
Resource cost for development of material	Internal	-	-	-	-
Development and printing of material	R29 122	R32 524	R11 703	R12 995	R14 425
Development of KMC training material					
Resource days for development of material	80	-	-	-	-
Resource cost for development of material	Internal	-	-	-	-
Development and printing of material	R28 646	R31 993	R11 511	R12 783	R14 190
Breastfeeding counselling training					
Number of healthcare workers requiring training	1 678	1 768	600	629	658
Cost to administer training to healthcare worker	Internal	Internal	Internal	Internal	Internal

SO4-C: Improve access and coverage of breastfeeding, complimentary feeding counselling, and the provision of KMC

Table 82: Cost components to improve access and coverage of breastfeeding, complimentary feeding counselling, and the provision of KMC

R millions	2018/19	2019/20	2020/21	2021/22	2022/23
KMC training					
Number of healthcare workers requiring training	420	442	150	157	165
Cost to administer training to healthcare worker	Internal	Internal	Internal	Internal	Internal
Breastfeeding counselling provision					
Number of new healthcare workers	-	-	-	-	-
Annual salary of healthcare worker	R278 578	R298 078	R318 944	R341 270	R365 159
Take-home material required	53 985	68 575	73 867	79 312	86 354
Unit cost of take-home material	R3.44	R3.65	R3.87	R4.10	R4.35
KMC services provision					
Number of new healthcare workers	-	-	-	-	-
Annual salary of healthcare worker	R278 578	R298 078	R318 944	R341 270	R365 159
Number of low birth weight babies	123 532	125 533	127 567	129 633	131 733
Unit cost of KMC binder	R148.96	R158.49	R168.64	R179.43	R190.91
Unit cost of take-home material	R3.44	R3.65	R3.87	R4.10	R4.35

SO4-D: Improve the access and coverage of growth monitoring and promotion services via facility audits

Table 83: Cost components to improve the access and coverage of growth monitoring and promotion services via facility audits

R millions	2018/19	2019/20	2020/21	2021/22	2022/23
Growth, monitoring and promotion facility audits					
Cost to audit a GMP facility	R14 535	R15 552	R16 641	R17 806	R19 052
Number of GMP facilities requiring audits	-	-	-	-	-
Growth, monitoring and promotion facility equipment					
GMP facilities requiring new equipment	893	893	218	218	218
Unit cost of a MUAC tape	R12.77	R13.59	R14.45	R15.38	R16.36
MUAC tapes required per GMP facility	30	30	30	30	30
Unit cost of an infant scale	R1 047	R1 114	R1 185	R1 261	R1 342
Infant scales required per GMP facility	3	3	3	3	3
Unit cost of a length board	R 1 183	R1 259	R1 339	R1 425	R1 516
Length boards required per GMP facility	3	3	3	3	3
Unit cost of a stadiometer	R98.49	R104.80	R111.51	R118.64	R126.63
Stadiometers required per GMP facility	3	3	3	3	3
Unit cost of a BMI wheel	R26.97	R28.70	R30.54	R32.49	R34.57
BMI wheels required per GMP facility	4	4	4	4	4
Growth, monitoring and promotion services					
Number of new healthcare workers	-	-	-	-	-
Annual salary of healthcare worker	R195 806	R209 512	R224 178	R239 870	R256 661

SO4-E: Ensure effective and timely remedial actions are taken to prevent and manage acute malnutrition

Table 84: Cost components to ensure effective and timely remedial actions are taken to prevent and manage acute malnutrition

R millions	2018/19	2019/20	2020/21	2021/22	2022/23
Development of IMAM training material					
Resource days to develop material	60	-	-	-	-
Resource cost to develop material	Internal	-	-	-	-
Development and printing of material	R60 825	R69 932	R24 443	R27 143	R30 130
IMAM training					
Number of healthcare workers requiring training	893	893	218	218	218
Cost to administer training to healthcare worker	Internal	Internal	Internal	Internal	Internal
IMAM services					
Number of new healthcare workers	-	-	-	-	-
Annual salary of healthcare worker	R221 523	R237 030	R253 622	R271 375	R290 372
Schools GMP screening					
Number of primary schools requiring screening	907	1 814	2 721	3 175	3 628
Cost to administer GMP screening to primary school	Internal	Internal	Internal	Internal	Internal
Number of secondary schools requiring screening	516	1 032	1 548	2 064	2 580
Cost to administer GMP screening to secondary school	Internal	Internal	Internal	Internal	Internal

SO4-F: Improve the quality and effectiveness of clinical screening and assessment, counselling, and support for NCDs, with focus on preventing under- and over-nutrition (obesity) and control at all ideal clinics

Table 85: Cost components to improve the quality and effectiveness of clinical screening and assessment, counselling, and support for NCD, with focus on preventing under- and over-nutrition (obesity) and control at all ideal clinics

R millions	2018/19	2019/20	2020/21	2021/22	2022/23
Development of e-learning material					
Resource days to develop material	180	-	-	-	-
Resource cost to develop material	Internal	-	-	-	-
Development and printing of material	R76 525	R85 467	R30 752	R34 149	R37 907
Screening, assessment, counselling and support training					
Number of healthcare workers requiring training	73 421	77 358	26 259	27 509	28 808
Cost to administer training to healthcare worker	Internal	Internal	Internal	Internal	Internal

SO5-A:Develop and implement an integrated advocacy and communication plan led by the Deputy President of RSA

Table 86: Consultative Meetings

R millions (excl. unit costs)						
National	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Consultative Meetings						
Number of Consultative Meetings	0	1	0	0	0	0
Duration of consultative meeting	0	2	0	0	0	0
Number of delegates from each province	0	5	0	0	0	0

SO5-A:Develop and implement an integrated advocacy and communication plan led by the Deputy President of RSA

Table 86: Consultative Meetings

R millions (excl. unit costs)						
National	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Number of provinces travelling	0	5	0	0	0	0
Number of delegates from national departments	0	10	0	0	0	0
Flights & Transport						
Western Cape						
Unit Cost of Return Flight Cost to Gauteng	R3,500.00	R3,710.00	R3,932.60	R4,168.56	R4,418.67	R4,683.79
Average Gautrain & Bus Round Trip from Airport to Hatfield Station	R360.00	R381.60	R404.50	R428.77	R454.49	R481.76
Eastern Cape						
Unit Cost of Return Flight Cost to Gauteng	R3,500.00	R3,710.00	R3,932.60	R4,168.56	R4,418.67	R4,683.79
Average Gautrain & Bus Round Trip from Airport to Hatfield Station	R360.00	R381.60	R404.50	R428.77	R454.49	R481.76
Free State						
Unit Cost of Return Flight Cost to Gauteng	R3,500.00	R3,710.00	R3,932.60	R4,168.56	R4,418.67	R4,683.79
Average Gautrain & Bus Round Trip from Airport to Hatfield Station	R360.00	R381.60	R404.50	R428.77	R454.49	R481.76
KwaZulu-Natal						
Unit Cost of Return Flight Cost to Gauteng	R3,500.00	R3,710.00	R3,932.60	R4,168.56	R4,418.67	R4,683.79
Average Gautrain & Bus Round Trip from Airport to Hatfield Station	R360.00	R381.60	R404.50	R428.77	R454.49	R481.76

R millions (excl. unit costs)						
National	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Northern Cape						
Unit Cost of Return Flight Cost to Gauteng	R3,500.00	R3,710.00	R3,932.60	R4,168.56	R4,418.67	R4,683.79
Average Gautrain & Bus Round Trip from Airport to Hatfield Station	R360.00	R381.60	R404.50	R428.77	R454.49	R481.76
Own Car Travel						
Limpopo						
Average round trip distance to Pretoria (km	648	648	648	648	648	648
Unit Cost per Kilometer	R3.55	R3.76	R3.99	R4.23	R4.48	R4.75
Mpumalanga						
Average round trip distance to Pretoria (km	560	560	560	560	560	560
Unit Cost per Kilometer	R3.55	R3.76	R3.99	R4.23	R4.48	R4.75
North West						
Average round trip distance to Pretoria (km	740	740	740	740	740	740
Unit Cost per Kilometer	R3.55	R3.76	R3.99	R4.23	R4.48	R4.75
Accommodation						
Total number of nights per delegate	0	3	0	0	0	0
Cost per night	R1,300.00	R1,378.00	R1,460.68	R1,548.32	R1,641.22	R1,739.69
Number of delegates requiring accommodation	5	5	5	5	5	5
Catering						
Number of Delegates	0	55	0	0	0	0
Number of teas per day per delegate	2	2	2	2	2	2

SO5-A:Develop and implement an integrated advocacy and communication plan led by the Deputy President of RSA

Table 86: Consultative Meetings

R millions (excl. unit costs)						
National	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Number of lunches per day per delegate	1	1	1	1	1	1
Number of dinners per day per delegate	1	1	1	1	1	1
Cost per tea	R50.00	R53.00	R56.18	R59.55	R63.12	R66.91
Cost per lunch	R100.00	R106.00	R112.36	R119.10	R126.25	R133.82
Cost per dinner	R120.00	R127.20	R134.83	R142.92	R151.50	R160.59

Table 87: Radio Adverts

R millions (excl. unit costs)						
National	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Advertisement design costs						
Number of designs	0	1	1	1	1	1
Number of hours per design	9	9	9	9	9	9
Cost per hour of design	R650.00	R689.00	R730.34	R774.16	R820.61	R869.85
Pre-recorded radio interview production and media costs						
SABC Radio Pre-recorded interviews						
Cost per producing & airing an interview	R26,628.10	R28,225.79	R29,919.33	R31,714.49	R33,617.36	R35,634.40
No. of Adverts per quarter	11	11	11	11	11	11
No. of quarters	11	11	11	11	11	11
Community Radio Pre-recorded interviews (60")						

R millions (excl. unit costs)						
National	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Cost per producing and airing an interview	R59,200.00	R62,752.00	R66,517.12	R70,508.15	R74,738.64	R79,222.95
No. of Adverts per quarter	5	5	5	5	5	5
No. of quarters	-	4	4	4	4	4
Community Radio Pre-recorded interviews (45")						
Cost per producing and airing an interview	R44,400.00	R47,064.00	R49,887.84	R52,881.11	R56,053.98	R59,417.22
No. of Adverts per quarter	5	5	5	5	5	5
No. of quarters	-	4	4	4	4	4

Table 88: Television Adverts

R millions (excl. unit costs)						
National	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Television Advert Design Costs						
Number of designs	0	1	1	1	1	1
Number of hours per design	9	9	9	9	9	9
Cost per hour of design	R650.00	R650.00	R650.00	R650.00	R650.00	R650.00
Television Advert Production Costs						
Unit cost per television advert	R1,980,000	R2,098,800	R2,224,728	R2,358,211.6	R2,499,704.3	R2,649,687
Number of television adverts produced	0	1	1	1	1	1

Table 88: Television Adverts - continued

R millions (excl. unit costs)						
National	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Television Advert Media Costs						
60" SABC TV airing costs per spot	R80,159.42	R84,968.99	R90,067.12	R95,471.15	R101,199.42	R107,271
45" SABC TV airing costs per spot	R67,822.46	R71,891.81	R76,205.32	R80,777.64	R85,624.30	R90,762
No 60" Spots per month	10	10	10	10	10	10
No 45" Spots per month	10	10	10	10	10	10
No. of months	0	12	12	12	12	12
60" E-TV airing costs per spot	R31,909.09	R33,823.64	R35,853.05	R38,004.24	R40,284.49	R42,702
45" E-TV airing costs per spot	R23,931.82	R25,367.73	R26,889.79	R28,503.18	R30,213.37	R32,026
No 60" Spots per month	10	10	10	10	10	10
No 45" Spots per month	10	10	10	10	10	10
No. of months	0	12	12	12	12	12
60" ENCA airing costs per spot	R12,875.00	R13,647.50	R14,466.35	R15,334.33	R16,254.39	R 17229.65

R millions (excl. unit costs)						
National	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
45" ENCA airing costs per spot	R2,761.46	R2,927.15	R3,102.77	R3,288.94	R3,486.28	R 3695.45
No 60" Spots per month	10	10	10	10	10	10
No 45" Spots per month	10	10	10	10	10	10
No. of months	0	12	12	12	12	12
Television Cutdown Production Costs						
Number of Cutdowns	0	1	1	1	1	1
Cost of Cutdown	R40,000.00	R42,400.00	R44,944.00	R47,640.64	R50,499.08	R53,529.02

Table 89: Press Adverts

R millions (excl. unit costs)						
National	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Press Advert Design Cost						
Number of designs	-	1	1	1	1	1
Number of hours per design	9	9	9	9	9	9
Cost per hour of design	R650.00	R650.00	R650.00	R650.00	R650.00	R650.00
Daily Sun 39 x 7 printing costs per week	R10,101.00	R10,707.06	R11,349.48	R12,030.45	R12,752.28	R13,517.42

Table 89: Press Adverts - continued

R millions (excl. unit costs)						
National	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Number of adverts per month	-	4	4	4	4	4
Number of Months	3	12	12	12	12	12
Isolezwe 39 x 7 printing costs per month	R3,551.28	R3,764.35	R3,990.21	R4,229.63	R4,483.40	R4,752.41
Number of adverts per month	-	4	4	4	4	4
Number of Months	3	12	12	12	12	12
Sowetan (Main body) 39 x 8 printing costs per month	R10,374.00	R10,996.44	R11,656.23	R12,355.60	R13,096.94	R13,882.75
Number of adverts per month	-	4	4	4	4	4
Number of Months	3	12	12	12	12	12
Die Son printing costs per month	R10,101.00	R10,707.06	R11,349.48	R12,030.45	R12,752.28	R13,517.42
Number of adverts per month	-	4	4	4	4	4
Number of Months	3	12	12	12	12	12

R millions (excl. unit costs)						
National	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
The Times (Main body) 39 x 8 printing costs per month	R7,410.00	R7,854.60	R8,325.88	R8,825.43	R9,354.95	R9,916.25
Number of adverts per month	-	4	4	4	4	4
Number of Months	3	12	12	12	12	12

Table 90: Wrapping Long Distance Taxis

R millions (excl. unit costs)						
National	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Taxi Branding Design Costs						
Number of designs	0	1	1	1	1	1
Number of hours per design	40	40	40	40	40	40
Cost per hour of design	R 650.00	R 650.00	R 650.00	R 650.00	R 650.00	R 650.00
Taxi Wrapping production costs per taxi	R 10,500.00	R 11,130.00	R 11,797.80	R 12,505.67	R 13,256.01	R 14,051.37
Taxi Wrapping media costs per taxi per month	R 1,041.67	R 1,104.17	R 1,170.42	R 1,240.64	R 1,315.08	R 1,393.98
No of Taxis across 9 provinces	0	30	60	90	120	150
No. of months	3	12	12	12	12	12

Table 91: Banners

R millions (excl. unit costs)						
National	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Pull Up Banner design costs						
Number of designs	0	0	0	0	0	0
Number of hours per design	1	1	1	1	1	1
Cost per hour of design	R650.00	R650.00	R650.00	R650.00	R650.00	R650.00
Printing						
Number of pull up banners	-	-	-	-	-	-
Production Costs of Pull Up Banners	R1,375.00	R1,457.50	R1,544.95	R1,637.65	R1,735.91	R1,840.06
Media Banner design costs						
Number of designs	0	1	1	1	1	1
Number of hours per design	1	1	1	1	1	1
Cost per hour of design	R650.00	R689.00	R730.34	R774.16	R820.61	R869.85
Printing						
Number of media banners	0	1	1	1	1	1
Production Costs of Media Banners	R5,500.00	R5,830.00	R6,179.80	R6,550.59	R6,943.62	R7,360.24

Table 92: Gazebos

R millions (excl. unit costs)						
National	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Gazebo design costs						
Number of designs	0	0	0	0	0	0
Number of hours per design	3	3	3	3	3	3
Cost per hour of design	R650.00	R650.00	R650.00	R650.00	R650.00	R650.00
Printing						
Gazebos printed in full colour on the roof plus 3 sides	0	0	0	0	0	0
st of each gazebo	R10,500.00	R11,130.00	R11,797.80	R12,505.67	R13,256.01	R14,051.37

Table 93: Billboards

R millions (excl. unit costs)						
National	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Print Billboards	0	3	1	1	1	1
Billboard Design Costs	2	2	2	2	2	2
Number of designs	R650.00	R650.00	R650.00	R650.00	R650.00	R650.00
Number of hours per design	0	15	30	45	60	75
Cost per hour of design	3	12	12	12	12	12
No. of Billboards across 9 provinces per month	R57,564.61	R61,018.49	R64,679.60	R68,560.37	R72,673.99	R77,034.43
No. of Months	0	3	3	3	3	3
Billboard Production and Media Costs per billboard per month	2	2	2	2	2	2
Electronic Billboards						
Electronic Billboard Design Costs						
Number of designs	R650.00	R689.00	R730.34	R774.16	R820.61	R869.85
Number of hours per design	0	15	30	45	60	75
Cost per hour of design	3	12	12	12	12	12

R millions (excl. unit costs)						
National	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Display Costs						
Number of billboards (8 per metro)	-	64	64	64	64	64
Number of months	3	12	12	12	12	12
Number of spots per day	480	480	480	480	480	480
Length of spots	15 seconds	15 seconds	15 seconds	15 seconds	15 seconds	15 seconds
Cost per spot	R1.10	R1.17	R1.24	R1.31	R1.39	R1.47

Table 94: Management Fees

R millions (excl. unit costs)						
National	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
25% Management Fee	R -	R 16.05	R 20.06	R 24.55	R 29.51	R 34.98

SO5-B: Implement nutrition education at ECD centres and schools

Table 6: Educational Training Posters

R millions (excl. unit costs)						
National	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Poster Design Costs						
Number of designs	-	3	4	-	4	-
Number of hours per design	2	2	2	2	2	2
Cost per hour of design	R650.00	R650.00	R650.00	R650.00	R650.00	R650.00
Poster Printing Costs						
A1 posters printed in full colour one sides on 180gsm paper (R	R3.60	R3.82	R4.04	R4.29	R4.54	R4.82
No. of posters	-		148,000	-	216,000	-
A2 posters printed in full colour one side, on 180gsm paper (R)	R2.90	R3.07	R3.26	R3.45	R3.66	R3.88
No. of Posters	-	83,184	148,000	-	216,000	-
Translations of posters into 10 official languages (R)	R1,200.00	R1,272.00	R1,348.32	R1,429.22	R1,514.97	R1,605.87
No. of languages	-	10	10	10	10	10

Table 95 : Educational Training Leaflets

R millions (excl. unit costs)						
National	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Leaflet Design Costs						
Number of designs	-	1	1	1	1	1
Number of hours per design	-	2	2	2	2	2
Cost per hour of design	R650.00	R650.00	R650.00	R650.00	R650.00	R650.00
Leaflet Printing Costs						
A4 leaflet printed in full colour both sides on 135gsm paper (R)	R0.89	R0.94	R1.00	R1.06	R1.12	R1.19
No. of Leaflets	-	987,636	1,500,000	1,500,000	1,500,000	1,500,000
Translations of leaflets into other languages	R2,640.00	R2,798.40	R2,966.30	R3,144.28	R3,332.94	R3,532.92
No. of languages	-	10	10	10	10	10

Table 96: Educational Training Information Booklets

R millions (excl. unit costs)						
National	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Info Booklets Design Costs						
Number of designs	-	4	-	4	-	4
Number of hours per design	-	6	6	6	6	6
Cost per hour of design	R650.00	R650.00	R650.00	R650.00	R650.00	R650.00
Info booklet Printing Costs						
A4 booklets printed in full colour both sides on 135gsm paper (R)	R2.24	R2.37	R2.52	R2.67	R2.83	R3.00
No. of Information Booklets	-	987,636	1,500,000	1,500,000	1,500,000	1,500,000
Translation of A1 / A2 posters into other languages (R)	R7,200.00	R7,632.00	R8,089.92	R8,575.32	R9,089.83	R9,635.22
No. of languages	-	10	10	10	10	10

Table 97: Educational Training Flipcharts

R millions (excl. unit costs)						
National	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Flip Charts Design Costs						
Number of designs	-	4	-	4	-	4
Number of hours per designed page	-	1	1	1	1	1
Cost per hour of design	R650.00	R650.00	R650.00	R650.00	R650.00	R650.00
Flip Chart Printing Costs						
A3 double-sided, printed in full colour on 200gsm per page (R)	R0.96	R1.02	R1.08	R1.15	R1.22	R1.29
No. of pages	-	40	40	40	40	40
No. of flip charts	-	177,912	-	215,000	-	215,000

Table 98: Tablecloths

R millions (excl. unit costs)						
National	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Tablecloth Design Costs						
Number of designs	0	0	0	0	0	0
Number of hours per design	1	0	0	1	1	1
Cost per hour of design	R650.00	R650.00	R650.00	R650.00	R650.00	R650.00
Tablecloth Printing Costs						
Tablecloths, printed in full colour, one side only (R)	R1,405.00	R1,489.30	R1,578.66	R1,673.38	R1,773.78	R1,880.21
No. of tablecloths	0	0	0	0	0	0

Table 99: Management Fees

R millions (excl. unit costs)						
National	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
25% Management Fee	R -	R 2.83	R 1.62	R 3.92	R 1.96	R 5.27

SO6-A: Increase food produced by smallholder producers

Parameter assumptions

The table below provides an overview of the parameter assumptions in relation to the establishment of the M&E Unit. In particular it shows the number of staff members to be recruited over the term of the plan, as well as respective salary packages. The table also provides all unit costs associated with furniture and equipment required for setting up the required office space.

Table 100: Establishment of M&E Unit

National	2018/19	2019/20	2020/21	2021/22	2022/23
R millions	Baseline	Baseline	Baseline	Baseline	Baseline
Staff salary packages					
Level 8					
Number of employees	1	1	1	1	1
Total cost	R334,499.03	R361,258.95	R390,159.66	R421,372.44	R455,082.23
Level 11					
Number of employees	2	2	2	2	2
Total cost	R1,563,183.62	R1,688,238.31	R1,823,297.37	R1,969,161.16	R2,126,694.06
Level 13					
Number of employees	1	1	1	1	1
Total cost	R1,125,135.59	R1,203,895.08	R1,288,167.74	R1,378,339.48	R1,474,823.24
Total cost of staff salary packages (R'm)	R3.02	R3.25	R3.50	R3.77	R4.06
Furniture and equipment (Level 9 and below)					
Work stations	R6,741.60	R0.00	R0.00	R0.00	R0.00
Office chair	R5,561.82	R0.00	R0.00	R0.00	R0.00
Credenza	R4,494.40	R0.00	R0.00	R0.00	R0.00
Letter tray	R471.91	R0.00	R0.00	R0.00	R0.00
Dustbins	R168.54	R0.00	R0.00	R0.00	R0.00

National	2018/19	2019/20	2020/21	2021/22	2022/23
R millions	Baseline	Baseline	Baseline	Baseline	Baseline
Desktop computer	R6,741.60	R0.00	R0.00	R0.00	R0.00
Total cost of providing required furniture and equipment (Level 9 and below)	R24,179.87	R0.00	R0.00	R0.00	R0.00
Furniture and equipment (Level 9 and below)					
Work station	R20,224.80	R0.00	R0.00	R0.00	R0.00
Office chair	R16,685.46	R0.00	R0.00	R0.00	R0.00
Credenza	R13,483.20	R0.00	R0.00	R0.00	R0.00
Letter tray	R1,415.74	R0.00	R0.00	R0.00	R0.00
Dustbins	R505.62	R0.00	R0.00	R0.00	R0.00
Laptop	R26,966.40	R0.00	R0.00	R0.00	R0.00
Total cost of providing required furniture and equipment (Level 11 - 13)	R79,281.22	R0.00	R0.00	R0.00	R0.00
Total cost of furniture and equipment	**R0.10**	**R0.00**	**R0.00**	**R0.00**	**R0.00**
Total cost of establishing M&E unit	**R3.13**	**R3.25**	**R3.50**	**R3.77**	**R4.06**

SO6-B: Incorporate a consistent set of core indicators in national surveys
Parameter assumptions

The table below shows the assumptions concerning the consultant. The premise is that a Level 12 consultant will be contracted to undertake the abovementioned task (to the extent that the proposed option of utilising existing staff proves unfeasible due to over-capacitation). The consultant will be contracted for a period of 90 days to revise existing and identify gaps in national surveys.

Table 101: Assumptions (Contractual work)

National	2018/19	2019/20	2020/21	2021/22	2022/23
Consultant					
Level 12					
Number of consultants	1	1	1	1	1
Daily rate	R11,145.12	R11,925.28	R12,760.05	R13,653.25	R14,608.98
Number of working days	90	-	-	-	-
Total cost (Rm)	R1.00	R0.00	R0.00	R0.00	R0.00

As elaborated earlier, subsequent to completion of the above undertaking, a workshop will be facilitated to present the findings. The table below provides an overview of some of the unit costs associated with facilitating the workshop.

Table 102: Assumptions (2-Day Workshop)

Item	Components	Units & Costs
		2018/19
Provincial seating allowances	No. members per Province	5
	No. of Provinces	9
	No. of meetings	2
Flights	Average return-flight cost from Cape Town to Gauteng	R3,710.00
	Average return-flight cost from Eastern Cape to Gauteng	R3,710.00
	Average return-flight cost from KZN to Gauteng	R3,710.00
	Average return-flight cost from Free State to Gauteng	R3,710.00
	Average return-flight cost from Northern Cape to Gauteng	R3,710.00
	Average Gautrain & Bus Round Trip from airport to Pretoria Station	R381.60
	Number of delegates per Province	5
	Number of trips	2
Own car travel	Average round-trip distance, Limpopo - Pretoria (km)	648
	Average round-trip distance, North West - Pretoria (km)	740
	Average round-trip distance, Mpumalanga - Pretoria (km)	560
	Cost per kilometer	R3.76
	Number of delegates per Province	5
Accommodation	Total number of nights per delegate	5
	Cost per night	R1,590.00
	Number of delegates per Province	
	Number of Provinces outside Gauteng	8

Catering	Number of delegates	55
	Number of teas per day	2
	Number of lunches per day	1
	Cost per tea	R53.00
	Cost per lunch	R106.00
Delegates per Province	Total number of delegates	60
	WC	6
	KZN	6
	NC	6
	EC	6
	FS	6
	GP	12
	MP	6
	NW	6
	LP	6
Venue Hire	**Cost per day**	**R37,100.00**

SO6-C: Conduct implementation evaluations of the FNS 2017-2022

Parameter assumptions

An outline of some of the main inputs and assumptions related to this task is presented in the table below. A Level 12 consultant will be contracted to carry out an implementation evaluation for a period of 120 days at the midline (2020/21) and endline (2022/23) points.

Table 103: Assumptions (implementation evaluation)

National (R millions)	2018/19	2019/20	2020/21	2021/22	2022/23
Midline Implementation Evaluation					
Consultant (Level 12)					
Days contracted	-	-	120	-	-
Daily rate	R0.00	R0.00	R6,380.02	R0.00	R0.00
Total cost	**R0.00**	**R0.00**	**R765,602.87**	**R0.00**	**R0.00**
Endline Implementation Evaluation					
Consultant (Level 12)	-	-	-	-	-
Days contracted	-	-	-	-	120
Daily rate	R0.00	R0.00		R0.00	R7,304.49
Total cost	**R0.00**	**R0.00**	**R0.00**	**R0.00**	**R876,538.73**

SO6-D: Analyse and rate hazards and risks associated with FNS

Table 104: Assumptions (risks and hazards analysis and update)

National (R millions)	2018/19	2019/20	2020/21	2021/22	2022/23
Analyse risks to SA food security					
Technical Advisory Committee	-	-	-	-	-
Professional days contracted	250	-	-	-	-
Daily rate	R10,030.61	R0.00	R0.00	R0.00	R0.00
Total cost of analysing risks (Rm)	**R2.51**	**R0.00**	**R0.00**	**R0.00**	**R0.00**

National (R millions)	2018/19	2019/20	2020/21	2021/22	2022/23
Analyse risks to SA food security					
Update risks and hazard analysis					
Technical Advisory Committee					
Professional days contracted	-	40	40	40	40
Contract value (daily rate)	R0.00	R21,432.53	R22,932.80	R24,538.10	R15,753.46

Notes

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