

Addressing food and nutrition security in South Africa: A review of policy responses since 2002

Sandra Boatemaa*

Centre for Complex Systems in Transition, Stellenbosch University, Stellenbosch, South Africa. E-mail: boatemaa@sun.ac.za

Scott Drimie

Centre for Complex Systems in Transition, Stellenbosch University, Stellenbosch, South Africa. E-mail: scottdrimie@mweb.co.za

Laura Pereira

Centre for Complex Systems in Transition, Stellenbosch University, Stellenbosch, South Africa. E-mail: pereira.laura18@gmail.com

* Corresponding author

Abstract

Since 2002, a range of South African policies have attempted to address the disproportionate burden of food and nutrition insecurity on the population. Yet malnutrition among the poor has worsened. This study reviewed policies to examine their implications for food security and the treatment of malnutrition. Policies enacted between 2002 and 2017 were retrieved from government departments and the data were thematically analysed. A preliminary analysis shows that policy has aided production through input provision and capacity building. Taxation, school nutrition programmes and social grants are some of the food access initiatives, whilst micronutrient supplementation, breastfeeding campaigns and food fortification are policies specifically focused on nutrition. However, despite these interventions, food insecurity has remained due to gaps in and contradictions among policies and the lack of coordination in policy development and implementation, especially across sectors. To improve food and nutrition security, government must better engage with ideas about how to address food and nutrition security systemically, and develop the appropriate coordination mechanisms for a more holistic approach to this challenge.

Key words: food security; nutrition security; policy; food systems; South Africa

1. Background

Globally, hunger and malnutrition persist in spite of the countless efforts and technical expertise that have been directed at eradicating them (Von Grebmer *et al.* 2017). At this level, approximately 28% of children are stunted, 10% are wasted, and about a third experience micronutrient deficiency (Miller & Welch 2013; Von Grebmer *et al.* 2017). Chronic food and nutrition insecurity have led to extensive illness and death, especially among children and women (Nohr 2012). Due to the persistence of food insecurity despite global eradication efforts, it has been described as a wicked problem by scholars (Grochowska 2014; May 2017). The latest figures indicate that hunger is increasing again – despite outstanding technical solutions (International Food Policy Research Institute 2016). New ways are required to address persistent hunger and food insecurity.

At the national level, South Africa is a middle-income country and food secure. However, the experience of food insecurity and malnutrition at the household and individual levels are immense (John-Langba 2015). Data at the population level show high levels, from extreme undernutrition to obesity and diet-related diseases. Over a quarter of children under five years of age are stunted (27%), and 10% are severely stunted (Statistics South Africa 2017). In 2015, the proportion of households that reported hunger was 30% (Aliber 2015). In addition, over half of the adults in South Africa are overweight/obese, with a higher prevalence among women compared to men (Agyemang *et al.* 2015). In addition, there is a higher burden of food insecurity and malnutrition on poor, black and coloured households compared to white households (May & Timaeus 2015). The complex challenge of malnutrition underscores the importance of understanding how policy shapes the risk of food and nutrition insecurity.

A major factor underlying high malnutrition are colonial and apartheid policies that institutionalised racism and discrimination (Triegaardt 2006). These policies limited the social, economic and political rights and opportunities of people classified as “non-whites”, and have shaped the experience of food security by population group and geography. Since the transition to a democratic government in 1994, the government has implemented programmes to address the structural factors that initiated and have sustained the high levels of food and nutritional insecurity in the country (McLaren *et al.* 2015). These initiatives are largely informed by Section 27 of the Constitution of the Republic of South Africa, which states that all South Africans have a right to sufficient food and water, and that “the state must by legislation and other measures, within its available resources, avail to the progressive realisation of the right to sufficient food” (Republic of South Africa 1996).

These policy interventions, which have included support for land reform, the provision of social grants, field crop production, and the provision of nutrition education, have shown mixed impacts on improving food insecurity, but not on nutrition security (Taylor 2015; Pereira & Drimie 2016). The policies have yet to achieve the desired effect after years of implementation (Hendriks 2014; Hendriks *et al.* 2017). This review assesses policy progress and highlights places where change is required to address food and nutrition insecurity. It is guided by the question: what are the implications of the policies on food production, food access and food utilisation in South Africa? This study synthesises evidence from existing policies, macro-level statistics and case studies, using thematic analysis.

2. A food systems approach

The FAO defines food security as when “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 and healthy life” (World Food Summit 1996). The definition altered the view of food security to include health, and socioeconomic and environmental outcomes, together with their availability, access, utilisation and stability components. These components are outcomes of the activities and actors involved in the food system. Ericksen’s (2008) concept of the food system refers to a set of interrelated activities and actors for the production, processing and consumption of food. She emphasises social welfare, food security and environmental security as outcomes of the different elements and activities of the food system.

Food policies are some of the significant national and global factors that influence food and nutrition security (FNS). Food policies can be described as indirect actors in the food system, as they connect and define relationships between the direct actors (Ericksen 2008). This perspective enables a political and social power lens to be applied to the question of FNS. Global food systems have transitioned rapidly to a modern format, where income is the primary determinant of food security (Karamba *et al.* 2011). The modern food system has achieved immense success in reducing hunger through commercial, mechanised agriculture (Popkin *et al.* 2012). Through advance transportation mechanisms, food imports from different countries are able to reach a variety of areas within the

shortest possible time (International Markets Bureau 2010). However, the modern food system is also causing a crisis in food and nutrition security and environmental degradation. At the global level, food and nutrition security is threatened by the rapid expansion of supermarkets that specialise in the sale of cheap, highly processed foods (Howard *et al.* 2016). In addition, the adoption of monoculture has destroyed biodiversity and resulted in soil pollution (Pollan 2006). The outcomes of the modern food system in South Africa are characterised by food and nutrition insecurity, land degradation, and marginalisation of the informal food sector (Pereira & Drimie 2016). This is mainly because both producers and consumers are embedded in a system in which national and global factors play a more significant role in food security than local factors (Ericksen 2008).

Effective policies relating to food and nutrition security have been a challenge in South Africa (Hendriks 2014; McLaren *et al.* 2015). These challenges emerge from the policy formulation process, the framing of the food security problem and the implementation of interventions (Drimie 2015; Pereira & Drimie 2016). In South Africa, policies are developed with limited consultation of the various stakeholders in the food system (McLaren *et al.* 2015). Food security has consistently been framed as a rural challenge, with food production as the solution, yet food insecurity in South Africa is also prominent in urban informal areas and is mainly caused by the inability to access food (Battersby 2015). There is, in addition, a lack of political will to drive the desired change during implementation. This has resulted in uncoordinated and duplicated programmes with minimal impact (Devereux & Waidler 2017).

For this study, Ericksen's (2008) concept of food systems was applied to food security policies. Elements were adopted from three food security domains, namely availability, access and utilisation. The study uses production to measure initiatives that increase the availability of food, and affordability to measure economic access to food. Food utilisation was measured using initiatives for the prevention of malnutrition. Elements of these components guided the extraction and thematising of the policies. To understand policy coordination, themes were selected from Pereira and Drimie (2016).

3. Methodology

In order to address the question, "what are the implications of the policies on food production, food access and food utilisation in South Africa?" a review of relevant policies was undertaken. South Africa adopted its first comprehensive food security policy in 2002 – the Integrated Food Security Strategy (IFSS). The IFSS was developed by the Department of Agriculture, Forestry and Fisheries [DAFF] (2002). The website of the national departments that participated in the IFSS were searched for associated policies. These departments were the departments of Health, Social Development, Public Works, Water Affairs and Sanitation, Transport, Education, Human Settlements, Land Affairs, Environment and Tourism, Arts, Culture, Science and Technology, Trade, and Treasury. An initial search showed a pattern of presentation of policies by the departments into folders, such as bills, acts, regulations, legislation, policy documents, strategic documents, frameworks and white papers. Population-level data on food and nutrition security were retrieved from Statistics South Africa and the relevant literature.

3.1 Inclusion criteria

Policies that focused on food availability, access and utilisation by households and individuals, and were published between 2002 and September 2017, were included. The policies can be described as department specific. Overarching policies were made by the Presidency and the National Planning Commission to inform the strategies of the departments. All overarching policies were included. The titles and executive summaries of the documents were screened.

3.2 Data extraction and analysis

The data were extracted into Excel using deductive codes adapted from Ericksen (2008) and Pereira and Drimie (2016) (see Table 1). Food production was used as a proxy for food availability. Policy objectives and programmes to address household production of food were extracted. Access was defined as economic access (the means to purchase on a sustainable basis): initiatives that addressed the food market, food prices, job creation and incomes were noted. Utilisation included nutrition and the prevention of malnutrition. The data were analysed thematically.

Table 1: Deductive codes used for the data analysis

	Production	Access	Utilisation	Coordination
Definition	How much and which types of food consumed are available through local production	Affordability: the purchasing power of households relative to the price of food	Nutritional value: how much of the daily requirements of calories, vitamins, proteins and micronutrients are provided by the food consumed	Initiatives to intervene efficiently in the activities and outcomes of the food system together
Proxies	Land reform, human capital development, control local producers have over their own products, inputs	Pricing policies and the form in which households are paid, income	Diet diversity, type of primary protein, education, access to clean water, food fortification, micronutrient supplements	Continuous process of interaction, adaptation and learning during policy formulation and implementation

Sources: Ericksen (2008), Pereira and Drimie (2016)

4. Results

4.1 Description of the policies in the review

Seventeen policies were reviewed (Table 2). After the move to democracy in 1994, food security-related initiatives were scattered across different departments. The first relevant policy was implemented by the National Treasury in 1994 through the development of a regulation that zero-rated staple foods, including maize meal, wheat flour, fruits and vegetables, to improve economic access to food. In addition, the Primary School Nutrition Programme was introduced to supply meals to poor students in public schools. The programme was revamped in 2006 and became the National School Nutrition Programme (NSNP). In 2002, the first inclusive national food security policy was published by the Department of Agriculture, Fisheries and Forestry (DAFF). Its content was influenced by the 1996 Rome Declaration on Food Security and the Food Security Programme of the Southern African Development Community. The goal of the Integrated Food Security Strategy was to “eradicate hunger, malnutrition and food insecurity by 2015”, especially in rural areas (DAFF 2002: 6).

The Integrated Nutrition Programme (INP) of the Department of Health (DoH) (2002-2007) followed the IFSS (Department of Health 2002). The INP targeted both the general population and specific vulnerable groups. It identified seven focal areas to prevent and treat malnutrition. The Regulations Relating to the Fortification of Certain Foodstuffs was passed in 2003 to achieve the fourth focus of the Integrated Nutrition Programme, namely “micronutrient malnutrition control” (Department of Health 2003). The Department of Social Development (DSD) was also active in implementing the Integrated Food Security Strategy. It developed the Social Assistance Act (Department of Social Development 2002) and the Social Relief of Distress Grants (Department of Social Development 2004) to provide social support to citizens in dire need.

Table 2: Details of policies in the review

Host department	Year	Title	Duration	Objectives	Related international frameworks
Department of Health	2002	Integrated Nutrition Programme (INP)	2002-2007	Improve the nutritional status of all South Africans	International Code of the Marketing of Breastmilk Substitutes
	2003	Regulations Relating to the Fortification of Certain Foodstuffs (RRFCF)	Not applicable	Regulated the importation and production of fortification mix; Required all food vehicles to be micronutrient fortified; Regulated the labelling of fortified foods	
	2013	Roadmap for Nutrition in South Africa (RNSA)	2013-2017	Optimal nutrition for all South Africans	Millennium Development Goals
	2013	Strategic Plan for the Prevention and Control of Non-Communicable Diseases (SPPCNCD)	2013-2017	Prevention of NCDs and promotion of health and wellbeing	2011 Brazzaville Declaration on Non-communicable Disease Prevention and Control in the WHO African Region, Political Declaration of the High-level Meeting of the General Assembly on the Prevention and Control of Non-communicable Disease
	2015	Strategy for the Prevention and Control of Obesity in South Africa (SPCOSA)	2015-2020	To reduce the prevalence of obesity by 10% in 2020	
Department of Agriculture, Forestry and Fisheries	2002	Integrated Food Security Strategy (IFSS)	2002-2015	Attain universal food security and healthy life for all South Africans	1996 Rome Declaration on Food Security, Southern African Development Community, Food Security Programme
	2014	Agricultural Policy Action Plan (APAP)	2015-2019	Provide steps to improve decent employment and food security	
	2014	National Policy on Food and Nutrition Security (NPFNS)	2014	To ensure food security at the national and household levels	2012 Report by the United Nations Special Rapporteur on the Right to Food
	2015	DAFF Strategic Plan (DAFF-SP)	2015-2020	Outlines programmes and activities for agriculture, fisheries and forestry for the period	
Department of Trade and Industry	2016	Industrial Policy Action 2015 (IPAD)	2016-2019	To improve production, employment and economic development in agro-processing	
National Planning Commission	2012	National Development Plan Vision 2030 (Chapter 6) (NDP)	2012-2030	Reduce food insecurity and address malnutrition	

	2014	Medium Term Strategic Framework (MTSF)	2014-2019	Reduce inequality and promote economic development	
Economic Development Department	2011	New Growth Path (NGP)		Promote economic development and job creation	
National Treasury	1994	Zero Vat Rating of Basic Foodstuffs (ZVRBF)	A panel was set up in 2018 to review and expand the list	It allowed consumers to purchase 19 staple food items without the VAT levy. Nineteen staple foods are tax free because of this policy	
	2016	Taxation of Sugar-sweetened Beverages (TSSB)	Implemented April 2018	A tax rate of 2.29 cents was imposed on sugar-sweetened beverages per gram of sugar. To help reduce the intake of excessive sugar	
Department of Social Development	2004	Social Assistance Act (SAA)	Not applicable	Provides social assistance and payment of social grants	
	2013	Social Relief of Distress Grants (SRDG)	Not applicable	Provides immediate response to a crisis situation where citizens are without the means to provide the basic necessities for themselves	

After nearly a decade, a new phase of policies was introduced that addressed food and nutrition security: the Medium Term Strategic Framework (MTSF), the DAFF Strategic Framework 2015-2020 (DAFF-SF), the Roadmap for Nutrition in South Africa (RNSA), the 2015 Industrial Policy Action Plan (IPAP) and the National Policy on Food and Nutrition Security (NPFNS) (Republic of South Africa 2013; Department of Agriculture, Forestry and Fisheries 2015; Department of National Treasury 2015). The NPFNS was endorsed by cabinet in 2017 and replaced the IFSS, “to ensure the availability, accessibility and affordability of safe and nutritious food at national and household levels” (DAFF 2013: 6).

Two policies have been published by the Department of Health to address noncommunicable diseases (NCD). The Strategic Plan for the Prevention and Control of Noncommunicable Diseases was informed by the 2011 Brazzaville Declaration on Noncommunicable Disease Prevention and Control in the WHO African Region, and by the Political Declaration of the High-level Meeting of the General Assembly on the Prevention and Control of Noncommunicable Disease (Department of Health 2013, 2015).

4.2 Policy framework: Production of food

Most policies on enhancing food production have focused on the provision of inputs and human capital development, mainly in primary production and partially in agro-processing (Table 3). The IFSS sums these up as interventions “to overcome rural food insecurity by increasing the participation of food insecure households in productive agriculture sector activities” (Department of Agriculture, Forestry and Fisheries 2002: 28). This focus shifted support from white commercial farmers to small-scale and subsistence farmers, mostly black South Africans.

Land reform has been a prominent focus of the government in relation to agricultural production. The Rural Development Plan of 1994 aimed to redistribute and/or restore lands to those dispossessed under apartheid. When the IFSS was passed, one of the potential interventions was improving access to productive land. This was reiterated in the NDP, MTSF, DAFF-SP, NPFNS and the IPAP. These policies sought to reform land and water tenure, use idle agricultural land and protect agricultural land from other uses. Land reform activities were reinforced in 2003 with the Comprehensive Agricultural Support Programme (CASP) grants. The government invested about R1.30 billion in post-settlement support services in the former homelands. This has recently come up again in policy circles in calls for a change from the ‘willing seller, willing buyer’ model to a policy of land expropriation without compensation (Department of Agriculture, Forestry and Fisheries 2016).

The Ilima/Letsema and Fetsa Tlala food security initiatives focus on production inputs. Fetsa Tlala was developed to promote staple food production on fallow lands with agricultural production potential (Nkonkole Farmers Association *et al.* 2015). Farmers were pooled together to plant yellow maize and dry beans for the market. The yellow maize was produced for sale with the hope that households would use the income generated to purchase food.

Financial services were provided for agricultural, forestry and fisheries farmers through the Broad-based Black Economic Empowerment Framework for Agriculture (the AgriBEE Fund of 2004) and the Micro Agricultural Financial Institutions of South Africa (MAFISA, established in 2005) (DAFF 2012). Farmers could apply for loans to acquire fertilisers, seeds, pesticides, small equipment and feed. The AgriBEE Fund was established to support black entry into and participation in the agriculture industry. A maximum of R5 million could be applied for with a 10% commitment deposit. MAFISA also taught farmers to save. Between 2009 and 2013, R63 million was spent annually through MAFISA.

Table 3: Broad food security outcomes of policies

Food security outcome	Policy
Production	
Increase household food production and trading	NDP, IFSS, NPFNS
Agricultural job creation	NDP, IFSS
Ensure policy coherence, alignment, coordination between agencies and budgeting	MTSF
Improve land administration	MSTF, NDP
Sustainable land reform	MSTF, NDP
Expand commercial agriculture	NDP
Smallholder farmer development	MSTF, NDP, NPFNS
Increase investment in agro-processing	MSTF, NDP
Integrated and inclusive rural economy	MTSF, NDP, NPFNS
Access	
Improve income generation and job creation opportunities	MTST, NDP, IFSS
Increase safety nets and food emergency management systems	IFSS, DSD, NPFNS
Tax on sugar-sweetened beverages	TSSB, SPPCNCD, SPCOSA
Zero-rated foods	ZVRBF
Increase access to healthy foods	SPCOSA, SPPCNCD
Provide capacity building	IFSS, DAFF-SP, INP, RNSA
Utilisation	
To increase life expectancy	RNSA
To increase physical activity	SPCOSA, SPPCNCD
Diagnosis and control of NCDs	SPCOSA, SPPCNCD
Improve food security	MTSF
Establish a surveillance system to monitor nutrition	SPCOSA, SPPCNCD
To prevent HIV and TB through nutrition	RNSA
Increase access to public services	MTSF, NDP
Promote optimal growth of children and prevent overweight and obesity later in life	RNSA, SPCOSA
Improve nutrition and food safety	IFSS
Coordination	
Systematic alignment programme	IPAD, DAFF-SP, IFSS, NPFNS
Strengthen human resource capacity	IFSS, RNSA, DAFF-SP
Liaise with professional boards	RNSA
Stakeholder dialogue	IFSS, RNSA, IPAP

To develop human capacity, the policies prioritised farmer education and extension services. The DAFF-SP proposed the “implementation of the Agriculture, Forestry and Fisheries National Education and Training Strategy and promotion of development of agricultural training institutes as centres of excellence” (Department of Agriculture, Forestry and Fisheries 2015: 29). This would be done through the extension services with the implementation of the National Policy on Extension and Advisory Services.

In a review of programmes and expenses, Aliber (2015: 181) reports that the policy “assistance reaches very few households, especially among those near the subsistence end of the spectrum”. In the Eastern Cape, poor households were unable to pay the R1 800 commitment fee required to participate in the Fetsa Tlala (Aliber 2015). Data from the 2015 General Household Survey support this finding. Among households involved in agriculture, only 12% received government services in 2014; 2% received training and 7% received veterinary services.

Addressing food production in South Africa has been predominantly a rural project. The inputs and capacity development initiatives have adopted a cash crop for purchase approach, thus the produce is not meant for direct consumption. The latent expectation of turning smallholder and subsistence farmers into medium- and large-scale commercial farmers has been expensive and ineffective.

4.3 Policy framework: Access to food

The policies that have been implemented to address access to nutritious food can be categorised into initiatives that promote income generation, price monitoring and safety nets. These policies support individuals to gain access to food by increasing the affordability of food and income. Such policies include those related to zero-rated tax, feeding programmes and social grants.

Food insecurity in South Africa is largely a by-product of poverty from low wages and high rates of unemployment and, as a result, initiatives have focused on job creation. Job creation has been prioritised in these policies: the Integrated Food Security Strategy (IFSS), Industrial Policy Action (IPAD), the National Development Plan (NDP), the New Growth Path (NGP) and the DAFF Strategic Plan (DAFF-SP). The NDP proposed to create one million jobs by the end of 2030 through adopting labour-intensive agriculture for low and unskilled individuals as farmworkers and workers in the agro-processing sector. Yet, in 2014, agro-business employment had declined by 3%, from 259 261 in 2005 (Department of National Treasury 2015). In addition, the jobs created by these programmes were mainly temporary.

Through the Social Assistance Act (2004), the Department of Social Development has provided cash transfers to support household food security. Four types of grants are provided: family and children (includes child support, foster care and care dependency grants), old age grants, social protection (grants in aid and social relief of distress grants) and the disability grant. Individuals receive an income of between R120 and R1 000 each month. Expenditure by the government on these grants has increased over the years. From 2011 to 2015 there was a 39% increase in social grant expenditure (R87 492 billion to R121 255 billion) to cover the increased number of beneficiaries and inflation. About 46% of South African households receive at least one form of social grant (Taylor 2015). Yet, because the decision on what to spend the funds on is dependent on the recipient, the funds are mostly not spent on food (Devereux & Waidler 2017). The findings of the National Income Dynamics Survey of 2008 show that subjective hunger was higher in households that received grants, in this case child support grants (CSG) and the older persons grant (OPG), versus in those that did not (Figure 1).

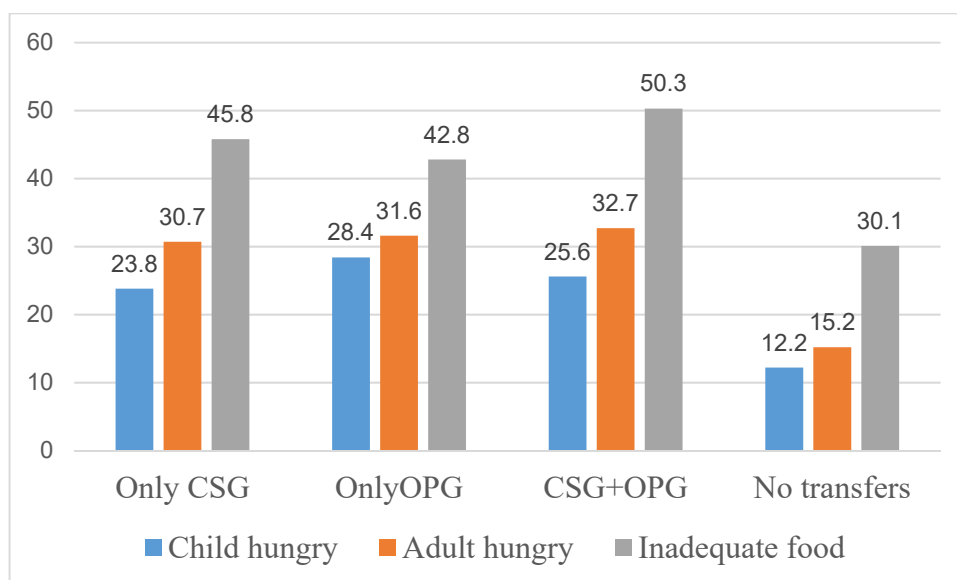


Figure 1: Subjective food security by grant status

Source: Devereux and Waidler (2017)

The DSD also supports access to food through the Social Relief of Distress Grant. The programme is implemented by the South African Social Security Agency (SASSA) through the temporary provision of food parcels or food vouchers to distressed families for three months, and for a maximum of six months. In 2013, food parcels were provided to 3 766 households. Unfortunately, the identification of people in distress is inconsistent and at the discretion of SASSA officials. As a result, qualifying individuals in desperate need sometimes have been denied relief (Dugard 2015).

In 1991, the National Treasury introduced a zero-rating Value Added Tax (VAT) on certain foods. It allowed consumers to purchase staple food items without the 14% VAT levy (VAT increased to 15% in 2018). Nineteen items are tax free through this policy: cereals and grains (brown bread, maize meal, samp, mealie rice, rice and brown wheat meal), nuts and legumes (dried beans, lentils, edible legumes and pulses of leguminous plants), animal-source foods (pilchards in tins, milk powder, dairy blend, milk, cultured milk and eggs), fruits and vegetables and vegetable oils. Yet an expenditure pattern study reported that poor household spend seven times more on vegetables than rich households (8% versus 1%) (Jansen *et al.* 2012). This finding points to a need to consider the nutritional and health implications of how and where people are able to source healthier foods, and highlights that access is not simply an economic factor, but also a geographical one of where people are able to buy food (Battersby & Peyton 2016).

The National School Nutrition Programme (NSNP) aims to address hunger and improve school attendance. It was started by the DoH in primary schools. The programme was moved to the Department of Basic Education in 2004 and extended to secondary schools in 2009. Poor learners in public schools were provided with breakfast and a main meal per school day, consisting of protein, fruit and vegetables and carbohydrates. Cash transfers are made to the provincial departments, which implement the programme. The School Food Garden Programme, a subsidiary of the NSFP, is used to plant gardens for teaching and learning and the produce is used as ingredients for the feeding programme. In the 2013/2014 academic year, the NSFP provided meals to about nine million learners in 19 383 schools nationally (Department of Basic Education 2014).

The predominant access inhibitor is the tax on sugar-sweetened beverages introduced by the National Treasury in 2016. The tax became effective on 1 April 2018. This policy was a response to the recommendation of the Strategic Plan for the Prevention and Control of NCDs (2013 to 2017) of the Department of Health, and the National Strategy for the Prevention and Control of Obesity (2015 to 2020). An incremental tax of R0.0229 per gram of sugar is levied on drinks with added caloric sweeteners, such as soft drinks, fruit drinks, sport and energy drinks, sweetened iced tea, lemonade, sucrose, high-fructose corn syrup, fruit juice concentrate and vitamin water drinks.

South Africa's policy responses to improving access to food are through programmes that increase job provision, social grants and zero tax on essential food items. The programmes have also attempted to limit access to unhealthy foods through the sugar tax. The current review indicates that the employment initiatives are short term and are incapable of addressing the root cause of poverty and inequality, as they are focused in very specific areas (e.g. zero tax), whereas food access is a result of multiple and interacting socio-cultural, economic and spatial factors, such as the ability to find a food retail point and then to make a healthy food purchase choice.

4.4 Policy framework: Utilisation

The utilisation initiatives include micronutrient supplementation, fortification of food, nutrition counselling, deworming and therapeutic feeding, and breastfeeding campaigns led by the Department of Health. The Integrated Nutrition Programme (INP) and the Roadmap for Nutrition in South Africa (RNSA) made provision for supplementation of Vitamin A, zinc, iron, calcium and other micronutrients targeting children and mothers. The programme provides children younger than five

years with a dose of Vitamin A twice a year, and calcium and folic acid supplements for pregnant women. These services are provided at facilities such as hospitals, antenatal clinics and schools.

In 2003, the Regulations Relating to the Fortification of Certain Foodstuffs was enacted as an amendment to Act No. 54 of 1973. Through this regulation, dry and uncooked wheat flour, uncooked maize meal and bread were to be fortified with Vitamin A, riboflavin, nicotinamide/niacin amide, folic acid, electrolytic iron, zinc oxide and pyridoxine. The regulation also allowed salt to be fortified with iodine. These regulations are mandatory for the food industry and target the entire population. By 2008, 90% of wheat flour and 70% of maize meal were fortified. Yet the nutrient concentration of some food items is below the recommended level (Pretorius & Schonfeldt 2012). For example, instead of a mean vitamin A concentration in maize meal of $\geq 187.7 \mu\text{g}/100 \text{ g}$, products in the markets ranged from $< 19 \mu\text{g}/100 \text{ g}$ to $261 \mu\text{g}/100 \text{ g}$ (Pretorius & Schonfeldt 2012).

The Department of Health launched breastfeeding campaigns with the Integrated Nutrition Programme targeting both HIV+ and HIV- mothers. In 2012, the DoH stopped providing free infant formula to HIV+ mothers. Antiretroviral therapy was provided to HIV+ mothers so reduce mother-to-child transmission through breastfeeding. A review of maternity facilities for compliance with the Ten Steps of the International Code of the Marketing of Breastmilk Substitutes and breastfeeding rates rated 70% of South African health facilities as mother-baby friendly. These facilities initiate breastfeeding immediately after delivery, provide skin-to-skin contact and teach mothers how to express milk and cup feed instead of bottle feeding. These goals were reinforced in the Roadmap for Nutrition in South Africa. By 2015, the proportion of children aged 0 to 6 breastfed exclusively had increased to 32%, from 7% in 1998, according to the South African Demographic and Health Survey (Statistics South Africa 2017). Although this is a great improvement, it is still below the WHO guideline of 100% coverage (Du Plessis & Pereira 2013). In addition, public breastfeeding is still frowned upon in South Africa (Jama *et al.* 2017).

In 2013, a Strategic Plan for the Prevention and Control of Non-Communicable Diseases (NCDs) (2013 to 2017) was developed. The plan details actions for achieving the targets set out in the South African Declaration on the Prevention and Control of NCDs. In 2015, the first national strategy for obesity was published with the purpose “to implement a multi-sectoral approach for the prevention and control of obesity in South Africa” (Department of Health 2015: 32). The aim is to reduce the prevalence of obesity by 10% in 2020. The strategy proposes dietary guidelines, regulations on the marketing and advertising of food, and guidelines on food labelling and physical activity.

From the review it is clear that policy responses to malnutrition treatment are delivered mainly through schools and hospitals. This potentially leaves out individuals who might need such services but do not have contact with these institutions. Secondly, information on deworming and therapeutic feeding is limited, if not absent. Paying attention to these aspects is critical for individuals with severe malnutrition.

4.5 Policy coordination

In the various overarching policy documents, five groups of stakeholders are listed as programme actors: the public service, nongovernmental organisations, the private sector, communities and donor agencies (Republic of South Africa 2012). All the policies reviewed propose two levels of coordination: 1) between different sectors of government and 2) between government and nongovernmental stakeholders for policy development and implementation. It was implicitly recognised that effective coordination was required by all these key stakeholders for the various programmes to address food and nutrition insecurity. The mechanisms for coordinating stakeholders stipulated in the policies include human resource development, the setting up of committees, and organising indabas.

To facilitate programmes at the national, provincial and district levels, human resource development of public servants has been central. The policies sought to achieve this through new recruitments, and pre-service and in-service training programmes (IFSS, DAFF-SP, RNSA and NPFNS). The DAFF-SP, for example, has targeted the recruitment of new extension officers and the implementation of the Agriculture, Forestry and Fisheries National Education and Training Strategy. These training initiatives are to aid in the implementation of their own sectoral programmes (Department of Agriculture, Forestry and Fisheries 2015). Such programmes may therefore not build the capacity to coordinate.

Government departments are usually the leaders in policy initiatives. To facilitate intra-governmental, intergovernmental and inter-stakeholder coordination at all levels, lead departments propose the establishment of committees, councils and working groups. The 2015 Industrial Policy Action Plan proposed to define the roles and responsibilities of each stakeholder. The National Policy on Food and Nutrition Security (NPFNS) states that implementation “will be advised by the National Food and Nutrition Advisory Committee comprised of recognised experts from organized agriculture, food security and consumer bodies, as well as climate change and environmental practitioners and representatives of organised communities” (DAFF 2013: 18). To date, this has not been instituted.

Unfortunately, most of the policies have been developed by government departments, without engagement with other stakeholders, especially those who are hungry and malnourished (Drimie 2015; McLaren *et al.* 2015). The National Food and Nutrition Security Policy, for example, has been criticised strongly for inadequate engagement with non-state actors by adopting a centralised decision-making approach, with minimal engagement with stakeholders outside of the state (McLaren *et al.* 2015; Pereira & Drimie 2016). In 2010, the Diagnostics Report of the National Planning Commission (NPC) identified a failure to implement policies and an absence of broad partnerships as the main reasons for the slow progress in South Africa reaching a number of development goals, including food security (Hendriks 2013). The sugar tax has been criticised for its adoption without amendments, despite “concerns both within Treasury and the Healthy Living Alliance that the passage of the Rates and Monetary Amounts and Amendment of Revenue Laws Amendment Bill through the NCOP might encounter obstacles. However, the bill has already been adopted by National Assembly” (Ensor 2017).

As addressing food and nutrition insecurity requires a multisectoral approach, coordination between stakeholders responsible for the delivery of these interventions is necessary. The review reveals that, despite acknowledging this through statements about establishing coordination mechanisms, actual execution and finding opportunities to realise these objectives have been very limited.

5. Discussion

The activities of a sustainable food system produce social welfare, food and environmental security (Ericksen 2008). Yet South Africa’s food system seems to reinforce high rates of malnutrition, environmental degradation and inequality (Hendriks 2014; Pereira & Drimie 2016). This study reviewed policies made to address food and nutrition security in South Africa since 2002. The review focused on three domains of food security: availability, access and utilisation. This section provides a critique of gaps and contradictions in the initiatives when compared to Ericksen’s model of sustainable food systems.

With regard to production, there was a contradiction in the kind of goods produced by the initiatives and an absence of guidelines on the targeted gender and the geography of programmes. According to Ericksen, food production should focus on what is consumed; unfortunately, most of the initiatives prioritised non-food items over food items. The Fetsa Tlala and CASP both provided support for the production of yellow maize, although South Africans mostly consume white maize. The rationale is

that increased income will allow farmers to purchase their food, but as is evident in the policies focusing on access, this is not a failsafe intervention. It was only in a few cases that largely insignificant support was provided for vegetable gardens (McLaren *et al.* 2015).

There was a general absence of guidelines on which gender the production initiatives were targeting. Forty percent of South African farmers are women, and women are central actors in accessing and preparing meals in households (Visser & Ferrer 2015). However, the policies do not specify how gender sensitivity is incorporated into the programmes. Women's income is more likely to revert to food than that of men, and women recipients of social grants tend to spend their benefits on food, whereas men tend to spend their income on non-household-related purchases (Chagunda 2014).

Secondly, there was an absence of initiatives to address urban food and nutrition insecurity, despite the mass of evidence supporting its existence (Battersby 2015). Almost all the initiatives considered food production as a rural project, despite the high levels of food insecurity in urban informal areas (see IFSS (DAFF 2002), the NFNSP (Republic of South Africa 2014), the DAFF-SP (DAFF 2015), the NDP (Republic of South Africa 2012) and the MTSF (Republic of South Africa 2014)). This has implications for the rising burden of malnutrition in urban informal areas.

There is a contradiction in the economic access programmes: they offer unstable jobs. Unstable jobs are the root cause of unemployment and poverty in the country (Cloete 2015). Through the initiatives, people are offered farmwork or technical positions in the agro-processing industry. These jobs pay less, are temporary and do not offer employee benefits (Theron & Visser 2012). About a third of farm workers earn R1 600 or less per month (Visser & Ferrer 2015). Agricultural employees are reported to have the most difficult working and living conditions. Without money, the poor are unable to engage with the market-led food system.

In terms of the treatment of malnutrition, one key absence is the lack of initiatives for adolescents and non-pregnant women. The initiatives for micronutrient supplementation focus mainly on pregnant women, despite the pre-pregnancy period being essential to reduce maternal anaemia and the risk of pregnancy complications and deaths (Milman 2008; Passerini *et al.* 2012). Therefore, the Department of Health can consider increasing the coverage of folic acid supplementation for non-pregnant women.

In addition to these gaps and contradictions, concerns have also been raised about the lack of coordination, cooperation and co-creation. The inability to manage committees, councils and working groups devoted to implementing food and nutrition security interventions has resulted in silo programmes that achieve minimal if no results (Hendriks 2014; McLaren *et al.* 2015). In some of the cross-sector programmes there is ambiguity about which government departments are responsible for planning and implementing specific components of the initiatives (Drimie & Ruysenaar 2010). Indeed, the biggest challenge facing the implementation of these policies seems to be the absence of an effective coordination mechanism that can align different responses across sectors. However, this institutional challenge may betray a more serious issue: a lack of political will or impetus to effectively address food insecurity as a political priority (Drimie 2015).

6. Conclusion

The prevalence of food and nutrition insecurity is high in South Africa. Policy interventions are one of the indirect actors in the food system that can bring out change. This study, through a review of policies made by the government since 2002, has indicated that there are provisions for the production, access and treatment of food and nutrition security. However, the policy initiatives contain gaps and contradictions. Furthermore, there is minimal structure for coordination, co-creation and cooperation. Addressing these shortfalls can help reduce malnutrition in South Africa. In terms

of research, a comprehensive review and interrogation of the other food system components of these policies, especially environmental welfare, will be beneficial for understanding the governance of food and nutrition insecurity.

References

- Agyemang C, Boatema S, Frempong GA & De-Graft Aikins A, 2015. Obesity in Sub-Saharan Africa. In Ahima RS (ed.), *Metabolic syndrome*. Cham: Springer International Publishing.
- Aliber M, 2015. Household-level food insecurity and agriculture in South Africa. In Fukuda-Parr S & Taylor V (eds.), *Food security in South Africa: Human rights and entitlement perspectives*. Claremont: UCT Press.
- Battersby J, 2015. Food insecurity among urban households. In Fukuda-Parr S & Taylor V (eds.), *Food security in South Africa: Human rights and entitlement perspectives*. Claremont: UCT Press.
- Battersby J & Peyton S, 2016. The spatial logic of supermarket expansion and food access. In Crush J & Battersby J (eds.), *Rapid urbanisation, urban food deserts and food security in Africa*. Cham: Springer International Publishing.
- Chagunda C, 2014. South Africa's social assistance intervention as a building block of a developmental state. PhD dissertation, Department of Social Development, University of Cape Town, Cape Town, South Africa.
- Cloete A, 2015. Youth unemployment in South Africa A theological reflection through the lens of human dignity. *Missionalia* 43(3): 513–25.
- Department of Agriculture, Forestry and Fisheries (DAFF), 2002. *Integrated food security policy*. Pretoria: Department of Agriculture, Forestry and Fisheries.
- Department of Agriculture, Forestry and Fisheries (DAFF), 2012. *Integrated growth and development plan 2012*. Pretoria: Department of Agriculture, Forestry and Fisheries
- Department of Agriculture, Forestry and Fisheries (DAFF), 2013. *National policy on food and nutrition security*. Pretoria: Department of Agriculture, Forestry and Fisheries.
- Department of Agriculture, Forestry and Fisheries (DAFF), 2015. *DAFF Strategic Framework*. Pretoria: Department of Agriculture, Forestry and Fisheries.
- Department of Agriculture Forestry and Fisheries (DAFF), 2016. *Fetsa Tlala food production initiative & conditional grants: Provincial departments reporting day 1*. Available at <https://pmg.org.za/committee-meeting/23331/> (Accessed 21 April 2018).
- Department of Basic Education, 2014. *National School Nutrition Programme (NSNP): 2013/2014 Annual report*. Pretoria: Department of Basic Education.
- Department of Health, 2002. *Integrated nutrition policy*. Pretoria: Department of Health.
- Department of Health, 2003. *Regulations relating to the fortification of certain foodstuffs*. Pretoria: Department of Health.
- Department of Health, 2013. *Strategic Plan for the Prevention and Control of Non-Communicable Diseases 2013-2017*. Pretoria: Department of Health.
- Department of Health, 2015. *Strategy for the Prevention and Control of Obesity in South Africa 2015-2020*. Pretoria: Department of Health.
- Department of National Treasury, 2015. *Industrial Policy Action Plan*. Pretoria: National Treasury.
- Department of Social Development, 2002. *Social Assistance Act*. Pretoria: Department of Social Development.
- Department of Social Development, 2004. *Relief of Social Distress Policy*. Pretoria: Department of Social Development.
- Devereux S & Waidler J, 2017. Why does malnutrition persist in South Africa despite social grants? *Food Security SA Working Paper Series No. 001*, DST-NRF Centre of Excellence in Food Security, University of the Western Cape, Bellville, South Africa..
- Drimie S, 2015. Aligning policies to address food insecurity: Institutional challenges and political will in South Africa. In Fukuda-Parr S & Taylor V (eds.), *Food security in South Africa: Human rights and entitlement perspectives*. Claremont: UCT Press.

- Drimie S & Ruysenaar S, 2010. The Integrated Food Security Strategy of South Africa: An institutional analysis. *Agricultural Economics Research Policy and Practice in Southern Africa* 49(3): 316–37.
- Dugard J, 2015. Testing the government's emergency relief mechanism: What happens when poor households attempt to access the Social Relief of Distress Grant? In Fukuda-Parr S & Taylor V (eds.), *Food security in South Africa: Human rights and entitlement perspectives*. Claremont: UCT Press.
- Du Plessis LM & Pereira C, 2013. Paediatric food-based dietary guidelines for South Africa: Commitment and capacity for the support of breastfeeding in South Africa. *South African Journal of Clinical Nutrition* 26(3): S120–8.
- Ensor L, 2017. 'Sugar tax' is adopted by Treasury without amendment. *BusinessDay*, 1 December. Available at <https://www.businesslive.co.za/bd/national/2017-12-01-sugar-tax-is-adopted-by-treasury-without-amendment/> (Accessed 4 December 2017).
- Ericksen PJ, 2008. Conceptualizing food systems for global environmental change research. *Global Environmental Change* 18: 234–45.
- Grochowska R, 2014. Specificity of food security concept as a wicked problem. *Journal of Agricultural Science and Technology* 4: 823–31.
- Hendriks S, 2013. South Africa's National Development Plan and New Growth Path: Reflections on policy contradictions and implications for food security. *Agrekon* 52(3): 1–17.
- Hendriks S, 2014. Food security in South Africa: Status quo and policy imperatives. *Agrekon* 53(2): 1–24.
- Hendriks SL & Olivier NJJ, 2017. Review of the South African agricultural legislative framework: Food security implications. *Development Southern Africa* 32(5): 555–76.
- Howard S, Adams J & White M, 2016. Nutritional content of supermarket ready meals and recipes by television chefs in the United Kingdom: Cross sectional study. *British Medical Journal* 345(7888): 14–6. <http://www.jstor.org/stable/23493382>
- International Food Policy Research Institute, 2016. *Global nutrition report: From promise to impact: Ending malnutrition by 2030*. Washington DC: IFPRI.
- International Markets Bureau, 2010. *The Canadian consumer: Behaviour, attitudes and perceptions toward food products*. Available at http://www.gov.mb.ca/agriculture/market-prices-and-statistics/trade-statistics/pubs/canada_consumer_report_en.pdf
- Jama NA, Wilford A, Masango Z, Haskins L, Coutsoadis A, Spies L & Horwood C, 2017. Enablers and barriers to success among mothers planning to exclusively breastfeed for six months: A qualitative prospective cohort study in KwaZulu-Natal, South Africa. *International Breastfeeding Journal* 12(43): 1–13.
- Jansen ADA, Stoltz E & Yu D, 2012. Improving the targeting of zero-rated basic foodstuffs under value added tax (VAT) in South Africa – An exploratory analysis. Stellenbosch Stellenbosch Economic Working Papers No. 07/12, Bureau for Economic Research, Stellenbosch University, Stellenbosch.
- John-Langba J, 2015. Food security in South Africa: A review of data and trends. In Fukuda-Parr S & Taylor V (eds.), *Food security in South Africa: Human rights and entitlement perspectives*. Claremont: UCT Press.
- Karamba WR, Quiñones E & Winters P, 2011. Migration and food consumption patterns in Ghana. *Food Policy* 36(1): 41–53. <http://dx.doi.org/10.1016/j.foodpol.2010.11.003>
- May J, 2017. *Food security and nutrition: Impure, complex and wicked?* Food Security SA Working Paper Series No. 002, DST-NRF Centre of Excellence in Food Security, University of the Western Cape, Bellville, South Africa.
- May J & Timaeus IM, 2015. Changes in food security in South Africa since the end of apartheid: Evidence using child malnourishment. In Fukuda-Parr S & Taylor V (eds.), *Food security in South Africa: Human rights and entitlement perspectives*. Claremont: UCT Press.

- McLaren D, Moyo B & Jeffery J, 2015. The right to food in South Africa: An analysis of the content, policy effort, resource allocation and enjoyment of the constitutional right to food. Working Paper 11, Studies in Poverty and Inequality Institute (SPII), Cape Town.
- Miller DD & Welch RM, 2013. Food system strategies for preventing micronutrient malnutrition. (Special section: Food systems and the triple burden of malnutrition). *Food Policy* 42: 115–28.
- Milman N, 2008. Prepartum anaemia: Prevention and treatment. *Annals of Hematology* 87: 949–59.
- Nkonkole Farmers Association, ARDRI & UFH, 2015. Assesment of the Fetsa Tlala cropping programme in Nkonkobe Local Municipality, Eastern Cape. Available at [http://www.ufh.ac.za/files/05 NFA&ARDRI Fetsa Tlala study Oct 2015.pdf](http://www.ufh.ac.za/files/05_NFA&ARDRI_Fetsa_Tlala_study_Oct_2015.pdf)
- Nohr EA, 2012. Maternal obesity and neonatal mortality in an African setting. *The Lancet* 380(9850): 1292–3.
- Passerini L, Casey GJ, Biggs BA, Cong DT, Phu LB, Phuc TQ, Carone M & Montresor A, 2012. Increased birth weight associated with regular pre-pregnancy deworming and weekly iron-folic acid supplementation for Vietnamese women. *Plos Neglected Tropical Diseases* 6(4): 2–6.
- Pereira L & Drimie S, 2016. Governance arrangements for the future food system: Addressing complexity in South Africa. *Environment: Science and Policy for Sustainable Development* 58(4) 18–31.
- Pollan M, 2006. *The omnivore's dilemma: A natural history of four meals*. London: The Penguin Press.
- Popkin BM, Adair LS & Ng SW, 2012. Now and then: The global nutrition transition: The pandemic of obesity in developing countries. *Nutrition Reviews* 70(1): 3–21.
- Pretorius B & Schonfeldt HC, 2012. Vitamin A content of fortified maize meal and porridge as purchased and consumed in South Africa. *Food Research International* 47(2): 128–33.
- Republic of South Africa, 1996. *The constitution of the Republic of South Africa*. Pretoria: Government Printers.
- Republic of South Africa, 2012. *National Development Plan, Vision 2030*. Pretoria: Government Printers.
- Republic of South Africa, 2014. *Medium Term Strategic Framework 2014-2019*. Pretoria: Government Printers.
- Statistics South Africa, 2017. *South Africa Demographic and Health Survey: Key indicator report*. Pretoria: Statistics South Africa.
- Taylor V, 2015. Achieving food security through social policies: Comprehensive social protection for development. In Fukuda-Parr S & Taylor V (eds.), *Food security in South Africa: Human rights and entitlement perspectives*. Cape Town: University of Cape Town Press.
- Theron JP & Visser M, 2012. *Prospects of decent work in agriculture*. Working Paper of the Labour and Enterprise Policy Research Group, University of Cape Town, Cape Town, South Africa.
- Triegaardt JD, 2006. *Poverty and inequality in South Africa: Policy considerations in an emerging democracy*. Available at <https://www.dbsa.org/EN/About-Us/Publications/Documents/Poverty%20and%20inequality%20in%20South%20Africa%20Policy%20considerations%20in%20an%20emerging%20democracy.pdf>
- Visser M & Ferrer S, 2015. *Farm workers' living and working conditions in South Africa: Key trends, emergent issues, and underlying structural problems*. Pretoria: International Labour Organization. https://agbiz.co.za/uploads/documents/news/Newsletter/2015/150730_ILO_Farm_Workers_SA.pdf
- Von Grebmer K, Bernstein J, Hossain N, Brown T, Prasai N, Yohannes Y, Patterson F, Sonntag A, Zimmerman S-A, Towey O & Foley C, 2017. *2017 Global Hunger Index: The inequalities of hunger*. Washington DC: International Food Policy Research Institute.
- World Food Summit, 1996. *Rome Declaration on World Food Security and World Food Summit Plan of Action*. World Food Summit, 13–17 November, Rome.