

Food Beverage and Manufacturing SETA (FoodBev SETA)
Final Sector Skills Plan

**UPDATE 2024/2025 August 2023** 



## **AUTHORISATION AND OFFICIAL SIGN-OFF**

We, the undersigned, hereby certify that the draft Sector Skills Plan (2024/2025):

- Was developed by the management of Food and Beverages Manufacturing SETA, under the guidance of the Accounting Authority and in consultation with the Department of Higher Education and Training;
- Was informed by extensive data analysis of sectoral primary and secondary research.
- Considers all the relevant policies, legislation and other mandates within the domain of the FoodBev SETA;
- Includes representative stakeholder consultations; and
- Accurately reflects the findings, in terms of occupational shortages and skills gaps, within the documented limitations to inform strategic planning and performance priorities.

ev SETA

Ms. Nokuthula Selamolela

**Chief Executive Officer** 

Date: 01 August 2023

Mr. Alan Campbell

**Chairperson of the Board** 

Date: 01 August 2023

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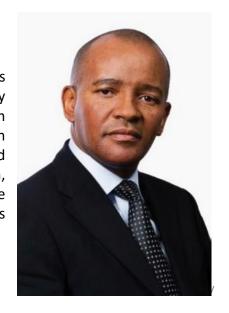


**FoodBev SETA** Sector Skills Plan Financial Year 2024/2025

# **CHAIRPERSON'S FOREWORD**

### CHAIRPERSON'S FOREWORD

The Food and Beverages Manufacturing SETA (FoodBev SETA) is pleased to submit an update to the Sector Skills Plan (SSP) initially developed for the period 2020 to 2025. The Sector Skills Plan has been prepared in accordance with the National Skills Development Plan (NSDP,2019) and the DHET SSP framework. Previously received feedback from DHET has been incorporated into this SSP. In addition, other factors that affect the development of the economy, such as the Economic Reconstruction and Recovery Plan (ERRP, 2020), discussions around the future skills required by the sector which were identified through the Atlas of Emerging Jobs (2023) and country-wide sector skills needs, have been considered. The National Development Plan (NDP,2012) has been considered explicitly as it provides guiding principles for the country's development, including skills development.



The White Paper on Post-School Education and Training (WPPSET, 2013), the Economic Reconstruction and Recovery Plan Skills Strategy (ERRP SS, 2022), and the Industrial Policy Action Plan (IPAP, 2020/21) are the three critical strategic plans through which government intends to stimulate economic growth and skills development in the country. Furthermore, the Integrated Growth and Development Plan (IGDP, 2012) emphasises the skills needed in the modern workforce, as well as the Agriculture and Agro-processing Master Plan (AAMP, 2022), which aims to promote competitiveness, transformation, employment, and food security, were considered in the development of the SSP.

The FoodBev SETA is an essential catalyst in initiating and driving crucial skills development initiatives within the sector to support these plans. This SSP aligns with the goals to drive skills development initiatives and training for the betterment of the sector and country. The skills' needs emanating from the ERRP SS (2022) are factored into the skills planning of the SETA. This Sector Skills Plan further unpacks the research findings identified through qualitative and quantitative data collection processes. The research findings address the sector profile, skills mismatch, labour market outlook and drivers of change in the Food and Beverage Manufacturing Sector. The global dynamics in the Food and Beverages Manufacturing Sector are also covered in the SSP.

This Sector Skills Plan further identifies the factors driving change in the Food and Beverages Manufacturing Sector. The identified factors include the following: climate change, energy crisis, technological advancement, population growth, food safety and nutrition, as well as local and international uncertainties. The abovementioned factors further lead to mounting

pressures related to the shrinking GDP, increased inflation rate, rising temperatures, water scarcity and drought, extreme weather patterns, energy shortage and declined food production. The change drivers mentioned above give rise to new skills and occupations that threaten the skills requirements in the sector.

Despite the skills and occupations resulting from the change drivers, occupational shortages and skills gaps still need to be solved due to skills mismatch in the sector. Interventions through discretionary grants, qualification development and strategic partnerships aid in responding to the skills challenges.

Lastly, I would like to express my sincere gratitude to our levy and non-levy employers, Higher Education Institutions (Universities), Technical Vocational Education and Training (TVET) colleges, Community Education colleges, private training providers, non-profit organisations, other SETAs, and rural and township communities and everyone who was involved in developing and strengthening our SSP.

Mr. Alan Campbell

**Chairperson of the Board** 

**Date: 01 August 2023** 

# **ACRONYMS**

Term	Description	Term	Description
4IR	Fourth Industrial Revolution	M&E	Monitoring and Evaluation
AAMP	Agriculture and Agro-Processing Master Plan	NC	National Certification
APP	Annual Performance Plan	NCV	National Certificate Vocational
APAP	Agriculture Policy Action Plan	NEPF	National Evaluation Policy Framework
ATR	Annual Training Reports	NQF	National Qualifications Framework
CET	College of Engineering and Technology	NSDP	National Skills Development Plan
COVID-19	Coronavirus Disease 2019	OFO	Organising Framework of Occupations
DHET	Department of Higher Education and Training	PhD	Doctor of Philosophy
DPME	Department of Planning, Monitoring and Evaluation	PIVOTAL	Professional, Vocational, Training and Academic Learning
ERRP	Economic Reconstruction and Recovery Plan	PSET	Post-School Education and Training
ERRP SS	Economic Reconstruction and Recovery Plan Skills Strategy	PwD	Persons with Disabilities
FAO	Food and Agriculture Organisation	QCTO	Quality Council for Trades and Occupations
FETC	Further Education and Training Certificate	SARS	South African Revenue Services
FoodBev SETA	Food and Beverages Manufacturing Sector Education and Training Authority	SET	Science, Engineering and Technology
GETC	General Education and Training Certificate	SETA	Sector Education and Training Authority
GDP	Gross Domestic Product	SIC	Standard Industrial Classification
GWMES	Government-Wide Monitoring and Evaluation System	SPOIL	Sectoral Priority Occupations and Interventions List
НАССР	Hazard Analysis Critical Control Point	SSP	Sector Skills Plan
HEI	Higher Education Institution	Stats SA	Statistics South Africa
HEMIS	Higher Education Management Information System	SMMEs	Small, Medium, and Micro Enterprises
HRDS-SA	Human Resources Development Strategy for South Africa	TVET	Technical and Vocational Education and Training

HTFV	Hard To Fill Vacancies	USAF	Universities South Africa
IPAP	Industrial Policy Action Plan	WEF	World Economic Forum
KZN	KwaZulu Natal	WSP	Workplace Skills Plan
HRDS-SA	Human Resources Development Strategy for South Africa		



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# **CEO'S EXECUTIVE SUMMARY**

## **CEO'S EXECUTIVE SUMMARY**

The core mandate of the Food and Beverages Manufacturing SETA (FoodBev SETA) is to promote, facilitate and incentivise skills development in the Food and Beverages Manufacturing Sector. The Sector Skills Plan (SSP) for FoodBev SETA has been compiled in accordance with the National Development Plan (NDP, 2012), National Skills Development Plan (NSDP, 2019), the White Paper on Post School Education and Training (PSET, 2013), Economic Reconstruction and Recovery Plan Skills Strategy (ERRP SS, 2022), and the DHET SSP Framework and Guidelines. This SSP addresses the current occupational shortages and skills gaps, present and future drivers of change to provide relevant skills and educational opportunities in the Food and Beverages Manufacturing Sector.



**Ms Nokuthula Selamolela** Chief Executive Officer

The SSP was produced using a mixed-method research design, combining quantitative and qualitative research methods. This SSP was

updated in two phases which involve the usage of primary and secondary research data. The first phase of updating the SSP was based on desktop research entailing: document analysis; literature review; partial analysis of the WSPs/ATRs; economic indicators analysis; review and updating of change drivers; occupational shortages and skills gaps; new and existing partnerships and collaborations updates; and reviewing and verifying the implementation of strategic priorities and ERRP SS (2022), programmes in the monitoring and evaluation chapter. The second phase of updates was based on the statistical analysis of data gathered from WSPs/ATRs and interviews with key stakeholders. To foster insights and sector expertise, chamber meetings were held to discuss and endorse the final SSP. The layout of the SSP comprises six (6) chapters, and they are detailed in the below paragraphs.

The food and beverages value chain encompasses many businesses producing, processing, packaging, distributing, and retailing food and beverage products. Chapter one (1) provides a sector overview of the Food and Beverages Manufacturing Sector, highlighting key role players, economic performance, chamber distribution in terms of employers, and employee profile analysis in the sector. This chapter is derived from various data sources, which include the following: WSP/ATR data (2017-2023); Quantec data (2016-2023); SARS employer data (2022); Statistics SA (2022 and 2023); SETA research reports.

In comparing the economic performance of the food and beverages manufacturing sector between 2022 and 2021, we will examine the critical statistical information related to the gross domestic product (GDP), turnover, trade surplus, imports, and exports. The Food and Beverage Manufacturing Sector's contribution to SA's GDP is an essential indicator of its economic performance. While the specific GDP figures for the sector in 2022 are not available, the general trends indicate that in 2021, the sector's contribution to GDP showed resilience amidst challenges posed by the COVID-19 pandemic. It accounted for a significant portion of the manufacturing sector's GDP of approximately 12.6% of SA's total GDP. The turnover of the food and beverages manufacturing sector provides insights into its revenue generation and business activity. The sector witnessed a moderate recovery in 2022 compared to the

previous year. While the exact figures are unavailable, indications suggest that turnover levels increased as the sector adapted to changing market conditions and consumer preferences. The trade surplus, imports and exports are crucial factors that reflect the sector's engagement with global markets. In terms of trade surplus, the sector has traditionally maintained a surplus due to its export-oriented nature. In 2021, the sector recorded a trade surplus of R2,5 billion as the value of its exports exceeded its imports. The trade surplus increased in 2022 to R3,6 billion, driven by increased export opportunities. The demand for South African food and beverage products in regional and international markets played a role in maintaining the surplus.

The SARS employer database (2023) indicates 16 720 entities registered under the food and beverage manufacturing sector. However, only 4 188 entities contributed to the skills development levy (SDL). The chambers distribution of employers in the Food and Beverages Manufacturing Sector is as follows: The Food Preparation Products has the highest proportion of employers with 49,6%, followed by the Production, Processing and Preservation of Meat, Fish, Fruit, Vegetables, Oil, and Fats with 28.7% and Manufacture of Beverages with 13.9%. Manufacture of Dairy Products and Breakfast Products has the lowest number of employers 7.0% and 0.8%, respectively. The provincial distribution indicated that most member companies are in the Western Cape (37%), Gauteng (31%) and KwaZulu Natal (12%) Provinces.

In terms of the employee profile, the number of people employed in the sector decreased from 188 896 in 2022 to 186 685 in 2023, a decline of 1.9%. The decline in employment is mainly attributed to the current electricity crisis, automation and the after-effects of the national lockdown to curb the spread of COVID-19 in the country. The results further indicate that the sector has more employees aged between 35 and 55, which means the sector should train more youth for proper succession planning. Historically, the industry has been male dominated, particularly in the roles like production, logistics and technical positions, representing 59% of the workforce. However, efforts have been made to promote gender equality and increase female representation across all levels, including management and leadership roles. These efforts have led to an increased representation of black employees, including African and other racial groups, in various roles within the sector. These transformation initiatives aim to foster inclusivity and a representative workforce that reflects the demographics of South Africa and tap into a wider talent pool. There is an improvement in African female representation for the Professional (26%) and Managerial (17%) occupational categories which is an increase of 3% and 4% respectively, compared to 2022. Regarding the provincial distribution, employees are primarily concentrated in the country's economic hubs, Gauteng at 35%, Western Cape at 35% and KwaZulu-Natal at 12% in the sector.

Several drivers of change affect skills development in the Food and Beverages Manufacturing Sector. The primary change drivers identified include food safety and nutrition; technological advancements; climate change; energy crisis; and population growth and urbanisation. The sector is highly regulated, and the organisations must comply with local and international legislative and regulatory requirements. However, the regulations are ever-changing, and organisations must keep abreast of these changes to remain compliant.

The sector has highlighted a challenge of technical and vocational education and training colleges' capacity and the relevance of their educational offerings. It is against this background that FoodBev SETA has formed partnerships with various colleges to assist and support the colleges in addressing the challenges identified and by research conducted by the SETA. The SETA will continue forming relevant partnerships to address skills development needs. These strategic partnerships formed with the sector can contribute to financial resources, subject matter expertise, and industry insights. Furthermore, collaborating with international organisations and foreign counterparts can facilitate knowledge exchange and benchmarking against global best practices.

To transform and address the skills shortages and needs, the FoodBev SETA and the sector should prioritise several crucial areas. By focusing on these aspects, the sector can foster skills development, enhance productivity, and create a more resilient and competitive industry. The following highlight the priorities and partnerships to address the skills needs in the sector:

- 1) Partnerships with public/private entities to strengthen skills development programmes: The SETA should form partnerships with entities in the sector to prioritise the implementation of comprehensive skills development programmes. These programmes should encompass upskilling and reskilling initiatives to address existing skills gaps and evolving industry needs. The sector can ensure a skilled and adaptable workforce by investing in continuous learning and development.
- 2) Apprenticeships, Internship programmes and establishing sector-specific training centres: Prioritizing artisan development and providing internship programs is crucial for attracting and nurturing young talent. By offering practical on-the-job training and mentorship opportunities, these programs can provide valuable hands-on experience to students and graduates, allowing them to develop industry-specific skills. Moreover, establishing sector-specific training centres can be a beneficial intervention to address the skills development needs of the sector. These centres can provide specialised training programmes tailored to the industry's unique requirements.
- 3) Technology and innovation: The sector should prioritise adopting and integrating technology and innovation to remain competitive in a rapidly evolving industry landscape. This includes investing in automation, digitalisation, and advanced manufacturing processes. To address the skills needs associated with technological advancement, partnerships should be formed with technology providers, research institutions and innovation hubs.
- 4) Transformation in the sector: Data has shown that the Food and Beverages Manufacturing Sector is male dominated; transformation interventions are paramount to have a balanced sector with more females entering the sector. Transforming the Food and Beverages Manufacturing Sector involves significant changes, expansion, and improvements. This encompasses the growth of SMMEs,

cooperatives, women, youth, and persons living with disabilities and rural development support initiatives. The sector's transformation can be accomplished through the inclusivity of the marginalised groups and maintaining the sustainability of livelihoods. To address transformation, the SETA will focus on training the marginalised groups and form strategic partnerships with entities to support SMMEs, cooperatives and rural development.

5) Career guidance initiatives: By implementing targeted programs that showcase industry opportunities, potential and pathways for growth, the sector can capacitate young people with valuable insights and inspire them to pursue careers in the sector., These initiatives can include awareness campaigns, industry expos and job fairs, internships, and apprenticeships programs, mentoring and shadowing programs and providing bursaries to attract young talent into the sector.

In conclusion, this executive summary encapsulates the importance and potential of skills development in today's rapidly evolving professional landscape. With the increasing demand for adaptable and specialised skill sets, investing in continuous learning and upskilling has become paramount for the sector. FoodBev SETA will facilitate the delivery of skills interventions as articulated and the key skills priority areas, as outlined in this SSP.

Ms. Nokuthula Selamolela

**Chief Executive Officer (CEO)** 

Date: 01 August 2023

# FoodBev SETA

## **RESEARCH PROCESS AND METHODS**

This section details the research process adopted for developing the 2024/2025 Sector Skills Plan (SSP). The research methodology adopted is a mixed-method research design, integrating qualitative and quantitative methods. A mixed methods approach supplements the primary source of data, the WSP/ATR dataset, which is triangulated with additional peer-reviewed sources. Other data sources include SETA research studies, databases, chambers, focus groups and stakeholder interviews. All data was collated, analysed, and interpreted. The findings from the various processes were collated and adopted for skills development action plans to identify and address priority skills.

The methods of data collection for the development of this SSP included:

- A comprehensive review of the literature and existing SETA reports. Analysis of 2021 to 2023 WSP/ATR data and economic and labour trends as reported by Statistics SA.
- Focus groups and interviews (both virtual) with industry experts, employers, and service providers. Engagement with FoodBev SETA management, Chambers, Governance and Strategy Committee and the Accounting Authority.

Focus group discussions and interviews were conducted with sector industry experts through Chambers to verify the SPOIL. The sectoral occupations identified were compared to priority occupations identified from the literature review and the DHET's list of occupations in high demand. The list was verified to ascertain whether the identified occupations were linked to any change drivers in the sector. This was verified against the national priorities and strategies.

Below is a summary of each FoodBev SETA research study that informed the 2024/25 SSP.



Table 1: Research that informed the development of the SSP

Research Topic	Nature (Design) of study	Objective/s of Study Significance to SSP)	Research Methods	Sample Size or Scope	List of Data/set Sources	Timeframe
Effect of Ukraine-Russian Conflict on South Africa's Food and Beverages Manufacturing Sector	Quantitative and Qualitative (Review study together with questionnaire-based data collection)	The study provides insight into the impact of Russian-Ukraine conflict on the South African food and beverages manufacturing sector.	<ul> <li>Primary research (Online surveys, Virtual focus groups and interviews)</li> </ul>	The study included a total population of 217 stakeholders	• FoodBev SETA Employer Database	August 2022 to March 2023
Effects of KwaZulu-Natal Floods on the Food and Beverages Manufacturing Sector".	Quantitative and Qualitative (Reports and articles)	The study provides insight into the impact of flooding in KwaZulu-Natal on the food and beverages manufacturing sector in South Africa.	<ul> <li>Primary research (Online surveys, Virtual focus groups and interviews)</li> </ul>	The study included a total of 217 stakeholders	• FoodBev SETA Employer Database	August 2022 to March 2023
Community Education and College Needs	Qualitative research	The needs analysis aimed to determine the gaps and most appropriate intervention(s) required wherein FoodBev SETA may assist.	• Primary research (interviews)	9 Community Education and Training College Administrative Centre (CETCACs) 30 Community Learning Centres (CLCs)	DHET CETCs and CLCs database	June 2022 to February 2023
ATLAS of Future Jobs	Qualitative research	The objectives included: firstly, forecasting potential future jobs and the associated skills required, secondly identifying potential obsolete jobs and lastly offering insights for the training institutions to prepare for this potential future.	<ul> <li>Primary research (interviews)</li> </ul>	The study targeted a sample of 30, including representatives from companies, educational institutions and service providers or suppliers.	• FoodBev Employer Database	August 2022 to February 2023
Exploring the green economy in the food and beverages manufacturing sector	Qualitative desktop research	The study forecasts based on current roles and based on future skills.  The study explores the benefits of the green economy in the Food and Beverage Manufacturing Sector and factors that would be important in the South African context.	Secondary research (Literature review)	119 Journal Articles	<ul><li>Research Journals</li><li>WSP/ATR</li><li>Quantec &amp; Stats SA</li></ul>	April 2022 to November 2022
Bridging the Digital Literacy Divide in Rural and Township Communities	Qualitative desktop research	This study explains how FoodBev SETA can improve digital literacy in disadvantaged communities.	Secondary research (literature review and document analysis)	12 Journal Articles	Research Journals	April 2022 to November 2022



FoodBev SETA Sector Skills Plan Financial Year 2024/2025

**CHAPTER ONE: SECTOR PROFILE** 

## **CHAPTER ONE: SECTOR PROFILE**

#### 1.1. INTRODUCTION

This chapter provides an overview of the Food and Beverages Manufacturing Sector by describing five (5) broad sections. The first section focuses on the scope of the sector's coverage as per the Standard Industrial Classification (SIC) codes framework of South Africa. Key role players in the sector are described in the second section. The third section examines the Food and Beverage Manufacturing Sector's economic performance and gives an overview of the sector's contribution to the economy of South Africa. The employer profile for the sector is discussed in the fourth section, and the labour force profile is discussed in the last section.

Qualitative and quantitative methods were used in the development of the chapter. Data collection tools for the development of this chapter include a literature review; analysis of WSP/ATR data (2021-2023); Quantec data (2016-2023); SARS employer data (2023); economic and labour trends as reported by Statistics SA (2022 and 2023); SETA research reports; 2022/23 engagement with senior management, chambers, Governance and Strategy Committee, and Accounting Authority.

#### 1.2. SCOPE OF COVERAGE

The FoodBev SETA provides services to companies registered in the SARS employer database whose primary business activity is food processing, which is within the secondary level of the food and beverages industry value chain. Food processing includes the physical and chemical transformation of raw materials (input) into food as well as the transformation of food (intermediary goods like sugar) into other forms. Furthermore, food processing includes combining raw ingredients, yielding marketable food items that are easy to produce and provide to consumers. The sector's supply chain linkages range from primary producers, processing and logistics to domestic retail and exports.

The sector is part of the food industry value chain comprising a range of activities, including:

- Food production Includes farming and production of raw agricultural produce.
- Food processing Includes production, processing and preserving raw and processed produce into finished products.
- Food distribution Includes the distribution and retailing of finished products.
- Consumer Customer of the final processed food.

Companies operating within the Food and Beverages Manufacturing Sector are categorised as per the Standard Industrial Classification (SIC) codes framework of South Africa, Seventh Edition; the constituents are detailed in Table 2.

Table 2: Standard industrial classification codes and description of the Food and Beverages Manufacturing Sector

Category	SIC Code	Constituency			
	Production	, processing and preservation of meat, fish, fruit, vegetables, oil, and fats			
	Meat Industry				
	30110	Production, processing and preserving of meat and meat products			
	30112	Manufacture of prepared and preserved meat including sausage			
	30113	Production of Lard and other edible fats			
	Fish industry	1			
	30120	Processing and preserving of fish and fish products			
301	30121	Manufacture of canned, preserved, and processed fish, crustaceans, and similar foods.			
	Fruits and v	egetables industry			
	30130	Processing and preserving of fruits and vegetables			
	30131	Manufacture of canned, preserved, processed, and dehydrated fruits and vegetables (except soups)			
	Oils and Fats industry				
	30140	Manufacture of vegetables and animal oil and fats			
	30141	Manufacture of crude oil and oilseed cake and meal			
	30142	Manufacture of compound cooking fats, margarine, and edible oils			
	Manufactu	re of dairy products			
	Dairy Indust	ry			
302	30201	Processing of fresh milk (pasteurising, homogenising, sterilising and vitaminising)			
	30202	Manufacture of butter and cheese			
	30203	Manufacture of ice cream and other edible ice, whether or not containing cream or chocolate			
	30204	Manufacture of milk powder, condensed milk and other edible milk products, e.g., ghee, casein or lactose.			
	Manufacture of breakfast products				
303	Grain mill in	dustry			
	30312	Manufacture of breakfast Food			

Category	SIC Code	Constituency			
	Food prepa	aration products			
	Baking ind	ustry			
	30401	Manufacture of food preparation products			
	Confectiona	ry industry			
	30430	Manufacture of cocoa, chocolate, and sugar confectionary			
304	30491	Manufacture of coffee, coffee substitutes and tea			
	Snacks indu	stry			
	30492	Manufacture of nut foods			
	Other food	products industry			
	30440	Manufacture of macaroni, noodles, and similar farinaceous products			
	30490	Manufacture of other food products NEC.			
	30499	Manufacture of spices, condiments, vinegar, yeast, egg products, soups, and other food products			
	Manufactu	re of Beverages			
	Wine and Spirits industry				
	30510	Distilling, rectifying, and blending of spirits, alcohol production from fermented materials and manufacture of wine			
	Beer and N	Malt industry			
305	30520	Manufacture of beer and other malt liquors and malt			
	30521	Breweries except for sorghum beer breweries			
	30522	Sorghum beer breweries			
	30523	Manufacture of malt			
	Soft drinks a	and water industry			
	30530	Manufacture of soft drinks, juices and juice extracts and production of mineral water (both carbonated and non-carbonated)			

**Source:** (DHET, 2019)<sup>1</sup>

#### 1.3. KEY ROLE PLAYERS IN THE SECTOR

Several key public and private role players exist in the Food and Beverages Manufacturing sector. These role players include trade unions, industry bodies, national government

 $<sup>^{1}</sup>$ The Food and Beverages Manufacturing Chambers and industries have been updated to align with the 2019 DHET gazette.

departments, employers, institutes of higher education and sector representatives, amongst others. The table below summarises the central role players in the sector.

Table 3: Key role players in the industry

Type of Organisation	Name of Organisation	Role in relation to NSDP			
Government Department	Department of Higher Education and Training (DHET)	DHET promotes and monitors the implementation of the National Skills Development Plan. DHET is also responsible for developing and implementing appropriate legislation and policies for quality and accessible post-school education and training systems. DHET is also responsible for the distribution of levies to SETAs.			
	South African Revenue Services (SARS)	Collects levies as stipulated in the Skills Development Levies Act.			
Trade Unions	Federal Council of Retail and Allied Workers (FEDCRAW)	Unions in the SETA context address the NSDP outcome 7. The primary role of unions is to advocate for the skills of			
	Food and Allied Workers Union (FAWU)	the employees they represent, working with employer improve the quality, quantity, and equity of train			
	National Union of Food Beverage Wine Spirits and Allied Workers (NUFBWSAW)	Unions help in designing schemes, where the focus is on training to help remedy skill or knowledge gaps; and ensure appropriate training then takes place.			
Employers	Levy Paying Non-levy Paying	Skills levy institutions play a crucial role in addressing NSDP Outcome 7. The role of employers is primarily to finance skills development collectively (i.e., via the levy system) and to recognise the role of skills and training within the sector and, more widely, in the national economy. Employers work with their respective SETA to reclaim levy payment through engagement in certain required skills development activities.  Companies with less than R 500,000 annual payroll do not contribute to SDL. Levy payers and Non-levy payers have to submit WSP/ATR to their respective SETAs as its existing skills shortage in a company and describe the steps companies will take to address the shortage through various training initiatives.			
Public Education Institutions	Community Education Colleges (CET)  Technical Vocational Education and Training (TVET)  Universities and University of Technology	Educational institutions support the growth of the public college system (Outcome 5) and linking education and the workplace (Outcome 2). Educational institutions equip labour market entrants with the skills and competencies required for occupations or trades. They also increase the stock of human capital within the segment of the educational system that directly addresses skills gaps in the sector.			
	Industry As	I .			
Confectionary	South African Sugar Association				
Baking	South African Bee Industry Organisation National Chamber of Milling South African Bakers Association The South African Chamber of Baking (SACB)				
Fruits & Vegetables	SA Fruit and Vegetables Canners Association (SAFVCA) Dried Fruit Technical Services SA Fruit Juice Association Potatoes South Africa South African Mushroom Farmers Association South Africa Garlic Growers Association				
Fish	South Africa Deep-Sea Trawling Industry Association				

	The Aquaculture Association of Southern Africa
	West Coast Rock Lobster Association
	South Coast Rock Lobster Industry Association
	South Africa Pelagic Fish Industry Association
	South Africa Patagonian Tooth-fish Association
Dairy	Milk South Africa (MSA)
<b>,</b>	The South African Milk Processors
	Organisation (SAMPRO)
	Milk Producers Organisation of South
	Africa (MPO)
	Dairy Standard Agency (DSA)
	Eastern and Southern Dairy Association
Meat	Red Meat Industry Forum
	SA Ostrich Business Chamber Game
	Abattoir and Meat Exporters of South
	Africa (GAME SA)
	South African Pork Producers
	Organisation
	SA Ostrich Business Chamber
	South Africa Poultry Association
Grain Mill	National Chamber of Milling
	Milling Chamber
\\!: 0	Grain South Africa
Wine &	Wine Industry Network of Expertise and
Spirits	Technology (WINETEC) Wines of South Africa (WOSA)
	SA Wine Industry Transformation Unit
	Vinpro  Sustainable Wine South Africa (SWSA)
	Sustainable Wine South Africa (SWSA) Wine and Agricultural Ethical Trade
	Association (WIETA)
	SA Wine Industry Information and
	Systems (SAWIS)
Beer & Malt	The South African Liquor Brand Owners
	Association (SALBA)
	South African Brandy Foundation
	South African Liquor Traders Association
	(SALTA)
	Sorghum Trust
	Beer Association of South Africa
Elma 1879	Craft Beer Association South Africa
Soft Drinks &	South African Rooibos Council
Water	South African Honey Bush Tea Association
	Beverage Association of South Africa
	(BEVSA)
	South Africa National Bottled Water
	Association
	South African Fruit and Juice Association
Oil and Eats	(SAFJA)
Oil and Fats	SA Olive Associations South Africa Essential Oils Producers
	Association
	South African Soy Food Association
Snacks	South African Pecan Nut Association
Other Food	South African Association of the Flavour
Products	and Fragrance Industry

Industry associations support and encourage worker training initiatives (NSDP Outcome 7). Industry associations identify strategic training objectives of the sector and contribute towards identifying accurate training priorities for the sector. The associations serve as a link between industry, government, and the public. They provide a unified voice on legislative and regulatory matters.

#### 1.4. **ECONOMIC PERFORMANCE OF THE SECTOR**

This section details the economic performance of the Food and Beverages Manufacturing Sector. It is of great importance to report the sector's economic analysis in this SSP in order to understand the trends and the reasons thereof. The economic performance is illustrated in Figure one (1) which depicts a trend analysis for the Food and Beverages Manufacturing Sector from 2020 to 2022. It is noteworthy that most sectors were not performing well since 2020 due to the COVID-19 pandemic and the lockdown. Ever since 2020, the Food and Beverages Manufacturing Sector has been progressively regaining an uptrend in imports and exports values. Results presented in figure one (1) indicates that the food and beverages import values has been increasing from 2020, this increase could be attributed to South Africa's economic instability. The high demand for food and beverages products such as rice, palm oil, wheat, cold meats and whiskies has contributed to the increase of imports.

Moreover, an increase was also realised in the exports of the food and beverages products such as citrus, wine, apples, pears, nuts, sugar and fruit juices. Sihlobo (2023) reported that the production conditions and higher commodity prices have made exporting food and beverages favourable for the sector, thus resulting in a gradual increase in the trade surplus and turnover. Consequently, it has been observed that the employment rate in sector has been declining since 2020, the decline could be due to the effects of the COVID-19 pandemic, which led to companies reducing staff component or closing down the businesses. This situation is further exacerbated by the energy crisis in the country which results in reduced production. Also, due to technological advancements which gave rise to automation led to companies reducing the number of employees. The unintended consequences of reduced employment results in a negative impact on the levies collected by the SETA as they are calculated on the basis of overall payroll of companies. Thus, the reduced number of employment has adversely affected the number levy paying companies as illustrated in the figure below.

Figure 1: The Foo<mark>d and Beverages Manufa</mark>cturing Sector trend analysis (2020-2021, 2021/2022 and 2022-2023) **Food and Beverage Manufacturing Sector Exports Imports** (2022) R92.1 bn (2022) R3.6 bn (2022) R88.5 bn (2021) R79.7 bn (2021) R2.5 bn (2021) R77.2 bn (2020) R77.1 bn (2020) R4.6 bn (2020) R72.5 bn **Employment** Levy Paying Turn over (2022) 4 188 (2022) R516.7 bn (2022) 188 896 (2021) 4 410 (2021) R507.9 bn (2021) 190 144 (2020) 4 285 (2020) 179 239 (2020) R522.7 bn

Source: (Quantec (2023); DHET Levy paying database (2022); WSP/ATR (2021 & 2023)

#### 1.4.1. SECTOR'S CONTRIBUTION TO SOUTH AFRICAN ECONOMY

The South African GDP increased by 0.4% in the first quarter of 2023 compared to a revised 1.1% in the fourth quarter of 2022. According to Stats SA (2023), the financial and manufacturing were significant contributors of growth in the economy. Manufacturing output increased by 1.5%, a GDP percentage growth point of 0.2. The food and beverage manufacturing sector was the main catalyst of growth in the manufacturing sector.\_The manufacturing sector is one of the seven (7) sectors out of ten sectors in the GDP that contributed to the country's GDP decline. Furthermore, the manufacturing sector's GDP decreased by 0.9% in the fourth quarter of 2022, from 1.69% in the third quarter of 2022, which resulted in the sector contributing -0.1 percentage point to GDP. The most significant negative contributions came from the manufacturing of food and beverages, basic iron and steel, non-ferrous metal products, metal products and machinery and petroleum, chemical products, rubber and plastic products Motor vehicles, parts, and accessories (Stats SA, 2023). The negative contribution of the manufacturing sector to GDP growth is also attributed to the ongoing power crisis in the country. Most of manufacturing companies are adversely affected by load-shedding schedules but managed to increase production (Eco Emerging - PNP Paribas, 2023).

#### 1.4.2. OVERVIEW OF KEY ECONOMIC INDICATORS

The South African manufacturing sector covers ten sub-sectors, as illustrated in Figure 2. The total revenue from the manufacturing sector in 2022 was R 203 billion, an 18% increase since 2018. The food and beverage manufacturing industry (sub-sector) is one of the most significant contributors to revenue in the manufacturing sector. From 2018 to 2020, the Food and Beverage Manufacturing Sector revenue was R 42 billion (23%) but decreased to R 40 billion (22%) in 2021 (Quantec, 2023). The decrease in 2021 was mainly attributed to the devastating effects of the COVID-19 outbreak, riots and looting that happened in some parts of KwaZulu-Natal and Gauteng provinces, as well as floods that affected most of the companies in KwaZulu-Natal Province and some parts of the country that led to ports closing in the province. Although the manufacturing sector had a negative contribution to the country's GDP, the revenue of the food and beverages manufacturing sector increased to R 49 million (25%) in 2022 (Quantec, 2023). In 2022, the Food and Beverage Manufacturing Sector had the highest increase (3%), followed by basic iron and steel, non-ferrous metal products, metal products and machinery. Petroleum, chemical products, rubber and plastic products Motor vehicles, parts and accessories and other transport equipment recorded decreases of 1% and 2%, respectively. Demand for food and beverages in the world is expected to increase by 30% to 65% between 2020 and 2050 (FAO, 2022). This is due to the exponentially increasing population and climate change threatening food stability (FAO, 2022). The demand for food presents an opportunity for growth and expansion of the food value chain sectors in South Africa (NAMC, 2022).

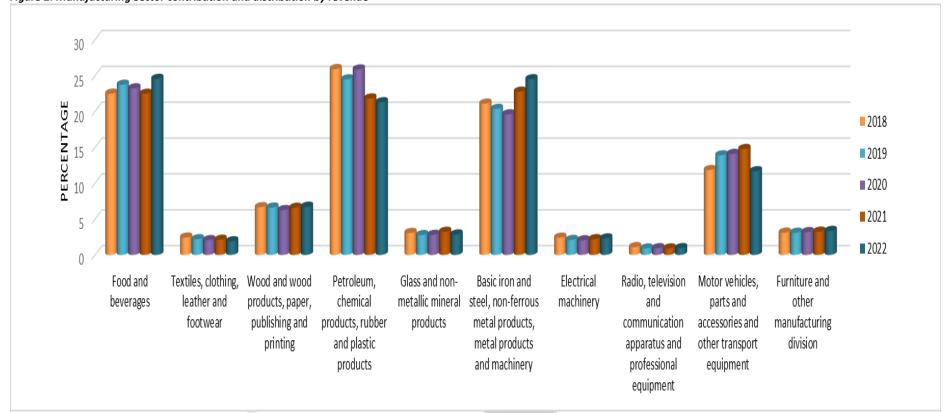


Figure 2: Manufacturing Sector contribution and distribution by revenue

Source: (Quantec, 2023)

# FoodBev SETA

#### 1.4.3. FACTORS INFLUENCING THE ECONOMIC PERFORMANCE OF THE SECTOR

Manufacturing food and beverages involves a variety of global and local inputs, comprising raw/intermediate materials, machinery, and knowledge. The industry is therefore vulnerable to local and international shocks. The discussion of these events is provided below.

#### **Russia-Ukraine Conflict**

South Africa's food industry is indirectly affected by the ongoing conflict between Russia and Ukraine (Hatab, 2022). This is due to the inherently physical, economic, natural, and institutional aspects of agricultural production and the food sectors. Food systems are particularly vulnerable to the effects of external factors, including geopolitical conflicts (Hatab, 2022; Mammadov, 2022). Global food supply chains have been affected by the conflict between Russia and Ukraine, from primary producers to processors and retailers. Considering that Russia and Ukraine export the world's wheat (27%), maize (14%), sunflower oil (53%), the prices of the former have increased significantly since Russia invaded Ukraine (NAMC, 2022b).

The FoodBev SETA conducted a research study to examine the effect of the Russia-Ukraine conflict on the South African and manufacturing sector. The study shows that the conflict has been a definite shock to the sector. However, the sector is resilient and will continue to navigate the ongoing effects of conflict. The sector can withstand and recover from disruptions in a way that ensures a sufficient supply of acceptable and accessible food for all, as witnessed during the COVID-19 pandemic. The sector is moderately affected by the war despite minor supply-chain-related challenges caused by the suspension of exports or the introduction of export licenses for agricultural commodities in Russia and Ukraine.

Other research studies indicated that the war has disrupted supply chains, triggering unprecedented price hikes (Tasamba, 2022; Keith, 2022; Euromonitor International, 2022, FAO, 2022). Wheat prices increased by 60% in Africa, exacerbating the food shortage is the 2 million metric ton fertiliser deficit, which is expected to affect food production by about 20% (Tasamba, 2022). The South African Producer Price Index (PPI) released in March 2023, showed a 10.6% year-over-year decrease, as compared to 12.2% of February 2023 (Ceicdata, 2023). This growth is below the economists' monthly expected growth. The economists' expectations are an increase of at least 1.1% every month (Keith, 2022). War-related supply shocks and commodity price increases are expected to push global consumer price inflation towards 7.5% (Euromonitor International, 2022). Food and Agriculture Organization (FAO), (2022) states that in countries such as South Africa that are dependent on global markets for procuring staple cereals, cooking oils and fertilisers, the price shocks arising from the continuation of the Ukraine crisis will potentially have severe effects on food security and nutrition.

#### **Electricity supply (Load-shedding)**

The current load-shedding wave has been severe on South African economy growth as it affects most of the manufacturing companies (Sakeliga, 2022; Habanabakize and Dickason-Koekemoer, 2021). The manufacturing sector uses 46% of the power generated by Eskom for

production since most industrial machinery and equipment used by the manufacturing sector is powered by a direct current electricity supply (Dewa, van der Merwe and Matope, 2020). Constant electricity supply shortages negatively affect the refrigeration of food and beverage products, which maintains the quality of the products (USDA, 2023). Food quality and safety are at risk when refrigeration is interrupted. Many food and beverage manufacturers, particularly small ones, do not have a working cash flow to invest in backup generators. Due to shrinking profits, investing in alternative energy sources is a difficult challenge for many small companies (Dewa, van der Merwe and Matope, 2020). Small companies need to continue operating to stay in business despite the power crisis and this results in higher operational costs. Load-shedding remains a major risk that will likely see food prices in South Africa remaining higher for longer. It remains unknown how much the sector can continue to operate under these unfavourable conditions and remain profitable.

#### 1.4.4. **EXPORTS AND IMPORTS**

Research suggests that South Africa possesses a competitive advantage in the food and beverages sub-sectors (Sihlobo, 2023; UNCTAD, 2021). Figure 3 below shows that from 2017 to 2022, exports to Africa generated the largest global export revenue, ranging from 61% (highest in 2017) to 55% (lowest in 2020). Revenue from exports to Africa spiked to 60% in 2022, which may be due to the ease of doing business in Africa as compared to the rest of the world. The revenue from exports to Asia increased from 2017 to 2019, decreased in 2021 and increased in 2022. This decline may be due to the closing of borders in 2020 due to COVID-19 in 2020. Africa and Asia are projected to experience increases in population by 2050 (Fukase and Martin, 2020). Therefore, the demand for food in these regions will increase, thus creating an opportunity for the sector to expand into local and foreign markets. However, to achieve this, the sector must become more resilient and overcome shocks such as climate change, civil unrest, and load shedding.

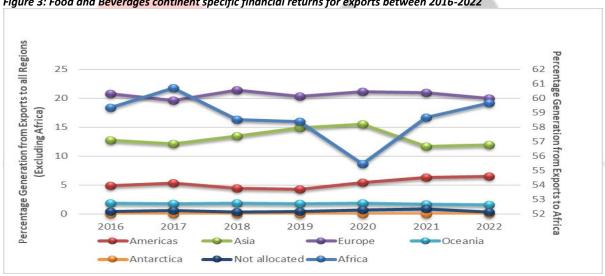


Figure 3: Food and Beverages continent specific financial returns for exports between 2016-2022

Source: (Quantec, 2023)

Imports were primarily underpinned by the demand for food ingredients for the manufacturing of food locally (Ntloedibe, 2021; Reddy and Woody, 2023). South African fruit juice manufacturers import grape and apple juice to blend with their fruit juices. South African

imports data from 2017 to 2022 indicate imports from Europe were the highest (30%-37%), followed by Asia (29%-34%) and the Americas (14%-19%). In 2022, The most imported products into the country were whiskies, poultry, palm oil, wheat and rice. These originated primarily from the European Union, Asia and America.

40 35 Percentage Distribution 30 25 20 15 10 5 0 2016 2017 2018 2019 2021 2022 Americas Asia Europe Oceania

Figure 4: South Africa's imports for the period 2017-2022

Source: (Quantec, 2023)

#### 1.4.5. OTHER ECONOMIC INDICATORS

The reported annual Consumer Price Index (CPI) increased from 6.5% in May 2022 to 7.1% in March 2023 (Statistics SA, 2023). Food and non-alcoholic beverages increased by 14% year-on-year and contributed 2.4% points to the total CPI annual rate of 7.1% (Statistics SA, 2023). Since more than 70% of South Africa's food is transported by road and the ongoing increases in petrol prices are having a severe impact on the food and beverage sector (Rall, 2019). The cost of fuel keeps increasing the price of food and lowering consumer disposable income. The impact of the weaker Rand on exports may not be realised due to the significant global supply chain (Russia-Ukraine war), as well as the local supply chain (energy crisis). The weaker rand is increasing priced import and domestic food prices.

Table 4: Performance of key economic indicators

Indicator	Indicat or Bearin	2022	2023	Comment
Consumer Price Index (CPI)		6.5% (May)	7.1% (March)	The food and non-alcoholic beverages and transport were the main contributors to the inflation rate in February 2023. The inflation is expected to increase further due to global and local factors, the Russia-Ukraine war, fuel prices and load-shedding.
Food Inflation	<b>1</b>	6% (April)	14% (March)	South Africa's economy is exposed to exchange rate fluctuations, affecting food prices. Food inflation prices have increased significantly due to the cost of food preparation, processing, transporting, and distributing food and beverages. The increased levels of load-shedding and the weaker rand have also contributed to food inflation.

Rand to the dollar	15.80 (May)	19,66 (May)	South Africa's economy is influenced by international trade, and fluctuations in the exchange rate can impact inflation. If the local currency weakens against other currencies, it can increase the cost of imported goods and contribute to higher inflation. The rand continues to be under pressure due to the weakening cycle and a potential economic downturn.
Supply chains	Selected constrain ed (URW)	Selected constraine d (URW and climate change)	As the company expands its operations or enters new markets, it often needs to increase its supply chain to meet the growing demand. Some of the reasons for selected constrained limiting supply chain are due to the high fuel price, the Russia-Ukraine war, and climate change.
Fuel Cost	21.63 (April)	22.25 (April)	Higher fuel prices have disrupted the food and beverage supply chain. Suppliers and manufacturers may face challenges in delivering goods and ingredients on time due to increased transportation costs. Fuel prices continue to increase and impact food pricing.
Interest rates	7.5%	7.75%	Global and local events such as load-shedding, weak rand and the Russia/Ukraine conflict are continuing to result in an upward trend for interest rates.

Source: SARS (2023b)

#### 1.5. EMPLOYER PROFILE

This section presents the number of registered employers in the sector and the sub-sectors, the company sizes, levy paying companies and the geographical locations of the companies. The section unpacks the data from two major sources of the WSP submissions (2020 and 2022) and DHET levy paying database for the 2022/23 financial year.

#### 1.5.1. DISTRIBUTION OF REGISTERED ENTITIES IN THE SECTOR

The food and beverage sector comprises of five chambers, each categorised into sub-sectors according to the Standard Industrial Classification of South Africa. According to employer data obtained from SARS, there is a total of 16 720 entities registered under the food and beverage sector. The SARS employer data indicate that the Food Preparation Products has the highest proportion of employers with 49. 6%, followed by Production, Processing and Preservation of Meat, Fish, Fruit, Vegetables, Oil, and Fats (28.7%) and Manufacture of Beverages (13.9%). Manufacture of Dairy Products and Manufacture of Breakfast Products have the lowest number of employers 7.0% and 0.8%, respectively. Although efforts were made to ensure data quality, including rigorous data cleaning and validation procedures, there may still be instances of missing or incomplete data.

#### 1.5.2. SKILLS DEVELOPMENT LEVY PAYING ENTITIES IN THE SECTOR

The companies are classified based on size: small companies have less than 50 employees; medium sized companies have between 50 and 149 employees and large companies have greater than 150 employees (SARS, 2021). Small companies comprise 87.3% of the sector, followed by medium companies at 7.2 % and large companies at 5.5%. All companies with an annual payroll of R500 000 and above are required to pay skills development levy (SDL). According to SARS employer data (2023), out of 16 720 registered entities, only 4 188 entities

contributed to the SDL to the SETA in 2022. The number of levy-paying companies reduced from 4 410 in 2021 to 4 188 in 2022. The reduction in employment decreases the levy contributions. The levy paying trend as been declining in the previous three years (3) as shown in the table below (Table 5). The decline in levy payers may be attributed to COVID-19 since 2020 and the current energy crisis in the country which results in the closing of some companies.

Table 5: Levy trends payers from 2020 to 2022

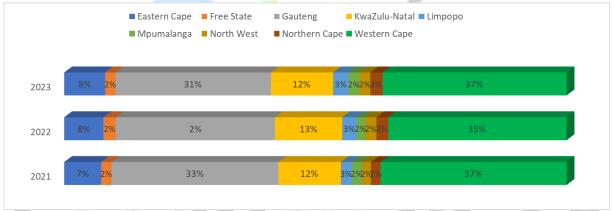
Year	Number registered	of	employers	levy-paying companies
2020	16 886			4 285
2021	16 887			4 410
2022	16 720			4 188

Source: (FoodBev SETA SARS employer data, 2020, 2021 & 2022)

#### 1.5.1. GEOGRAPHICAL REPRESENTATION OF EMPLOYERS

The provincial distribution of employers is skewed towards the country's economic hubs, mainly in Western Cape (37%), Gauteng (31%), and KZN (12%) in 2023. Figure 5 illustrates a consistent percentage distribution over the last three years. There have been no significant changes in the distribution of companies across the provinces because of the nature of the manufacturing sector.

Figure 5: Percentage Distribution of employers per chamber per province



Source: (FoodBev SETA WSP,2021,2022, 2023)

#### 1.6. LABOUR MARKET PROFILE OF THE SECTOR

There has been a steady decrease in the total number of employees in the sector over the past three years. The sector's employment increased from 2021 to 190 144 from 179 239 in 2020. However, it decreased to 186 685 in 2023. The decline in employment is mainly attributed to the current electricity crisis in the country and automation. Companies have declined production, thus closing down and retrenching employees.

#### 1.6.1. EMPLOYMENT BREAKDOWN BY SUB SECTOR

The employment breakdown for each chamber is derived from 2023 WSP submissions. An analysis of the WSP-ATR data illustrates that most of the highly skilled (NQF Level 6-10) employees within the sector are concentrated in large companies. Overall, the number of people employed in the sector decreased to 186 685 in 2023 from 188 896 in 2022, a decline of 1.17 %<sup>2</sup>. Figure 6 below renders the number of companies/chambers/company size and the number of people/chambers/company size for 2023. The Food Preparation Products Chamber employs the greatest number of people at 83 515, followed by the Production, Processing and Preservation of Meat, Fish, Fruit, Vegetables, Oils and Fats Chamber with 51 376 employees. The Manufacture of Breakfast Products Chamber has the lowest number of employees at 456.

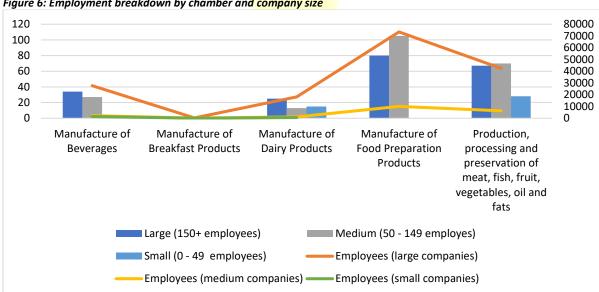


Figure 6: Employment breakdown by chamber and company size

Source: (FoodBev SETA WSP, 2023)

#### 1.6.2. EMPLOYMENT BY GENDER AND OCCUPATIONAL GROUPS

The gender breakdown of employment in the sector based on a comparative analysis of 2021,2022 to 2023 WSP submissions shows that while employment has been on a decline since 2021, there has been increases for the elementary category and females in the professional category.

<sup>&</sup>lt;sup>2</sup> These are the number of people employed by employers submitting WSPs.

Male Female Male Male Female Female ■ TECHNICIANS AND ASSOCIATE PROFESSIONALS ■ SKILLED AGRICULTURAL, FORESTRY, FISHERY, CRAFT AND RELATED TRADES WORKERS ■ SERVICE AND SALES WORKERS ■ PROFESSIONALS PLANT AND MACHINE OPERATORS AND **ASSEMBLERS ■ MANAGERS** ■ ELEMENTARY OCCUPATIONS ■ CLERICAL SUPPORT WORKERS 

Table 6: Gender Represent per occupational major group from 2021 to 2023

Source: (FoodBev SETA WSP,2021,2022, 2023)

Table 6 illustrates that the sector remains male (59%) dominated. The female presence in the sector has not significantly changed over the last two years, emphasising that further interventions are required in support of females entering the sector. Out of the eight occupational categories, only one has demonstrated considerable growth for females. The elementary category is the only occupation that experiences growth for females, having an 8.6% increase (2023) in comparison to 2021. Most of the employment numbers across the occupational categories have declined. However, employment numbers for elementary occupations; and plant and machine operators and assemblers' employment numbers have been increasing since 2021. There is an opportunity to increase female representation in the managerial and professional occupational categories.

#### 1.6.3. EMPLOYMENT BY AGE

Figure 7 illustrates that the age group 35-55 has the highest number of employees followed by the less than 35 years age group, and lastly the greater than 55 years. The 35-55 age group representation increased to 51% in 2023 from 49% in 2021, while the less than 35 age group decreased to 40% in 2023 from 44% in 2021. The older than 55-year age group representations are consistent at approximately 7% across the 2021 to 2023 period. Consequently, there is a pipeline within the 35-55 years age category to replace those approaching retirement in the sector.

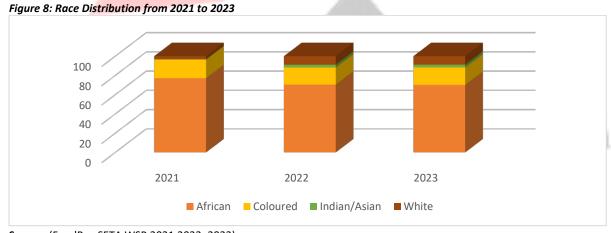


Figure 7: Age Groups by major group from 2021 to 2023

Source: (FoodBev SETA WSP,2021,2022, 2023)

#### 1.6.4. EMPLOYMENT BY RACE

An analysis of the 2021 to 2023 WSPs indicate that the largest racial group employed in the Food and Beverages Manufacturing Sector are Africans, representing 70% of the sector in 2023, which is a decrease of 7% from 2021 (77%) as shown in the figure below. All other race groups have stagnated, with Coloureds at 18%, Indian/Asian at 3%, and whites at 9%. Africans are predominant in all categories except Managerial, where whites are more prevalent at 45% (2022) and 41% (2023). The number of African managers has increased from 4 683 in 2021 to 5 123 in 2022, while the number of white managers has increased from 1 318 in 2017 to 5 692 in 2023. The professional category demonstrates the most significant growth across the year 2017 – 2022.



**Source:** (FoodBev SETA WSP,2021,2022, 2023)

An analysis of African males and females indicates steady representation in all major occupational categories from 2021. The figure below illustrates the comparisons of the 2023 data. There has been an improved African female representation in the professionals (26%) and managerial (17%) categories in 2021 compared to 23 and 13%, respectively. with African female representation increasing by 16% in comparison to 2022, whilst African males

increased by 8%. Based on the analysis, more initiatives need to be focused on the managers, professionals and technicians and associate professionals' categories for African females. The sector still needs to continue its effort of upskilling Africans through different training initiatives, which will in turn address the transformation challenges within the sector.

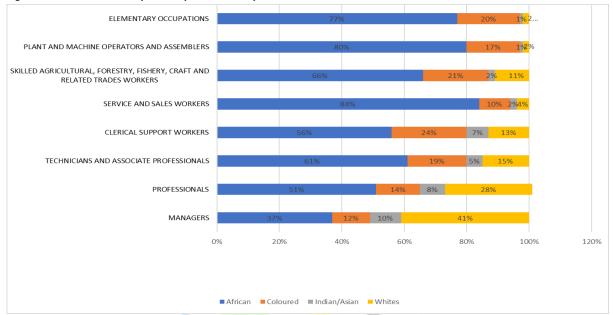


Figure 9: Race Distribution per Occupational Group

Source: FoodBev SETA WSP, 2023

#### 1.6.5. EMPLOYMENT BY DISABILITY

The representation of employees living with disabilities varied between 0.61% of total employment in the sector in 2021 to 0.71% in 2023 (Table 7). This falls far short of the 4% target set by the government. The elementary occupation has the highest number of employees with disabilities. Clerical support workers and elementary occupations had the highest number of disabilities over the last few years. The professional group presents an opportunity to increase the representation of people with disabilities. The FoodBev SETA must continue to target and fund projects that are aimed at increasing the number of people with disabilities in the sector towards achieving its target.



Source: (FoodBev SETA WSP, 2021, 2022 & 2023)

#### 1.6.6. EMPLOYEE PROFILE BY PROVINCE

Most provinces' employment has remained relatively steady since 2021. Western Cape experienced a significant increase of 5% between 2021 and 2023 (figure 10). The employee numbers in the Western Caper have been on a significant rise. Gauteng and KwaZulu Natal have remained consistent in the mid-30 and 15 percentiles. Northern Cape, Mpumalanga, Free State provinces have consistently recorded low employment numbers over the three-year period.

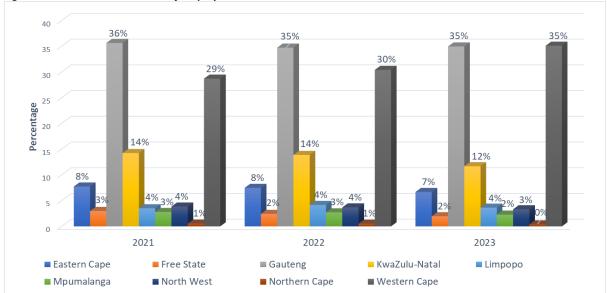


Figure 10: Provincial Distribution of Employees

Source: (FoodBev SETA WSP, 2021, 2022 and 2023)

#### 1.7. CONCLUSION

The chapter presented the economic performance, labour market and employer profile of the sector. Although the sector managed to produce an impressive trade surplus, it experienced a significant reduction in production activity. The Russian-Ukraine conflict and the energy crises have hampered the sector's economic performance. Employment in the sector has been declining. The employment breakdown of the sector by occupations illustrates the predominance of elementary occupations. In the racial profile of the sector, Africans constituted the majority of employees in the elementary occupations category at 77% a decrease of 4% from 2021 with whites at 2%, an increase from 2021. Africans encompassed 37% of employees in the managerial occupation compared to 41% of Whites. African, Coloured, and Asian employees are least represented in the managerial occupational category relative to whites. Regarding gender, males occupied 59% of managerial positions in 2023, a decrease from 68% in 2021. Whilst there has been a marginal improvement in female representation, they are still underrepresented. The disability figure of 0.71% for the sector falls woefully short of the 4% employment target set by the government.

This chapter addressed the sector profile in terms of the key role players, economic and labour performance, the next chapter sets to highlight the sector's change drivers, skills implications to the change drivers as well as the policy frameworks affecting skills demand and supply.



FoodBev SETA Sector Skills Plan Financial Year 2024/2025

### **CHAPTER TWO: KEY SKILLS CHANGE DRIVERS**

#### **CHAPTER TWO: KEY SKILLS CHANGE DRIVERS**

#### 2.1. INTRODUCTION

The main purpose of this chapter is to identify key factors influencing and driving change in the food and beverages manufacturing sector and their implications on skills demand and supply. The drivers of change include technology, population growth and urbanisation, climate change, energy crisis and food safety and nutrition. The identification of the change drivers is based on a comprehensive review of published and unpublished latest literature, research reports on the sector and virtual focus group discussions and interviews with industry representatives. The chapter also provides analysis and implications of policy frameworks that affect skills demand and supply in the sector.

#### 2.2. FACTORS AFFECTING SKILLS DEMAND AND SUPPLY

Research studies conducted by FoodBev SETA have revealed that there are emerging change drivers that may affect skills demand and supply in future. The food and beverages manufacturing sector is currently undergoing rapid change driven by a combination of factors such as food safety and nutrition, technological advancements, population growth, climate change and the energy crisis. These factors and other factors such as changes in consumer behaviour are influencing the development of education and training systems. Furthermore, the Atlas of Emerging Jobs (2023) research conducted by the BRICS Business Council Skills Development Working Group (SDWG) and FoodBev SETA indicated that the sector is taking a new direction and the world of work will evolve in the coming years requiring new skills and occupations.

#### 2.3. CHANGE DRIVERS

The landscape of the supply and demand of skills in the sector continues to be influenced by various long-term drivers which directly impact skills planning initiatives. Below are the top five (5) major change drivers in the food and beverages manufacturing sector.

#### **Food Safety and Nutrition**

Food safety and nutrition emerged as a change driver in the food and beverage sector as the growing consumer demand for safer and healthier food options has compelled companies to prioritise these aspects throughout their operations (Hofman *et al.*, 2021; Jessen *et al.*, 2022). The relevance of food safety and nutrition from the literature review was confirmed in the interviews, which indicated it as a main driver of change, often affecting the sector at large. The increasing demand for healthier food, nutritious and safe food is growing worldwide. The information collected from interviews with key stakeholders and employers revealed that access to a sufficient amount of safe and nutritious food is key for the growth of the sector. Today, organic food has become a need to protect the health of most consumers. Research has shown that the demand for healthy food continues to rise in popularity as the contributions of sugar, salt, and fat lead to nutritional-related problems such as obesity, hypertension, and stroke (Hofman *et al.*, 2021; Jessen *et al.*, 2022). Moreover, consumers' diets are slowly shifting to fewer animal-

based food products to plant-based alternatives (Alcorta *et al.*, 2021). Literature has further shown that a growing number of manufacturers now have a selection of low calorie, low fat as well as gluten, allergen and sugar-free options(Azanedo *et al.*, 2020). Companies interviewed agreed that these shifts in consumer preferences have compelled companies to re-evaluate their practices and prioritise food safety and nutrition globally.

Furthermore, the rise in foodborne illnesses and outbreaks has resulted in consumers becoming more vigilant about the safety of the products they consume (Nyawo *et al.*, 2021). Government regulations and policies also play a significant role in driving change in the food and beverage sector. The focus by public health authorities is increasingly enhancing food safety standards and promoting nutrition (FAO, 2022). The public health authorities are implementing strict regulations on labelling, ingredient transparency, and nutritional information. According to employers interviewed, these measures ensure that consumers have access to accurate and reliable information about the products they purchase, enabling them to make informed decisions about their dietary choices. Consequently, food companies are under pressure to implement robust safety measures throughout the supply chain, from sourcing ingredients to production, storage, and distribution (FAO, 2022). According to Lin *et al.* (2021), implementation of new technologies, such as blockchain, Internet of Things (IoT), and radio-frequency identification (RFID), can strengthen traceability programmes in the sector and lead to better transparency and value across the food and beverage supply chains.

#### **Technological Advancements**

Technological advancement is considered the other factor that will most affect food and beverages manufacturing companies. Interviews with stakeholders from the sector revealed that technological advancements continue to reshape the landscape of food production, processing and distribution. Consistent with literature which revealed that food and beverages manufacturers are using technology to develop new products, improve quality control and make supply chains sustainable (Vögler and Carvalho, 2021), stakeholders pointed out that technology has revolutionized food processing leading to increased efficiently, improved safety and reduced labour costs. Moreover, stakeholders revealed that, with technology, companies can track and monitor their environmental impact and makes changes to their carbon footprint. According to interviews, some key technological advancements in the food and beverages sector include automation, robotics, internet of things (IoT) and sensors, artificial intelligence, machine learning and 3D printing. Thus, technological shifts in the sector are occurring in line with the shifts in Industry 4.0 (4IR). As technology continues to develop, the sector is likely to see even more improvement in years to come. However, implementing advanced technology systems is also capital intensive, especially for small companies. The impact of technology on the labour market is also something not to be ignored. While Industry 4.0 has reduced production costs, it has failed to consider the human cost (Maddikunta et al., 2022). New technologies are disrupting the balance between job responsibilities completed by humans and those completed by machines and algorithms as they are resulting in lower personnel deployment through the use of more skilled people (World Economic Forum, 2023). Technology usage therefore requires both investment in capital goods and attention to training. Within the near future, the sector can expect to see a reduction in the number of full-time staff as some job roles will be phased out. The clear implication is that total employment in companies will decline overtime. Food and beverages manufacturers need to be alert to the changing environment and adapt their workforce planning and development strategies to ensure alignment with future skill requirements.

#### **Population growth and Urbanisation**

Research indicates that demand for food products is expected to increase significantly over the coming decades as the population grows and cities expand. The world population is expected to reach 9.7 billion people by 2050 and 60% of the population is expected to be in Asia (FAO, 2022). On one hand, the South African population is projected to reach 66 million in 2030 and increase further to 76 million in 2050 (United Nations, 2022). Currently over half of the world's population live in cities, and by 2050, twothirds of the world population are expected to live in urban areas (OECD, AfDB and UNECA, 2022). Companies pointed out that the expansion in population and rapid urbanisation will have an indelible impact on the food supply chain. These factors are anticipated to drive the development of South Africa's food market. Consumer behaviours towards food are also changing as the global population expands and more people move into urban areas. Stakeholders further agreed that the local and global demand for food will increase significantly presenting new opportunities for markets and exports, especially in Africa and Asia where an increase in population will be significant. In the face of a rising population and an increasing demand for food, a significant increase in production and productivity will be crucial to meet the ever-increasing population which leads to the high demand for food products (FAO, 2022). Due to the greater demand for food, development of research and technology will be at the forefront. It will also be imperative for companies to have the ability to do business overseas, in particular Asia to take advantage of the growing population. Lastly, the sector will need to develop strategies to reduce food waste and loss as it strives to feed the ever-increasing population.

#### **Climate Change**

Increasing temperatures, changing precipitation patterns and greater frequency of extreme events impact the production capabilities of the food and beverages manufacturing sector to produce enough nutritious food to feed the rising population (Teressa, 2021; McCann et al., 2023). Companies are exposed to a range of direct and indirect risks that have the potential to disrupt quality, demand, business continuity and ultimately profit. High frequency and intensity of precipitation due to climate change adversely affect food availability, including food chain activities from production to process, storage, distribution, and trade (McCann et al., 2023). One of the key characteristics in terms of climate risk in South Africa is that both heatwaves and floods occur during the growing season making the sector even more vulnerable. Constant exposure to climate change is likely to result in greater volatility of domestic food prices (Ogundeji, 2022) unless South Africa adapts to the changes. The high sensitivity of food security in the country requires a set of targeted interventions to enhance climate risk management, including flood risk management, enhancement of early warning systems and monitoring capacities (Raj et al., 2022). Focus group discussions and interviews with industry stakeholders revealed that climate change is likely to contribute substantially to food insecurity in the future, by increasing food prices and reducing food production.

Food systems are among the biggest emitters of greenhouse gasses – accounting for a third of total greenhouse – while simultaneously being harmed by climate change itself (Wijerathna-Yapa and Pathirana, 2022). This means that the sector needs to play a substantial role in mitigating and adapting to climate change. However, stakeholders reported that food may become even more expensive as climate change mitigation efforts increase energy. Energy efficiency is becoming increasingly important in South Africa (Hunt and Kipouros, 2023). Thus, a balance is needed to ensure food security and adaptation to climate change. Some companies are striving to improve energy efficiency by introducing technologies and optimising processing steps along value chains to reduce global warming.

#### **Energy Crisis**

South Africa is currently facing an energy crisis (Kamanzi, 2021) which affected businesses, thus, leading to an unstable economy of the country. The country has been facing an electricity supply deficit since 2007 due to a combination of factors including, but not limited to, insufficient investment in new generation capacity, ageing coal-fired power plants, and rising electricity demand (DMRE, 2021). These factors have resulted in a period of severe electricity shortage leading to frequent and prolonged power outages (load-shedding). The energy crisis in South Africa has had a significant impact on the food and beverage sector (USDA, 2023). The sector is highly reliant on electricity for production, storage, and distribution of products, as well as for the operation of machinery. The power cuts and high fuel prices have caused significant disruptions to the sector, resulting in production delays, spoilage, and losses due to the wastage of food and beverages produce (Averda, 2023).

Companies have argued that processing, packaging and food storage consumes substantial energy. The impact of energy crisis, particularly loadshedding, has been severe on small companies. Small food and beverage companies have suffered financial losses. As a result, interviewees revealed that food manufacturers have been forced to invest in alternative energy supply sources in the form of fuel (diesel and petrol) powered generators and renewable energy sources, such as solar or wind power to weather the crisis. Investment in renewable energy mitigating measure have equipped large manufacturers to cope with the crisis. However, the alternative fuel-powered sources are also significantly affected by severe fuel price increases that is attributed to the ongoing Ukraine and Russia conflict. The result of this has been higher costs for manufacturers, in most circumstances forcing them to pass these costs along to consumers, thus making food more expensive and less accessible. With loadshedding expected to persist indefinitely, accessing a predictable source of power is imperative to business continuity, especially for small businesses which comprise the largest segment of the sector.

One of the potent reforms that the government of South Africa has embarked on to alleviate the energy crisis is to allow private entities to generate electricity. During the State of National Address 2023, the president of South Africa indicated that the government and municipalities now permits additional sales curtailment for certain market segment private companies to supply local communities with electricity. According to SONA (2023), South Africa has more than a hundred (100) private entities which are expected to provide over 9 000 Mega Warts of new generation capacity to boost the current electricity that is produced by ESKOM. The government of South Africa is also investing in a diverse energy sources including solar, wind, green gas, and hydrogen power (SONA,2023). This is part of

implementing the Green Economy Strategy and Implementation Plan (GESIP, 2016) and the Paris Climate Agreement of 2015 for countries to transition from fossil fuel to environmentally friendly energy sources.

#### 2.4. IMPLICATIONS OF CHANGE DRIVERS ON SKILLS DEVELOPMENT IN THE FOOD AND **BEVERAGES MANUFACTURING SECTOR**

The table below provides a summary of the implications of key change drivers on skills planning in the sector.

#### Table 8: Implications of change drivers on skills planning **Implications for Skills Planning Change Driver** Impact on business/sector Safety Businesses have shifted in responding Skills play a crucial role in ensuring food safety and Nutrition to the consumer demand towards and promoting proper nutritional practices: safer, healthier and more nutritional Skills related to food safety regulations and products. nutritional standards are essential for food and This has led to an increased focus on beverages manufacturers to understand and the nutritional content of food comply with local and international food safety regulations and standards. This is to ensures reformulating products to reduce compliance with guidelines, reduces the risk of levels of fats, sugar and sodium, as foodborne illnesses, and ensures the safe handling, well as introducing healthier and safer preparation, and storage of food. These skills include Hygiene practice, Allergen Food safety and nutrition is a major management, Hazard Analysis and Critical Control concern in the food and beverages Points (HACCP), Food labeling and nutrition industry as companies have to knowledge, Safe food handling and storage, communication and education, Problem-solving conform to international standards. and decision-making. The most significant impacts of food There will be a high demand for design and creative safety issues are financial losses, skills for the adaptation and development of new reputational damage, and consumer products and services to meet consumer distrust. preferences. When food safety issues arise, The industry is expected to experience an companies may need to recall increased demand for occupations such as Food products, which can be costly. Scientists. Food Technologists, Manufacturing Cybersecurity, Regulatory Libelling Specialist, Food Safety, Nutritionists and Hygiene Specialists with strong system and critical thinking to ensure improved food safety operations and **Technological** Technological advancements have The skills needed to master the interface with new Advancement and enabled food technologies will also affect the role of more beverage companies to produce food more traditional jobs in the sector. efficiently, quickly, cost-Advances in technology is stimulating the need for effectively. data analysts and scientists, Artificial Intelligence The development of automated and machine learning specialists and process manufacturing processes for faster automation specialists. and more precise production of food The near-future workforce is expected to have and beverages. This has enabled more accentuated social, emotional, higher companies to produce a greater cognitive and technological skills. Tasks will require variety of products in a shorter numeracy, solid literacy, problem-solving, and amount of time. information and communication technologies (ICT) Technological advancements have skills as well as soft skills of autonomy, also enabled food and beverage collaboration, and coordination

companies

to

packaging and labelling techniques.

use

innovative

Skills such as decision making, critical thinking and

independent problem solving will be considered

 Technological advancements enable food and beverage companies to use big data and analytics to gain insights into consumer behaviours.

- crucial especially in reviewed technical profiles, such as production operators and control technicians
- Rapidly increase the acquisition of critical digital economy skills through workforce development, upskilling, and reskilling. In this, the reinforcement of work-based learning practices and internships is key.
- Sustained effort is required to increase technological skills supply in the sector through further education and professional development.

#### Population Growth and Urbanisation

- Population growth and urbanisation exert pressure on food systems. As urban areas expand, farming land is often converted for urban development, leading to a reduction in available production land. This can result in higher competition for raw materials, potentially affecting food production and increasing food costs.
- The food and beverage sector responds to population growth and urbanisation by adopting technological advancements. Automation, precision for food production and processing, increase production efficiency.
- Additionally, advancements in packaging and preservation techniques of food and beverage help extend the shelf life of products and enable better distribution to urban

- The sector's workforce requires skills to manage change and ideal adoption approach to global trends. Investment in innovation, research and development, new product development, market development and market access are required to deal with global trends such as changes in population size and urbanisation.
- Urbanisation often leads to increased demand for processed and packaged foods. Skilled workers are required to operate and manage food processing plants, ensuring proper food safety standards, quality control, and adherence to regulations. Proficiency in food technology, food science, and food engineering becomes essential for these roles.

#### Climate Change

- Business can be affected by the changes in temperature, precipitation patterns, and extreme weather events like droughts, floods, and storms can disrupt growing seasons, reduce crop yields, and damage crops.
- Climate-related disruptions in the food and beverage sector can affect the entire food supply chain. Changes in water and crop availability can disrupt the sourcing of ingredients, leading to supply chain bottlenecks and increased costs. This can particularly impact businesses that rely on seasonal or region-specific ingredients.
- The food and beverage sector, businesses can adopt sustainable practices, invest in resilient infrastructure, diversify sourcing strategies, promote energy efficiency,

- The impact of climate change will inevitably change the skills required and the tasks involved in many of the existing occupations.
- A proactive approach is needed for the development of new skills for greening the economy, sustainable development planning and managing risk.
- Expertise required in fields of research and development, material science engineering and packaging technology to deal with issues related to climate change.
- Environmental Engineers, Renewable Energy Scientists, Manufacturing and Packaging Managers will be highly sought after. In this regard, the SETA needs to increase its bursary uptake for graduates.

	and develop climate-resilient crop varieties.	
Energy Crisis	<ul> <li>One of the main impacts of the energy crisis on the food and beverage sector is increased production costs.</li> <li>Manufactures have to invest in backup generators and other forms of alternative energy to ensure that production continue during power outages.</li> <li>The energy crisis has also led to supply chain disruptions, as food and beverage manufacturers have struggled to maintain consistent production schedules and meet customer demands.</li> <li>On the other side, food and beverage manufactures use back-up generator as alternative energy source. However, high fuel price is affecting cost of production.</li> <li>Furthermore, fuel is an essential input for transportation and logistics in the supply chain of food and beverage products, thus, any increase in fuel prices can increase the costs of transporting raw materials and finished products.</li> </ul>	<ul> <li>Energy crisis in the Food and Beverage Manufacturing Sector has significant skills implications. Therefore, the sector's workforce requires skills to manage change and ideal adoption approach energy crisis in the country.</li> <li>Provide employees with information and training on energy conservation</li> <li>To mitigate the impact of energy crisis, the sector may need to invest in developing skills related to energy efficiency, renewable energy, maintenance and repair of alternative energy source, supply chain management and innovation to ensure sustainability of their business.</li> </ul>

#### 2.5. POLICY FRAMEWORKS AFFECTING SKILLS DEMAND AND SUPPLY

This section is on the alignment of sector skills planning to frameworks affecting skills demand and supply in the sector. The table below identifies the relevant national priorities and its implications on the provision of skills in the sector.

Table 9: Policy frameworks affecting skills demand and supply

Policy Frameworks	Relevance	Policy Implications on skills planning
National Development Plan (NDP)	Targeting the creation of 11 million jobs by 2030. In pursuance of this target, the NDP has identified sectors that possess high potential for economic and job growth. The Agro-processing sector has been acknowledged as a sector with immense job creation potential.	Focus on economic growth and job creation in the industry, especially in the Agro-processing and Aquaculture industries. Critical skills needed in the sector are artisans, safety controllers, operations managers, and laboratory assistants. SETA funds learnerships, workplace placements and internships.
National Skills Development Plan (NSDP)	To improve access to occupations in high demand and priority skills aligned to supporting economic growth, employment creation and social development whilst also seeking to address systemic considerations.	Focus on training intermediate skills (artisans, technical skills) to support the country's socio-economic development goals. Provide mentorship programme for small businesses. FoodBev SETA supports TVET and CET Colleges across the country for capacitation and accreditation.
Economic Reconstruction and Recovery Plan Skills Strategy	The skills strategy has been designed to ensure the availability of skills required to support the	FoodBev SETA supports the provisioning of skills programmes (accredited and non-accredited) which respond to the skills gaps identified in the strategy.

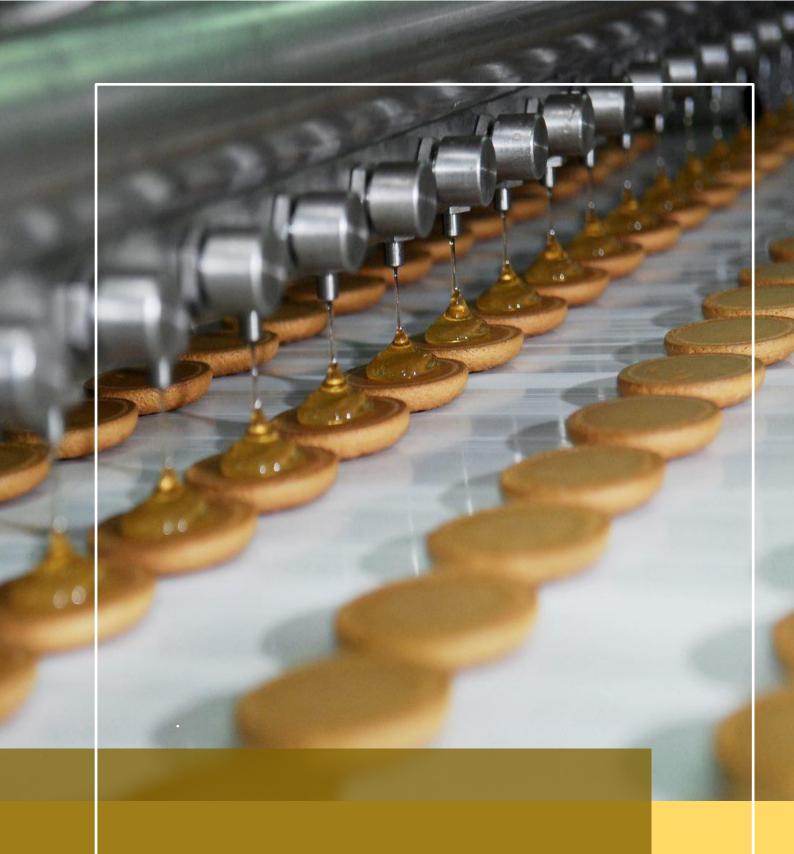
Agriculture and Agro- Processing Master Plan (AAMP)	implementation of the ERRP. It recognises that the priority interventions set out in the ERRP require skills and that if these skills are not available, then these interventions will fail.  The plan aims to promote transformation in the agroprocessing sector. AAMP	FoodBev SETAs is also prioritising its funds to support TVET Colleges, universities and Community Education and Training Colleges (CETCs) that may seek to expand enrolment in targeted programmes or that may require funds for infrastructure (especially workshops), equipment and lecturer development.  Achieve transformation by addressing skills imbalances. FoodBev SETA collaborate with institutions of higher learning to train small by singers as in the area of technology.
	enhances competitiveness and entrepreneurial opportunities through technological innovations and digitalisation.	businesses in the area of technology.
Medium Term Strategic Framework (MTSF) 2019- 2024	The MTSF 2019-2024 ensures unified and consistent policies across government in addressing the challenges of unemployment, inequality, and poverty	The FoodBev SETA responds and contributes towards Priority 3. The SETA enters into strategic partnerships in the area of post-school education and training to increase the uptake of learners.
Protection of Personal Information Act (often called the POPI Act or POPI Act)	The Act aims to improve the management of personal information including but not limited to; company details, learner personal information and other stakeholder information handled by the SETA.	The FoodBev SETA uses stakeholder personal information for various administrative and skills planning requirements under the guidance of the Protection of Personal Information (POPI) Act No 4 of 2013.
Human Resources Development Strategy for South Africa 2010-2030 (HRDS-SA)	To accelerate training in the priority areas including artisanship. HRDS leverages public/private sector programmes to create employment opportunities/work experience for new entrants into the labour market, helps in improving coverage/efficacy of vocational guidance	Focus on TVET collaboration, artisan development, internships and bursary provision aimed at creating a pool of HET graduates in the Food and Beverages Manufacturing Sector. Initiate career and pathway guidance projects to raise the attractiveness of the sector
Presidential Youth Employment Intervention (PYEI)	The initiative aims to grow the range of opportunities available young people in South Africa. It is designed to effectively transition the youth into the labour market, aiming to significantly reduce the high rate of youth unemployment in South Africa.	FoodBev SETA continues to focus on supporting the youth to gain work experience and linking them to jobs, and entrepreneurship and skills development opportunities in general.
White Paper on Post- School Education and Training	PSET is concerned with a post- school system that is inclusive and addresses poverty, inequity, and targets the unemployed youth.	To fast-track the production of the requisite skills to propel our economic growth. Expand partnerships with TVET Colleges focusing on projects aimed at increasing college-to-work transitions.
Industrial Policy Action Plan (IPAP)	To address the key challenges of economic and industrial growth and race-based poverty, inequality, and unemployment.	Skills shortages within the Agro-processing sector; millers, repair and maintenance technicians, food and safety controllers and grain quality graders. Increase learnerships, apprenticeships, internships and bursaries in the food and beverages sector.
National Skills Accord	Identifies eight commitments to make on training and skills development.	Increase Internship and placement opportunities available within workplaces. Expand partnerships with TVET Colleges.
Skills Development Act (SDA) No 97 of 1998	Increase the quality and quantity of artisans.	Facilitate the development of hard to fill artisan occupation skills in the FoodBev Manufacturing Sector.

#### 2.6. CONCLUSION

This chapter identified several factors, trends and major national plans currently driving and influencing skills demand and supply in the sector. The food safety and nutrition and technological advancement drivers will trigger the most significant changes. Consumers will continue to seek ways to improve their diets to manage their health. Food manufacturers will continue to adopt more technology to streamline their operations and boost output. The transformative role of the 4IR should be embraced for industry optimisation as it presents several potential benefits for the sector. This trend is likely to continue as technology becomes embedded in food and beverages manufacturing processes. Factors such as growing population and urbanisation are responsible for the high demand for food and drinks in society. Challenges such as conserving water, acquiring low-carbon energy sources, and reduction of greenhouse emissions are evident in the sector as a result of climate change.

After understanding the underlying factors that shape the sector's environment and driving significant transformations in terms of the key skills change drivers as well as the policy frameworks affecting skills demand and supply, chapter 3 aims at determining the occupational shortages and skills gaps in the Food and Beverages Manufacturing Sector.





FoodBev SETA Sector Skills Plan Financial Year 2024/2025

CHAPTER THREE: OCCUPATIONAL SHORTAGES AND SKILLS GAPS

## CHAPTER THREE: OCCUPATIONAL SHORTAGES AND SKILLS GAPS

#### 3.1. INTRODUCTION

This chapter covers the extent of occupational shortages, supply and demand of potential skills pool and the SETA's response to vacancies in the sector. Quantitative and qualitative research tools were employed in the collection of data. WSP/ATR's data (2017 to 2023), Discretionary Grant (DG) 2022/23 and qualitative collection tools were the primary sources of data. Additional data sources include Atlas of Emerging Jobs (2023), focus groups (2023), interviews (2023), FoodBev employer database (2022), SARS database and associations database (2022). The population for the focus groups and survey is the employer database of the SETA. The demand analysis was done using WSP/ATR data (2023) and triangulated with the literature review. Finally, the chapter identifies the Sectoral Priority Occupations and Interventions List SPOIL in response to the occupational demand of the sector.

#### 3.2. SECTORAL OCCUPATIONAL DEMAND

The approach taken to determine occupational shortages for the development of the Sectoral Priority Occupations Interventions List was conducted through multiple data gathering mechanisms. Literature reviews on occupational demands in similar sectors provided context for future and current skills demand. Secondly, WSP/ATRs (2023) were used to determine the Hard to Fill Vacancies (HTFV) and the reasons behind the vacancies. The process yields a top 10 HTFVs that is further analysed with the DG applications to determine the final SPOIL.

#### 3.2.1. SKILLS GAPS IN THE SECTOR

Over recent decades the changing nature of work has demonstrated that core skills should be complemented by additional role/level/company specific skills. Skills gaps refer to deficiencies in employees or lack of specific competencies by employees to undertake job tasks successfully to required industry standards. Data from previous WSP/ATRs (2022), focus groups and interviews were used to identify skills gaps at the three occupational levels of companies. The process seeks to identify the skills requirements for upskilling an employee aligned to current trends/skills needs. Table 10 shows the three major occupational groups and the skills gaps.

Table 10: Skills gaps in the sector

			a
	MAJOR OCCUPATIONAL GROUPS	OCCUPATIONS	SKILLS GAPS
	ELEMENTARY OCCUPATIONS	Food and Beverage Factory Worker	Literacy and numeracy Hygiene knowledge and food safety
LEVEL		Juice Extraction and Blending Process Machine Operator	Work readiness Leadership skills
LOWER	PLANT AND MACHINE OPERATORS AND ASSEMBLERS	Mechanical Trade Assistant	Computer Literacy Soft skills Technical Skills
MID		Butcher	Industry Knowledge

	SKILLED AGRICULTURAL, FORESTRY, FISHERY, CRAFT AND RELATED TRADES WORKERS	Electrician	Leadership skills Core technical skills Analytical skills		
	CLERICAL SUPPORT WORKERS	Production Coordinator	Computer literacy Generic management skills		
		General Clerk	Interpersonal Skills		
	SERVICE AND SALES WORKERS	Sales Assistant			
		Barista			
	TECHNICIANS AND ASSOCIATE PROFESSIONALS	Production / Operations Supervisor (Manufacturing)			
		Food Laboratory Analyst			
	PROFESSIONALS	Wine Maker	Customer relations management Generic management skills		
EVE		Food and Beverage Scientist	Strategic management skills		
SENIOR LEVEL	MANAGERS	Manufacturing Operations Manager	Problem solving Emotional intelligence Industry knowledge		
S		Engineering Manager	muustiy kilowleuge		

**Source:** (Food and Beverage SETA Focus group discussion and Interviews, 2023)

Most of the skills gaps detailed in Table 10 have been identified in previous WSP's/ATR's (2023). Most stakeholders identified leadership skills, industrial and technical knowledge as well as experience have been identified skills gaps from lower to senior level occupations. Even though the levels may be different, these skills gaps are important for effectively carrying out the tasks of the occupation. As operations become automated and digitalised, the key focus area of personnel is computer literacy and basic analysis of data; elementary workers would now need to be technical workers. At the mid-level, stakeholders agreed the skills gaps prevalent are primarily management, experience, technical and analytical skills. The recurrence of analytical skills highlights the data-centric nature of operations. Decisions are based on the analysis of data, which is now wide spanned and voluminous. The analytical skills at the technical level are vastly different to the elementary level. Collaborative programs that involve multiple employers in the sector, educational institutions, and other players such as unions could go a long way in comprehensively responding to the skills gaps of companies.

The below table highlights the ATLAS of Emerging Jobs in the Food and Beverages Sector which indicated that the following skills or jobs will be in demand in the near future:

Table 11: Emerging Jobs in the food and beverages manufa	icturing sector
Environmental Practitioner,	Food Waste Recycling Specialist,
Energy Catcher,	Blockchain Platform Architect for FoodBev,
<ul> <li>Water Manager,</li> </ul>	System Modernisation Engineer
<ul> <li>Digital Twin Ecosystem Architect,</li> </ul>	Robotic System Designer for Plants
<ul> <li>Digital Twin Ecosystem Manager,</li> </ul>	Climate Change Data Analyst
<ul> <li>Sustainable Packaging Technologist,</li> </ul>	Environmental Evangelist
<ul> <li>Supply Safety Consultant,</li> </ul>	Carbon Cost Accounting Manager
<ul> <li>Circular Economy Designer,</li> </ul>	Food Supply Sustainability Analyst
<ul> <li>Food Manufacturing Cyber Security Specialist,</li> </ul>	Food Biochemist
<ul> <li>Food Logistics Specialist,</li> </ul>	Al Systems Risk Analyst ESG Specialist

Source: (ATLAS of Emerging Jobs, 2023)

#### 3.2.2. HARD TO FILL VACANCIES & UNDERPINNING REASONS

An initial analysis of the WSP/ATR/PIVOTAL Plan was conducted for the first submission of the SSP. The vacancy analysis focused on the WSP/ATR Hard to Fill Vacancies in the sector. The vacancies were, firstly, selected according to the relevance to the sector. Secondly, the analysis focused on ranking HTFV by the number of companies that reported an occupation vacant. The table below focused on the top ten in demand by the sector. There was a total of 223 occupations (WSP 2023) with 2 945 actual vacancies. Out of the 223 occupations, 54 were relevant to the sector. The table below provides the HTFV based on the number of employers who reported specific vacancies.

Table 12: List of Hard-to-Fill Vacancies and reasons underpinning Hard-to-Fill Vacancies

OFO	Occupation	Specialisation	Reasons for Hard to Fill	Employer Frequency
2021-132102	Manufacturing Operations Manager	Plant Superintendent Planning Manager (Manufacturing) Operations Manager (Production) Processing Manager Processing Unit Manager Industrial Production Manager Works / Workshop Manager (Manufacturing) Plant Manager (Manufacturing) Distillery Manager	Lack of relevant experience, Unsuitable working hours, Equity considerations, aged staff, Unsuitable job location	31
2021-312201	Production / Operations Supervisor (Manufacturing)	Manufacturing Foreman Production Plant Supervisor Assembly Supervisor Beneficiation Plant Foreman Shift Manager (Production)	Lack of relevant qualifications, Lack of relevant experience, Equity considerations, Unsuitable job location	27
2021-684305	Quality Controller (Manufacturing)	Quality assurer Quality examiner Quality Inspector Quality auditor	Lack of relevant qualifications, Lack of relevant experience, Unsuitable working hours	27
2021-832904	Food and Beverage Factory Worker	Winery Worker Beer Brewer Line Attendant Baking Factory Worker Bread Room Hand Beer Production Worker Grain Dryer Attendant Biscuit Factory Hand Brewery Worker Valve Controller Perishable Produce Packhouse Worker Silo Worker Brewer Winery Cellar Hand	Lack of relevant experience, Lack of relevant qualifications, Equity considerations and Unsuitable job location	27
2021-671202	Millwright	Millwright (Electromechanician), Ground Electromechanician, Winder Technician, Electromechanician, Machine Tool Millwright	Lack of relevant experience, Lack of relevant, Unsuitable job location, Poor remuneration, Equity considerations	22
2021-681201	Confectionary Baker	Dough Maker Cake / Bread Baker	Lack of relevant experience, Lack of relevant, Unsuitable job	14

			location, Poor remuneration and Unsuitable working hours	
2021-132104 -	Engineering Manager	Engineering Maintenance Manager Bankable Feasibility Study Manager Mining Engineering Manager	Lack of relevant experience, Lack of relevant qualifications, Unsuitable job location, Equity considerations	13
2021-213205	Food and Beverage Scientist	Milling Nutritionist Protein Development Technologist Food Safety Standards Manager Food Sanitation and Safety Inspector Food Quality Consultant Food Technology Advisor Food Technologist Food Safety Standards Auditor Food and Drink Technologist Food Chemist / Engineer	Lack of relevant experience, Lack of relevant qualifications, Unsuitable job location, Equity considerations	13
2021-681103	Butcher	Sosati Maker, Smallgoods Maker, Sausage Maker, Processed Meat Maker, Biltong Maker	Lack of relevant qualifications, Lack of relevant experience, Unsuitable job location	11
2021-214401	Mechanical Engineer	Machine Design and Development Engineer Transportation Systems Engineer Industrial Machinery Engineer Automotive Engineer Fuel Cell Engineer Forensic Engineer Pressurised Vessels Engineer Piping Engineer Fluid Mechanics Engineer Structural Steel Engineer Mechatronics Engineer Heating and Ventilation Engineer Maintenance Management Engineer Rotational Plant Engineer Air-conditioning, Heating and Ventilation (including fire) Engineer Mechanical Engineer (Mines)	Lack of relevant experience, Lack of relevant qualifications, Equity considerations, Unsuitable job location, Unsuitable working hours, Poor remuneration, Others	10
		Thermodynamics Engineer Diesel Engineer		

The table reveals relevant experience and qualifications were the most prevalent reasons underlying the HTFV in the sector. Millwrights, Butchers as well as Food and Beverage Scientists vacancies were predominantly attributed to the lack of experience and qualifications. Poor remuneration and equity considerations were also cited as reasons undying vacancies. The list above forms the foundation of the SPOI list.

#### 3.3. EXTENT AND NATURE OF SUPPLY

The first point of skills sourcing for the Food and Beverages Manufacturing Sector is through the Adult Education and Training (AET) at levels 1-4 for both literacy and numeracy programmes. Level 4 of AET enables entrance to NQF level 1 Learnership Programme. However, some NQF level 1 qualifications do not require AET level 4 and are dependent on a pre-assessment exercise. Another source is the senior certificate (Grade 12), as it provides a

pipeline directly into the sector for people entering the labour market. Secondly, it provides a pathway for entering Science, Engineering and Technology (SET) and Commerce major subject fields at the tertiary level. The above-mentioned subjects are some of the required subjects for careers in the sector. The Food and Beverages Manufacturing SETA learning programmes are included to demonstrate the SETAs contribution to training in the sector.

#### 3.3.1. THROUGHPUT AT THE SCHOOL LEVEL

This section reviews the achievement of grade 12 students in Mathematics and Physical Science from 2019 to 2022. Mathematics and Physical Science are fundamentals in SET programmes which lead into technical occupations required in the sector. These subjects are essential for a technical workforce that is internationally competitive and sufficiently able to respond to technological advancements in the sector.

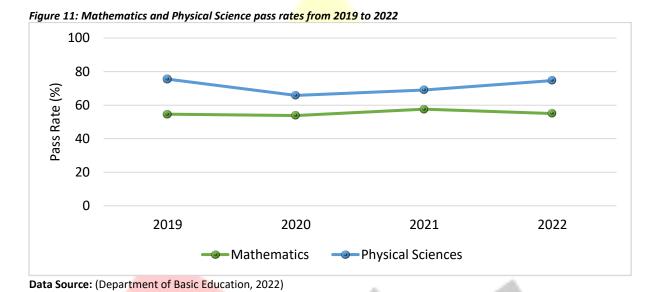


Figure 11 illustrates the pass rate for mathematics and physical science from 2019 to 2022. The pass rates in both mathematics and physical science have been erratic between 2017 and 2021. The highest pass rates over the years have been 57.6% in 2021 and 75.5% in 2019 for mathematics and physical science, respectively. The pass rate of mathematics decreased from 57.6% in 2021 to 55% in 2022, which is a 2.6% decrease. On the other hand, Physical sciences pass rate increased from 69% in 2021 to 74.6% in 2022. These pass rates must be understood against the backdrop COVID-19 pandemic in 2020, which negatively affected the performance of students in that year. This is evidenced by the physical science pass rate which decreased by 9% in 2020 from 75.5% in 2019. A good pass rate in both subjects is crucial for learners entering the Science, Engineering and Technology (SET) and their subsequent success in related qualifications.

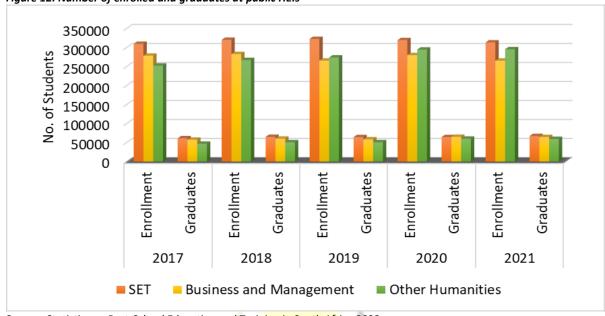


Figure 12: Number of enrolled and graduates at public HEIs

**Source:** Statistics on Post-School Education and Training in South Africa: 2022

Figure 12 illustrates the enrolment and graduate numbers from 2017 to 2021 for SET, Business and Management and Other Humanities programmes at public Higher Education Institutions (HEIs). Business Management and Other Humanities are presented as they also provide vital skills to the Food and Beverages Manufacturing Sector. The SET program is not growing as required and requires further interventions. The number of students enrolments into SET programmes from 2017 to 2021 has not significantly increased over the years and has remained in the lower 300 000s. Graduations are constantly a fraction of the enrolments as is with the programmes indicated. There were 233 257 graduates in public HEIs in 2021, and the majority of graduates obtained their qualifications in the SET, followed by Business and Management and Other Humanities. The number of graduates in 2021 was lower when compared with graduates reported in 2020. Decreases in the number of graduates in 2021 were recorded in almost all fields of study except the SET programmes.

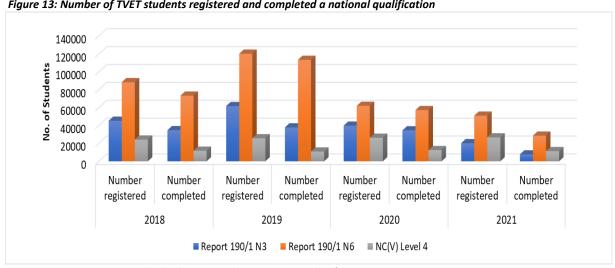


Figure 13: Number of TVET students registered and completed a national qualification

Source: Statistics on Post-School Education and Training in South Africa: 2022

Figure 13 illustrates the registration and completion numbers for a national qualification from TVET collages. The number of students who registered for Report 190/1 (N3 and N6) and NC(V) Level 4 examinations in TVET colleges in 2021 was 98 013, of which 47 750 completed. The highest proportion of students registered for Report 190/1 (N6) part-qualification (52.0%) followed by NC(V) Level 4-part qualification (27.3%) while the lowest proportion of students registered for Report 190/1 (N3) part qualification (20.7%). Although there is a healthy pipeline into the tertiary sector; the allure of other prominent sectors may reduce the skills pool for the food and beverages manufacturing sector. The SETA needs to aggressive in its career guidance initiatives and bursary programmes to ensure the sector attracts potential employees.

The state of education and training in the FoodBev SETA is presented in Table 18. The table presents the registered and completions for training interventions that directly respond to the sectoral priority occupations and training demand in the sector. Although skills programmes are the second highest SETA funded training intervention, it focuses more on skills gaps than occupations. The table below indicates the registration and completion numbers over three financial years (table 13).

Table 13: Implemented funded training interventions over 2020/21, 2021/22, 2022/23

Status	2020/21	2021/22	2022/23		
Status	2020/21	2021/22	2022/23		
	Apprenti	ces			
Registered	368	250	319		
Completed	74	125	203		
	Bursari	es			
Registered	132	486	354		
Completed	50	161	160		
Learnership					
Registered	3424	3688	4574		
Completed	1704	2339	2616		

Source: FoodBev SETA Annual Reports (2020-2022)

Additionally, the table below shows the highest number of qualifications completed per training intervention over the three (3) financial years.

Table 14: Top 3 completed qualification per training intervention over the years

Apprenticeship	Bursaries	Learnership
Millwright	Certificate: Middle Management Programme	National Certificate: Food and Beverage Packaging Operations
Electrician	Certificate: Foundation Management Programme	General Education and Training: Food and Beverage Handling Process
Fitter	National Certificate: N6 Management Assistant	National certificate: Fish and Seafood Processing

Source (SIMS, 2023)

An effective artisan work force is pivotal in the manufacturing, construction and engineering sectors of a country and is essential in propelling development (Govender et al, 2019). The artisan training intervention directly responds to the demand for artisans, and the National Skills Development Plan (DHET, 2019). The programme's registrations significantly surpass the completion rate in any financial year because of the three (3) years it takes to complete the apprenticeship. In response to sectoral demand, the SETA focuses on funding millwrights, electricians and fitters and turners. The SETA will continue to fund interventions in response to South Africa's need for artisans. Although the supply is not sufficient enough for the sector, continued support for this occupation will yield the result of a sufficient supply.

The bursary training intervention is a funding opportunity for students who are interested in occupations within the Food and Beverages Manufacturing sector. Bursaries are targeted, firstly, at occupations that are high in demand. Secondly, bursaries help those who, despite possessing the necessary skills, are unable to realise their full potential because they lack the funds to support their education (Mabeba and Mamokhere, 2021). Occupations in Food and Beverage Scientists, as well as Mechanical and Industrial Engineers require a bursary intervention to become potential employees in the sector. Data illustrates an increasing completion from year to year. However, it must be noted that a conventual bursary at undergraduate level takes more than 2 years to completed, as illustrated by the most frequent completions. In addition, the completions do not immediately translate into filled vacancies. However, there is a higher number of completions in managerial training. So, the SETA is attempting to bridge the leadership skills and occupational gaps.

Learnerships are occupational training interventions that provide an expedited acquisition of qualifications by equipping employed and unemployed learners with knowledge, experience and skills (Ncubeand Khumalo, 2022). The intervention offers companies the opportunity of filling occupations that are in demand, by giving unemployed learners and employees the adequate skills to perform the function of the vacancy. FoodBev SETA qualifications such as FETC: Generic Management (Food Manufacturing Stream), NC: Food and Beverage Packaging Operations and GETC: Food and Beverage Handling Process are some of the most completed qualifications by stakeholders.

#### 3.4. SECTORAL PRIORITY OCCUPATIONS AND INTERVENTIONS LIST

The analysis between demand and supply culminates in the identification of the occupations included in the top 10 Sectoral Priority Occupations and Interventions List (SPOIL) for 2024/2025.

FoodBev SETA's top 10 SPOIL was derived using the following sources:

- The WSP 2023 was analysed to extract the list of Hard to Fill Vacancies in the sector.
- Discretionary applications report for the 2023/24 financial year.
- List of South African Critical Skills 2022 (Home Affairs 2022 List).
- Data was gathered from the sector through focus group discussions and interviews with the sector experts.
- Various reports that are published and unpublished.

The process of developing the SPOIL starts with the WSP data analysis whereby the hard-to-fill vacancies are sorted according to the number of times that the companies mentioned the vacancy as hard to fill as well as the number that is needed. The data is verified through consultations with the stakeholders, Chambers and one on one interviews with the sector experts. The Chambers were consulted during the first phase of the development of the SSP. While the interviews were stratified according to the five FoodBev Chambers and were conducted from the 1st of June. Following the collection of data, a blueprint is formulated, and the hard-to-fill vacancies are ranked based on the demand by the sector using both from the DG report and WSP data. The list is further verified through the list of published Scarce Skills In the Country (Home Affairs, 2022) and other literature that are published.

The number of quantities needed by the sector is extracted from the DG report and WSP while the number to be supported is calculated using the Annual Performance Plan and Strategic Plan targets as shown in the figure below. It is worth noting that the numbers to be supported are the aggregates of all the interventions that are supported by the SETA. Thus, the numbers are repeated for most occupations and interventions.

Figure 14: Calculations for quantity needed and Supported by the SETA in the SPOIL 2024/25

#### **Quantity Needed**

 The number is calculated through the analysis of the DG application the focus was also on the specialisation.

#### **Quantity to be Supported**

- The number is calculated based on the SP target in 2022/23
- The APP targets for 2024/25 were also considered.

The final list was presented to the Combined Chamber and FoodBev SETA Management, before final submission to the Accounting Authority for approval.

Table 15 presents the Sector Priority Occupations and Interventions list with the corresponding NQF levels and training interventions. Half of the occupations on the HTFV list appear in the top 100 penultimates Scarce and Critical list (Department of Higher Education and Training, 2022). Fifty percent of the occupations in the list are also sector specific occupations which are either mid-level or senior level. The SETA offers various interventions which are informed by consultations with managers in the SETA's department. Bursaries, learnerships and Apprenticeships are some of the interventions offered to the employed as well as the unemployed students for skills development. This is an attempt to fill the occupational and skills gaps in engineering, food science, and manufacturing positions. The SETA also offers workplace experience and internships to give students work experience in food science and engineering fields. The artisanal occupation identified, millwright, requires an apprenticeship.

There are other occupations like millwright, millers, engineers, scientists, skippers, financial manager, corporate general manger, cutting across all the sectors within the food value chain. Therefore, these occupational shortages are addressed through partnerships and collaborations with other SETAs within the food value chain.

Table 15: Sectoral Priority Occupation and Interventions List

OCCUPATION CODE	OCCUPATION	SPECIALISATION/ ALTERNATIVE TITLE	INTERVENTION PLANNED BY THE SETA	NQF LEVEL	NQF ALIGNED	QUANTITY NEEDED	QUANTITY TO BE SUPPORTED BY SETA
2021-671202	Millwright	Electromechanician Machine Tool Millwright Winder Technician Ground Electromechanician	Apprenticeship	Level 4	Υ	270	310
2021-681201	Confectionary Baker	Dough Maker Cake/Bread Baker	Learnership	Level 4	Y	1170	3 645*
2021-132104	Engineering Manager	Engineering Maintenance Manager Bankable Feasibility Study Manager	Bursary	Level 7-10	Υ	98	170*
		Mining Engineering Manager	Learnership	Level 4			3 645*
2021-213205	Food and Beverage Scientist	Milling Nutritionist Protein Development Technologist Food Safety Standards Manager Food Sanitation and Safety Inspector Food Quality Consultant Food Technology Advisor Food Technologist Food Safety Standards Auditor Food and Drink Technologist Food Chemist / Engineer	Bursary	Level 7-10	Y	212	170*
2021-132107	Quality Manager	Reliability Engineer	Bursary	Level 7	Υ	219	170*
		Supplier Quality Assurance Manager	Leadership	Level 5 - 6			3 645*
		Quality Assurance Manager Services Quality Manager	Internship	Level 6	Y		1217
2021-681103	Butcher	Biltong Maker Sausage Maker	Learnership	Level 3	Y	1428	3 645*
		Processed Meat Maker Smallgoods Maker Sosati Maker	Skills programme	Level 3	Y		1 385*
2021-214101	Industrial Engineer	Process Engineer Safety Engineer	Bursary	Level 7- 10	Υ	240	170*

		Process Design Engineer Plant Engineer Enterprise Resource Management Engineer Health and Safety Engineer Industrial Efficiency Engineer Manufacturing Technology Engineer Manufacturing Logistics Engineer Operations Research Engineer Supply Chain Management Engineer Produce Process Engineer Quality Management Engineer Automation and Control Engineer	Internship	Level 7	Y		1217*
2021-214401	Mechanical Engineer	Value Engineering Fluid Mechanics Engineer Fuel Cell Engineer Mechatronics Engineer Thermodynamics Engineer Mechanical Engineer (Mines) Industrial Machinery Engineer Air-conditioning, Heating and Ventilation (including fire) Engineer Heating and Ventilation Engineer Piping Engineer Machine Design and Development Engineer Forensic Engineer Diesel Engineer Automotive Engineer	Bursary	Level 7- 10	Y	51	170*

## FoodBev SETA

		Transportation Systems Engineer Rotational Plant Engineer Maintenance Management Engineer Structural Steel Engineer Pressurised Vessels Engineer	Internship	Level 7	Y		1217*
2021-681301	Dairyman	Cottage Cheese Maker Milk Producer Yoghurt Maker Cheese Maker	Learnership	Level 4	Y	51	3 645*
2021-213204	Wine Maker	Oenologist Wine Blender	Learnership	Level 4	Υ	10	3 645*

**Source:** (WSP/ATR 2023; Interviews Focus Group Discussions, 2023)

<sup>\*</sup>The recurring numbers for quantity to be supported in the various interventions was based on the Annual Performance Plan and Strategic Plan targets for the intervention planned by the SETA for the year 2024/25.

#### 3.5. CONCLUSION

This chapter reviews the occupational shortages and skills gaps in the Food and Beverages Manufacturing Sector, the extent and nature of supply, and the Sectoral Priority Occupations and Interventions List. The results of the hard-to-fill vacancy analysis are used to determine

Very significant successes in the focused bursary, Artisans and Learnerships programs the demand for skills. The results illustrate that demand is high for Technicians and Associate Professionals such as Food and Beverage Process Operator and Skilled Agricultural, Forestry, Fishery, Craft and Related Trades Workers such as Millwrights, Butchers, and Engineering. This illustrates the need for the FoodBev SETA to aggressively fund occupations that are industry specific to fill these vacancies. A supply side analysis was undertaken, which showed that the throughput from school in terms of Physical Science, and Mathematics is enough as a feeder into tertiary education. However, some of the reasons for the supply side problems are the poor quality of Grade 12 learners' results and lack of career guidance, which

limits the number of prospective students. There are interventions that the SETA has been pursuing in improving the quality of provision at the tertiary level and is explained in chapter five.

Chapter 3 examined closely the occupational shortages and skills gaps in the Food and Beverages Manufacturing Sector. When there are shortages of skilled workers in key occupations, it can hamper productivity and limit the sector's ability to expand. The next chapter will highlight the new and existing partnerships between FoodBev SETA and various public/private institutions.





**FoodBev SETA** Sector Skills Plan Financial Year 2024/2025

**CHAPTER FOUR: SETA PARTNERSHIPS** 

#### **CHAPTER FOUR: SETA PARTNERSHIPS**

#### 4.1. INTRODUCTION

The FoodBev SETA focuses on various strategic partnerships informed by national priorities and various research reports, chamber inputs, and other role players, as interpreted by senior management and the SETA Board. The NSDP (2019) recommends partnerships with organisations in the public and private sectors to support the effective development of skills. The FoodBev SETA has adopted partners as a key avenue to deliver on its mandate. The strategic focus is on youth, women, people with disabilities, previously disadvantaged and SMMEs, as defined by the FoodBev SETA strategy. This chapter details the existing and new partnerships that FoodBev SETA has forged to facilitate skills development.

#### 4.2. PARTNERSHIP CATEGORIES, ROLES, AND APPROACH

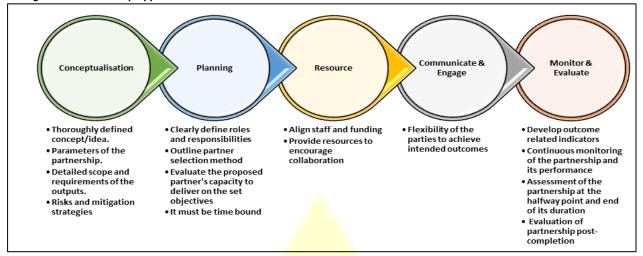
Partnerships with the different organisations in the public and private sector are developed at the discretion of FoodBev SETA, considering the need/demand of skills in the sector, the capability and readiness of the prospective partner as well as, the alignment of the proposed partnership to the strategic objectives of the FoodBev SETA. Figure 15 details the categories of partners (public and private) and the objectives of each of the partnerships.

Figure 15: Partnership institutional arrangements

	Partners	Objective	
Employers	Large Enterprises SMME's	Skills development Redress skills needs & deficiencies	
Intermediaries	Employer Associations Professional Bodies Labour Federations & Unions	Establishment of skills development trends	
Public Institutions	Government Departments Local Governments Foodbev SETA	Facilitating skills development Provision of sectoral data and plans	
Education & Training	Universities & UoTs TVET Colleges Centres of Learning	Expand sectoral research capacity Improve learning and development curriculum Increase skills development footprint	

FoodBev SETA adopts a structured approach for the development of partnerships. The approach followed is detailed in Figure 16.

Figure 16: Partnership approach



The approach is participatory in nature and aims to create a conducive environment for collaboration in achieving the skills demand of the sector.

#### 4.3. EXISTING PARTNERSHIPS

FoodBev SETA has partnerships with different organisations and institutions that are aligned to the national development strategies and the NSDP (2019) outcomes. The duration of the partnerships differs based on the purpose and type of institution or organization. Student funding partnerships with universities are usually for a maximum of four years, while with TVET colleges it is for a maximum of two years. Partnerships for SMME's, rural and community development and research related projects are usually between one to three years. Table 16 details the existing partnerships.

Table 16:Existing partnerships

Name of	Partner	Start date	End date of	Objectives of partnership	Status		
institution/	Category	of	partnership				
partner		partnership					
Free State Trust	Public institution	01/04/2021	31/03/2024	<ul> <li>Tutorial of four hundred Grade 10 to 12 Maths and Science learners in the Free State region over three years.</li> <li>Funding of one hundred (100) first year studies for top achievers in the Free State region for three years (targeted at students with financial difficulties).</li> </ul>	Tutoring has been conducted for four hundred learners.		
Elgin Community College	Public Institution	01/08/2022	06/06/2023	To support youth and women with new venture creation and bread baking skills.	The project is ongoing.     One hundred eighty- eight (188) learners have been registered and paid stipends.		
The Da Vinci Institute for Technology	Private Institution	31/03/2022	31/03/2024	To provide funding to unemployed learners.	One hundred learners have been assisted with		

					funding for their qualifications.
South African Public Colleges Organisation (SAPCO)	Public Institution	25/10/2022	31/03/2024	To contribute towards the placement of 10 000 TVET students within companies for completion of their qualifications as part of the Presidential Youth Employment Programme.	• The SETA has assisted 364 students with funding.
Sedibeng District Municipality	Local government	03/10/2022	30/09/2023	To provide learners with international digital skills.	• One hundred learners have been registered. The project is up to date.
National Youth Development Agency (NYDA)	State entity	07/02/2023	07/03/2024	Provision of funding for a new venture creation learnership programme targeted at 150 learners.	All 150 learners have been registered.
Gordon Institute of Business Science (GIBS)	Public Institutions	03/04/2023	30/10/2024	To identify and develop current managers within companies operating in the Food and Beverages and Manufacturing Sector.	Thirty-five participants have been registered. Five participants are outstanding.

The above partnerships are forged and guided in a manner that all involved parties equally benefit.

#### 4.4. NEW PARTNERSHIPS

FoodBev SETA has new collaborations/partnerships for overall skills development initiatives, as well as those targeted at uplifting the skills of rural and township youth, women and people with disabilities and developing small businesses. In addition, the SETA has partnerships with employers, TVET colleges, non-profit organisations, universities, industry associations, state entities as well as municipalities assisting the SETA with the implementation of the strategic skills development programmes. The proposed partnership will focus on different interventions, including learnerships, skills programmes, and placement of graduates in TVET colleges.

Table 17: New partnerships

Company / Organisation Name	Project objective		
PEPSICO	PEPSICO Vending Machine Pilot to Support Black-Owned Micro & Small Enterprises.		
SEA HARVEST CORPORATION	To increase access to training, skills development, and employment opportunities for our local youth (to support 210 beneficiaries participating in the ATHENA Programme).		
OCEANA GROUP	Capacitation of the Small-Scale Fishing Cooperatives of South Africa. 100 NVC, 100 Safety at Sea Short Course and 50 Generic Management with Coaching and Mentoring.		
NYDA	Capacitation of unemployed youth on a Culinary Skills Development Program (Unemployed Learnership in Food and Beverage Handling Process Level 1 (58026) –Food Truck Programme).		

NYDA	Capacitation of unemployed youth Barista Training Program (Unemployed Learnership in Food Management Process Level 1 (58345) – Barista Programme ).			
NATIONAL CHAMBER OF MILLING	Millers Training Assistance Program.			
INGWE TVET COLLEGE	Cannabis Pioneer Project (development and support of training of 100 beneficiaries on Cannabis Pioneer Project in the Eastern Cape).			
SOUTH WEST TVET COLLEGE	Establishment of the 4IR Workshop and Students Training.			
FLAVIUS MAREKA TVET COLLEGE	Training of 15 Apprentices linked to the newly developed Occupational Certificate: Electrician NQF level 4 leading to Trade-Tested Electricians.			
NORTHLINK TVET COLLEGE	COS Partnership with Chinese Culture and International Exchange Centre: Artisan Trade Test Preparation Programme.			
WESTERN CAPE EDUCATION DEPARTMENT	Bursaries For 20 Learners Participating in the Mathematics and Physical Science Tutoring Programme.			
DESTEA	Provision of Learnerships to Youth, Women and People Living with Disabilities.			
ETHEKWINI MUNICIPALITY	Activation of the Food Industry Through Skills development and Sector Specific Practical Training and Capacity Building.			
UNIVERSITY OF JOHANNESBURG	Smart Agri-Food Systems in Rural Villages: A Cross Disciplinary Skills Development Within The Water Energy Food (WEF) Nexus Promoting Economic And Societal Impact In Gwakwani And Phumulani Agri-Villages.			
CENTRAL UNIVERSITY OF TECHNOLOGY	Fermented Beverages Manufacturing Training and Research Programme.			
THE DELICIOUS FESTIVAL TRADER ACADEMY T/S DELICIOUS FESTIVAL SOUTH AFRICA (PTY)Ltd	Unsolicited Partnership to Train and Develop Unlicensed, Micro and SMME Businesses in the Food & Beverages Sector within Gauteng.			
USAID	USAID Africa Trade and Investment Program Southern Africa Buy-In and Foodbev Seta and Summer Fancy Food Show 2023.			
WAKANDA ACCELERATOR	Food programme (training and capacitating 100 unemployed small medium and micro enterprises specialising in the food and beverages to establish and/or grow their own enterprises).			

#### 4.5. SUCCESSES

FoodBev SETA has partnership successes as illustrated in the table below. The positive events presented are powerful and useful for illustrating self-awareness of the pros of partnership capabilities. These events can be used to assess and improve partnerships within the Food and Beverages Manufacturing Sector. The successes below can be strengthened by further consultation with prospective partners and implementation of a continuous monitoring process.

Table 18: Success stories

#### • Chen Women Empowerment NPC partnered • A partnership with GD & RD Procurement Services with the SETA to equip fifty (50) learners successfully completed. Youth offenders that are due to with skills in producing a range of cakes be released, completed a baking and confectionary specialty bread and meringue products in a learnership. This was aimed at assisting them with integration into their communities. craft baking environment. The project was successfully completed. FoodBev SETA collaborated with South African BRICS • FoodBev SETA partnered with Word Skills SA Business Council Skills Development Working Group to (Indlela) to fund the training of six identify a roadmap for future skills in the Food and competitors participating in World Skills Beverages Manufacturing Sector, develop and run skills Competition from preparation to final camps to upskill South Africans in four selected future competition including travel,

- accommodation, tools of trade and entering of the competition. Trades include Mechatronics, CNC Turning, Mobile, Robotics and Refrigeration and aircondition.
- Asime Women NPC partnered with the SETA
   on the implementation of a New Venture
   Creation Learnership for women and youth
   entrepreneurs running small businesses in
   the following sectors: Agribusiness, Primary
   production, Agro-processing, Catering and
   fast-food outlets, Beverage manufacturing,
   Environmental health, Township retail
   supermarkets, Township fresh produce
   market, cleaning services and Bakeries. The
   project was successfully completed. Eighty
   (80) unemployed learners were capacitated
   on how to start, manage, grow and sustain
   their small businesses.
- FoodBev SETA, in partnership with the Western Cape Department of Education (WCDE) hosted a series of Career Awareness exhibitions in George, Grabouw, and Khayelitsha, aimed at promoting careers in high demand in the Food and Beverages Manufacturing sector. The exhibitions were specifically targeted at approximately 1,200 Grade 9 - 12 learners in rural Western Cape communities. The exhibitions created awareness of bursary opportunities, internships, learnerships, apprenticeship opportunities in the sector.

- skills. A full report on emerging jobs was completed and approved by the FoodBev SETA Board.
- A partnership with Rose Mugs/Cum Laude on the implementation of a learnership on Food and Beverage Handling Process for people living with disabilities in the rural communities of Free State. The project was successfully completed, and all learners graduated.
- Universities South Africa (USAF) has also assisted FoodBev SETA to implement a programme that assists students from disadvantaged and missing middle households that are unable to register or graduate due to historical debt. This was done through a bursary programme administered by the USAF working with Public Universities and Universities of Technology. Through this endeavor FoodBev SETA together with USAF were able to identify and fund 761 deserving students across various institutions of Higher Education.
- Through a partnership between with the University of Johannesburg, over 200 SMMEs were successfully trained in digitalization of business operations, with the secondary objective of data collection.
- FoodBev SETA successfully assisted Lamanisi Academy to train one hundred learners in new venture creation.

#### **FAILURES**

- The partnership with a levy-paying company for unemployed learnership programme (18 months) on bread and flour was cancelled. The company applied for discretionary grant and partnership. However, the company indicated that they did not have capacity to implement both.
- The lesson learnt from this partnership is that although the company confirmed its capacity to implement the training, stringent measures should be in place to reassure project readiness before awarding the grant.
- Partnership between FoodBev SETA and a provincial entity for the implementation of the New Venture Creation Learnership, Business Practice Learnership and End-user Computing Skills Programme was cancelled due to non-submission of documents.
- The lesson learned from this partnership is the SETA conducted the due diligence and the entity proved to be ready to implement the project. However, the learner enrolment forms were not submitted according to contract timelines.
- As the mitigation factor, the SETA will engage stakeholders on discretionary grants policy, procedures and timelines.

#### 4.6. CONCLUSION

FoodBev SETA evaluated its existing partnerships outcomes in addressing the skills needs of the sector. It is through such initiatives that SETA can concretise collaboration with PSET institutions. Regarding PwD partnerships, further interventions will be done by the SETA to drive awareness in the sector on disability and work on strategies to assist employers with getting declarations from their employees. Lastly, the SETA continues to seek value-adding partnerships to address the findings of the SSP.

This chapter aimed to address strategic partnerships which enable the FoodBev SETA to tackle complex challenges in the sector, provide opportunities, respond to national imperatives, and create collaborative opportunities for growth and innovation in the sector. The next chapter will assess the implementation of strategic priorities through monitoring and evaluation.





# CHAPTER FIVE: SETA MONITORING AND EVALUATION

## CHAPTER FIVE: SETA MONITORING AND EVALUATION

#### 5.1. INTRODUCTION

This chapter describes monitoring and evaluation (M&E) within the FoodBev SETA. The purpose of M&E is to measure organisational effectiveness and assess the quality, value, productivity, and impact of skills development interventions. It provides an overview of the achievement of SETA's strategic priorities and an action plan to support continuous improvement. Judging the relevance, credibility, and value of skills development interventions funded and facilitated by FoodBev SETA requires an increased focus on M&E capabilities and efforts. M&E supports learning across the organisation and is a key component of planning, implementation, and results-based management.

In 2009, the Department of Planning, Monitoring and Evaluation (DPME) published the Policy Framework for the Government-wide Monitoring and Evaluation System (GWMES), which defines monitoring as "the continuous collecting, analysing, and reporting of data in a way that supports effective management. It usually reports on actual performance against planned or expected." The DPME further defines evaluation as "the systematic collection and objective analysis of the evidence on public policies, programmes, projects, functions, and organisations to assess issues such as relevance, performance (effectiveness and efficiency), value for money, impact and sustainability, and recommend ways forward". Thus, monitoring aims to track whether an intervention is implemented as planned and evaluation determines whether the intervention is the best possible solution to achieve the desired result. The success of M&E thus begins in the planning phase by expressing explicit outputs, outcomes, and desired impact, and supports the strategy in providing robust reflections on past results. The National Evaluation Policy Framework (NEPF) further distinguishes between six types of evaluation, as presented in the table below.

Table 19: National Evaluation Policy Framework - Types of evaluations

Type of evaluation	Description
Diagnostic	Preparatory research to ascertain the current situation prior to an intervention and to inform intervention design. This enables the drawing up of the theory of change before the intervention is designed.
Design	Used to analyse the theory of change, inner logic, and consistency of the programme, either before a programme starts or during implementation to determine whether the theory of change seems to be working.
Implementation	Aims to evaluate whether an intervention's operational mechanisms support the achievement of the objectives or not and understand why.
Impact	Seeks to measure changes in outcomes, whether an intervention should be continued or not, and if there are any potential modifications needed.
Economic	The economic evaluation considers whether the costs of a policy or programme have been outweighed by the benefits.

**Source:** (Department of Planning, Monitoring and Evaluation, 2010)

The GWMES and NEPF provide a foundation and minimum expectations in terms of M&E in the public sector, and thus, form the basis for the function within FoodBev SETA. The SETA

developed an M&E framework to formalise its approach and to ensure compliance and alignment to the GWMES, and NEPF.

#### 5.2. APPROACH TO M&E

Monitoring and evaluation are fundamental components of every institution. Thus, FoodBev SETA uses M&E to ensure that plans translate to desired outcomes and impact. As indicated in the figure below, the SETA uses the Result Chain Logic Framework for M&E. The process starts with a planning phase that includes deliberations on inputs, followed by the activities/interventions to implement for the delivery of the SETA mandate right up to the desired outcomes and impact. The planning process followed is then monitored and evaluated using a two-fold approach, which focuses on implementation progress through the monitoring of activities. This includes external moderation and site visits, evaluation of outcomes and impacts through research studies.

Figure 17: FoodBev SETA value chain and application of M&E



Monitoring of any function within the SETA starts within the department responsible for the task. Additional monitoring activities serve as internal controls aligned to areas of highest risk and are performed, in part, by the FoodBev M&E Unit. These monitoring activities relate predominantly to verification of compliance requirements associated with FoodBev SETA discretionary grants and could be expanded in support of the internal audit function. Additionally, the M&E unit analyses, evaluates, and validates information on a sample basis. External moderation site visits conducted by contracted subject matter experts, aim to monitor the quality and standards of learning programmes before and during implementation and to verify results. The activities of the M&E unit now include the evaluation of activities of the FoodBev SETA, which includes evaluation and impact assessment studies. The research agenda is approved by FoodBev SETA's Accounting Authority annually and includes the compilation of a credible SSP and various evaluative research studies with a focus on diagnostic and impact assessment.

#### 5.3. PREVIOUS STRATEGIC PRIORITIES

The FoodBev SETA's M&E Unit monitors the quarterly progress of the planned targets in the APP and progress on the strategic priorities in the preceding SSP. FoodBev SETA responded to identified strategic priorities indicated in the table below. The priorities are achieved through the various SETA interventions including learning programmes, which were achieved and exceeded in the 2022/23 financial year. The below table unpacks previous financial year-to-date achievements against the strategic priorities, which formed part of the Annual Performance Plan.

Table 20: Progress on previous strategic priorities

No.	Strategic Skills Priority (SSP)	Output	Actioned via	Progress to Date
1	Addressing artisan shortages and development	Apprentices qualified to become artisans	APP/SP	Artisan programmes were successfully implemented and exceeded the set targets. The SETA also registered apprentices under the RPL Programme.
2	Improving quality of provision of grade 12 learners and graduates	Employed and unemployed learners supported through the provision of bursaries to address scarce and critical skills.	APP/SP	Learners funded through bursaries have completed the programmes. The SETA hosted a total of 69 career events and exhibitions in both rural (36) and urban (33) areas in all the nine provinces of South Africa. Furthermore, 14 833 career guides were distributed and a total of 85 career guidance practitioners were trained.
3	Transformation	Small Enterprises, NGOs, Cooperatives and CBOs supported through the provision of accredited skills training programmes	APP/SP	The SETA is supporting a smaller number of SMMEs, NGOs, cooperatives, and CBOs. This is due to the lack of compliant applications received from the targeted entities. Therefore, this continues to be of great priority in response to the strategic priorities identified in the SSP.
4	Assist the sector to boost innovation through research	Enhanced research and development in human capital to contribute towards a growing knowledge economy	APP/SP	The SETA contributed positively to research and innovation within its diverse sectors, as such interventions that aimed at enhancing research and development were successfully implemented and achieved. Furthermore, the SETA continues to support Master and PhD students who conduct research studies that are relevant to FoodBev Sector.
5	Skills gaps in the sector	Employees capacitated with numeracy and literacy skills	APP/SP	Learners funded through the AET programmes, successfully completed the programmes, and were equipped with necessary skills to ensure success within the workplace.
6	Career guidance	Capacitated career development practitioners through provision of career development services	APP/SP	Learners/youth were equipped with increased awareness of the available careers in the food and beverages sector through career exhibitions and guidance in the rural and urban areas.

Source: (FoodBev SETA Annual Report, 2021/22)

#### 5.3.1 TRACER IMPACT STUDIES

FoodBev SETA did not conduct tracer and impact studies in the previous financial year as the impact study was conducted in 2021 and the findings indicated that generally, the impact of the learning programmes has been substantial. The learning programmes have allowed participants to study further, increase their knowledge in a particular subject area and afforded beneficiaries with greater employment opportunities. Some of the beneficiaries are able to carry out job-related tasks at their different places of work. It was also shown that the FoodBev SETA areas of advertising was received quiet well by beneficiaries as the information provided was concise and clear. The issue of the stipend not being sufficient to assist the beneficiaries with travelling to the workplace seems to be a recurring issue. The study has

therefore gone some way towards helping FoodBev SETA to understand the impact of its learning programmes.

The SETA is also planning to conduct a tracer and impact study on all the SETA's beneficiaries for the funding financial year (2020/21, 2021/22 and 2022/23). The study will be done in the 2023/24 financial year. Moreover, the SETA has conducted other research studies that have informed planning. These studies are outlined in Table 1 of this document. The SETA will consider the recommendations from these studies in the development of the annual plans.

#### 5.3.2 ERRP INTERVENTIONS IMPLEMENTED

FoodBev SETA supports the Economic Reconstruction and Recovery Plan Skills Strategy (ERRP SS, 2022), through the provision of funding for interventions. The following have been listed as ERRP (2020) enablers: access to targeted skill development programmes; updating of current technical and vocational education programmes; availability of work-based experience; and responding to a list of identified Hard-To-Fill-Vacancies (HTFV). FoodBev SETA allocated approximately R100 million to support the ERRP (2020) intervention in the 2022/23 financial year. Over 78% of funds were spent on the apprenticeship programme and 16% were spent on partnerships. The SETA is currently identifying the small business that can be supported in the 2023/24 financial year.

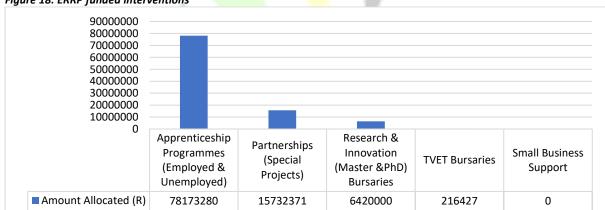


Figure 18: ERRP funded interventions

Source: (FoodBev SETA Finance Report 2022/23)

#### 5.4. PLAN OF ACTION

The action plan for the priorities that are still lacking behind and strategies to ensure that the planned priorities for the upcoming financial year are achieved are described in this section.

#### Transformation

The SETA is on the drive to identify the SMMEs, NGOs, Cooperatives and CBOs that can be assisted and supported. Furthermore, the SETA will conduct a study on "Transformation of SMMEs through exploring the value chain of the Food and Beverages Manufacturing Sector" in the financial year 2023/24. This study will help to identify the needs of SMMEs and cooperatives for their growth.

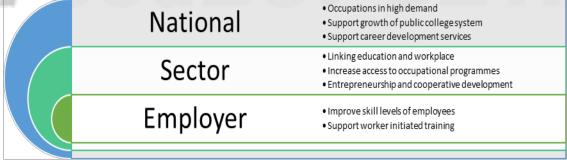
The SETA will continue to engage with the sector for collaboration or partnerships and buy-in to ensure that the existing and planned priorities are achieved. Engagements with the sector will ensure preparedness and feasibility of achieving the planned priorities by considering factors like the budget, availability of capacity and market circumstances. Furthermore, the SETA will take the SSP priorities into account when developing the APP.

#### 5.5. IMPROVEMENTS TO ENSURE SETA'S M&E EFFECTIVENESS

There are areas in the FoodBev SETA Monitoring and Evaluation Strategy that can be strengthened. This includes clarifying the roles and responsibilities in the M&E value chain across departments. The historical ETQA functions form part of the M&E value chain, and this has been reviewed within the context of the QCTO, the draft Framework for M&E from the DPME, and the NSDP (2019). A revised organisational structure was approved by the Board in March 2020, resulting in the merging of the research, planning, monitoring, and evaluation functions. The structure came into effect in April 2021 and was implemented in phases during the year. The implementation of the structure comes with accurate monitoring and evaluation functions in the organisation. The officials tasked with these activities will focus on the proper delivery of the M&E mandate.

Effective monitoring and evaluation start with effective planning and the approved M&E framework will assist the SETA along this path. Further, site visits conducted by the SETA will include an evaluative perspective of the programmes. Performance information management is now part of the activities conducted by the M&E unit. This has greatly assisted with better monitoring of performance against the planned targets, as monitoring will act as an internal control measure of the SETA. A more vigorous approach shall also be adopted to ensure that the SETA adequately addresses the key focus areas as identified in the Tracer Impact Study (2020); the ultimate aim is that of ensuring lasting impact and having sufficient and appropriate knowledge and skills available in the Food and Beverages Manufacturing Sector. The skills needs of the sector can only be anticipated and addressed, if correctly identified and if relevant interventions are crafted in response. Indicators and targets must be in support of the outcome and impact statements, and M&E plans and efforts should align accordingly. The outcome and impact statements of the FoodBev SETA are aligned with the eight outcomes specified in the NSDP (2019). These outcomes will have to be addressed at an employer, sectoral and national level as per the diagram below.





Source: (DHET, 2019)

The FoodBev SETA M&E plan and activities have been crafted to support planning and implementation not only in the short term but also the medium term. Evaluation activities are balanced between areas of high risk, new interventions, and the testing of old assumptions. In response to this, the short to medium term FoodBev SETA M&E operational plan contains diagnostic, impact, and economic evaluations to inform future planning and participation. Improvement plans will be developed based on the evaluations conducted and their implementation will be closely monitored. The M&E plan is integrated with the FoodBev SETA M&E Framework. The M&E Framework was approved by the Board in March 2022, and an associated five-year strategy and annual operational plans will support the function as required by the Revised Framework for Strategic and Annual Performance Plans.

#### 5.6. CONCLUSION

This chapter introduced the M&E approach within the SETA, identified the strategic skills priorities of FoodBev SETA and reflected on their previous achievement levels, as well as areas of improvement for the achievement of specific priorities that have challenges. The suggested measures include the theory of change which promotes an outcomes-based M&E approach, expansion of current M&E activities and formalising this through the establishment of a strategy and concrete plans aligned to DPME standards and guidelines. Findings to date, through research and M&E activities, have highlighted successes and areas of improvement in addressing the skills needs of the sector at an employer, educational institution, sectoral and national level. These can be strengthened in the future to provide a more holistic and detailed view of past, present, and future skills development strategic objectives and plans.

Chapter six will provide a summation and action plans based on the research finding of the Sector Skills Plan by highlighting the strategic skills priority actions that FoodBev SETA should implement.





**FoodBev SETA** Sector Skills Plan Financial Year 2024/2025

# CHAPTER SIX: STRATEGIC SKILLS PRIORITY ACTIONS

## CHAPTER SIX: STRATEGIC SKILLS PRIORITY ACTIONS

#### 6.1. INTRODUCTION

This is the final chapter, which recapitulates the main findings from the preceding chapters and suggests skills priority actions premised on these findings. Finally, the chapter also considers measures to support national policies and plans.

#### 6.2. KEY FINDINGS

The key findings based on the previous chapters are detailed in the table below.

#### Table 21: Summary of chapter findings

Chapter One

The Food and Beverages Manufacturing Sector remained the highest revenue contributor to the manufacturing sector at 25%, with a trade surplus of 3.6 billion in 2022. According to WSP (2023) submissions, the sector employs 186 685 personnel (a marginal downward trend, year to year WSP Data). WSP submission rates have steadily increased. Data indicates Africans, and particularly African females still lag other racial cohorts in relation to managerial positions. There is an opportunity to increase the representation of Africans in the professional category. Limitations in supply chain, energy and in specific foods are identified. Chamber trends were noted, with export into Africa identified as the most significant opportunity. Furthermore, chapter one reveals the current employment of people with disabilities sits at 0.71% and falls short of the 4% target. The skills development programmes should continue to target African females and disabled people in the sector to improve the transformation goals.

Chapter Two

The chapter identified various change drivers within the sector. Changes in population size and urbanisation, technological advancement, food safety and nutrition, climate change and energy crisis are the key factors driving change in the sector. These factors, amongst others, have forced change in how businesses operate, including resilient supply chains, new technologies, green technologies, and alternate technologies. To deal with the identified change drivers, companies must continually train employees to adapt to the changing landscape. The common thread is the development of digital (4IR) skills. Furthermore, research and innovation are important in developing the sector and promoting business interests beyond South Africa's borders.

Chapter Three

The shortage of professionals and industry-specific occupations are derived through an analysis of skills supply and demand. The Manufacture of breakfast products chamber does not participate in learning programs. Short learning programs were the choice for 2020 and 2021. Digital skills are a distinct priority, as highlighted by over 80% of responses in the HTFV list. The matric pass rates for 2020 were lower than usual, while tertiary throughput remained steady. Consequently, bursary provision to high potential students who are eager to enter the sector should be pursued. Skills of the future such as AI, analytics, and data related skills must be considered. The SETA remains focused on technological skills, and artisanal training with a strong SMME focus.

**Chapter Four** 

FoodBev SETA, as a skills partner in education and training has expanded its collaborations with multiple private and public entities ranging from TVET and CET Colleges to local municipalities, Universities, World-Skills SA, and employers. These organisations have entered partnerships with the FoodBev SETA for the implementation of various skills development projects. In this SSP, priority is given to partnerships that support SMMEs and those that are focused on youth, women and people with disabilities.

**Chapter Five** 

The chapter detailed the FoodBev SETA's Monitoring and Evaluation model that is in place to ensure that the plans of the SETA translate to the desired outcomes and impact. The FoodBev SETA employs a two-fold approach to M&E (i.e., Annually through AR and APPs as well as, the M&E of training interventions/learning programmes during and post the implementation of training interventions or

learning programmes). The chapter also discussed the previous strategic priorities of the SETA, areas of improvement as well as the adopted improvement plan.

### 6.3. KEY STRATEGIC PRIORITIES FOR THE SECTOR AND PLANNED RESPONSE TO CHANGE DRIVERS

Below are areas that need to be addressed and require further robust deliberation. These areas are linked to the main findings as presented above, aligned to NSDP (2019) strategic outcomes and respond to national priorities and change drivers as identified in Chapter 2.

The FoodBev SETA continues to assign higher targets for the training of artisans, especially millwrights in the sector. The demand for engineering managers and health and safety skills have increased in alignment to the more technical and health requirements. The demand for Fitters and Turners as well as Electricians has decreased slightly in the Food and Beverages Manufacturing Sector, but the demand remains high within the entire manufacturing sector. Digital skills should be expanded across all categories.

Skills Priority	Strategic outcomes	High Level Intervention
Partnerships with public/private entities to strengthen skills development programmes	NSDP Outcome 1: Identified and increased the production of occupations in high demand. NSDP Outcome 3: Improved skills level in the South African workforce. NSDP Outcome 4: Increased access to occupationally directed programmes. NSDP Outcome 7: Encouraged and supported worker-initiated training. ERRP Pillar 2: Industrialisation through localisation ERRP Pillar 3: Mass public employment.	The ATLAS of Emerging Jobs (2023) in the Food and Beverages Manufacturing Sector indicated that some jobs would emerge, while others become obsolete in future.  Therefore, the SETA should form partnerships with entities in the sector to prioritise the implementation of generic management skills, soft skills, and industry-specific knowledge skills, future skills and occupations which have emerged as significant skills gaps in the sector.  The skills development programmes should encompass both upskilling and reskilling initiatives to address skills gaps and evolving industry skills needs. These interventions will ensure a skilled and adaptable workforce.  Through partnerships, the SETA should address skills implications from change drives and Sectoral Priority Occupation and Interventions List (SPOIL) which are outlined in chapter 3 of the Sector Skills Plan.
Apprenticeships, Internship programmes and establishing sector Specific training centres	Linked to NSDP Outcome 1: Identify and increased the production of occupations in high demand. NSDP Outcome 2: Linked education and the workplace. NSDP Outcome 5. The growth of the public college system supported.	The SETA should collaborate with entities that specialise in the development of artisans with a focus on the employability of unemployed apprentices. Fund RPL interventions to those who have the experience but lack the qualification to be an artisan.  The SETA should form partnerships with public/private entities to establish the sector specific training centres. The centres will provide specialised

	ERRP Pillar 3: Mass public	skills development programme tailored to the
	employment.	unique requirements of the sector.
Technology and	NSDP Outcome 2: Linked	Technological advancement is one of the key change
Innovation	education and the workplace. NSDP Outcome 3: Improved skills level in the South African workforce. NSDP Outcome 6: Entrepreneurs and cooperatives supported with skills development needed for their growth. ERRP Pillar 2: Industrialisation through localisation. ERRP Pillar 5: Macroeconomic Interventions ERRP Pillar 9: Gender equality and economic inclusion of women and youth.	drivers in the sector, and this results to the emergence of new jobs or occupations (Atlas of Emerging Jobs, 2023). Thus, the SETA should allocate grants to address the skills needs associated with technological advancement.  Upskilling of elementary workers in the food and beverages sector to equip them with advanced technological skills and knowledge to enhance productivity and innovation. Furthermore, the SETA should allocate grants to support the training on emerging skills and technological jobs/ occupations listed in the Atlas of Emerging Jobs (2023). This will help the South African Food and Beverages Manufacturing Sector to prepare for the future world of work.
		FoodBev SETA should invest in research and development (R&D) on high-level skills interventions that can provide support for researchers and scientists working on automation, digitalisation, and advanced manufacturing processes.
Transformation	NSDP Outcome 2: Linked education and the workplace. NSDP Outcome 3: Improved skills level in the South African	Increase the allocation of bursaries for relevant post- graduate studies targeted at previously disadvantaged groups.
	workforce.  NSDP Outcome 6: Entrepreneurs and cooperatives supported with skills development needed for their growth.	Focus on equipping middle and senior management in food and beverages companies with the requisite managerial skills through other forms of training interventions.
	ERRP Pillar 2: Industrialisation through localisation. ERRP Pillar 5: Macroeconomic Interventions	Allocation of special grants for the training needs of SMMEs, cooperatives, women, youth, and persons living with disabilities to augment their presence in the Food and Beverages Manufacturing Sector.
E	err Pillar 9: Gender equality and economic inclusion of women and youth.  AAMP Pillar 4: Improving food security, production and	Allocation of grants for rural development programmes or initiatives that are in line with the Food and Beverage Manufacturing Sector.
	employment and ensuring decency and inclusivity.  AAMP Pillar 5: Facilitating market expansion, improving market access, and promoting trade.  AAMP Pillar 6: Improving localised food production, reducing imports, and expanding agro-processing exports.	Through special projects, the SETA will target initiatives aimed at promoting local markets and accelerating sustainable transformation in the Food and Beverages Manufacturing Sector.
Career guidance initiative	NSDP Outcome 1: Identified and increased the production of occupations in high demand.	The SETA should prioritise the career development imperatives that are essential for learners to make an informed career choice.

NSDP Outcome 2: Linked education and the workplace. NSDP Outcome 8: Supported career development services. ERRP Pillar 9: Gender equality and economic inclusion of women and youth

By prioritising career development, individuals can enhance their expertise, seize new opportunities, and achieve long-term growth and fulfilment in their careers.

The SETA should collaborate with institutions of higher learning and industry for the provision of career guidance.

The SETA should invest in ongoing professional development for learners and teachers to enhance their skills, knowledge of best practices, and ability to cater to diverse learning styles.

Target Grade 12 learners who have performed remarkably well, particularly in Maths and Science to get into tertiary education qualifications that are related to the Food and Beverages.

The SETA should continue to train more career guidance practitioners in the sector.

The SETA updates the career guidance regularly to improve the labour market information for youth interested in pursuing a career in the Food and Beverage Manufacturing Sector. Furthermore, The SETA should incorporate the list of emerging/future jobs outlined in the Atlas of Emerging Jobs when updating the career guidance tool. This will also help the sector to prepare for the future.

#### 6.4. MEASURES TO SUPPORT NATIONAL STRATEGIES AND PLANS

The primary measures that could be pursued by the FoodBev SETA to support national strategies and plans are detailed below

Table 23: List of measures with priority areas

Measure	Priority Area
To form partnerships that responds to the South African Economic Reconstruction	Partnership
and Recovery Plan, and to expand the current programmes that the SETA supports,	Bursaries
linked to the ERRP and AAMP. Therefore, the SETA will increase focus on skills	Learnerships
programmes, bursaries and learnerships that cover areas that respond to the plan.	Green technologies
The SETA has completed a study for green technology substitution and is embarking	Rural communities
on studies on rural communities. The programs are focused on skills development	SMMEs
and SMME support.	
To form partnerships with rural communities to fund students registered in	Rural communities
qualifications linked to hard-to-fill occupations in the sector. Focus on student	SET
support for SET programs. Focus on SMME's in rural communities.	SMMEs
Partner with relevant institutions on mutual skills development areas such as	Artisans
Learnerships and Artisan training.	
Training of women and persons living with disability (PwD) owned rural	Women and persons
cooperatives to upgrade themselves from subsistence to commercial.	living with disability
	(PwD)

Support of TVET Colleges through capacity building projects to improve the quality of graduates and bridge the gap between the suppliers (Colleges) and the consumer (sector).	TVET
Provision of funding to projects that are aligned to IPAP, APAP	
The implementation of the SMME toolkit to assist small companies in the food and beverages sector to cushion the adverse costs associated with complying with health, safety, and quality standards.	SMMEs
Support the Presidential Youth Employment Intervention through the implementation of strategic youth directed programmes and projects.	Unemployed youth
Partnerships with public and private institutions to address skills needs through the provision of relevant training.	HEI
Improve turnaround time for awarding and paying of bursaries.	
Training programmes of the FoodBev SETA should focus more on the rural and township economy, specifically supporting cooperatives and SMME's.	Rural

#### 6.5. CONCLUSION

This chapter concluded the SSP by defining the key findings and associated areas that need to be addressed. These areas, however, need to be deliberated further to ascertain the resources, timeframe, and conduit of implementation, which will occur during the strategic planning process ahead of the finalisation of the Annual Performance Plan and Strategic Plan for 2024-25. In so doing, this will give the sector a clear direction in the implementation of the strategy that drives its enhancement.



#### REFERENCES

Alcorta, A. et al. (2021) 'Foods for plant-based diets: Challenges and innovations', Foods, 10(2), pp. 1–23. doi:10.3390/foods10020293.

Anis, Z.., Rahman, H.U.. and Khalid, N. (2022) 'Effect of Food Quality and Nutritional Attributes on Consumer Choices during the COVID-19 Pandemic', 14(15172.). doi:https://doi.org/10.3390/ su142215172.

Azanedo, L. *et al.* (2020) 'An overview of current challenges in new food product development', *Sustainability* (*Switzerland*), 12(8), pp. 10–13. doi:10.3390/SU12083364.

Borsellino, V., Kaliji, S.A. and Schimmenti, E. (2020) 'COVID-19 drives consumer behaviour and agro-food markets towards healthier and more sustainable patterns', *Sustainability* (*Switzerland*), 12(20), pp. 1–26. doi:10.3390/su12208366.

Department of Basic Education (2021) National Senior Certificate 2020 Examination Report.

Department of Planning, Monitoring and Evaluation (2010) 'National Evaluation Policy Framework'.

Dewa, M.T., van der Merwe, A.F. and Matope, S. (2020) 'Production scheduling heuristics for frequent load-shedding scenarios: A knowledge engineering approach', *South African Journal of Industrial Engineering*, 31(3), pp. 110–121. doi:10.7166/31-3-2422.

DHET (2010) 'Government Gazettee No 33756'.

DHET (2019) 'National Skills Development Plan', Government Gazette, pp. 4-40.

Euromonitor International (2022) *War in Ukraine Heightens Inflation Risks and Challenges the Global Economy*.

FAO (2022) *Thinking about the future of food safety, Thinking about the future of food safety.* doi:10.4060/cb8667en.

Food and Beverage SETA (2020a) Annual Report.

Food and Beverage SETA (2020b) 'SSP Data Instrument 2019/2020'.

FoodBev SETA WSP (2022) "WSP data from 2017 to 2022".

Fukase, E. and Martin, W. (2020) 'Economic growth, convergence and world food demand and supply', *World Development*, 132.

Habanabakize, T. and Dickason-Koekemoer, Z. (2021) 'Assessing the Significance of Electricity Supply, Inflation and Fuel Price on Food and Beverage Production and Sales in the Manufacturing Sector', *African Journal of Business and Economic Research*, 16(4), pp. 137–157. doi:10.31920/1750-4562/2021/v16n4a7.

Hassen, B.T., Bilali, E.H. and Allahyari, M.S. (2020) 'Impact of COVID-19 on Food Behaviour and Consumption in Qatar', *Sustainability*, 12(17). doi:10.3390/su12176973.

Hatab, A.A. (2022) 'Russia's invasion of Ukraine jeopardizes food security in Africa: Shocks to global food supply chains could lead to social and political unrest (NAI Policy Notes 2022:5)'.

Hofman, K.J. *et al.* (2021) 'South Africa' s Health Promotion Levy: Excise tax findings and equity potential', (February), pp. 1–7. doi:10.1111/obr.13301.

Hunt, L.C. and Kipouros, P. (2023) 'Energy Demand and Energy Efficiency in Developing Countries', *Energies*, 16(3), pp. 1–26. doi:10.3390/en16031056.

Jessen, N. *et al.* (2022) 'Levels of Salt Reduction in Bread, Acceptability and Purchase Intention by Urban Mozambican Consumers', *Foods*, 11(3), pp. 1–12. doi:10.3390/foods11030454.

Keith, N. (2022) Russia, Ukraine conflict may drive some prices beyond historic highs.

Lacombe, A. et al. (2021) 'Food safety lessons learned from the COVID-19 pandemic', *Journal of Food Safety*, 41(2), pp. 1–10. doi:10.1111/jfs.12878.

Lin, X. et al. (2021) 'Consumers' intention to adopt blockchain food traceability technology towards organic food products', *International Journal of Environmental Research and Public Health*, 18(3), pp. 1–19. doi:10.3390/ijerph18030912.

Mammadov, E. (2022) 'The Economic Consequences of Russia-Ukraine War for', (March).

McCann, B. et al. (2023) Climate Change, Food Systems, and Nutrition: Challenges and Opportunities for Children's Health in Sub-Saharan Africa.

National Agricultural Marketing Council (2022) *The impact of the RussiaUkraine conflict on South African oil price*. Available at: https://www.namc.co.za/wp-content/uploads/2022/08/Trade-Probe-Issue-89.pdf.

Ntloedibe, M. (2021) Food Processing Ingredients.

Nyawo, T., Kesa, H. and Onyenweaku, E. (2021) 'Food Safety and Hygiene: Knowledge, Attitude and Practices among Food Handlers', *African Journal of Hospitality, Tourism and Leisure*, 10(2), pp. 547–558. doi:10.46222/ajhtl.19770720-117.

OECD, AfDB and UNECA (2022) Africa's Urbanisation Dynamics 2022: The Economic Power of Africa's Cities, West African Studies. Paris: OECD Publishing.

Quantec (2021-2023) 'Quantec Database'.

Reddy, N. and Woody, K. (2023) 'Report Number: Report Name: Food Processing Ingredients Country: South Africa - Republic of Post: Pretoria Report Category: Food Processing Ingredients Prepared By: Approved By: Ali Abdi Report Highlights: This report provides more information on ', pp. 1–10.

SARS (2021) 'SARS Data'.

Sihlobo, W. (2021) South Africa's agricultural exports registered the second largest level on record in 2020.

Statistics SA (2021) 'Manufacturing: Production and sales (preliminary)'.

Statistics SA (2023) *Gross domestic product Fourth Quater 2022, Statistics SA*. doi:10.5040/9781501341281.0016.

Tasamba, J. (2022) Wheat prices in Africa up 60% due to Russia-Ukraine war: AfDB.

Teressa, B. (2021) 'Impact of Climate Change on Food Availability—A Review', *International Journal of Food Science and Agriculture*, 5(3), pp. 465–470. doi:10.26855/ijfsa.2021.09.017.

United Nations (2022) *World Population Prospects 2022, United Nations*. Available at: www.un.org/development/ desa/pd/.

Vögler, O. and Carvalho, F.P. (2021) 'Increasing the impact of science and technology to provide more people with healthier and safer food', (May 2020), pp. 1–31. doi:10.1002/fes3.259.

Wijerathna-Yapa, A. and Pathirana, R. (2022) 'Sustainable Agro-Food Systems for Addressing Climate Change and Food Security', *Agriculture (Switzerland)*, 12(10), pp. 1–26. doi:10.3390/agriculture12101554.

World Economic Forum (2021) *Global Gender Gap Report 2021*. doi:10.1002/9781119085621.wbefs350.

World Economic Forum (2023) *Future of Jobs Report 2023 - INSIGHT REPORT 2023*. Geneva. Available at: http://www3.weforum.org/docs/WEF\_Future\_of\_Jobs.pdf.

WSP/ATR 2020/2021 (2021) 'WSP/ATR Data'.







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