

The South African Food and Beverage Industry - Past, Present and Future Application of Science and Technology to Provide Safe, Affordable and Nutritious Foods

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Abstract

South Africa's food system is failing, as observed through increased hunger, rising food costs, lack of dietary diversity, child stunting, foodborne illnesses, excessive food waste and an obesity epidemic coupled with malnutrition. Findings from this study indicate that food consumption shifts since 1994 have been towards increased consumption of packaged foods, sugar-sweetened beverages and animal-based foods, with a shift from vegetables. Furthermore, the study found that most commitments by the South African food and beverage industry to improve nutrition were limited to corporate social investment strategies, which should be extended into core business strategies to fully leverage the market and corporate reputation opportunity offered. It is predicted that the food and agricultural production sector is on the edge of a revolutionary disruption with the uncoupling of dependence on land and sea resources to instead utilise novel protein sources derived from bacteria, yeasts and fungi. According to this study, the most promising emerging food sources that could be available to South Africans in the short term (3 - 5 years) are the utilisation of indigenous African crops and food waste recovery.

South Africa has many of the enabling drivers to become a powerhouse of food technology advances. It has research capacity in agricultural research through diverse institutions, an expanded pipeline of masters and doctoral graduates and an increase in publications and government programmes to bridge the gap from research to commercialisation. South Africa has a strong agricultural sector and a growing food and beverage manufacturing industry that keeps pace with advances in manufacturing practices. Unfortunately, South Africa underinvests in research and development (R&D) funding; there is a lack of pilot plants and scale-up facilities to enable ideas to scale and reach the market effectively. The government could play a significant role in connecting key role players across the research ecosystem and food value chain around critical research agendas such as hunger and malnutrition. South Africa needs to become more resilient to these impacts through collective engagement to harness the benefits of novel and emerging food science technologies yielding food security, employment, and economic growth.

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Lisa is a passionate Food Scientist with extensive global experience working in a variety of multinationals from Unilever, Mars, Woolworths, and MANE across the food FMCG environment (ingredients, flavours, manufacturing and retail). She has a particular passion for ensuring the application of science and technology is meaningful for both people and planet. Lisa recently moved from South Africa, where she was R&D Executive for Mane Flavours leading their Innovation Centre for Sub-Saharan Africa, to join v2food in Australia. Lisa is currently Head of Science & Technology where she is responsible for leading and translating v2food's research programs into meaningful product and sustainability advancements. Lisa is completing her PhD in Food Science through the University of Stellenbosch, exploring the current and future application of food science & technology in South Africa in responding to major shifts in food consumption patterns since 1994.