

Food security and malnutrition

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Food security is defined by the United Nations' Food and Agriculture Organization (FAO) as follows: "Food and nutrition security exists when all people at all times have physical, social and economic access to food of sufficient quantity and quality in terms of variety, diversity, nutrient content and safety to meet their dietary needs and food preferences for an active and healthy life, coupled with a sanitary environment, adequate health, education and care."

The opposite, namely food insecurity, has been around since biblical times and can be traced to when Joseph predicted seven years of plenty and seven years of famine. The plans he made are the first example of food security planning.

The burden of food insecurity

During the food crisis of the 1970s, it became clear that food security was a common concern for many countries and was then added to the development debate. The Millennium Development Goals (MDGs) and subsequent Sustainable Development Goals (SDGs) of the United Nations were global strategies implemented to promote prosperity while protecting the planet.

Despite many international initiatives to address food insecurity, The State of Food Security and Nutrition in the World 2018 report showed that world hunger has increased in recent years to that of almost a decade ago – from 804 million in 2016 to almost 821 million in 2017, thus one out of every nine people.

Regardless of vast improvements in South Africa, 22,3% of the population still has insufficient food for an active and healthy life and 11,8% experience chronic hunger. Recent land reform disputes might further aggravate the situation. Food insecurity is not only associated

with malnutrition, but also with overweight and obesity. The world is now facing a double burden of malnutrition, with insufficient energy (calories) and nutrient intake on the one hand and excess energy intake on the other.

Undernourishment is characterised by protein-energy malnutrition (stunting, wasting and underweight) mainly in children, as well as micronutrient deficiencies (e.g. vitamin A, D, B6, B12, zinc and iron) affecting people throughout their lifespan. Malnutrition has major consequences for rapidly growing infants and young children, such as poor physical and mental development.

On the other hand, South Africa has a high prevalence of overweight and obesity in adults; however, this is not only an adult problem as 25% of girls and 20% of boys, aged two to 14 years old, are overweight or obese. Obesity is often associated with diet-related non-communicable diseases (NCDs), such as heart disease, type 2 diabetes, cancer and blood pressure.

The solution

It is clear that hunger and food insecurity and its associated malnutrition is a persistent problem. Adequate nutrition is key for the prevention of hunger and malnutrition. Yet the challenges are numerous – more food is needed for the growing population, but food and agricultural systems are vulnerable to many risks, such as climate change, emerging water scarcities, and market volatility, to name a few.

Agricultural development has been recognised as a sustainable approach to address food insecurity. Collaborative efforts between the government, academia, producers and processors



Wilna Oldewage-Theron (Photograph: Texas Tech University).

should thus be strengthened to increase productivity while conserving the natural resources, as well as improve access to affordable nutritious food to address not only food insecurity but also malnutrition.

Legumes and soya beans have been identified as economical and versatile foods that will not only provide essential nutrients for malnutrition, but also add additional and unique health benefits that will address the increasing prevalence of over-nutrition. Legume and soya bean production should be promoted as it not only has health benefits, but also offers many processing opportunities for value addition in terms of cheap protein sources. 🌱

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