



SAYAS FOOD SECURITY AND POLICY WORKSHOP

REMARKS BY

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11 April 2018

Ladies and Gentlemen,

In the last 50 years, the global population has increased from 3 billion to the current estimate of 7.1 billion. During this 50-year period, agricultural production and supply of food commodities have outpaced population growth and market demands. These increases in agricultural production and productivity have largely been due to substantial and consistent investments mostly in public agricultural research and development initiatives yielded crop improvements and new technologies -- the outcome was the revolutions in farming systems and methods. Some of these productivity gains, popularly known as the Green Revolution enabled the world to stave off doomsday predictions attributed to Thomas Malthus.

This was particularly evident in Asian countries, often linked with economic growth and further population growth. However, what has been the impact of this, so called – Green Revolution among Africans on this continent?

According to the UN Food and Agriculture Organisation's (FAO) report on **"The State of Food Security and Nutrition in the World" – 2016**

- Global hunger 815 million people
- 243 million in Africa
- Africa has highest prevalence of undernourishment 23% of population

- Although there's sufficient food energy needs in some, there remains deficiencies in micronutrients (protein, vitamins, essential minerals etc.)
- Increased obesity
- Stunted growth in children and poor learning outcomes
- In our own country, South Africa, it is estimated 10 to 15 million people are suffering from chronic hunger and malnutrition. Many of these people live in rural areas and depend on food from small – scale farming and marketing systems. Soon the latest set of data will be released by the report from the DAFF & StatsSA Food Vulnerability Assessment.

Unfortunately for Africa, the Green Revolution had selective and less impact among communities as many continue to experience devastating impacts of crop and livestock productivity failures often ascribed to droughts, floods, pests and diseases that also continue to manifest in the form of poverty, food and nutrition insecurity among large populations.

“The challenge for Africa to feed itself and become a major food supplier for the world is compounded by the need to produce healthier, safer and more nutritious food on less land, using less water and chemicals, and producing less waste and less greenhouse gasses. These demands explain why Africa resolved to develop a Science Agenda for African Agriculture (S3A) with a vision aptly defined as: “By 2030 Africa is food secure, a global scientific player, and the world’s breadbasket”. The Science Agenda represents a delayed yet urgent and realizable opportunity for Africa to fulfil this destiny. It articulates the science, technology, extension, innovations; policy and social learning that Africa needs to apply in order to meet its agricultural and overall development goals. The Science Agenda is therefore conceived as a vehicle to support the implementation of the Comprehensive Africa Agriculture Development Programme (CAADP), which is the broader framework for transforming agriculture in Africa. Science and technology is an essential part of the CAADP strategy to instigate an agricultural – led social and economic transformation”.

Current and future predictions by the United Nations Food and Agriculture Organization (FAO) and others suggest that the global food system will experience an unprecedented confluence of pressures over the next 20 to 40 years. On the demand side, global population size will increase, including South Africa, from the 7.1 billion today to 9 or 10 billion by 2050.

In terms of agriculture, the sector will experience increased pressure to fulfil the needs of increased population and demand for food. On the production side, competition for natural resources, particularly land, water and energy will intensify; while effects of climate change will become increasingly apparent. The need to reduce greenhouse gas emissions and adapt to a changing climate will become imperative. Conservation and sustainable use of natural resources will become critical to the success of agriculture to meet population demands.

During the same period globalisation will continue, exposing the food system to novel economic and political pressures. Innovation and increased focus on science and technology for a knowledge based economic system will become vital to the success of agriculture to meet future demands.

Any one of these drivers of change could present significant challenges to food security, particularly in many developing countries, South Africa included; and together they constitute a major threat that requires innovative reappraisal of how to ensure household food security.

What would be the challenges for the future?

- a) Balancing future demand and supply sustainably – to ensure that food supplies are affordable
- b) Ensuring that there's adequate stability of food supplies – and protecting the most vulnerable from the volatility that may occur;
- c) Achieving household access to food and ending hunger – recognizing that producing enough food in the country is not the same as ensuring food security for all;
- d) Managing the contribution of the food system to the mitigation of climate change; and,
- e) Maintaining biodiversity and ecosystem services while feeding the population.

So what do we need to do to change the world?

Perhaps we need to consider a way to “shift the scientific debate to community science and engage policy makers, politicians, industry, scientists, NGOs, the community and every role player in the food system”

In other words, we must all become activists in our own way, to ensure that our message is communicated to all and becomes part of our daily lives. We cannot sit idly, while masses of people in all our communities are hungry, undernourished and wasting food where there are excesses.

The Agricultural Research Council (ARC) is a public entity established in terms of the Agriculture Research Act of 1990 of South Africa. A science institution conducts research with partners, develops human capital and fosters innovation in support of the agricultural sector.

We believe that through this research, the ARC impacts on agriculture and related sectors significantly, particularly through the effective dissemination of scientific knowledge. It's our hope and expectation, that by so doing, our scientific endeavours as a research organization influence people's thinking, the economic performance and sustainability of agriculture.

We need to remember that research outcomes, results and publications must in turn, be translated into technologies and products that have practical value (commercial and non – commercial) to the users. When this is achieved we would be contributing significantly towards food security in our communities and responding to global needs.

It is well documented that the impact of research and innovation often extends beyond national borders. Accordingly, partnerships, engagements, exchange of information and technology, capacity building throughout the world become critical. It is for this reason that the ARC has many partnerships both locally, as demonstrated through the centre of excellence for food security and internationally.

Agriculture research is critical towards ensuring food and nutrition security for all. As a primary industry, it often has an economic multiplier effect with significant impact on job creation, improved livelihoods, competitiveness of enterprises, sustainable growth, rural development and social stability.

According to the UN Millenium Development Goals report, in the last 30 years' investments in agriculture research and development have contributed to reductions in the number of people living in extreme

poverty. This was achieved despite increased global population by more than 1 billion.

We therefore cannot afford to waste time. Each one of us must contribute towards the sustainable production and productivity of food for all.

Let's explore how the Agri – Food Innovations can be used to contribute towards sustainable food systems

Thank you.