



THE COMMONWEALTH AND GLOBAL FOOD SECURITY

'There is no single pathway to global food security. Amongst an array of solutions, three show promise: new technologies, enhanced trade through biosecurity, and reduction in food losses and waste.'

Dr Denis Blight clarifies the situation.

New Technologies

Research delivering higher yielding varieties of cereals is key. Half of the increases are achievable through progress in potential yield and half through yield gap closing – sub-Saharan Africa presents significant opportunities to close yield gaps, and potential yield increases will be derived from breeding gains. The Consortium of Global International Agricultural Research Centers' (CGIAR) research programs have made good progress in Eastern Africa, sometimes with Australian involvement through the Australian Centre for International Research (ACIAR) projects on maize legume intercropping and small zero till drills, and through the Borlaug Global Rust Initiative on global rust screening in Kenya.

Productivity improvements in animal and other commodities must also be pursued.

As African agriculture moves from subsistence to market-led systems, and some small producers generate food surpluses to sell, products must address market demand. Three things underpin success in demand-led breeding: targets that emphasise quantitative goals, improved varieties to reach and fulfil client expectations; a strategy designed for each new variety with a staged plan for line progression decisions, and a delivery investment plan; and greater emphasis on the views of clients - success is determined by the demand and use of the new variety throughout crop value chains.

Biosecurity and Trade

Trade can aid food security but intra-Africa trade is constrained by concerns on biosecurity and phytosanitary safeguards in a continent of porous borders and countries vulnerable to globally invasive species.

A partnership between Australia and Africa – The Australia Africa Biosecurity

Partnership (AAPBP) – aims to strengthen plant biosecurity capacity in ten, mostly Commonwealth countries, in Eastern and Southern Africa. It aims to foster close interaction between their National Plant Protection Organisations on early warning systems for emerging pest threats, and for a regional approach to the management of pests already present in one or more of the target countries. Pressing biosecurity challenges in Africa include maize lethal necrosis, the tomato leaf miner, fruit flies and panama disease of bananas. Action plans to address these risks are achievable.

In 2016, a series of workshops in Africa and attachments of African fellows in Australia, is sharing Australian biosecurity expertise with African plant protection specialists. These steps help to identify pest prevention and management procedures appropriate in Africa, and build mentoring links between Australian and African biosecurity specialists.

Food Losses and Waste (FLW)

Reducing FLW (30-40% of production) can improve global food security, sustainably – an objective which gained international profile at the G20 summit in 2015. It embraces the whole food chain; questions who benefits and loses from FLW; who should pay for reduction measures; and environmental benefits of better management. Estimates from 2007 suggest that the global carbon footprint

of FLW was approximately seven percent of all global emissions.

The public, and private sectors (Nestlé has declared war on waste), and communities have roles. The Crawford Fund has convened a representative international panel to address the issues at its Parliamentary Conference in Canberra in late August 2016.

Conclusion

Food security is a priority issue for all sectors in the Commonwealth – especially in Africa. A critical value-adding role for the Commonwealth, perhaps through knowledge generation and sharing, is a matter for consideration.

MORE INFORMATION

Crop yields and global food security: will yield increase continue to feed the world? by RA Fischer
www.crawfordfund.org | www.cgiar.org | www.aciar.gov.au

ABOUT THE AUTHOR



Dr Denis Blight, AO FRSA, Chief Executive of the Crawford Fund, has held the positions of Australian diplomat, public servant and Chief Executive. His association with international agricultural research began 25 years ago, as the first employee of ACIAR. From 1984 until 1986, he was head of the Australian Aid program for south-east Asia and China. Prior to the Crawford Fund, he was Director-General of CAB International, and Chief Executive of IDP Education Australia. Dr Blight is a member of RCS ACT branch.