

New International Development Policy for Australia – Call for Submissions

Submission from Associate Professor Eric Craswell, ANU

*Give a man a fish and you feed him for one day.
Teach him how to fish, provide him with nets,
and you have fed him for many days. Teach
him as well how to make his own nets, and you
have fed him for a lifetime.*

Proverb

This submission focuses on the justification for maintaining expanded Australian International Development support for science-based growth in agricultural productivity in the Indo-Pacific region. As expounded in the Proverb above, the human dimensions of the required innovations lie at the core of the requisite self-reliance in food production. Despite past successes, burgeoning population growth continues to increase demand for food and improving diets, and persists against a background of concerns about resource degradation and a changing climate. The success of Australian funding for bilateral and multilateral approaches to resolve the problems over past decades, and build human capacity, is clear. Also well documented are the effectiveness of these investments in a research partnerships approach that contributes to Sustainable Development Goals to abolish hunger and poverty. The unique contribution that Australia can make in this area by mobilising Australian science reinforces the enlightened self-interest and ‘doing well by doing good’ dimensions of these investments, while bolstering Australia’s international reputation. Based on these assertions, Australia’s new International Development Policy should embrace the need for expanded support for agricultural research and development.

Building on success to meet new challenges to food security

Past Australian investments in bilateral and multilateral agricultural research have proven to be an effective mechanism for promoting international development by alleviating poverty and food insecurity. The last few decades have seen tremendous progress in the Australian-aid target countries in the Indo-Pacific region and parts of Sub-Saharan Africa, the problems are in no way completely solved, and improving the productivity of food production and its equitable distribution should remain high on the to-do list of development cooperation programs. United Nations agencies estimate globally that, in 2018 two billion people did not have regular access to safe, affordable and nutritious food, and that 660 million people live in extreme poverty - the number of smallholder farmers is estimated to be 500 million.

Past expansion of domestic food production in developing countries, the green revolution, has been and largely based improved staple cereal crop varieties in high potential areas with irrigation and available chemical inputs. However over exploitation of water resources, particularly in major river basins, is already signalling the limits to future growth in irrigated agriculture, thus raising the stakes for meeting the needs of a growing population projected to reach 9.8 billion in 2050. Agricultural and environmental science played a key role in meeting these challenges in the past and, given adequate continuing support from the Australian International Development program, can help significantly to meet the challenge in the decades ahead. This is a grand challenge for scientists in target countries and the international research agencies, as well as those in Australian Universities and CSIRO.

Australian investments in multilateral research

The Consultative Group for International Agricultural Research (CGIAR) supports 15 independent not-for-profit research centres with funds from a range of donors including the Gates Foundation, World Bank, and individual countries such as the UK, the Netherlands, Switzerland, Germany and Sweden. Australia is amongst the top ten donors. Australia has played a key role in the CGIAR, right from its inception in the 1970s when Sir John Crawford, Vice Chancellor and subsequently Chancellor of the Australian National University, was Chair of the first Technical Advisory Committee of the CGIAR. Sir John also served on the Boards of the International Food Policy Institute and the International Fertilizer Development Center. Sir John recognised the important role that Australian scientists could also play through a bilateral mechanism and he was instrumental in the foundation of the Australian Centre for International Agricultural Research (ACIAR) in 1982 (discussed further below). Subsequently a small army of Australians have played key roles in scientific and management positions in the CGIAR centres.

The 15 CGIAR centres cover a wide spectrum of important commodities, natural resources issues and agro-ecologies, including crops, livestock, fish, agroforestry, land and water resources, food policy, and humid, arid and semi-arid tropics. Australia has played a leading role over the past decade to improve the CGIAR organisation, making the individual centres and cross-system programs more effective. As a result, the CGIAR Centres gather information on the impact of their work on agricultural productivity and other indicators. For example, in 2018 the CGIAR Centres generated 945 innovations, produced 114 new policies, developed 1795 information products, and trained 1.02 million scientists and technicians¹. As pointed out by the 2011 Aid Effectiveness Review, Australian support to multilateral program extends the reach of Australian aid to areas where limited experience or presence, deliver activities beyond Australia's capacity, and facilitate access to global knowledge and expertise.

One vital recent development has been the linkages forged between the CGIAR centres and environmental programs in projects such as Climate Change Agriculture and Food Security program. This activity addresses several of the 17 Sustainable Development Goals, backed by the World Bank has recently emphasised the concept of Climate Smart Agriculture – based on:

- increasing agricultural production and incomes to meet increasing demand while ensuring the sustainability of the soil and water resources used.
- making production systems more resilient and better able to withstand weather variability and climate shocks, i.e. adaptation to the effects of climate change.
- reducing the greenhouse gases emitted by agriculture and to promote the sequestration of greenhouse gases in agricultural soils and plants, i.e. mitigation.

The Australian Centre for International Agricultural Research.

The ACIAR has proven to be a very effective bilateral mechanism for Australia to contribute to addressing the problem of food insecurity and poverty in the developing world. ACIAR's success was noted by former Minister of Foreign Affairs and Trade, Julie Bishop, who called ACIAR *the jewel in*

¹ <https://www.cgiar.org/impact/results-dashboard/>

the crown of the Ministry of Foreign Affairs and Trade. The training program supported by ACIAR has greatly enhanced the capacity of researchers and extension workers in partner countries. The research partnership model developed by ACIAR not only tackles high priority problems nominated by collaborating countries, but also leverages funding and in-kind support from Australian research institutions, adding extra expertise and resources to the program of international development.

The governance structure of ACIAR involves a peak body Commission for International Agricultural Research which also engages stakeholders and expertise from collaborating agencies through a Policy Advisory Council which under the ACIAR Act provides an overview advising the Minister about agricultural problems, programs and policies. ACIAR training programs include on-the-job training in research projects and a significant postgraduate training for overseas scientists. Projects cover a diverse range of topics from food security and poverty alleviation, to natural resource management and value chain analysis. ACIAR has been in the forefront of developing methodology for assessments of ex ante and post project impact analysis. For example a meta-analysis of 37 impact assessments covering 90 ACIAR projects found \$11.4 billion of benefits to developing countries and \$1.2 billion to Australia from a total expenditure of \$234 million in 2008 dollar present value terms. The extensive benefits to Australian agriculture have been elaborated in the Crawford Fund publication *Doing Well by Doing Good*².

ACIAR also provides partial support to the Crawford Fund which works largely through State and Territory committees jointly to fund training in research and development. Most State and Territory Governments provide in-kind support as well as funds. The Fund is very cost effective operating largely through volunteers who organise training courses and Master Classes, as well as providing mentoring to scientists in target countries. The Crawford Fund has trained 12,000 individuals from 50 countries. The Fund also plays a key role in public awareness. The Fund's annual conference addresses current important development issues and generally is held in the Australian Parliament Seminar Room.

Conclusion

This submission has barely scratched the surface of the extensive literature in journals and reports on the topic of international agricultural research and development, and the key role played by Australia. The author would be pleased to provide further information as required.

² Blight, DG, Craswell, E.T. and J.D. Mullen (2013) *Doing Well by Doing Good: International Agricultural Research – How it benefits Australia as well as developing countries*. Report of the Crawford Fund Doing Well by Doing Good Task Force, 44pp.