

Crawford Fund 2015 Parliamentary Conference: A summary

The Unusual Business of Food Security

The continuing challenge of feeding the 9 billion, well

The *business* of food security cannot be *business as usual*. The challenge of feeding the 9 billion, *well* (that is with sufficient safe and nutritious food), must be met in the face of:

- a growing population – especially a burgeoning global middle class demanding more food, especially more protein-rich food,
- increasingly complex political and strategic circumstances that will only become more dire in a food insecure world, and
- fragile environmental conditions which threaten supplies of land, water and nutrients and are potentially worsened by climate change, by a shrinking range of durable crop varieties, by declining biodiversity and by seemingly intractable problems of waste and food losses.

Individual and collective responses are vital but involve conflicting views

The sum of these challenges is just too great and too complex for simple solutions. Policy and scientific stamina are central, and essential, for integrating collective and individual responses from stakeholders, including:

- farmers, small and large, who have significant roles in delivering to national and international markets;
- companies – local, national and multinational – which have the capacity to deliver technologies and, in some remarkable cases, philanthropy; these attitudes can translate food security challenges into business opportunities;
- other players throughout the value chain – integrators, processors, packagers, transporters, marketers, consumers, NGOs and advocacy organisations – who have the important task of maintaining the integrity of nutrients in foods moving through the value chain; these stakeholders can and must help address the staggering burdens of under-nutrition and over-nutrition;
- national and international research institutions such as CSIRO in Australia and those within and beyond the CGIAR; and
- funding agencies. The Fund expresses its thanks and admiration for the work of ACIAR and thanks for the encouragement of DFAT.

None of this integration is easy, involving, as it does, a large group of stakeholders with different values, working cultures, and agendas. This is a complex setting and there are elements of paradox and contradiction. Some stakeholders have a belief that farming must be undertaken responsibly – and they set consumer preferences, such as for local, organic and urban farming, against the potential for increased food production via large-scale commercial farming. Some recognise that technology is needed to grow more food but object to particular technologies and wish to minimise (or even avoid altogether) the use of

pesticides, fertiliser and genetically modified seed. Some call for the use of more or less water, land and labour to increase food production though they know that each factor has consequences and limitations (for labour, for example, an aging farm workforce and labour shortages). Other stakeholders make a general assumption that ensuring food security is a core role of government and they discount the contributions of other players such as NGOs and private enterprise.

Ways of breaking through

The agenda for this conference, therefore, *deliberately* highlighted the following factors, which the Fund considers important in finding a way through the complexity:

- Leadership by the private sector – from which half of our speakers were drawn. The private sector plays a crucial role in bringing new technologies to market at scale.
- Partnerships, and the value of brokerage by not-for-profit organisations such as SFSA (Syngenta Foundation for Sustainable Agriculture), WWF and the Crawford Fund; that is, partnerships between two or more people or institutions, often with differing perspectives, who pool resources, share risks and results, show trust and invest in trust.
- Supportive government actions – such as national land registries, and open transparent free-trade and investment policies for which Australia is well known. It is the role of government to establish and resource science-based regulations for better agricultural development; to revive extension services; and to invest in physical infrastructure and markets. Governments need to ensure there is a ‘level playing field’ where investors can compete in full transparency.

During this year’s conference we learnt that multi-level partnerships such as ‘Grow Asia’ and other innovative public–private and not-for-profit arrangements are available for scaling up, out and across national, regional and socio-political boundaries. CIMMYT, ICRIAT and other international centres, for example, work with *hundreds* of small seed companies, worldwide which multiply and bring seed to farmers. Ideas for products can be hatched and developed through partnerships, and then disseminated widely through commercial channels.

The private sector and its profitability have particular roles in natural resource management. Most of a company’s environmental impacts are beyond the control of its operational footprint. They may extend into its supply chain and typically are seen in the production and harvesting of raw materials. In this context, we heard how the WWF demonstrates not-for-profit leadership in the way it seeks to engage and broker partnerships with major retailers, manufacturers and brands, traders and investors, all focused on slowing the loss of biodiversity and reducing the impacts of agriculture, forestry, fisheries and aquaculture on water and climate. This work forms part of WWF’s global market transformation initiative which seeks to change the ways in which key commodities are sourced, produced, processed, consumed and financed.

Using ingenuity

The ingenuity of humankind, which is manifest in our capacity to innovate through research and development, is an essential part of the solution, we heard. It is through innovation and R&D that we can produce food more sustainably and aim to freeze environmental impacts – through intensification, and by helping crops and animals to adapt and flourish so that their yields increase, and by overcoming food losses and waste. In one example, we heard about the importance of genetic resource collections and the back-up facility at Svalbard. In another, we heard that by raising average annual global milk yields per cow, we can reduce the environmental footprint of the dairy industry and at the same time improve animal welfare. There are many other examples of scientific breakthrough and incremental gain, some of which were touched on at the conference.

Whilst Australians can contribute to global food security through the production and export of safe and nutritious food (for as many as 200 million people by one estimate) we can also contribute to the diets of a further 800 million by applying our skills, R&D and business services. For instance, better food packaging such as is promoted by Visy can reduce food waste, we heard. Innovative information technologies can improve access to market information, and new insurance products can help farmers deal with changing weather patterns.

As CSIRO and others are showing, the export of our agricultural technologies and knowledge services can constitute a major profitable Australian industry. Products can be widely disseminated through licensing, and joint ventures, and other commercial arrangements. We rely on dedicated and inspired Australian human resources to sustain the contributions we can make with our agricultural technology. The presence of an increasing number of young people and strong and capable women at our annual Crawford Fund Conferences is a positive sign.

A major shift in attitudes

Achievement of our shared goal to feed the world without destroying its natural resource base will require a major shift in thinking, worldwide.

- We must abandon prejudice against this or that scientific endeavour, and instead continue to encourage investment in agricultural research. Trust between governments, NGOs and private enterprise is the key to successful collaboration.
- We must be respectful of both modern scientific endeavour and traditional approaches such as organic farming, and be open to both old and new energy sources. Much depends on willing exposure to diverse ways of thinking, and willingness to venture beyond the familiar. Our judgements should be science-based.
- We must accept that profit is good, whether it be made by small or large farmers, or else smallholders may be trapped for ever in some romantic notion of poverty, and multinational corporations may not have funds to invest in food production and natural resource management.
- We must recognise that ignorance of biodiversity and natural resource sustainability will damage both livelihoods *and* economic success.
- And we must acknowledge that over time and to balance the sustainability and profitability equation, commerce, trade and foreign direct investment will replace aid as the main channel for the provision of food and for the transfer of technology and know-how to the developing world.

Lessons for the Crawford Fund

For its part the Fund will:

- Continue to apply new and interesting ways to achieve its core task of promoting the benefits of investment by the public and private sectors in international agricultural research. The conduct of this conference would not have been possible without the generous support of our sponsors and registrants.
- Seek to attract increased support for its Young Scholars Program, including modest funding to expose young and emerging Australian researchers to international opportunities and careers in research for development.
- Look to new educational, technical and financial partnerships for conducting its restructured Master Class Program, and in submitting tenders for capacity-building projects, and for providing specialist training and mentoring through its independent State and Territory Committees. The Fund must tap into the private sector.

- Explore new ways to achieve cooperation, as exemplified by the Fund's alliance with SFSA and ACIAR in demand-led plant breeding, and its Wider Canvas series such as *Bread and Stones*, the Mining and Agriculture report by Persley and McHenry.

This summary has been prepared in an attempt to capture the main conclusions of the Parliamentary Conference and to stimulate further discussion about the issues. It is very much a personal interpretation. Any comments upon it and views about omissions will be taken into account in the formal proceedings for the event.

Finally, the Fund expresses its deep appreciation for its sponsors, conference speakers and registrants without whom the Conference would not have been possible.

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