MORE INVESTMENT IN AGRICULTURAL R&D A NO-BRAINER

Despite the evident riskier landscape facing agriculture, there have been huge negative changes in the global landscape for agri-food research and development (R&D), and the consequences are being felt world-wide. Considering the hard-nosed economic evidence on the outstanding and rarely equaled returns on investment in agricultural R&D, this is nonsensical, and we should be doubling down on agri-food R&D spending.

This is the key message of renowned international economist, Dr Philip Pardey, the Australian Professor of Science and Technology Policy and Director of Global Research Initiatives for the College of Food, Agricultural and Natural Resource Sciences at the University of Minnesota. Dr Pardey works with the Minnesota Supercomputing Institute to unlock data-driven innovations in the agri-food sector, and he will present new findings in his address to the Crawford Fund’s international conference Celebrating Agriculture for Development – Outcomes, Impacts and the Way Ahead on 15-16 August in Parliament House, Canberra. The conference will also be addressed by Minister for Agriculture, Fisheries and Forestry, Senator the Hon Murray Watt.

“For every dollar invested in agricultural R&D, there is a return of 10 dollars in social benefit, and this level of return has been consistent over many years. Yet, agri-food R&D spending is a declining share of total R&D spending, and the geography of R&D spending has changed substantially,” said Dr Pardey, who is highly respected for informing and enabling data-driven innovation and sustainable productivity growth in the food and agricultural sectors worldwide.

“I don’t need our supercomputer to tell me it’s a no-brainer - moving forward it will be much harder to stop eroding the past gains in yield and productivity, let alone increase them to meet the challenge of feeding 2 billion more people on the planet in less than 30 years.”

“Closer to home, since 1980 Australia has lost about one-third of its global share of agri-food R&D spending - 3.2% in 1980, 1.9% in 2018. Further afield, China now outsports the US in both public and private agri-food R&D, and the world is continuing to split into the scientific haves and have nots, with the poorer countries falling further behind,” warned Dr Pardey.

"The Asia Pacific region, including Australia, now accounts for almost half the world's spending on agri-food R&D, more than double its 1980 share. As the world's largest agricultural producer, China has given strong and sustained policy support for investments in agricultural R&D over the decades and outspends all other countries accounting for around 23% of the entire world's agri-food R&D spending."

“A concerning trend is that global agri-food R&D is highly concentrated – just 10 countries, with Australia sneaking in at number 10 on the ranked list, account for almost 2/3rds of the total spending worldwide. What is important is how open these countries are to sharing their knowledge for global food security,” he said.
“In terms of sharing knowledge, the private sector now outspends the public sector in agri-food R&D worldwide at a time when poor countries continue to remain heavily reliant on public agri-food research, yet needing the results of that research more than ever.”

Dr Pardey explained that at a time of underinvestment, the agri-food sectors are facing substantial and varied risk including climate change risks; plant, animal and human pest and disease risks; biodiversity risks and regulatory risks.

“As a single and sobering example of the shift in investment in agricultural research, the spending of the CGIAR - the world's largest global agricultural innovation network - has declined in inflation adjusted terms by almost 40% since 2014,” he concluded.

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The Fund’s annual conference brings together international and Australian specialists to look at the mutual benefit and impacts of investment in global food security and poverty alleviation and consider the effects of emerging threats including climate change and changing geopolitical conditions on agricultural production, food chains and the environment.

Other speakers include international affairs specialist Allan Gyngell, climate change and security specialist Dr Robert Glasser and renowned global wheat scientist Dr Alison Bentley.

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