# Building sustainability and resilience through international R&D

# helps

Crawford Fund FOR A FOOD SECURE WORLD

## Australia's international agricultural R&D helps deliver on our international commitments to sustainable development

Australia only invests 2.5 per cent of its international development assistance budget in agricultural research and development (R&D). However, this small investment is pivotal to foreign affairs efforts, our foreign aid program and our commitment to the United Nations' 2030 Agenda for Sustainable Development.

Australia's investment in agricultural R&D is mostly through the Australian Centre for International Agricultural Research (ACIAR), for projects that aim to revitalise sustainable agriculture in low-income countries—mainly in the Indo-Pacific region.

The Crawford Fund engages Australians to build capacity around food and nutrition security, often connected with ACIAR projects.

ACIAR's research helps achieve 14 of the 17 UN Sustainable Development Goals, including three relevant to natural resources and climate change:

- 6: Ensure availability and sustainable management of water and sanitation for all
- 13: Take urgent action to combat climate change and its impacts
- 15: Protect, restore and promote sustainable use of terrestrial ecosystems; sustainably manage forests; combat desertification; and halt and reverse land degradation and halt biodiversity loss.

Diminishing investment in such research and capacity building holds grave consequences for low-income countries experiencing rapid population growth; and suffering more severe impacts from climate change, land degradation and the COVID-19 pandemic than wealthier countries.

It is in Australia's interests to support an increase in the proportion of its development-assistance budget invested in international agricultural R&D.

#### Reducing air pollution

The dense smog that covers vast swathes of India, Bangladesh and Nepal in winter is being combated by farmers who are burning less of their rice stubble, and instead using the no tillage 'Happy Seeder'. Over 25 years, Australian agricultural aid played a key role in developing this machine which sows any seed into complete combineharvested rice residues both cut and anchored, with no burning.

The Happy Seeder also helps farmers to conserve their water and soil—resulting in increased crop yields and lower production costs. For planting in 2021, there were thousands of Happy Seeders operating in farmers' fields in the Indian states of Punjab and Haryana.





### Managing natural resources more sustainably promotes Australia's international environmental credentials

Research and capacity building that helps developing countries to implement agricultural practices that protect and restore their natural resources means their agriculture will be more sustainable in the long run. Sustainable agriculture delivers improved food security, reduces poverty and means developing countries are better able to mitigate and adapt to climate change.

Our recent independent reports <sup>1,2</sup> demonstrate that Australia's investment in agricultural development through our aid budget is an outstanding success. It is well-targeted and contributes to the food and nutrition security of low-income countries, as well as to their environmental and economic sustainability and resilience, and to gender equity and regional stability.

- 1 Australian Gains from Investment in International Agricultural R&D 2010-2020: Doing Well by Doing Good Report (PDF, 205 KB) produced by John Mullen, Julien de Meyer, Caroline Lemerle, Garry Griffith and Bill Malcolm, 2022, <a href="https://www.tinyurl.com/yc5w6vcw">www.tinyurl.com/yc5w6vcw</a>.
- 2 The Benefits to Australia and to the Global Community from Investing in International Agricultural Research and Development (PDF, 698 KB), produced by Alluvium International (Dr Neil Byron, Dr Jan Edwards, Mette Kirk and Steve Charlton-Henderson), 2022, <a href="https://www.tinyurl.com/2hbexha8">www.tinyurl.com/2hbexha8</a>.

Australian-supported research in the Philippines using mass coral larval reseeding to restore damaged reefs has paid off 'at home'. Following the overseas research and work, successful trials on the Southern Great Barrier Reef could lead to upscaled work to future-proof degraded reef systems against climate change around the world.





#### For further information

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