

North Asia

China

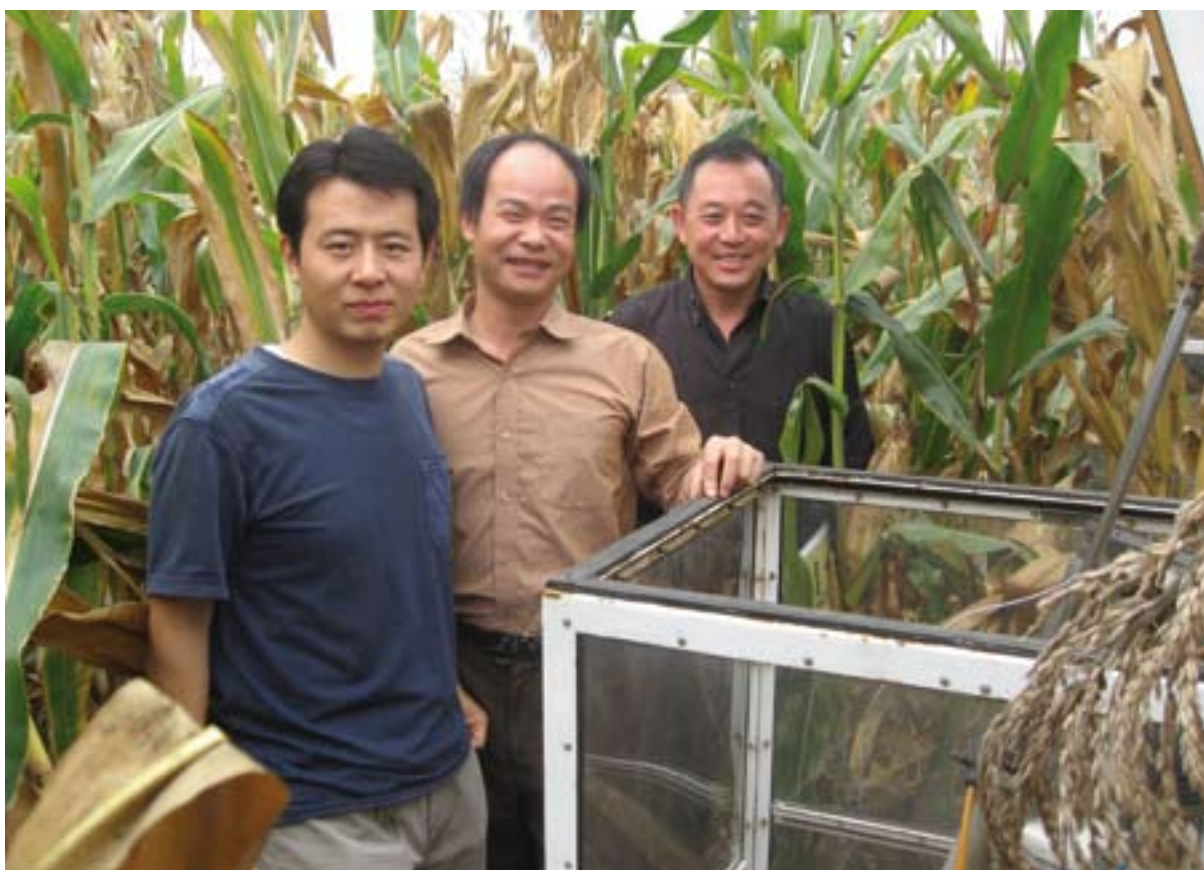
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Regional Coordinator



China:

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New technologies for improved water and fertiliser use in maize crops are being trialled in the Shanxi Province, China

China

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| GDP per capita (PPP ^a US\$) | 6,757 | Bilateral actual 2006–07 | \$2.9 m |
| Population (millions) | 1,313 | Bilateral estimate 2007–08 | \$2.4 m |
| Projected population (millions) 2015 | 1,389 | Bilateral budget 2008–09 | \$2.3 m |
| Active bilateral projects | 16 | Bilateral + multilateral budget 2008–09 | \$2.4 m |
| Active multilateral projects | 1 | | |

^aPurchasing power parity (see Appendix 3, Selected world development indicators)

Country Manager
Ms Catriona Murray
ACIAR Country Manager, China



Dr Tashi and a local farmer inspect a winter wheat crop in the Tibet Autonomous Region of China

Key program managers

Dr Simon Hearn, Agricultural Development Policy
Dr Paul Fox, Crop Improvement and Management
Dr Christian Roth, Land and Water Resources
Dr Jeff Davis, Policy Linkages and Impact Assessment

Medium-term strategy

ACIAR's program in China will focus on sustainability aspects of agricultural production through policy and technical projects on better management of land and water resources in north-western China.

In addressing sustainable production, the need to raise farmers' incomes through increased productivity and marketability of produce is also taken into account in project design. In order to reach those most affected by poverty, the program will increasingly target rainfed cropping systems with an emphasis on north-western China (primarily Gansu). In the course of 2008–09 ACIAR will review its focus in north-western China with the intent of strengthening extension of previous and future work and forming a more closely linked cluster of projects.

There is a related but broader emphasis on improving agricultural productivity in Tibet Autonomous Region. Both north-western China and Tibet Autonomous Region are confronting significant environmental challenges which need to be addressed through strategies that foster income growth for smallholders. In recognition of the evolving nature of Australia's development assistance relationship with China, all new activities will take the form of partnerships that include significant co-investment by our Chinese partners.

Key performance indicators (2008–09)

- implementation of a farming systems program in Tibet Autonomous Region that addresses farm enterprise diversification and crop intensification
- evaluation of opportunities and constraints for R&D investment into water productivity in north-western China agricultural systems
- assessment provided on sustainable land-use policy in north-western China and progressive consideration of alternative options
- improved understanding by Chinese partners of opportunities and challenges from WTO accession and associated farm adjustment prospects
- progress towards understanding the economic costs attached to technical barriers impacting Chinese agricultural trade
- at least 40% of new projects designed to have components leading to significant farmer or policy impacts within 5 years of completion

Position

ACIAR has had a program with China since 1984. Major areas of research have included agricultural water management, selection of Australian trees suited to Chinese forestry, improvement and integrated pest management in *Brassica* crops, studies of livestock production and diseases with a focus on sheep and wool, quality management in stored grains, and broadacre crop and citrus improvement. Adoption of conservation tillage in some central western provinces has been recognised as part of the solution to improve crop management and reduce wind-blown dust in Beijing. Over the last decade the focus of ACIAR's program has shifted towards western China, in line with the need to

raise farmers' incomes in this part of the country and to better manage land and water resources.

In view of the significant human and financial resources now available within the Chinese National Agricultural Research System, and the strong mutual benefits to Australia, ACIAR requires Chinese and Australian research providers to substantially share costs of projects in China. ACIAR will usually seek a funding commitment through case-by-case exchanges of letters at the development stage of full project proposals. Only a small proportion of the highest priority projects can be supported. Projects chosen must:

- address the highest priority of Chinese partners
- address overall Australia–China development policy (to 'further mutual interest by supporting China's balanced development policies and working together in the region') complement other schemes for China–Australia collaboration, including the AusAID Australia–China Environment and Development program
- be in areas where the overwhelming driver is Australian technical comparative advantage
- complement rather than duplicate activities of other (larger) donors.

Australian intergovernmental cooperation

ACIAR projects form only one part of the China–Australia intergovernmental cooperation in agriculture and natural resource management. Australia's aid program in China has largely shifted away from discrete poverty reduction activities towards the sharing of ideas, high-level capacity building and policy engagement. AusAID's China strategy for 2006–10 has the goal of furthering mutual national interest by supporting China's balanced development policies and working together in the region. It has the three strategic objectives of building capacity in selected sectors in China, in particular governance, environment and health; enhancing the Australia–China relationship by building institutional linkages; and working collaboratively to strengthen the region.

ACIAR's China program, while maintaining a focus on sustainable resource management in poorer and environmentally degraded western regions, reflects the strategic objective of building capacity in China. It focuses strongly on capacity enhancement in technical and policy issues relating to the environment, as it is either affected by agricultural production or in turn affects production sustainability. This thematic focus will be enhanced by increased attention to policy development avenues. It will assist in identifying suitable reform programs which enable farmer adjustment and adoption of technical opportunities for income improvements through effective conservation practices. ACIAR's mode of operation in China is through the development of strong institutional linkages between Australian and Chinese government R&D and policymaking organisations, thus supporting the second strategic objective of the overall Australian aid program in China.

Other activities that are taken into account by ACIAR, and which may be alternative sources of support for researchers interested in China include:

- the **Australia–China Agricultural Cooperation Agreement** (ACACA, <www.daff.gov.au/market-access-trade/iac/acaca>), jointly administered by the Department of Agriculture, Fisheries and Forestry (DAFF) in Australia and the Chinese Ministry of Agriculture. ACACA provides funding for agricultural exchange projects between Australia and China. The present focus is on projects that demonstrate commercial potential and provide clear flow-on benefits to industry. DAFF has also established an Agricultural Technical Cooperation Program with initial projects in wool marketing and grasslands management. In addition, DAFF has formed a Strategic Partnership Agreement with AusAID to strengthen the whole-of-government approach to development cooperation in the Asia–Pacific region. This partnership has helped facilitate recent water management assistance projects with China.
- Australian Government Department of Education Science and Training (DEST) 'International Science Linkages program' <www.dest.gov.au/science/isl>. This includes competitive grants under the **Australia–China Special Fund for S&T Cooperation**, in which agriculture, biotechnology and environmental research form three of the priority areas. In addition, DEST supports international exchanges, targeted scientific and technological individual visits, missions and workshops to promote science and technology collaboration. These are managed by the Australian Academy of Science <www.science.org.au/internat/index.htm> and the Australian Academy of Technological Sciences and Engineering <www.atse.org.au>.
- the **Joint Declaration on Bilateral Cooperation on Climate Change** between the Australian Greenhouse Office (Department of Environment and Heritage (DEH)) and the National Development and Reform Commission for China <www.deh.gov.au/minister/env/2003/mr24oct203.html>, which sets out cooperation in technology development and policy. ACIAR and the Australian Greenhouse Office are currently jointly funding two projects (LWR/2003/039, LPS/2001/094) which are relevant to both the agricultural sustainability and greenhouse gas reduction agendas.
- the **State Bureau of Foreign Experts Affairs of China**, which is responsible for accrediting international educators in China, and identifying and negotiating training opportunities across the world which will be of benefit to China. The related China Association for International Exchange of Personnel <www.china.org.cn> is a government-sponsored institution also engaged in the international exchange of specialised technical and managerial personnel in several areas, including agriculture, science and technology.

¹ Source: *China–Australia Country Program Strategy 2006–2010*, AusAID, November 2005

Research priorities

ACIAR has consultations with China to establish priorities for research collaboration, including meetings with senior leaders and researchers from the ministries of Science and Technology, Agriculture and Water Resources, as well as the China Academy of Sciences, China Academy of Agricultural Sciences, universities and provincial authorities. ACIAR's China program for 2008–09 has the following themes:

Subprogram 1: Increased water productivity of agriculture in north-western China

- Selection of technologies for improved water-use efficiency, with an emphasis on dryland agriculture
- Development of policies and institutions for improved land and water use

Subprogram 2: Improved agricultural productivity in Tibet Autonomous Region

- Improvement in integrated crop–livestock systems in favourable areas of Tibet Autonomous Region.

Subprogram 3: Implications of Chinese trade developments for smallholders

- Analysis of implications of more open trade and associated economic policy reforms for poor smallholders in China, regional developing economies and Australian interests
- Identification of policy constraints to adoption of research findings

Current project portfolio

(Possible new projects commencing in 2008–09 shown as 'proposed')

Subprogram 1: Increased water productivity of agriculture in north-western China

Chinese authorities consider water management initiatives to improve irrigation efficiency and achieve conservation practices in rainfed districts as matters of urgency. By scoping the best means to undertake further research, a more focused approach will be assured. This study will link closely with work on crop diversification and management systems to arrive at a more cohesive environmental agenda. The social aspects of farm-level motivation will be included in this cluster.

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| ADP/2007/055 | Improving the efficiency of land-use change policy in China |
| ADP/2007/090 (proposed) | Scoping study on western China desertification |
| CIM/1999/072 | Oilseed <i>Brassica</i> improvement in China, India and Australia |
| CIM/2003/067 (multilateral) | Ensuring productivity and food security through sustainable control of yellow rust of wheat in Asia (CIMMYT) |
| CIM/2005/111 (proposed) | More effective water use by rainfed wheat in China and Australia |

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| LPS/2001/094 | Sustainable development of grasslands in western China |
| LWR/2002/094 | Promotion of conservation agriculture using permanent raised beds in irrigated cropping in the Hexi Corridor, Gansu, China |
| LWR/2003/039 | Improving the management of water and fertiliser use for agricultural profitability, water quality and reduced nitrous oxide emissions in China and Australia |
| LWR/2007/087 | Scoping study to design an integrated water program in Gansu, China |
| LWR/2007/191 (proposed) | Improving productivity and sustainability of farming systems in semi-arid regions of eastern Gansu province |
| LWR/2008/001 | Integrated water management in dryland Gansu, China |

Subprogram 2: Improved agricultural productivity in Tibet Autonomous Region

Tibet represents unique research challenges given its environmental and economic characteristics. ACIAR projects in this region have a strong focus on production and income improvement in the valley districts. While conditions differ from other parts of China, there is a direct connection between the projects examining integrated crop–livestock systems, animal feeding and grassland management, together with farm diversification.

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| LPS/2005/129 | Mineral response in Tibetan livestock |
| LPS/2006/119 | Integrated crop and dairy systems in Tibet Autonomous Region |

Subprogram 3: Implications of Chinese trade developments for smallholders

Following accession to WTO and strong economic growth rates, there is a high level of interest in China and its trading partners on future policy options to maximise mutual benefits from trade. To achieve these outcomes, researchers need to focus on domestic policy options and future industry prospects, providing decision makers with well-analysed farm policies and information on trade liberalisation opportunities. Consequent farm income growth will, in turn, contribute to greater technical innovation and improved environmental management.

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| ADP/2007/022 | Trade liberalisation: curse or blessing for water resources management? Impact of trade liberalisation and national and basin water use under global environmental change |
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Other

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| HORT/1999/081 | Reducing spoilage and microbial contamination of fresh vegetables in China and Australia |
| FST/1999/095 | Improving the value chain for plantation-grown eucalypt sawn wood in China, Vietnam and Australia: genetics and silviculture |
| FST/2001/021 | Improving the value chain for plantation-grown eucalypt sawn wood in China, Vietnam and Australia: sawing and drying |

