CHINA

Key statistics	
GDP per capita (US$)[a]	3,292
Population (million)[a]	1,354
Funding	**$m**
2009–10 actual	1.30
2010–11 budget allocation	1.12
2011–12 budget estimate	1.57

[a] data from 2009 & 2010 <http://unstats.un.org/unsd/demographic/products/socind/>

Tibetan smallholders harvesting their canola crop

MEDIUM-TERM STRATEGY

The Australian aid program in China will work in collaboration with the Chinese Government to reduce poverty through support for 'balanced development' policies and programs. The China–Australia Country Program Strategy will therefore be based more on supporting equity in China's development, addressing the factors that underpin poverty, and less on direct poverty alleviation. The ACIAR program in China is concentrated 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 addressed in project design. To reach those most affected by poverty and land degradation, the program will increasingly target rainfed crop–livestock systems, primarily in Gansu province. In recognition of the evolving nature of Australia's development-assistance relationship with China, all new activities will be partnerships that include significant co-investment by Chinese partners.

There is an ongoing related, but broader, emphasis on maintaining efforts to improve agricultural productivity in Tibet Autonomous Region. Both north-western China and Tibet Autonomous Region confront significant environmental challenges, which need to be addressed through strategies that foster income growth for smallholder farmers.

ACIAR will consult with the Chinese partners to engage in joint regional- and national-level research initiatives. As a large and emerging economy with a substantial agricultural research network and capacity, opportunities for partnering with China on a regional basis will be explored. These opportunities for mutual research collaboration will be more appropriate as China's relationship progresses from an aid agenda. Australia and China interact with a range of international research and assistance agencies that provide suitable platforms for addressing wide regional research options.

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 share project costs in China. ACIAR usually seeks funding commitment through case-by-case exchanges of letters during project development. Only a small proportion of the highest priority projects can be supported. Therefore, projects chosen must:

- address the highest priorities of the 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' (China–Australia Country Program Strategy 2006–2010, AusAID)
- complement other schemes for China–Australia collaboration, including the AusAID Australia–China Environment and Development program
- exploit Australian technical comparative advantage
- complement activities of other (larger) donors
- examine opportunities for bilateral and regional climate-change technical and policy initiatives.

ACIAR consultation with China to prioritise research collaboration includes meetings with senior leaders and researchers from the ministries of Science and Technology, and Agriculture and Water Resources, as well as the Chinese Academy of Sciences, Chinese Academy of Agricultural Sciences, universities and provincial authorities. Consistent with the above strategy to assess regional priorities and opportunities, future exchanges will have both bilateral and multilateral objectives as focal points. The priorities for ACIAR's China program in the medium term are:

- 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 and associated climate-change influences
- wheat breeding for dryland conditions and conservation farming systems
- integrated crop–livestock systems in favourable areas of Tibet Autonomous Region and rangelands of north-western China.

2011–12 RESEARCH PRIORITIES AND PROJECTS

ADP/2007/055 Improving the efficiency of land-use-change policy in China

This project is investigating the potential of policy alternatives that will improve the cost-effectiveness of the various land-use-change policies that the Chinese Government currently finances.

ADP/2010/070 (*proposed*) Amelioration of declining production and associated poverty arising from climate change in China

This project will examine farmer responses to climate-change influences and associated costs as a basis for designing suitable government policy frameworks in China and neighbouring countries..

AH/2010/045 Sustainable assessment of livestock movement and disease risk in the Mekong region

Regional movement of livestock is associated with disease transmission, especially FMD in cattle and pigs and CSF in pigs. This project will develop improved methods to assess disease risk and strategies for disease control to the six countries of the AusAID-supported SEACFMD program: Laos, Cambodia, Vietnam, China, Thailand and Myanmar.

Hugh Wallwork (left) of SARDI with members of an ATSE Crawford Fund masterclass on soil-borne diseases of wheat, co-sponsored by CIMMYT, in Henan province, China

CIM/2005/111 More-effective water use by rainfed wheat in China and Australia

The project exploits Australian expertise in wheat yield potential, water-use efficiency and tailoring varieties for systems incorporating stubble retention. Genetic traits from Australian, Indian and international research on spring wheat are improving the Chinese winter wheat germplasm pool.

LPS/2006/119 Integrated crop and dairy systems in Tibet Autonomous Region

Increasing the output of dairy products in Tibet Autonomous Region, China, is a high development priority, but is limited by lack of feeds from cropping systems. Through controlled experimentation, this project has identified promising integrated crop–fodder–forage systems that will be trialled and adapted on farms in the 2011 growing season.

LPS/2008/048 Sustainable livestock grazing systems on Chinese temperate grasslands

Over the past 50 years, the grasslands of north-western China have become degraded due to a five- to six-fold-increase in people and livestock. This new project will provide the evidence and grassland management options to help guide Chinese R&D agencies on how to alleviate poverty and reduce environmental degradation on degraded grasslands, by improving household incomes from livestock production while reducing grazing pressures.

LPS/2010/028 Improving the mineral nutrition of Tibetan livestock

Livestock production is the primary source of income generation for rural communities in Tibet Autonomous Region, China. However, mineral deficiencies in livestock are widespread, potentially reducing productivity by up to 30%. This new project will assess production responses to mineral supplementation of livestock and assist in the development of a sustainable mineral supplement industry.

A smallholder hand weeding raised rice beds in Gansu, China. Photographer: Christian Roth

LPS/2011/001 Potential for market mechanisms to enable improved grassland management in northern China

As a result of increasing human and livestock population pressures, 90% of China's 400 million hectares of grassland are significantly degraded. This study will identify the potential for market mechanisms to enable changed practices on farms, in particular using remote-sensing to develop an index-based market incentive of payments to individual herders for improved grassland management.

LWR/2007/191 Improving productivity and sustainability of farming systems in semi-arid regions of eastern Gansu province

This project aims to improve farmers' incomes and reduce land degradation by helping them to more-effectively manage and utilise perennial pastures and forage crops and optimise their cropping–livestock systems.

Principal regional coordinator

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Key program managers

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Dr Simon Hearn, Agricultural Development Policy
Dr Peter Horne, Livestock Production Systems
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KEY PERFORMANCE INDICATORS (2011–12)

- Promising integrated crop–fodder–forage systems trialled and adapted on farms in Tibet Autonomous Region
- Opportunities identified for using remote-sensing to develop an index-based market incentive of payments to individual herders for improved grassland management
- Key traits from spring wheat to underpin conservation agriculture incorporated into Chinese winter wheat
- Partnership created with OIE, SEACFMD and participating countries to assess and control livestock biosecurity risks
- Effectiveness of new market-based payment systems to achieve farm-level land-use changes assessed, and assistance with defining suitable policy options provided