



## Addressing vulnerabilities and building capacity for adaptation of agriculture to climate change in China



### Summary

Climate change is a key driver of change in agricultural systems in China and is closely linked to the causes and alleviation of poverty. A number of national and collaborative international research studies have started to explore the adaptation options of agriculture to climate change in China. However, because of the complexity of agricultural systems, many key knowledge gaps remain. Through a structured programme of knowledge exchange and bilateral research, this project will address the skills needs of two major stakeholder groups – adaptation researchers in China and farming communities vulnerable to climate change.

### Objectives

Fostering joint research and knowledge exchange between Chinese and UK researchers concerned with adaptation of agricultural systems to climate change and the promotion of sustainable food systems

- Communicating issues of sustainability of farming systems to key stakeholders from farming communities to researchers to policy-makers
- Exploring information flows within farming communities concerned with perception of climate change and possible adaptation options and linking these with research
- Building capacity of researchers and farming communities to adapt to climate change.

### Activities

- Literature reviews and expert workshops
- Surveys of farming communities' research needs
- Building capacity of Chinese researchers, including surveys and training programmes
- Developing adaptation strategies through raising awareness in farming communities
- Collaborative research projects, including Free Air CO<sub>2</sub> Enrichment (FACE) crop experiments, strategies to combat invasive plant pathogens (Phoma stem canker of oilseed rape), assessing risk of increasing severity/range of existing diseases (modelling Fusarium ear blight), building on GLAM model work & relating it to aflatoxin work in Africa
- Communications, including dual language website, press releases, posters, project summaries, outreach meeting.

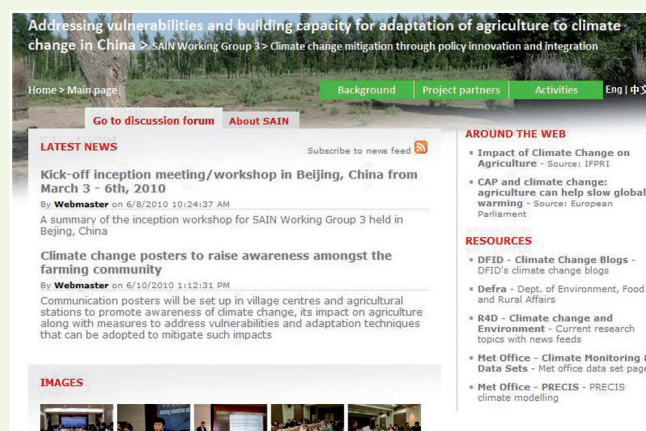






## Benefits

- Appropriate adaptation options for building resilience to climate change and promoting sustainable agricultural systems
- Focused research projects to fill key knowledge gaps in adaptation research in China
- Strengthened capacity of researchers and farming communities to respond to the impacts of climate change on agriculture
- Enhanced UK-China collaboration on climate change adaptation.



## Consortium partners

### UK

- Walker Institute for Climate System Research, University of Reading
- University of Leeds
- Rothamsted Research
- Met Office Hadley Centre
- CABI

### China

- Institute of Environment and Sustainable Development on Agriculture, Chinese Academy of Agricultural Sciences (IEDA CAAS)
- Anhui Academy of Agricultural Sciences
- Inner Mongolia Academy of Agricultural Sciences
- Oil Crops Research Institute, Chinese Academy of Agricultural Sciences (OCRI CAAS)

For more information please visit:

<http://www.sainclimatechange.org>  
<http://www.sainonline.org>

or contact

### In the UK:

Prof Tim Wheeler  
 Walker Institute for Climate System Research,  
 University of Reading  
 Email: [t.r.wheeler@reading.ac.uk](mailto:t.r.wheeler@reading.ac.uk)

### In China:

Prof Lin Erda  
 Institute of Environment and Sustainable Development  
 on Agriculture, CAAS  
 Email: [linedster@gmail.com](mailto:linedster@gmail.com)

or Prof Ju Hui  
 Institute of Environment and Sustainable  
 Development on Agriculture, CAAS  
 Email: [juhui@ami.ac.cn](mailto:juhui@ami.ac.cn)

The project is funded by the UK's Department for Environment, Food and Rural Affairs and by China's Ministry of Agriculture. The project forms part of the UK-China Sustainable Agriculture Innovation Network – SAIN (see [www.sainonline.org](http://www.sainonline.org))