

Climate Science for Service Partnership China (CSSP China)

Expressions of interest for market engagement event

In 2018, the Met Office will be announcing a number of research grant opportunities under the Climate Science for Service Partnership China, supported by the UK Government's Newton Fund. The grants will run for a period of two years and will total £1,100K per year.

In January, we will be holding a market engagement event in London for UK researchers to learn more about the upcoming calls and engage with the project team including lead scientists and call administrator.

The event will be an opportunity for participants to

- Learn more about CSSP China and each of its five work packages
- Explore and discuss the themes, challenges and expectations of the research opportunities
- Provide inputs to the content development of the research opportunities
- Directly question work package leads
- Learn more about bid and ODA best practice

The event will include an overview of the project scope and application process and will include time for networking with industry colleagues and sharing information about UK and Chinese research expertise.

Calls for applications for the 2018 research grants will be open to all UK research organisations and you do not need to attend the event in order to apply to the calls.

The market engagement event will take place in central London on 10 January.

The closing deadline to express your interest in attending is **16:00 on 21 December 2017**. Please send an email to the programme team on wcsspprogrammeoffice@metoffice.gov.uk

You can read more about CSSP China and the proposed call themes below or on the Met Office [webpages](#). To register to attend or to ask any questions, please contact wcsspprogrammeoffice@metoffice.gov.uk

2018 call themes

We have identified the following key themes that will complement the science already underway in CSSP China and support its key aim of building a strong foundation of scientific knowledge that can underpin services to support economic development and social welfare.

1. East Asian regional water cycle

This call will focus on the East Asian monsoon system, and investigation of the impact of the land surface (including the Tibetan and Iranian plateaus), the atmosphere and ocean in the framework of a whole system.

2. Regional climate projections

This call will focus on analysis of the Perturbed Parameter Ensemble (PPE) global coupled simulations being made for the UK Climate Projections (UKCP18) Project, and include the relationship of PPE results to the Coupled Model Intercomparison Project (CMIP), as well as considering the dynamics of climate change with a view to constraining future change and thereby reduce uncertainty. The scientific implications should be drawn out for any future national climate change projections for China.

3. Land surface processes in East Asia

This call will focus on exploring the role of the land-surface interactions in the fully coupled Atmosphere-Land-Ocean system using the global coupled modelling systems at the Met Office, BCC/CMA and IAP. A main aim will be to understand the land surface role in seasonal/decadal variability and predictability, on the regional water cycle and to use key observational datasets from satellite and in-situ data such as seasonal vegetation changes and crop stress. The principal aim is to understand land interactions in East Asian Climate at the detailed process level with the aim of reducing the key systematic errors in the interactions of land with atmosphere and oceans (e.g. river runoff) and to feedback improvements to the coupled modelling prediction systems at seasonal and climate timescales.

4. Attribution of heatwaves, drought and health impacts

This call will focus on establishing the risk of extreme events such as heat waves and drought, and their impact on human health. The work should include analysis of historical human health impact data during extreme events, and establish, through attribution studies, how the risk of such events is changing as the climate changes.

5. Predictability of regional climate

A number of institutions worldwide now provide real time climate predictions for seasons or years ahead. Skilful predictions can reduce uncertainty and aid planning decisions. However, the sources,

mechanisms and levels of predictability of Asian climate are only partly understood and the output from current prediction systems is not fully exploited. This call will focus on developing novel analysis of seasonal and decadal climate predictions with a focus on the East Asian region and the potential for new climate services. Dynamical connections with the Indian Ocean basin, the effects of increased ensemble size and methods of predicting critical factors such as the onset of the East Asian monsoon are all within scope.

6. Aerosols and regional climate dynamics

Aerosols of both natural and anthropogenic origin can produce large changes in the atmosphere and oceans that have implications for many years. This call will focus on the influence of aerosol forcing on atmospheric circulation and regional climate to improve the skill of decadal predictions and reduce uncertainty in long-term projections. Both modelling and observational work on the consequences of atmospheric aerosols for East Asian climate and the role of natural volcanic aerosols are in scope. The impacts of aerosols and regional climate dynamics on air quality and the potential for long-range predictions of air quality are also of particular interest.

CSSP China project scope

CSSP China aims to accelerate climate science R&D programmes to underpin development of climate services that help build resilience to climate vulnerability. The project focuses on developing strong strategic partnerships between UK and Chinese climate scientists; accelerated and enhanced collaborative science R&D programmes; and climate services that are developed in partnership, and based on the climate science research & development programme.

CSSP China current work packages

- 1) Monitoring, attribution and reanalysis to improve understanding of climate and its short- and long-term variations;
- 2) Global dynamics of climate variability and change with the overall aim of improving regional climate predictions;
- 3) East Asian climate variability and extremes to improve understanding of regional modes of climate variability, their teleconnections and impacts on regional water cycle and climate extremes within East Asia;
- 4) Development of models and climate projection systems to underpin the modelling capability within climate prediction programmes; and
- 5) Climate Services to assist decision-making by individuals and organisations enabling better management of risks and opportunities arising from climate variability and change.