





## Using Critical Zone Science to understand sustaining the ecosystem service of soil and water A UK China Collaboration

## Announcement of Opportunity (AO)

## Expressions of Interest via email: closing date, 08:00 GMT, 6<sup>th</sup> March 2015

Invited full proposals via JeS: Closing date: 16:00 BST, Wednesday 27<sup>th</sup>May 2015

## 1. Summary

The Natural Environment Research Council (NERC) and the National Natural Science Foundation of China (NSFC) are inviting research proposals under this **'Using Critical Zone Science to understand sustaining the ecosystem service of soil and water'** call. This call is supported by the UK through the Newton Fund which forms part of the UK governments Official Development Assistance (ODA) commitment and is only open to joint UK-China applications.

The Using Critical Zone Science to understand sustaining the ecosystem service of soil and water programme will be delivered in this one substantive research call for collaborative projects. NERC have a budget of £3m to fund eligible UK-based researchers and NSFC have a budget of 60m RMB to fund eligible Chinese-based researchers. It is expected that 4 projects will be funded, dependent on the quality of proposals received – two focussed on soils and two on fresh water.

UK-led projects will be up to 3 years duration. Successful projects must start, as a condition of funding, no later than early November 2015. Please note that Chinese partners will have an additional fourth year of funding from NSFC, but the main objectives of the collaborative project should be completed within the three years.

# All applications must be collaborations between UK and Chinese researchers. Applications to this call must be in English

The call for proposals will be undertaken as a three stage process.

- An Expression of Interest (EoI) must be submitted via email by the 6<sup>th</sup> March deadline. EoI's will be sifted based on remit and strategic requirement to ensure the programmes objectives are met. Successful applicants will be invited to submit full proposals.
- ii. Successful applicants at the EoI stage will also be required to attend a meeting in mid-April at which NERC and NSFC will provide further advice and context.

iii. Full proposals will be submitted via JeS by the deadline 27th May. Full proposals will go through external peer review and then to a Moderating Panel. Successful Full Proposal teams will attend a kick-off workshop in 2016 where they will identify integrative and coordination activities between the different grants.

## 2. Background

## 2.1 Science Background

China's success to date in increasing agricultural production to maintain food security has been with the result of the emergence of many environmental issues. A principal and urgent challenge is to sustain ecosystems; the ambition in China to deliver 'environmental sustainability' adds a major driver to the need for establishing the scientific basis for managing soils, waters and ecosystems such that food production goals and ecosystem services are maintained. Whilst the UK has similar challenges and concerns, it is the current and likely future scale in China that makes the challenges so complex, and has implications for China's ability to meet its food and water security, and climate mitigation needs.

China needs a minimum of 120 million hectares of arable land to feed its population; currently 135 million hectares are managed as rice paddy fields, irrigated farms, and dry farms. There are challenges to land use and soil health that have emerged or are emerging, including: the erosion of soil; its deterioration in quality; damage to water resources; loss of biodiversity; the urbanisation of prime quality arable land (approximately 4 million hectares in 5 years); and increasing pollution levels in agricultural land.

China also faces a big challenge of water resource shortage. The total volume of water resources in China is about 2800 billion m<sup>3</sup>, which ranks sixth among all the countries in the world. In comparison, the per capita volume of water resources of China is much smaller, about 2200 m<sup>3</sup>, equivalent to 1/4 of the world average, due to the population size. Particularly, in the Haihe, Huaihe and Yellow river basins the per capita volumes of water resources are only 290 m<sup>3</sup>, 480 m<sup>3</sup>, and 630 m<sup>3</sup> respectively. The water resources in China are also distributed unevenly in space; rich in the southern areas and poor in the northern areas, which is inconsistent with the distribution of population, farmland and economy. The water-shortage issues of China are becoming more prominent and severe, and are due to the rapid increase of water use and water pollution during intensive urbanisation and industrialisation.

Changes in the way China manages its land and water use, due to population and economic development pressures, have resulted in widespread degradation of soils and in water scarcity in terms of quantity and quality, and their ability to deliver ecosystem services. Prime quality land, generally in the humid south, is being replaced by lower (agricultural) quality land in the colder and water limited north, much of which is flood zone and will lack resilience under agricultural practices. The emerging agricultural situation is one of erosion, loss, or over-use of prime land in the south, and increasing water shortages reducing yields in the north. With the political ambition to deliver 'ecological sustainability', there is a need for new scientific understanding, and a more holistic framework approach to the restoration or remediation of damaged and depleted soils and water

resources. This is needed to ensure ecosystem services in many areas of China are maintained and are resilient to perturbations.

## 2.2 Critical Zone science

The Critical Zone (CZ) is the portion of the earth that supports life, and extends from the top of the tree canopy to the bottom of aquifers— the zone that supports life on the planet. Critical Zone Science offers an integrating research framework that tackles soil and water with a focus on the interfaces between atmospheric, biological, hydrological and geological sciences. Whilst soil and water are important compartments of the CZ, and are major interfaces with above and below ground systems, they must be viewed in the holistic perspective where their processes and interfaces are part of the whole system.

NSFC recognises the maintenance of soil health and water security are key functions in the provision of China's agri-ecosytem services. Agricultural production has been at the expense of other ecosystem services, leading to erosion, sealing, compaction, organic matter and nutrient decline, biodiversity loss, and damage and pollution to water resources.

To be meaningful, the role of soil and water must be set in the context of the wider critical zone and the ecosystem services provided. These are common to many countries; however the challenge for China is the scale and magnitude of these threats, amplified by broader, fundamental drivers such as: population increase; economic growth; anthropogenic land use and management; and climate change. It is this scale and complexity of interaction that make the system suitable for adopting the CZ science approach. The NSFC is looking to underpin its knowledge, skills and capacity with regards to these ecosystem services through development of CZ science at a range of spatial scales.

The scope for this call arose from the Frontiers in International Critical Zone Science workshop held in Beijing in May 2014.Science funding agencies in China, France, Germany, UK, and USA convened 40 leading Earth systems scientists with the aim of drafting the science content and schedule of actions to initiate a multilateral international research programme in Critical Zone science. The conference identified initial steps to establish methods for common observations, governance and data sharing and management. Discussions among funders confirm broad multi-national support for the science agenda and aspirations of the CZ science community. A series of actions were proposed to help develop international collaboration and funding for multilateral CZ research.

## 2.3 Funders

NERC - the Natural Environment Research Council - is the leading funder of independent research, training and innovation in environmental science in the UK. NERC invests public money in world-leading science, designed to help us sustain and benefit from our natural resources, predict and respond to natural hazards and understand environmental change. We work closely with policymakers and industry to make sure our knowledge can support sustainable economic growth and wellbeing in the UK and around the world. NERC is supported by the Department for Business, Innovation and Skills (BIS).

NSFC - National Natural Science Foundation of China - is supported under the jurisdiction of the State Council to administrate the National natural Science Fund. In accordance with the Government's strategies and plans for developing science and technology, NSFC is responsible for directing, coordinating and making effective use of the national science fund to support basic research and stimulate free exploration, identity and foster scientific talents, as well as to promote progress in science and technology and harmonious socioeconomic development for the nation.

## 2.4 The Newton Fund

NERC funds for this programme have been received directly from the Department for Business, Innovation & Skills (BIS) as part of the Newton Fund<sup>1</sup>. The Fund forms part of the UK's Official Development Assistance (ODA) commitment which is monitored by the Organisation for Economic Cooperation and Development (OECD)<sup>2</sup>. ODA funded activity focuses on outcomes that promote the long-term sustainable growth of a sub-set of countries on the OECD Development Assistance Committee list<sup>3</sup> and is administered with the promotion of the economic development and welfare of developing countries as its main objective. The fund covers three broad categories of activity: i) people: improving science and innovation expertise (known as 'capacity building'), student and researcher fellowships, mobility schemes and joint centres; ii) programmes: research collaborations on development topics; and iii) translation: innovation partnerships and challenge funds to develop innovative solutions on development topics. Of these, this programme relates partially to the first and more majorly to the second activity. Collaborations under the call will contribute to economic development and social welfare in China, in line with the Newton Fund's aims. All applications under this call must be compliant with these specifications.

## 3. Scope of Programme and Requirements

This section sets out the scientific and non-scientific objectives of the call and also includes the specification of context and approaches. This AO is part of the Newton Fund and as such there are specific non-scientific requirements to the call, in addition to the normal NERC requirements that must be adhered to. If applicants fail to meet any of the specifications outlined below then the funders reserve the right to reject their application. The research will develop a community of environmental scientists able to lead and be competitive in securing international quality research relevant to China and using the CZ science framework, and who are able to engage in dialogue with end-users in China. Outcomes would be expected to include:

- a broader knowledge of the resilience of ecosystem services, how they are integral with food production, and how they are subject to natural and man-made perturbations
- improved decision making in land management and the trade-off between agriculture and wider ecosystem services
- a wider evidence base for policy makers derived from an interdisciplinary environmental science community.

<sup>&</sup>lt;sup>1</sup>https://www.gov.uk/government/publications/newton-fund-building-science-and-innovation-capacity-in-developing-countries/newtonfund-building-science-and-innovation-capacity-in-developing-countries <sup>2</sup>http://www.oecd.org/

<sup>&</sup>lt;sup>3</sup>http://www.oecd.org/dac/stats/DAC%20List%20used%20for%202012%20and%202013%20flows.pdf

Applicants should note that due to restrictions on Newton funding, UK teams are restricted to three years of funding. However Chinese researchers will be supported for four years from NSFC. When planning the project applicants should take this into account, and demonstrate that an integrated package of work will be undertaken and that the Newton deliverables are achievable within the three years.

## 3.1 Scientific Objectives

The overarching goal of the programme is to understand and seek ways to address the challenges faced for the delivery of China's ecosystems services in association with their agricultural production and urbanisation. Resilience of these services will be key to the health and wellbeing of China's ongoing land and water use transitions, and can best be understood by looking at these services in the context of the Critical Zone and the interdisciplinary science required to address it.

To tackle these problems and sustain the ecological service of both water and soil, there is a need for knowledge of soil source and formation, and stocks and flows of water. Consideration needs to be given to their evolution, functioning and resilience to climate, land use change and human perturbation in ecological systems. These understandings can only be achieved through research in the context of coupled physical, chemical and biological processes, and flux change of interfaces in the Critical Zone.

Through this approach, the programme will provide evidence to inform and influence policy and management decisions, including restoration and remediation, which are key in defining land and water use. To inform future decision making requires scientific advances resulting from this programme.

The programme aims to understand the role of soil and water within the framework of the CZ, and use CZ science in the provisioning of China's key ecosystem services, including agriculture and climate mitigation. The programme will cover all of the following three objectives, with individual proposals expected to address one or more of these objectives within the framework of the programmes aim:

- understand the importance of spatial variation and scale (from field to landscape) on the ability of soils and water within the critical zone to perform their multiple functions
- development of modelling approaches and improvement of model skill, with the integration of wider disciplines, in the prediction of resilience
- within the context of environmental stressors within China (e.g. erosion, pollutants, extreme weather, changing agricultural practices, and water availability), seek to understand and improve the resilience of soils and water to perturbations.

## 3.2 Non-scientific Objectives

A key objective of this programme is the development of collaborative projects between NERC and NSFC funded scientists to develop a joint programme of work to address the challenges faced in China. Collaborations are expected to represent genuine and meaningful partnerships; integration between the UK and Chinese teams will be important to the success of these projects.

The Newton Fund requires that funding be awarded in a manner that fits with ODA guidelines<sup>4</sup>. All applications must therefore be compliant with these guidelines. In order to qualify for Newton funds, proposals must demonstrate how the project's main research outcomes will promote the long-term economic development <u>and</u> welfare of China, rather than merely creating the conditions where development might occur. Applicants should consider how their project will:

- address poverty and development issues
- address the issue identified effectively and efficiently
- use the strengths of the UK to address the issue
- demonstrate that the research component is of an internationally excellent standard.

It is expected that through collaboration the projects should seek to increase the skills and knowledge base at Chinese partner institutions in this area, improving their ability to undertake and disseminate research in order to maximise their impact on issues of poverty and economic growth.

Any benefit to the UK has to be the secondary consideration and should not lead to a proposal being funded if it doesn't primarily deliver the development objective.

Applicants should demonstrate how their proposal addresses ODA guidelines, both in the JeS summary, and then more fully, in the Case for Support.

## 3.3 Eligibility

For the UK partners, eligibility for this call is restricted to UK-based researchers normally eligible for funding from NERC. Further information on NERC eligibility can be found in the NERC Research Grants Handbook<sup>5</sup>. Individual researchers may be named on a maximum of two different proposals, but on only one as the lead Principal Investigator.

For Chinese partners, eligibility rules follow the standard for NSFC; applicants who are not clear on these should contact NSFC to discuss. Full proposals which include Chinese applicants who are ineligible will be rejected.

## 3.4 Data Management (UK applicants)

NERC requires that research programmes implement a data management scheme which covers practical arrangements during the programme and subsequent long-term availability of the data set.

<sup>&</sup>lt;sup>4</sup><u>http://www.rcuk.ac.uk/international/newton/</u>

<sup>&</sup>lt;sup>5</sup>http://www.nerc.ac.uk/funding/application/howtoapply/forms/grantshandbook.pdf

In line with the NERC data policy, data from the programme will be lodged with the appropriate NERC designated Data Centre. NERC puts an obligation upon PIs to ensure that data management is undertaken in a suitable way.

The funded UK PIs will be required to work with the NERC designated Data Centre (in this case the Environmental Information Data Centre – EIDC) to produce fully costed data management plans.

Applicants are required to submit an Outline Data Management Plan (ODMP) as a separate mandatory attachment, to identify the data sets likely to be available to EIDC for archiving and reuse at the end of the grant. Guidance on completing this is available in the Research Grants Handbook<sup>5</sup>.

There will be no charge to the project for a NERC Data Centre to accept and manage the agreed data sets at the end of the grant but any in-project data management activities should be costed and included within the proposals.

## 3.5 Knowledge Exchange and Impact

Knowledge Exchange will facilitate the communication of the science delivered from the programme to a variety of users including policy makers and industry, and the exchange of views and knowledge from these stakeholders. Applicants are reminded the project must make it clear how the main research outcomes will promote the economic development <u>and</u> welfare of the partner country as a Newton Fund project.

All research proposals submitted to NERC should be accompanied by a Pathways to Impact document. There will be a requirement to identify the target communities/stakeholders, consider how these various groups/individuals are likely to benefit from (or be affected by) the research, and create a plan to engage with them, which is appropriate and goes beyond communication, is timely, and happens early in the design stage.

Due to recent changes in NERC relating to Pathways to Impact, applicants are advised to read the guidance on the NERC website<sup>6</sup>.

In summary, in the Pathways to Impact applicants should consider what will be done during and after the project to increase the likelihood of the research reaching the intended beneficiaries and maximise the likelihood of identified benefits being achieved.

Applicants are expected to request funds to support project-specific activities and these should be included in the grant proposal and fully justified in the Justification of Resources statement.

The primary impact from this programme and the projects it supports is to promote the economic development and welfare of China. This will be achieved through understanding the rational use of land and water, and the resilience of its critical zone in the delivery of a variety of ecosystem

<sup>&</sup>lt;sup>6</sup><u>http://www.nerc.ac.uk/funding/application/howtoapply/pathwaystoimpact/</u>

services, including provisioning healthy and secure food and water. The research should seek to increase awareness of China's 'food footprint' globally and provide new knowledge of the pressures on China's soils and water in the provision of ecosystem services.

## 3.6 Facilities

UK applicants can apply for access to any of the NERC services or facilities. Prospective applicants must first seek the advice of the appropriate facility contact before any formal proposal is submitted. For most facilities and schemes, the notional costs of using the facility should be included in the grant proposal. For some facilities the costs will then be removed from the grant and awarded notionally (where NERC provides the funding directly to the facility). Further details on how to apply to use facilities can be found on the NERC website<sup>7</sup>.

#### 4. Application Process and Assessment

#### 4.1 Expression of Interest stage

The Expression of Interest (EoI) stage will be used to identify projects that will be invited to submit a Full Proposal. Only applicants successful at the Expression of Interest stage will be eligible to submit Full Proposals.

One Expression of Interest is required for each proposed project, giving information of both the UK and the Chinese applicants. Applicants must complete an Expression of Interest form, following the given specifications. The Expression of Interest form can be downloaded from <a href="http://www.nerc.ac.uk/research/funded/programmes/CZO/news/ao/">http://www.nerc.ac.uk/research/funded/programmes/CZO/news/ao/</a>.

Expression of Interest forms must be submitted via email as a word document both to NERC at CZO@nerc.ac.uk by 08:00 UK time (GMT) and NSFC at xoc@nsfc.gov.cn by 16:00 China time on **6** March 2015. Applications received after this date and time will not be accepted.

Any Expression of Interest which does not use the template provided, comply with these specifications or exceeds the stated limits will be rejected. Applicants must fill in the specified boxes in the Expression of Interest form.

Expressions of Interest will be sifted by the funders based on the fit to the call scope and strategic requirement to ensure the programmes objectives are met. On the NSFC side there will be a panel organised to review and rank the Expressions of Interest. The NERC sift will be done by the office based on fit to call and eligibility. Applicants will be given brief feedback summarising the reasons why the application was successful/unsuccessful. No further feedback will be available.

Applicants will be informed in March 2015 if they are to be invited to proceed to the Full Proposal stage.

The funders reserve the right not to fund up to the limit allocated to the call. The funders reserve the right to make changes to the budgetary limits of the grants, and to the process of commissioning grants if deemed necessary following the submission of Expressions of Interest.

<sup>&</sup>lt;sup>7</sup>http://www.nerc.ac.uk/research/sites/facilities/apply/

It is expected that proposals may evolve between the Expression of Interest and the Full Proposal stage. Teams may wish to expand their partnerships and this will be acceptable, although it is expected that the UK PI and the Chinese PI remain the same. Any additional Chinese researchers included after the sift process must be checked with NSFC to ensure eligibility. It is also expected that projects may wish to change the resources requested and this is acceptable providing they remain within the upper limits set by the call. Significant changes from the Expression of Interest or if there is any doubt then applicants should get in touch with NERC/NSFC to discuss.

## 4.2 Applicants workshop

Applicants who have been invited to submit a full proposal will be asked to attend a meeting at which NERC and NSFC will provide further advice and context on the programme, this is likely to be held in China.

## 4.3 Full proposal Stage

Only applicants successful at the Expression of Interest stage will be invited to proceed to the Full Proposal stage. It is expected that the call for Full Proposal will be open from April 2015 and the closing date for applications will be **16:00 BST 27th May 2015**.

It is expected 4 grants will be funded. The UK has a budget up to £3m for this programme and NSFC has a budget of 60m RMB. The UK will fund proposals at 80% FEC. Grants must start no later than early November 2015 and be up to 3 years in duration.

Studentships will not be supported under this call.

The information below sets out the process and information to include when submitting UK-led full proposals. Minor additional changes may be made to this prior to March, but invited applicants will be notified of any such changes.

The UK grant proposals must be submitted using the Research Councils' Joint electronic-Submission system (JeS). To use this system, the applicant's research organisation must be JeS registered, more information is available on the NERC website<sup>8</sup>.

Applicants should leave enough time for their proposal to pass through their organisation's JeS submission route before this date. Any proposal that is received after the closing date, is incomplete, or does not meet the eligibility criteria of this call, will be returned to the applicant and will not be considered.

The call will be listed under Scheme 'Directed International' and Call 'Newton: Using Critical Zone Science to understand sustaining the ecosystem service of soil and water' and will utilise the standard JeS proforma. Guidance on the application process, including details of eligible costs, is available in the NERC Research Grants Handbook<sup>9</sup>.

<sup>&</sup>lt;sup>8</sup>http://www.nerc.ac.uk/funding/application/

<sup>&</sup>lt;sup>9</sup>http://www.nerc.ac.uk/funding/application/howtoapply/forms/grantshandbook.pdf

NERC's normal grant terms and conditions will apply, and these are also outlined in the handbook. Additional conditions related to Newton Fund support may also be applied to these awards. This will be confirmed prior to award.

All documents should be completed in single-spaced typescript of minimum font size 11 point Arial font, with margins of at least 2 cm, including references.

In the case of Chinese partners seeking funding from NSFC, a separate application, adhering to the application guidelines for NSFC, should be submitted for those funds. A common Case for Support must be prepared in English and submitted to each funder.

The Chinese applicants should be included as Project Partners on the JeS form. A letter of support is not required however applicants will need to upload a dummy document to pass JeS validation. The total NSFC contribution applied for, and their role should be described in the common Case for Support.

In addition to the standard JeS proforma, the proposal should include the following documents:

- A joint **Case for Support** comprising:
  - a common **Previous Track Record** incorporating all UK and Chinese Research Organisations involved(up to 3 sides of A4).
  - a **Description of the Proposed Project** (up to 16 sides of A4 including all necessary tables, references and figures) to include as appropriate:
    - underlying rationale and scientific issues to be addressed
    - specific objectives of the project, including their relevance to objectives of the call
    - methodology and approach
    - risks and mitigation strategies
    - programme and/or plan of research
    - how the proposal addresses Official Development Assistance (ODA) guidelines.
  - **Management Plan** (up to 2 sides of A4). The management plan should include a description of the proposed management structures and plan, participant responsibilities and a scheduling chart.
- **Outline Data Management Plan** (up to 1 side of A4). See section 3.4; to include any relevant costings. Note that the plan should now be submitted as a separate document of the type 'Data Management Plan', rather than as part of the Case for Support.
- Justification of Resources (up to 4 sides of A4 for all Research Organisations in the proposed grant) submitted as a separate attachment in the JeS system and should explain why the requested costs from NERC and NSFC are required. This should include justification for all Directly Incurred Costs, Investigator effort, use of pool staff resources, any access to shared

facilities and equipment and for capital costs. No justification for Directly Allocated Estates and Indirect Costs is required.

• Pathways to Impact (up to 2 sides of A4).

Further information is given in section 3.5. This should refer to the Newton Fund requirements for research outcomes to promote the economic development <u>and</u> welfare of the partner country and include an outline of:

- those who may benefit or make use of the research
- o how they might benefit and/or make use of the research
- methods for disseminating data/knowledge/skills in the most effective and appropriate manner.

Demonstration of support from Chinese stakeholder and end users should be included where appropriate.

## • Partner Applications.

Details of the Chinese partner applications should also be attached to the JeS submission and include staff, and costs requested.

• A CV of up to two sides of A4 for each named PI, Co-I, research staff post, visiting researchers and the members of the Chinese research team.

The proposal will additionally require the following attachments, where applicable:

- Equipment costs. Requests for capital will only be considered if the proposed equipment is to remain in China for use after the project has completed. If equipment is to be returned to the UK, this cannot be funded through Newton and an alternative source of funding should be sought. The threshold for individual items to be classed as equipment is £10,000 (inclusive of VAT). For items of equipment costing between £10,000 and the OJEU threshold value additional information is required in the justification of resources, including evidence of an evaluation of the use of existing relevant capital assets. For items of equipment which cost less than the OJEU threshold but more than £25,000, it is optional to provide quotations and up to three can be uploaded.Proposals requesting single items of equipment costing more than the OJEU threshold value must be accompanied by a business case (up to 2 sides of A4 outlining the strategic need for the equipment).Applicants are advised to read the NERC Research Grants Handbook<sup>10</sup> and further guidance can be found on the RCUK website<sup>11</sup>.
- Facility forms (including aircraft)
- PIs wishing to use **NERC facilities** will need to submit a mandatory 'technical assessment' with their proposal (including aircraft but excluding ships and HPC). For NERC, this means a quote for the work which the facility will.

<sup>&</sup>lt;sup>10</sup>http://www.nerc.ac.uk/funding/application/howtoapply/forms/grantshandbook.pdf

<sup>&</sup>lt;sup>11</sup>http://www.rcuk.ac.uk/RCUK-prod/assets/documents/publications/Equipment\_Guidance.pdf

## 4.3.1 Full proposal Peer Review

Proposals will go out to external peer review, before going to a Moderating Panel. Applicants will be given the opportunity to provide a written response to the peer review comments prior to the Moderating Panel meeting.

All proposals will be assessed against the following criteria:

- Research excellence: a proposal that demonstrates excellence can be characterised by terms such as novel, timely, exciting, at the international forefront, adventurous, elegant or transformative, but need not demonstrate all of these.
- Fit to Scheme: proposals will be assessed against the extent to which they address the scope and requirements of the call as detailed in this AO in section 3. This will include:
  - o Scientific objectives
  - Non-scientific objectives

## 7. Timetable

Date	Event
January 2015	Call for Expression of Interest
6 March 2015 : 08:00 UK time and 16:00 China	Expression of Interest call closes
time	
March 2015	EoI sifts: NERC Office sift and NSFC panel
	meeting
March 2015	Full Proposals invited
	Full Proposal call opens in JeS and NSFC system
April 2015	Applicant meeting in China
27 May 2015	Full Proposal call closes
May 2015 – August 2015	External peer review
July 2015	PI response stage due (UK applicants only)
September 2015	Full Proposal Moderating Panel in UK
October 2015	Successful applicants informed
November 2015	Grants start

## 8. Programme Kick Off Workshop

It is anticipated that a workshop will be run in the UK in 2016 to draw together the UK and China programme participants to define the current frontiers of knowledge and develop a joint science agenda to transform current research on Earth's Critical Zone (CZ) that aligns with NERC strategy and the funding provided by the BIS Newton Fund. Participants will also identify integrative and coordination activities between the different grants. Further details will be provided in due course. Funds for this workshop will be provided by NERC.

## 9. Reporting Requirements

As with all NERC grant holders, there will be a requirement to report through the RCUK reporting system (Research Fish); this is required annually and continues for up to five years post grant end. Key staff on awards will be expected to attend a 3 day programme dissemination conference in China in 2018; applicants should make provision in their proposal for key project members to attend this event.

Applicants should be aware that according to the Newton Fund requirements, there will be some additional terms and conditions associated with the UK grants which are awarded. This will include additional reporting requirements which will be confirmed in due course.

## **10.** Programme Outputs Conference

In summer 2018, a conference will be held to bring together the outputs of the projects. The aim of this conference will be to undertake a synthesis of the results across the programme to provide value to China. This workshop will be held in China to deliver maximum impact and applicants should make provision in their awards for key project members to attend this workshop.

#### 10. Contacts

NERC:Daniel Knight, Tel: 01793 411672; email:<u>CZO@nerc.ac.uk</u>

NSFC: Yingjie Fan Email: <u>fanyj@nsfc.gov.cn</u>