Water Quality in India - Scoping Workshop

Announcement of Workshop – Call for Participants
17 - 18 November 2016, India (the venue will be confirmed in due course)

The deadline for applications is 16:00 (BST) 16 September 2016. Invited participants will be notified in the week commencing 19 September 2016.

1. Summary
The Natural Environment Research Council (NERC) and the Engineering and Physical Sciences Research Council (EPSRC) are inviting applications from UK scientists to attend a jointly organised workshop with the Indian Department of Science and Technology (DST), in Delhi on 17 - 18 November 2016. Over two days the aims of the workshop will be:

1. To define the scope of a potential new UK/India interdisciplinary programme focussed on research contributing to improved water quality, and through this support the economic development and welfare of India.

2. To facilitate links between the UK and Indian research communities in the area of water quality research.

Applications from researchers working in the fields of water quality, water engineering and related disciplines are welcome. It is expected that approximately 20 participants from across the NERC and EPSRC research communities will be invited. NERC and EPSRC will try to ensure a balance of different disciplines/expertise and the number of attendees from the same institution.

2. Newton-Bhabha Programme
Funding for the UK contribution to the programme is being sought from the Newton-Bhabha Fund. A decision on Newton-Bhabha funding is expected in October 2016. To align with DST’s planning cycle NERC and ESPRC are planning the workshop before having confirmation that Newton-Bhabha will support the programme; and if the bid to Newton-Bhabha is unsuccessful NERC and ESPRC will decide, in consultation with DST, whether the workshop will go ahead.

The Newton Fund\(^1\) is an initiative intended to strengthen research and innovation partnerships between the UK and emerging knowledge economies. 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)\(^2\). For India, Newton Fund activities will be delivered through the Newton-Bhabha programme, which the UK and Indian governments launched in November 2014.

ODA funded activity focuses on outcomes that promote *long-term sustainable growth* and is administered with the promotion of the economic development and welfare of the partner country as its main objective.

---

\(^1\) Newton Fund: building science and innovation capacity in partner countries

\(^2\) Organisation for Economic Cooperation and Development (OECD)
3. Background and Aims of the Programme
Population growth, urbanisation, industrialisation and agricultural intensification have contributed to a decline in water quality in India, with an estimated 76 million Indians without access to clean water. This proposed programme will support research to improve understanding of the transport, transformation, interactions and fate of natural and man-made pollutants in the environment and determine the risks they pose to people and the environment. It will also develop new management strategies and technologies to clean-up water courses and enable the better monitoring of pollution levels. Lack of access to clean water is one of the main barriers to societal development and economic growth and the aim of this programme is to support the research needed to underpin sustainable water quality improvements in India.

The potential scope of the research is broad but specific research challenges to be addressed could include:

- Improving understanding of the transport, transformation, interactions and fate of natural and man-made pollutants (pharmaceuticals, personal care products, metals, organic particles and plastics) in the environment;
- Determining the risks of natural and man-made pollutants pose to people and the environment;
- Improving understanding of the risks from naturally occurring pollution, such as arsenic and fluoride from geological sources;
- Developing management strategies and technologies to enable better measurement and monitoring pollution levels;
- Developing management strategies and technologies that will support the reduction pollution levels;
- Assessing the impact of pollution mitigation approaches, including timescales for clean-up measures to take effect and exploring the applicability of approaches to other areas.

The proposed programme aligns with the priorities of the Indian government which made improving water quality a top priority. Reducing pollution in the Ganga Basin, home to 43% of India’s population, is a particular focus and the National Mission for Clean Ganga (NMCG) has been created to lead the efforts to rejuvenate the Ganga. This programme will contribute to the delivery of the research goals of NMCG, but may also support research in other river basins in India.

4. Objectives of the Workshop
The programme is a joint initiative with India’s DST that aims to support collaborative UK-India project teams undertaking the research needed to enable sustainable water quality improvements in India. The objectives of the workshop are:

1. To define the scope of the proposed programme; and
2. To facilitate links between the UK and Indian research communities in the area of water quality research.

Given the wide range of potential research challenges the scoping is needed to determine the priorities for the planned research call and the primary aim of the workshop will be bring the UK and Indian communities together to discuss what the priorities for this proposed activity should be, how best to address them, and how to ensure that the outcomes of the research support long-term sustainable growth in India. The workshop will also facilitate networking and discussion to enable researchers to share ideas on key research questions
relevant to the expected call. Time will also be allocated for a discussion on possible priorities for future research collaborations, which will inform discussions between NERC, EPSRC, DST and other Indian partners.

RCUK India has facilitated the development of this collaboration and will be assisting in the organisation and running of the workshop.

5. The workshop – how to apply
The workshop will take place in Delhi, India on 17 - 18 November 2016.

To attend the workshop you must complete the Water Quality - Scoping Workshop online application form, following the instructions provided on the form by **16:00 (BST) 16 September 2016**. Late applications will not be considered. Invited participants will be notified in the week commencing 19 September 2016. Submission of the online application form will be taken as indicating availability on the dates of the workshop.

In the online application form applicants should outline how they can contribute to the scoping of the programme, including why their expertise is relevant, any current overseas collaborations and links (particularly with India), and their personal rationale for being involved in the workshop.

Please note that the total number of participants from the UK is limited and NERC and EPSRC will try to ensure a balance of different disciplines/expertise and the number of attendees from the same institution. It is expected that approximately 20 UK participants will be invited. Attendance at the workshop does not automatically enable project bids to be submitted or guarantee funding. Conversely, absence does not preclude bidding into the call.

Applicants must be eligible to receive NERC or EPSRC funding\(^3\)\(^4\), i.e. they must reside in the UK and be employed by an eligible UK Research Organisation (Higher Education Institution, research council institute or a recognised independent research organisation).

Reasonable travel and subsistence expenses for UK participants attending the workshop will be covered in line with NERC policy on recovering travel and subsistence.

The full programme of the workshop and further details will be circulated to successful applicants in October 2016.

For further information please contact:

**NERC:** Andy Lloyd  
Email: sustainablewater@nerc.ac.uk  
Tel: 01793 442629

**EPSRC:** Ruqaiyah Patel  
Email: Rugaiyah.Patel@epsrc.ac.uk  
Tel: 01793 444029

---

\(^3\) NERC research grant eligibility  
\(^4\) EPSRC research grant eligibility