



## Drivers of Variability in the South Asian Monsoon

### Announcement of Opportunity

**Deadline to receive the proposals: 16:00 hrs UK Local Time on 22 July 2013**

The South Asian summer monsoon provides 80% of annual precipitation to around one billion people. Accurate prediction of monsoon rainfall is therefore an important societal challenge and must be effective at many timescales from daily weather forecasting up to multi-decadal changes in the mean state. While there is much research in progress on monsoon modelling and prediction, a key gap (and opportunity) lies in better measurement and understanding of processes operating at small space and time scales, for example: land–ocean–atmosphere interactions, aerosol processes, dynamics of mesoscale convective systems, and on how such processes link to larger scale variability and teleconnections.

The Earth System Science Organization (ESSO), the Ministry of Earth Sciences (MoES), New Delhi, in collaboration with the Natural Environment Research Council (NERC) jointly invite outline bid proposals for research on drivers of variability in the South Asian Monsoon.

For NERC, this activity is a £3 m research programme and is part of a larger NERC action on 'Drivers of variability in atmospheric circulation'. For ESSO–MoES, this activity forms part of their Monsoon Mission programme. The Monsoon Mission is a research programme to improve prediction of the monsoon from short-range to inter-seasonal timescales.

This programme aims to provide an opportunity for UK and Indian scientists to form substantial collaborations to understand the links between small-scale processes and larger scale monsoon variability. The understanding of the process developed through this work will be applied to develop improved parameterizations and data assimilation methods for predictive models. The programme aims to bring together analysis of current and historical observations from ground-based observing sites as well as undertaking time-limited observational campaigns (possibly including deployment of airborne research platforms). The programme will also include high resolution modelling and data assimilation.

The focus areas for this research opportunity are:

- process-based observational work, including a time-limited observational campaign using the FAAM aircraft;
- design and trialling of new long-term observations with the potential to improve predictability of the South Asian monsoon;
- bringing together existing historical observations from disparate sources;
- and using those observations to develop a more integrated understanding of the driving processes, through a hierarchy of modelling approaches, including data assimilation to help progress towards improving monsoon predictability.

Proposals are sought for collaborations between UK and Indian researchers. Projects will be selected through a two stage process. Outline proposals must be submitted via e-mail to [davber51@nerc.ac.uk](mailto:davber51@nerc.ac.uk) by **16:00 GMT/UTC on 22 July 2013**.

For each grant application a lead Principal Investigator should be nominated from both the UK and India, and they will act as focal points for contact with the funding agency in their respective countries. Grants will be expected to be of at least 3 years duration and a maximum of 5 years, unless there is justification for short-term valuable work.

NERC, UK are managing the outline bid submission process on behalf of the NERC–MoES partnership. Applications must be submitted to the allocated NERC office (David Roberts – [davber51@nerc.ac.uk](mailto:davber51@nerc.ac.uk)) no later than 4 pm GMT (09:30 pm IST) on the closing date, 22 July 2013. Please note that late submissions will not be accepted. Bids should be in the form of a single UK-Indian proposal, written jointly and including details of all UK and Indian researchers.

More details of the announcement are available at <http://www.nerc.ac.uk/research/programmes/monsoon/events/ao.asp> and <http://moes.gov.in/>. Indian researchers also may contact **Dr M. Rajeevan**, Scientist-G/ Adviser at [mn.rajeevan@nic.in](mailto:mn.rajeevan@nic.in) and phone: 011-2466 9541 for further details.