

Met Office tendering on behalf of the Department for Science, Innovation and Technology (DSIT).

To register your interest, see notes at the end of this page. Registering interest requires no proposal detail at this stage and carries no obligation to bid.

Please note that this Expression of Interest is open to UK operating and registered organisations only.

Call Reference:	DN684504 - WCSSP India FY24/25 Grant Funding Opportunities
Expression of Interest for:	WCSSP India
Grant Funds for the Period:	1st April 2024 – 31st March 2025 <i>Funding is initially available to cover a 1-year period (April 2024 – March 2025). Subject to further funding allocations being received from DSIT, the Met Office will confirm extensions to the Grant Agreement on an annual basis to fund year 2 and year 3 activities.</i>

Expressions of Interest for the following lots:

Lot number	Title	Amount	fEC @100%	fEC @ 80%
IND24_2.9	Monsoon extreme events: representation, predictability, variability and impacts	£150,000	£150,000	£120,000
IND24_4.7	Understanding the potential for multi-risk assessment within Impact based Forecasting and Warning (IbFW)	£150,000	£150,000	£120,000

Key Dates

Estimated Publish of Call: <i>(Start of bidding period).</i>	Week commencing 11 th September 2023 <i>A notification email will be sent to parties who have formally registered their interest by way of clicking on the 'Register Interest' button displayed below the opportunity on the ProContract portal</i>
Estimated Bidding Period:	Week commencing 11 th September 2023 – Tuesday 31 st October 2023
Estimated Award of Call:	Week commencing 11 th December 2023
Estimated Delivery Period:	1st April 2024 – 31st March 2025 <i>Funding is initially available to cover a 1-year period (April 2024 – March 2025). Subject to further funding allocations being received from DSIT, the Met Office will confirm extensions to the Grant Agreement on an annual basis to fund year 2 and year 3 activities.</i>

Background to the Met Office Weather and Climate Science for Services Programme (WCSSP):

The Met Office is a delivery partner on behalf of the UK government's Department for Science, Innovation and Technology (DSIT). We administer funding through our Weather and Climate Science for Service Partnership (WCSSP) programme.

The WCSSP programme has been developing a global network of partnerships that harness the weather and climate scientific expertise of UK and partner countries to strengthen the weather and climate resilience of vulnerable communities around the world since 2014.

Through the WCSSP programme, we are working collaboratively on projects that focus on the global challenges of weather and climate with partners in Brazil, China, India, South Africa and Southeast Asia. International collaboration is vital to addressing the issues presented by global weather and climate change.

Outputs from the WCSSP programme support the UN's Sustainable Development Goals (SDGs) with world-leading weather and climate science. Through working in partnership around the world, we are building international meteorological capacity, saving lives and strengthening resilience and response to crises. The WCSSP programme particularly supports our work towards goal 13 (climate action) and goal 17 (partnerships for the goals).

For more information see the programme website [Met Office WCSSP](#) and follow via Twitter: [@MetOfficeww](#)

Background to WCSSP INDIA:

The WCSSP India - Met Office is a game-changer in the field of weather forecasting in India. It leverages cutting-edge technology and data analytics to provide more accurate and timely weather forecasts than ever before.

This revolutionary initiative has far-reaching benefits for various sectors, including agriculture, transportation, and disaster management. With more accurate weather predictions, farmers can make better decisions about when to plant and harvest crops, while transportation companies can optimize their routes to avoid adverse weather conditions. Additionally, disaster management agencies can use this information to prepare for and respond to natural disasters more effectively.

For further information please visit the project website – [WCSSP India - Met Office](#)

Summary of Requirements:

Lot IND24_2.9: Monsoon extreme events: representation, predictability, variability and impacts

The Indian subcontinent is frequently affected by extreme weather before, during and after the summer monsoon season. Intense precipitation events associated with intense, localised convection, particularly over orography, or larger organised weather systems (monsoon low pressure systems or depressions) can cause substantial damage from flash flooding and landslides, lightning strikes, storm surges and coastal inundation. Pre-monsoon heatwaves affect human health and infrastructure as well as wildlife and agriculture. Prolonged break spells within the monsoon season can lead to agricultural drought and affect water resources. Dust events arising from local or remote sources affect air quality and human health, as well as radiative effects.

This broad call for research invites contributions that will advance some aspects of relevant process understanding, leading to improved modelling and predictions at different scales, in any of the following areas:

- Drivers, meteorological conditions, and physical processes relating to heavy rainfall events and associated hazards.
- Drivers, meteorological conditions, and physical processes relating to heat waves.
- Drivers, meteorological conditions, and physical processes relating to dust/pollution events and associated hazards and feedbacks.
- Drivers and physical processes relating to concurrent hazards or cascades of hazards from multiple sources.
- Role of scale interactions between inter-annual, sub-seasonal and weather timescales and between global, synoptic, mesoscale and storm-scale.
- Research leading to increasing the ability of prediction systems for forecasting monsoon extreme events, potentially to include the role of model resolution, coupling and representation of environmental complexity, ensemble design, diagnostics and post-processing techniques.

This is a broad area of research, cutting across all Work Package areas, and we therefore envisage and encourage proposals to focus on only some aspects described under this call and contribute to the overall WCSSP India project aims.

Activity should aim ultimately to lead to peer-reviewed publications of new understanding related to monsoon extreme events, their representation in models and their predictability, ultimately feeding into model improvements and potentially informing risk-based forecast product development.

This activity is expected to build the capacity or capability of an in-country partner institution or individual, to enable them to more effectively carry out their research/operations e.g. developing improved modelling systems, skills training.

The methods or results in this activity are expected to be relevant more widely and could be applied to benefit other countries and regions.

We will be inviting bidders to propose grant activities to cover a 3-year (36 month) period, funding will initially be available for a 1-year period (April 2024 – March 2025). Subject to further funding allocations being received from DSIT, the Met Office will confirm extensions to the Grant Agreement on an annual basis to fund year 2 and year 3 activities.

Lot IND24_4.7 Understanding the potential for multi-risk assessment within Impact based Forecasting and Warning (IbFW)

Impact based Forecasts and Warnings (IbFW) aim to convey the likelihood of impacts associated with different hazardous weather conditions. Often the assessment of impact (occurrence and severity) is made on a hazard-by-hazard basis and does not always consider the interplay between different hazards, assets and societal groups.

This has the potential to lead to inaccurate assessments of the risk associated with an event. Multi-risk determines the whole risk from several hazards and accounts for the interactions between these hazards and the varying vulnerabilities and exposures in time and space.

There are a variety of methods being adopted to implement IbFW by National Meteorological and Hydrological Services (NMHSs) around the world, and a key challenge is to understand which methods provide the most appropriate warnings for organisations and the public. The extent to which multi-risk methods might be appropriate in this space is still to be determined, and the scientific and technical challenges for implementation of multi-risk assessments are yet to be fully scoped within the IbFW space.

To address this challenge, we seek proposals that aim to understand and assess the viability of multi-risk approaches to enhance IbFW and speak to the following research challenges:

- Improving our understanding of the scientific and technical requirements for multi-risk assessment and its viability within IbFW.
- Identifying appropriate approaches to adopt when implementing multi-risk assessment within the IbFW space (e.g., machine learning; conceptual modelling; expert elicitation).
- Identification of methods and tools to describe the interactions between multiple hazards and the varying vulnerabilities and exposures in time and space.
- Consideration of how to assess multi-risk approaches.

Activity would ultimately lead to peer-reviewed publications (provided sufficient project duration) and provide new insights and development of new methods for multi risk assessment. This would ultimately feed in to enhanced capacity for better understanding the multi risks in IBF space. Project delivery with a strong element of collaborative working and knowledge exchange with researchers within the Indian Ministry of Earth Sciences would be expected.

This activity is expected to build the capacity or capability of an in-country partner institution or individual, to enable them to carry out their research/operations more effectively e.g., developing improved modelling systems, skills training. It is also expected to contribute to or lead to the development of a weather or climate service prototype. The methods or results in this activity are expected to be relevant more widely and could be applied to benefit other countries and regions.

We will be inviting bidders to propose grant activities to cover a 3-year (36 month) period, funding will initially be available for a 1-year period (April 2024 – March 2025). Subject to further funding allocations being received from DSIT, the Met Office will confirm extensions to the Grant Agreement on an annual basis to fund year 2 and year 3 activities.

Eligibility:

The following criteria must be met by the organisation submitting a bid against Calls supported by the Met Office WCSSP Programme in order to be eligible to apply or be awarded funds against this Call:

- The Bidder must be an organisation operating and registered in the United Kingdom.
- The Bid must demonstrate how it contributes to the Met Office WCSSP Grant Fund's aim to develop science and innovation partnerships.
- The Bid must demonstrate ODA compliance.
- The Bid does not cover activities in relation to which the Bidder has received, or will receive, external funding.
- There must be an In Country economic and societal benefit to which must be demonstrated.
- The proposed Grant Activities in a Bid will last the full duration of the Grant Period.
- The Bidder must be willing and able to work with Met Office and other organisations and individuals associated with the WCSSP Programme, including by attending meetings and other collaborative events.
- Multiple Bids can be submitted from a single organisation where they are led by different academic departments.
- Bidders are not expected to have pre-existing In Country Partners to respond to this call. The bilateral partnership nature of WCSSP means that effort by in-country researchers is supported by our existing In Country partners as standard. In country partners are currently: The Ministry of Earth Sciences (MoES), National Centre for Medium Range Weather Forecasting (NCMRWF), India Meteorological Department (IMD), Indian Institute of Tropical Meteorology (IITM), India National Centre of Ocean Information Services (INCOIS), National Centre for Coastal Research (NCCR) and National Centre for Polar and Ocean Research (NCPOR).

How to Apply:

The above Expression of Interest is advertised on the Met Office ProContract e-Tendering portal called ProContract. To access and register your interest you will need to log onto the ProContract portal via this link: tenders.metoffice.gov.uk

You may need to search for the Call reference DN684504

You will need to register your company (if you have not already done so) and register your interest against the opportunity before you are able to access the tender documents.

If you require guidance or 'how to' instructions – see the supplier manuals on the right-hand side of the supplier home page.

Online Discussions between Bidders and the Met Office:

There is a Discussions function on ProContract which shall be used to provide all further information regarding this opportunity including any changes to time scales, scope or clarifications. This function must be used by bidders to submit all clarification questions.