



Understanding of the Impacts of Hydrometeorological Hazards in Thailand

Closing Date for Notification of Intent: 4 December 2017 - 16:00 GMT/23:00 ICT
Closing Date for Full Proposals: 21 February 2018 - 16:00 GMT/23:00 ICT

1. Summary

The Thailand Research Fund (TRF) and the UK's Natural Environment Research Council (NERC) and Economic and Social Research Council (ESRC) invite applications to the Understanding of the Impacts of Hydrometeorological Hazards in Thailand programme. The programme has a budget of £1.5m for the UK component and THB 10-15m for the Thai component.

The aim of the programme is to improve understanding of the impacts of hydrometeorological hazards, such as floods, droughts, landslides and storm surges, in Thailand. The focus is on identifying, characterising and predicting the environmental and social variables that influence the occurrence, impact, severity and duration of hydrometeorological hazards in Thailand to enable increased preparedness and resilience to future events.

Applications are sought from teams comprising researchers from Thailand and the UK eligible to hold TRF and UK Research Council grants respectively. TRF will fund the Thai component of the successful projects and UK researchers will receive funding from NERC. Applicants may request up to 5 Million THB per project from TRF and up to £375k (at 80% FEC) from NERC. Projects can be maximum 36 months duration and are expected to start in October 2018.

A Notification of Intent to Submit should be submitted on the online form no later than 16:00 GMT/23:00 ICT on 4 December. The notifications will not be assessed and will be used to plan the assessment process, however the eligibility of applicants for NERC, ESRC and TRF funding will be checked and ineligible applicants informed. **Applicants should be note that submission of a Notification of Intent is a requirement of this call and full bids will only be accepted from those teams who submit a completed Notification of Intent to submit form prior to the deadline. The lead UK and Thai PI should not change following approval to submit a full bid.**

A joint application should be submitted to the UK's Joint Electronic Submission System (Je-S). The closing date for applications is 16:00 GMT/23:00 ICT on 21 February 2018. Applications not submitted before the deadline will not be received or considered.

2. Background

2.1 Scientific Background

Hydrometeorological hazards, including floods, droughts, landslides and storm surges, can pose a direct threat to lives and impact livelihoods by damaging and destroying transport links, power supplies, businesses and agricultural land. Climate change, population growth, land-use change and urbanisation are increasing the number of people in Thailand at risk from these hazards, for example flooding in 2011-2012 led to 65 provinces in Thailand being declared disaster zones with more than 13.6 million people directly affected.

To increase resilience to hydrometeorological hazards better understanding of the likely impacts are needed to enable appropriate adaptation and mitigation measures, such as new flood defences or the restoration of natural defences like mangroves, to be developed and implemented. The aim of this programme is to support the research needed to improve environmental and social understanding of the impacts of hydrometeorological hazards, such as floods, droughts, landslides and storm surges, in Thailand.

2.2 Non-Scientific background

[NERC](#) is the UK's main public funder of environmental research, innovation and training. Its aim is to fund excellent, peer reviewed science that helps us understand and predict how our planet works and enables the responsible management of the environment.

[ESRC](#) is the UK's main funder of social and economic research, innovation and training. Its aim is to support independent, high quality research which has an impact on business, the public sector and civil society.

The [Thailand Research Fund \(TRF\)](#) is a major research funding agency in Thailand under office of the Prime Minister. Its mission is to support funding for research, researchers, research network, and community empowerment with the vision to become one of the best research funding agencies in Asia, in terms of funding management and good governance. TRF support all disciplines, all areas, and all dimensions of research including upstream, midstream and downstream. TRF's strategic plans aim to create innovations in research management, strategic research issues, research utilization and social communication, international research networks, digital.

This programme is supported by the Newton Fund in Thailand, an initiative established by the governments of the UK and Thailand. The Fund provides a framework for promoting increased research and innovation collaboration, developing long-term, sustainable partnerships and contributing to economic growth. As a requirement of funding, all applications under this call must demonstrate how they will contribute towards the delivery of the Newton Fund goals.

In the UK the Newton Fund forms part of the [UK's Official Development Assistance \(ODA\)](#) commitment which is monitored by the Organisation for Economic Cooperation and Development (OECD). 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 and is administered with the promotion of the economic development and welfare of developing countries as its main objective. As a result UK-based researchers will be required to input to specific ODA reporting requirements.

3. Programme Scope

3.1 Programme objectives

The aim of the programme is to improve understanding of the impacts of hydrometeorological hazards, such as floods, droughts, landslides and storm surges, in Thailand.

The focus will be on identifying, characterising and predicting the variables that influence the occurrence, impact, severity and duration of hydrometeorological hazards and the research challenges that the programme will address could include, but are not limited to:

- Understanding the susceptibility of catchments or coastal regions to hydrometeorological hazards by:
 - Exploring how hydrological, sedimentary, geomorphological and subsurface processes within a catchment control the movement of water during periods of high or low flow; and
 - Determining how different land-use, urbanisation and water resource management practices are mitigating or exacerbating hydrometeorological hazards; and
 - Developing hydrological models to improve understanding and prediction of the impacts of hydrometeorological hazards.
- Exploring how different environmental variables interact and combine to determine the risks from hydrometeorological hazards
- Understanding how governance and institutional arrangements contribute to the risks from hydrometeorological hazards:
 - Determining how local, regional and national governance processes, and the interactions between them, influence the management of hydrometeorological hazards;
 - Exploring the impact of non-water related policies and regulatory regimes, e.g. energy or agriculture, on the management of hydrometeorological hazards; and
 - Studying the effectiveness of policy interventions and incentives, and barriers to uptake, e.g. willingness to pay, regulation, subsidies and enforcement.
- Exploring whether adapting the way water resources are managed, including reviewing current practices can mitigate the risks from hydrometeorological hazards, the risks to people, property and environmental quality.

Projects will also be expected to work closely with end-users both at the design stage and throughout the lifetime of the project to ensure that the outputs can be used by government, local authorities, civil agencies, businesses and local communities to make decisions about the management and mitigation of hydrometeorological hazards.

Projects can be based in any part of Thailand, and proposals that explore the combined impacts from surface, fluvial and coastal flooding and/or how the risk from floods and droughts is changing are encouraged. Similarly, projects that include reviews of water management policies and practices and/or the development of new management strategies are encouraged.

The expected outputs of the programme include high impact journal papers, presentations at international conferences, and information and tools that policymakers and water managers can use to increase preparedness and resilience to hydrometeorological hazards.

3.2 Proposal requirements

Proposals should be from joint Thai-UK research teams and should clearly justify how the proposed research aligns with the scope of this call and will contribute to the delivery of the programme goals. In particular, applicants should set-out how the proposed research will deliver a better understanding of the impacts of hydrometeorological hazards in Thailand, and how they will work with users to ensure that the outputs of research support increased preparedness and resilience to floods and droughts, and hence contribute to societal well-being and economic growth in Thailand.

It is envisaged that proposed research will include fieldwork, process studies and model development and encompass a range of environmental research disciplines, such as hydrological processes, hydrogeology, sedimentary processes, geomorphology, and coastal processes.

Applicants are encouraged to consider including a social science element in their project, although this is not a requirement for this call. If including social research on the role of governance and institutional arrangements in determining the impact of hydrometeorological hazards, applicants should clearly explain why the research is novel and how it will be integrated into the project.

4. Programme requirements

NERC is managing the proposal submission on behalf of the NERC, ESRC and TRF partnership.

Applications to the Understanding of the Impacts of Hydrometeorological Hazards in Thailand programme must be from UK-Thai partnerships – i.e. include at least one Thailand-based Principal Investigator and one UK-based Principal Investigator. Only proposals that involve scientific collaboration between the UK and Thailand will be considered. All proposals must have equal or proportionate participation from UK and Thai researchers.

Up to £1.5m (80% FEC) is available from the UK for this call and up to THB 10-15m is available from TRF. **Applicants can request up to £375k (80% FEC) for the UK component of a project, and up to THB 5m for the Thai component.** Projects can have a maximum duration of 36 months.

The funds available through this call are intended to support focused, coordinated and collaborative research between Thailand and the UK that address the scope of the call as outlined above. These grants should promote inter-institutional collaborations, both between and within Thailand and the UK, and are also expected to enhance opportunities for interdisciplinary collaboration. Partnerships should be genuine and reciprocal, and working together must add value to that which could be achieved by individual partners working on their own. Proposals must demonstrate that research activities will either achieve more than the partners would have achieved if tackling an issue by working alone, or achieve outcomes at less cost or faster than if working alone.

For each grant application a lead Principal Investigator should be nominated from both the UK and Thailand, and they will act as focal points for contact with the funding agency in their respective countries.

4.1 Newton Fund requirements

All applications should clearly outline how the proposed research will address the objectives of the Newton Fund by supporting the development of long-term, sustainable partnerships that promote societal welfare and economic growth in Thailand.

Applicants should demonstrate how the main research outcomes will be specific to enabling the sustainable development in Thailand through supporting increased resilience to hydrometeorological hazards. Applicants should consider how their project will:

- address the need for better understanding of the impact of hydrometeorological hazards and support increased preparedness and resilience to future events;
- address the issue identified effectively and efficiently;
- use the research strengths of the UK and Thailand to address the issue; and
- demonstrate that the research component is of an internationally excellent standard.

Applicants should address these points in both the Je-S summary and then more fully, in the Case for Support (see section 5 for more details). UK researchers should demonstrate that the research is compliant with ODA requirements by submitting an ODA statement clearly explaining how their project is ODA compliant and therefore eligible to receive support from the Newton Fund. Further details are in section 5 below. The ODA statement is for UK funder purposes only, it is an assurance check that the project meets the ODA compliance requirements.

4.2 Eligibility

It is recommended that applicants contact the relevant funding agency before submission to confirm they are eligible to apply to the call as proposals with ineligible applicants will be rejected without peer review.

4.2.1 UK researchers

For UK researchers' normal individual eligibility applies and is in Section C of the [NERC research grant and fellowships handbook](#). NERC research grants may be held at approved UK Higher Education Institutions (HEIs) approved Research Council Institutes (RCIs) and approved Independent Research Organisations (IROs). The Research Councils have agreed that to help remove potential barriers to interdisciplinary research, all RCIs are eligible for grant funding from all Research Councils. Full details of approved RCIs and IROs can be found on the [RCUK website](#).

This programme is one of five Newton-funded programmes on Understanding the Impacts of Hydrometeorological Hazards in Southeast Asia that are running in parallel. UK Investigators may be involved in no more than two proposals in total submitted to these programmes and only one of these may be as the lead Principal Investigator.

4.2.2 Thai researchers

The Thai researcher's requirement is divided in 2 parts that are for Principal Investigator (PI) and Co-Investigator (Co-I). PI must be Thai citizens, hold a permanent or fixed term contract in an eligible university or research institution in Thailand, and must have experience in the research areas in this call. Furthermore, PI must not be working on more than 3 TRF-funded projects at the time of application. Co-I must hold a permanent or fixed term contract in an institution in Thailand and have experience of or hold a degree in a field relevant to this call.

4.3 Studentships

There are no UK or Thai associated studentships permitted as part of this call.

4.4 Reporting requirements

As with all NERC grant holders, there will be a requirement to report through the RCUK reporting system; this is required annually and continues for up to five years post grant end.

TRF funded researchers are required to submit a progress report every 6 months until the end of the project to align with TRF regulations.

As this is a Newton Fund programme there will be additional reporting requirements, which successful applicants will be required to assist with.

4.5 Capital requests

The purchase of capital (items over £10k in the UK) are not permitted by UK or Thai applicants through the Newton Fund is not permitted.

4.6 Awards and extension requests

Successful grants will be funded for up to 3 years and should start in October 2018 and conclude no later than 31 December 2021 to align with the Newton Fund timescales.

Due to financial restraints of the Newton Fund Programme, grant extensions to the UK component of the projects will only be considered under exceptional circumstances (in line with the Equality Act 2010) and will require NERC agreement on a case-by-case basis. The Research Organisation remains responsible for compliance with the terms of the Equality Act 2010, including any subsequent amendments introduced while work is in progress, and for ensuring that the expectations set out in the RCUK statement of expectations for equality and diversity are met.

5. Application process

5.1 Notification of Intent

A Notification of Intent to submit a proposal must be submitted for all potential applicants to the call via the online application form by 16:00 GMT / 23:00 ICT 4 December 2017.

Only one Notification of Intent form needs to be submitted per project. The notification must follow the instructions provided on the online form and include details on the research themes that the proposed research will address and the institutions, investigators and project partners that are expected to be involved. NERC, ESRC and TRF will use this information to plan the proposal assessment process. The notifications will not be assessed but eligibility of the applicants for Research Council and TRF funding will be checked. It should be noted that submission of the Notification of Intent is a requirement of this call and full bids will only be accepted from those teams who submit a completed Notification of Intent to submit online form prior to the deadline. **The Notification of Intent form is available from the Announcement of Opportunity page on the NERC website.**

NERC will acknowledge receipt of all notifications and invite eligible applicants to submit a full proposal. NERC will also share the notifications with TRF and ESRC. **The lead PI from the UK and Thailand should not change following approval to submit to full bid.**

5.2 Full bid application process

The full bid closing date is 16:00 GMT / 23:00 ICT 21 February 2018.

This programme will support collaborative projects between the UK and Thailand and each project should submit a single collaborative proposal that sets out the research to be carried out by both the UK and Thai partners. All applications must include UK and Thai scientists.

The UK applicant must submit the application through the [Research Councils' Joint Electronic Submission system](#) (Je-S).

The UK applicant should list the lead Thai PI and collaborators as Project Partners on the Je-S form. Each individual organisation should be listed as a separate Project Partner. The approximate value of the Thai collaborators and other contributions should be detailed in the project partner in-kind support section of the proposal form. Note the requirements below for providing full details of the Thai budget requested.

The following additional attachments must be provided on the lead proposal:

- Letters of Support for each named Thai collaborator listed as a Project Partner. This is a Je-S requirement and the letter of support should be a dummy document attachment. See Letters of Support section below.
- CVs for each of the named Thai collaborators (maximum 2 pages per person) should be combined into one document as attachment type 'Non-UK Components'.
- Completed TRF budget form as attachment type 'Non-UK Components' which summarises details of the Thai applicants and their requested costs (see Thai Costs below).

Applicants should select Proposal Type- 'Standard Proposal' and then select the scheme – 'Directed International' and the Call – 'Newton Hydrometeorological Hazards Feb 2018'.

Applicants are requested to identify which of the five calls they are applying to in the title section of the Je-S form, i.e. the title should begin with [Thailand]

Applicants should leave enough time for their application to pass through their organisation's Je-S submission route before this date. Applications not submitted before the deadline will not be received or considered. **Applicants must ensure that their application is received by NERC by 16:00 GMT/ 23:00 ICT on 21 February 2018.**

All attachments, with the exception of letters of support and services/facilities/equipment quotes, submitted through the Je-S system must be completed in single-spaced typescript of minimum font size 11 point (Arial or other sans serif typeface of equivalent size to Arial 11), with margins of at least 2cm. Please note that Arial narrow, Calibri and Times New Roman are not allowable font types and any proposal which has used either of these font types within their submission will be rejected. References and footnotes should also be at least 11 point font and should be in the same font type as the rest of the document. Headers and footers should not be used for references or information relating to the scientific case. Applicants referring to websites should note that referees may choose not to use them.

Applicants should ensure that their proposal conforms to all eligibility and submission rules; otherwise their proposal may be rejected without peer review. More details on NERC's submission rules can be found in the [NERC research grant and fellowships handbook](#) and in the submission rules on the NERC website.

Please note that on submission to council ALL non PDF documents are converted to PDF, the use of non-standard fonts may result in errors or font conversion, which could affect the overall length of the document.

Additionally where non-standard fonts are present, and even if the converted PDF document may look unaffected in the Je-S System, when it is imported into the Research Councils Grants System some information may be removed. We therefore recommend that where a document contains any non-standard fonts (scientific notation, diagrams etc.), the document should be converted to PDF prior to attaching it to the proposal.

Full Guidance on the application process, including details of UK eligible costs, is available in the [NERC Research Grants Handbook](#).

The costs of the UK institutions should be submitted in to the Je-S system and will be met from the UK funds, and those for the Thai partner institutions will be met by TRF and should be submitted on the Thai pro-forma provided.

i. Proposal components

In addition to the standard Je-S pro forma, the **lead** component of each proposal should include the following documents in Je-S:

a) A joint **Case for Support**, which is comprised of three parts:

Part 1 – A common **Previous Track Record** incorporating **ALL** UK and Thai Research Organisations involved (up to **3 sides A4**). The Track Record should provide a summary of the results and conclusions of recent work in the technological/scientific area that is covered by the research proposal, including reference to RCUK, TRF and other relevant funded work. Details of any relevant past collaborative work with other beneficiaries should also be given; in particular please indicate where your previous work has contributed to the UK or Thailand's competitiveness or to improving the quality of life. An outline of the specific expertise available for the research at the host organisation and that of any associated organisations and beneficiaries should also be included.

Part 2 – A common **Description of the Proposed Research**. (up to **8 sides A4** including all necessary tables, figures and references) and should include:

- underlying rationale and scientific issues to be addressed,
- describe why the work is strategically important,
- how users are participating in projects, how they will be engaged and how the outputs and outcomes address their requirements,
- how the application addresses the scope of this particular call,
- the key research objectives and hypotheses, and
- how these will be achieved.

Part 3 - A common **Management Plan** (up to **1 side A4**). To include management structures and plans, participant responsibilities and scheduling chart. Note the management plan should factor in the need to allocate resources to cross-project coordination and integration.

b) UK costs: a common **Justification of Resources**; (up to **2 sides A4**). This should be for all UK Research Organisations involved, for all Directly Incurred Costs, Investigator effort, use of pool staff resources, any access to shared facilities and equipment. Capital requests (i.e. individual items over £10k) are not permitted through the Newton Fund. For further information of what to include in the Justification of Resources, see section E in the [NERC Research Grants Handbook](#).

c) Thai costs: justification of these resources and details of the Thai Investigators should be submitted on the separate form provided and entered into Je-S as attachment type '**Non-UK Component**'. The form is available to download from Announcement of Opportunity page on the NERC website.

d) A common **Pathways to Impact**; (up to **2 sides A4**), detailing:

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

Full details of the requirements for [Pathways to Impact](#), and a suggested template, can be found on the NERC website. The costs of knowledge exchange activities in the plan should be fully integrated into the proposal costings and justified in the Justification of Resources section.

- e) A common **Outline Data Management Plan** (up to **1 side A4**). This section includes information about how the project will manage data produced and identify data sets of long term value that should be made available to the relevant data centre for archiving and reuse at the end of the grant. Further guidance regarding [NERC's Data Policy](#) is available.
- f) **Letters of Support** from named Project Partners to confirm that support and facilities will be made available for associated collaborations and co-funding (up to **2 sides A4 each letter**). The Je-S system will require a letter of support for the Thai named collaborators listed as Project Partners. A 'dummy letter of support' should be submitted and indicated that that this is the letter of support for the Thai named investigators.
- g) **ODA statement** (up to **1 side A4**). This should describe how the proposed project meets the ODA requirements by answering:
 1. How will Thailand directly benefit from this proposal?
 2. How is your proposal directly and primarily relevant to the development challenges of Thailand?
 3. How do you expect that the outcome of your proposed activities will promote the economic development and welfare in Thailand?

Each **component** application (including the lead) will additionally require the following attachments:

- a) A **CV** (up to **2 sides of A4**) for each named PI, Co-I, research staff post and Visiting Researcher.
- b) **Technical Assessment** of the request for access to a NERC Facility. PIs wishing to use a [NERC facility](#) will need to submit a mandatory 'technical assessment' with their proposal (excluding HPC). Given the time restrictions on spend under calls supported by the Newton Fund, we are unable to accept NERC shiptime or aircraft requests as part of this call. All other NERC Services and Facilities must be fully costed within the limits of the proposal, and agreement that they can be undertaken within the timeframe of the programme must be provided by the facility. For NERC, this means a quote for the work which the facility will provide. A [full list of the Facilities](#) requiring this quote can be found on the NERC website.

6. Assessment Process

The Full Proposals will be internationally peer-reviewed and final funding recommendations made by a Moderating Panel consisting of members of the UK and Southeast Asian science communities and other independent experts. Applicants will be given the opportunity to provide a written response to peer review comments, which will be made available to the panel along with the reviewer comments.

The PI response notification will be sent to the UK lead applicant via the Je-S system and it is the expectation that the UK PI shares this request with the Thai collaborators to ensure

that the PI response is a coordinated response agreed by the UK and Thai PIs. This will then need to be submitted by the UK applicant on behalf of the whole project via the Je-S system.

The final funding decision will be made by NERC, ESRC and TRF based on the recommendations of the Moderating Panel. The Funders are aiming to achieve a balanced portfolio of projects across the programme that best address the overarching aims of the programme.

The [assessment criteria](#) to be used for the full proposal will be as follows:

- Research Excellence
- Fit to Scheme

Feedback will be provided to all applicants following the assessment of proposals.

7. Timetable

Date	Activity
10-11 October 2017	Networking workshop – launch the call
4 December 2017	Notification of intent to submit deadline
21 February 2018	Full bid closing date
February to June 2018	Peer review assessment
Week commencing 4 June 2018	Principal Investigator response to reviews*
11 – 12 July 2018	Moderating panel meeting
Late July 2018	Funding decisions confirmed
September 2018	Awards announced
October 2018	Grants start

*Applicants should be prepared to respond to reviewers comments in this time frame.

8. Contact

The call is being administered by NERC in the UK on behalf of all funders. Initial enquiries should be made to:

- NERC – Daniel Knight
Tel: +44 (0) 7928 668 935
Email: newtonseasia@nerc.ac.uk
- TRF - Saravane Singtong
Tel: +662-278-8230
Email: Saravane@trf.or.th