



## Understanding of the Impacts of Hydrometeorological Hazards in the Philippines

**Closing Date for Notification of Intent: 4 December 2017 - 16:00 GMT/00:00 PHT**

**Closing Date for Full Proposals: 21 February 2018 - 16:00 GMT/00:00 PHT**

### 1. Summary

The Philippine Council for Industry, Energy and Emerging Technology Research and Development (PCIEERD) and the UK's Natural Environment Research Council (NERC) invite applications to the Understanding of the Impacts of Hydrometeorological Hazards in the Philippines programme. The programme has a total budget of £1.5m for the UK component and PHP 60M for the Philippines component.

The aim of the programme is to improve the understanding of the impacts of hydrometeorological hazards, such as floods, droughts, landslides and storm surges, particularly on specific economic sectors in the Philippines. 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 the Philippines to enable increased preparedness and resilience to future events.

Applications are sought from teams comprising of researchers from the Philippines and the UK eligible to hold PCIEERD and UK Research Council grants, respectively. PCIEERD will fund the Filipino component of the successful projects and UK researchers will receive funding from NERC. Applicants may request up to PHP 15M from PCIEERD and up to £375k (at 80% FEC) from NERC. Projects can be for a maximum of 36 months 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/00:00 PHT on 4 December 2017.** The notifications will not be assessed and will be used to plan the assessment process, however the eligibility of applicants for NERC and PCIEERD funding will be checked and ineligible applicants informed. **Applicants should note 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 form prior to the deadline. The lead UK and Filipino 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 (JeS). The closing date for applications is 16:00 GMT/00:00 PHT 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 the Philippines at risk from these hazards, for example Tropical Cyclone Haiyan in November 2013 killed 6,300 people in the Philippines.

To increase resilience to hydrometeorological hazards, a better understanding of the likely impacts on the different economic sectors 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 understanding of the impacts of hydrometeorological hazards, such as floods, droughts, landslides and storm surges, in the Philippines on the different economic sectors i.e. agriculture, economic and development, energy, environment and natural resource, housing and urban development, local government, public works and highways, tourism, and transportation sectors.

### 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.

[DOST-PCIEERD Innovation Council](#) leads the development of national competence in research and development strategic areas of industry, energy and emerging technology sectors in the country. Its mission is to lead and partner with the public and private institutions in generating science and technology policies, strategies and technologies that will contribute significantly to national economic development.

This programme is supported by the [Newton-Agham Programme](#), an initiative established by the governments of the UK and the Philippines. 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-Agham Fund.

In the UK, the Newton-Agham is part of the [Newton Fund](#), which intends to strengthen science 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). 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 the understanding of the impacts of hydrometeorological hazards, such as floods, droughts, rain-induced landslides and storm surges, on the different economic sectors in the Philippines.**

The focus is on identifying, characterising and predicting the environmental 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 different catchments 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
- Exploring whether changes in the way water resources are managed can mitigate the risks from hydrometeorological hazards

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

Projects may be based in any part of the Philippines and can cover one or a range of hydrometeorological hazards. Proposals that explore how to manage watersheds to mitigate both flood and drought risk; what the risks from the combined impacts from surface, fluvial and coastal flooding are; and will provide better understanding of aquifers to enable sustainable levels of abstraction 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 Filipino-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 the Philippines, 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 the Philippines.

It is envisaged that the 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.

## 4. Programme requirements

**NERC is managing the proposal submission on behalf of the NERC and PCIEERD partnership.**

**Applications to the Understanding of the Impacts of Hydrometeorological Hazards in the Philippines programme must be from UK-Filipino partnerships – i.e. include at least one Philippines-based Principal Investigator and one UK-based Principal Investigator. It should likewise include collaboration with the Philippine Atmospheric Geophysical and Astronomical Administration (PAGASA). Only proposals that involve scientific collaboration between the UK and Philippines will be considered. All proposals must have equal or proportionate participation from UK and Filipino researchers.**

Up to £1.5m (80% FEC) is available from the UK and up to PHP60 million from the Philippines. **Applicants can request up to £375k (80% FEC) for the UK component of a project, and up to PHP 15M for the Philippines 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 the Philippines and the UK that address the scope of the call as outlined above. These grants should promote inter-institutional collaborations, both between and within the Philippines 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 the Philippines, and they will act as focal points for contact with the funding agency in their respective countries (refer to Section 5 below for details of the Application Process).

### 4.1 Newton Agham Programme requirements

All applications should clearly outline how the proposed research will address the objectives of the [Newton Agham Programme](#) by supporting the development of long-term, sustainable partnerships that promote societal welfare and economic growth in the Philippines.

Applicants should demonstrate how the main research outcomes will be specific to enabling sustainable development in the Philippines 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 the Philippines 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 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 Filipino researchers**

Any Filipino, public or private entity with proven competence may apply. Preference will be given to public and private universities and colleges, Research and Development Institutes (RDIs), R&D Consortia, non-profit laboratories, other public or private non-profit S&T institutions located in the Philippines. Non-profit S&T organizations are those, which: (1) are operated primarily for scientific, educational, service, or similar purposes in the public interest; (2) are not organized primarily for profit; and (3) use its net proceeds to maintain, improve, and/or expand its operations. Non-profit organizations engaged in lobbying activities are not eligible to apply.

The eligibility of a project's Principal Investigator shall be determined by the PCIEERD based on his/her readiness in terms of technical, managerial, financial and marketing capabilities (if necessary). As such the proponent shall submit documents/proof of the following: credentials/proof of capability, track record, and endorsement of his/her institution. R&D program/project leader shall possess, at least, a Masters degree in a relevant field.

## **4.3 Studentships**

There are no UK 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.

For PCIEERD grant holders reporting of project outputs must include PCIEERD's quantitative project output metrics (6Ps). Grant Administration shall be covered by the DOST Administrative Order No. 005 Series of 2014 or the DOST-GIA Guidelines.

As this is a Newton Agham 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) for UK applicants is not permitted through the Newton Fund. For Filipino applicants capital requests will be considered on a case-by-case basis and applicants considering requesting capital are advised to discuss their request with PCIEERD prior to submission.

#### **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 Agham Programme timescales.

Due to financial restraints of the Newton Fund Programme, grant extensions to the UK component of the project 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 / 00:00 PHT on 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 application 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 and PCIEERD will use this information to plan the proposal assessment. The notifications will not be assessed, but the eligibility of applicants for NERC and PCIEERD 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 online 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 PCIEERD. **The lead PI from the UK and the Philippines 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/00:00 PHT 21 February 2018.***

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

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

- Letters of Support for each named Filipino 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 Filipino collaborators (maximum 2 pages per person) should be combined into one document as attachment type 'Non-UK Components'.
- Completed Filipino budget form as attachment type 'Non-UK Components' which summarises details of the Filipino applicants and their requested costs (see Filipino Costs below).

Successful grants will have their UK costs paid through Je-S and their Filipino costs paid through PCIEERD's system.

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 [Philippines]**

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/ 00:00 PHT on the closing date, 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 Filipino partner institutions will be met by PCIEERD and should be submitted on the pro-forma provided.

### 5.2.1 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 Filipino 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, PCIEERD 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 the Philippines' 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) **Filipino costs**: justification of these resources and details of the Filipino Investigators should be submitted using the DOST Form 2B2 (Budget Breakdown by Source of Fund) and 2B3 (Line-Item-Budget Format) 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 and information on DOST's Data Sharing Policy can be found on [the DOST website](#).
- 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 Filipino 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 Filipino named collaborator.
- g) **ODA statement** (up to **1 side A4**). This should describe how the proposed project meets the ODA requirements by answering:
  1. How will the Philippines directly benefit from this proposal?
  2. How is your proposal directly and primarily relevant to the development challenges of the Philippines?
  3. How do you expect that the outcome of your proposed activities will promote the economic development and welfare in the Philippines?

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 spend 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 Filipino collaborators to ensure that

the PI response is a coordinated response agreed by the UK and Filipino 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 and PCIEERD 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
August 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 668935  
Email: [newtonseasia@nerc.ac.uk](mailto:newtonseasia@nerc.ac.uk)
- DOST - PCIEERD – Nonilo Peña  
Tel: +63 2 837 2935  
Email: [nilo.pcieerd@gmail.com](mailto:nilo.pcieerd@gmail.com)  
[napena@pcieerd.dost.gov.ph](mailto:napena@pcieerd.dost.gov.ph)