



Sustainable mineral resources in the Philippines

Opportunity status:	Open
Funders:	Natural Environment Research Council (NERC)
Co-funders:	The Philippine Council for Industry, Energy, and Emerging Technology Research and Development (DOST-PCIEERD)
Funding type:	Grant
Total fund:	£300,000
Maximum award:	£50,000
Publication date:	2 November 2020
Opening date:	2 November 2020
Closing date:	21 January 2021 16:00 UK time

Last updated: 2 November 2020

[Start application](#)

This call seeks applications from combined UK-Philippine teams eligible to hold NERC and DOST-PCIEERD grants.

Up to six five-month partnership and project development grants will be awarded to teams to facilitate the development of strategic large grant proposals for submission to an opportunity in July 2021. Funds are available of up to £50,000 from NERC (80% FEC) and 1.6 million Philippine Peso from DOST-PCIEERD.

Up to two strategic large grants (36-month) of up to £1.2 million (80% FEC) and 15 million Philippine Peso per grant will be supported by NERC and DOST-PCIEERD.

[Close all](#)

Who can apply

This call seeks applications from teams comprising researchers from both the UK and the Philippines who are eligible to hold NERC and DOST-PCIEERD research grants (respectively).

All proposals must include both a UK principle investigator and a Philippine principle investigator (named as project partners) and teams must demonstrate clear UK- Philippine partnerships and collaboration (with equal or proportionate participation from UK and Philippine researchers) to address the strategic scope and objectives of the call.

DOST-PCIEERD will fund the Philippine component of the successful projects and UK researchers will receive funding from NERC.

For UK researchers, normal eligibility rules apply (see 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). Full details of [approved RCIs and IROs](#) can be found on the UKRI website. [IIASA Co-investigator eligibility rules](#) also apply to this call. Further details are available on the NERC website.

For Philippine researchers, eligible entities cover the following:

- any Philippine public or private entity with proven competence may apply for Grants-In-Aid support from PCIEERD provided that projects fall under the specific research areas with an overall goal to benefit the Philippines
- Philippine researchers should be connected with any public and private universities and colleges and research and development institutes.

The eligibility of the Philippine principal investigator shall be determined by DOST-PCIEERD based on their 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 their institution. The Philippine principle investigator must possess at least a Master's degree in a relevant field.

Any organisations engaged in lobbying activities, unsafe practices or that have been linked to modern slavery are not eligible to apply. No UK funds can be directed to mining companies and UK and Philippine researchers involved in this call cannot accept any direct funding from mining companies.

For both the PPD and strategic large grant proposals, UK and Philippine investigators may be involved in no more than two proposals submitted to this call and they may only be named as the principal investigator in one proposal. The strategic large grants call will only be open to project teams that receive PPD grants, although it is expected that the composition of PPD teams will develop between the PPD and strategic large grant proposals. No associated studentships can be requested under this call.

The expected start date for PPD grants (and for activities to commence) is mid-April 2021.

What we're looking for

Strategic summary

As one of the world's most mineral-rich countries, mineral extraction in the Philippines is a critical industry which offers significant potential benefits and returns to both the economy and local livelihoods. Whilst the global demand for minerals to support clean energy technologies is growing, mining for minerals remains restricted in the Philippines due to past environmental impacts, illegal operations, and mismanagement.

This new programme of research is essential to deliver a sustainable pathway for Philippine mineral supplies. Sustainable production couples benefit to the economy with minimal environmental impact, and subsequent reduced negative impacts on the health and wellbeing of local communities.

Strategic context

The increased global ambition to meet the climate change goals outlined in the Paris Agreement necessitates a switch towards cleaner energy technologies which are mineral-intensive. The Philippines has abundant mineral reserves, yet the Philippines government imposed a moratorium on all mining activities between 2016-2018 in response to detrimental environmental and social impact and continues to restrict mining and impose closures where necessary.

Despite the moratorium, the Philippines government seeks to promote responsible mineral development "where technically feasible, environmentally compliant, socially acceptable and financially viable". A new approach to the production of minerals in the Philippines is thus needed to inform policy, improve operating standards in local mines, and ensure that the negative impacts of mineral extraction are minimised, whilst continuing to benefit the Philippine economy and local livelihoods. This requires a better understanding of the impacts of past and future mining practices in the Philippines, and new innovative approaches that are not harmful to the environment and the health, and wellbeing of communities.

Strategic objectives and scope of the programme

This programme seeks to fund new research that generates a whole system view of sustainable mineral production in the Philippines and three research themes have been identified to address this overarching objective. As such, the funders expect to support a balanced portfolio of awards that address the following research themes:

1. Novel technologies for the sustainable extraction and understanding of mineral deposition in the Philippines, including improved understanding of local geology and minerals characterization (i.e. profiling of minerals, ores and

their bio-hydro-thermo-chemo-mechanical behaviours and inter-dependencies), new approaches to baselining and monitoring (i.e. machine learning, remote data sensors, LIDAR/satellites, drones, nanomaterials, automated SEM, infrared, X-ray).

Examples of research questions include (but are not limited to):

- Can we identify approaches to render mineral deposits more accessible, or accessible through less invasive extraction methods?
- How can improved baseline and monitoring technologies inform sustainable new mining extraction systems, derive better predictions and understanding of mineral deposition (e.g. of reserve volume, resource location or seismic risk), and remediate impacts of mining operations (e.g. excavation)?

2. Legacy (abandoned) mines and mine tailings including resource recovery, processing of untapped/unprocessed minerals, and understanding of the impacts of past practices and routes to ecosystem rehabilitation.

Examples of research questions include (but are not limited to):

- Can legacy mines be used as natural laboratories to study polluted ecosystems, their restoration, and associated barriers to this?
- What approaches should be used to remediate and rehabilitate habitats and landscapes affected by past mining practice?
- What is the economic potential in using unprocessed mine tailings to recover valuable resources, and would this reduce environmental impact?
- What new methods and approaches can be used to recover mineral resources from mining wastes (including waste rock, tailings, mine water) and/or process ores to maximise economic impact and mineral resource acquisition?

3. Understanding the fate, transport, and impact of associated contaminants through the environment.

Examples of research questions include (but are not limited to):

- Drawing on existing knowledge, how can we better understand the varying interactions of mine contaminants with different ecological systems in the Philippines?
- What are the impacts of mining on environmental and human health at different spatial and temporal scales?
- How can the impacts of mining be disentangled from other anthropogenic activities (e.g. agriculture)?
- Can we use integrated life cycle assessments to better understand and predict to mediate the impacts of future mining initiatives?

Coal mining is out of the scope of this call and applicants (for both the partnership and project development grants and strategic large grants) will be expected to structure their proposals and associated work packages such that they address at least two of the three strategic research themes.

Partnership and project development (PPD) grants

Up to six PPD projects of five-month duration will be funded. UK-Philippine teams can request up to £50,000 (80% FEC; £62,500 at 100% FEC and FCC) and 1.6 million Philippine Peso (around £26,000) from NERC and DOST-PCIEERD respectively. PPD grants are aimed at providing the necessary funding to enable researchers to develop substantial, realistic, and relevant research partnerships and research strategies in order to develop a strategic large grant proposal for submission in July 2021.

Partnership and project development grants are not intended to support research projects, but funds may be used to support some preliminary research activity where it is necessary for developing the detailed research questions for the strategic large grant project proposal.

At the partnership and project development grant application stage, good interdisciplinary research ideas that address the call's themes are more important than having whole interdisciplinary groups fully identified at the outset. Therefore, applicants may submit proposals that do not have all interdisciplinary collaborations in place upon submission, provided they demonstrate how they will address this in preparation for the large grant proposal submission.

Partnership and project development grants may support the following kinds of activity and resources needed to undertake them:

- evidence gathering, strategic reviews and research needs/impacts assessments
- planning and hosting research meetings in order to build collaborations and develop research questions and hypotheses
- building appropriate research strategies, methodologies plans and proposals
- bringing together new working partnerships, collaborations and management mechanisms
- identifying and engaging with the appropriate decision makers and beneficiaries
- developing leadership teams and project management procedures
- developing communication strategies and impact plans.

Pre-COVID-19, this type of activity may have been delivered with some travel to and from the Philippines. However, this may not be possible due to the impacts of the COVID-19 pandemic. Applicants will thus need to demonstrate more innovative solutions to partnership building, networking and working internationally. For example, this could include virtual meetings and workshops, and virtual visits to mines/field sites.

When developing proposals, it is important that applicants ensure their proposals:

- promote socio-economic development, impact and welfare
- are compatible with the International Development Gender Equality Act 2014 with development impacts contributing to reducing inequalities between persons of different gender

- have no links to any organisations engaged in unsafe practice, lobbying activities or modern slavery.

The key output of the PPD grant should be a fully developed research proposal to be submitted as a strategic large grant proposal to this call in July 2021. It is thus a condition of funding that applicants must be able to commence activities in April 2021 and applicants are advised to prepare their application with the call objectives and scope in mind.

PPD grants will be funded for approximately one month following the submission of strategic large grant proposals to allow additional time for project teams to work together, wrap up PPD activities and produce any additional outputs.

A list of funded PPD grants will be published and communication between the funded research groups is encouraged so that teams can explore opportunities for collaboration.

The call for strategic large grants will open in May 2021 with a deadline of July 2021. Joint NERC/DOST-PCIEERD funds will be used to award up to two strategic large grant projects in this call which will run for a maximum duration of 36 months. The total funds available from DOST-PCIEERD are up to 15 million PHP (around £236,000) per large grant and NERC will contribute up to £1.2 million (80% FEC) per large grant project (£1.5 million at 100% FEC and FCC).

How to apply

Partnership and project development (PPD) grant proposals

UK applicants must apply using the [Joint Electronic Submission system \(Je-S\)](#). When applying select:

- council: NERC
- document type: Standard Proposal
- scheme: Directed International
- call/type/mode: Sustainable Mineral Resources in the Philippines PPD.

The PPD call will close on (Je-S) at 16:00 hours (UK time) on 21 January and it will not be possible to submit to the call after this time.

Philippine applicants must apply using the DOST Project Management Information System [DPMIS](#) by 21 January at 24:00 hours (Philippine time).

NERC is managing the call on behalf of the UK-Philippine (NERC, DOST-PCIEERD) partnership. UK-Philippine partnerships need to be genuine, collaborative and reciprocal, adding value to that which could be achieved by individual partners working on their own. For each PPD grant application, a lead principal investigator (PI) should be nominated from both the UK and the Philippines and they will act as focal contact points with NERC and DOST-PCIEERD respectively. In Je-S the Philippine PI will need to be listed as a project partner.

Each PPD team needs to develop a single proposal that sets out the work to be carried out by the UK-Philippine partnership to address the strategic objectives of the call. As such, UK applicants are expected to include a copy of the final proposal submitted by Philippine applicants (through DPMIS) with their Je-S application.

The Philippine PI will need to download and share a PDF copy of the application submitted through DPMIS with the UK PI and the UK PI will need to include this as a “Non-UK component” attachment to the lead proposal component. The UK PI is also requested to download a PDF copy of the application from Je-S and share this with the Philippine PI. To download the application, once the Council grant reference number has been issued the UK PI should log back into their document, select the Document Actions button, select Print Document and download a PDF copy. Philippine researchers must submit the UK application as a single consolidated PDF file attachment through DPMIS

The costs of UK institutions should be submitted in Je-S and will be met from the UK funds. Costs for Philippine partner institutions should be submitted in DPMIS and will be met by DOST-PCIEERD.

UK applicants must list the lead Philippine PI and collaborators as project partners on the Je-S form (with each Philippine organisation listed as a separate project partner). The value of the DOST-PCIEERD funding contributions should also be detailed in the project partner in-kind support section of the Je-S proposal form.

For UK applicants, overseas travel and expenses costs incurred by members of UK institutions will be paid at 80% and must be included as costs related to that UK institution. As project partners on a NERC grant, Philippine partner institutes are eligible for minor directly incurred costs to support collaboration.

For this call, minor directly incurred costs could be used to cover fieldwork related T&S costs for Philippine project partners to visit local field sites (for example to collect data/samples) in light of any ongoing overseas travel restrictions for UK applicants. Any necessary Philippine T&S costs can be payable at 100%, should not exceed 10% of the overall UK budget request, and need to be entered as “Exception” on Je-S using the exception tick box. UK organisations will receive up to £50,000 (80% FEC for UK costs and 100% for Philippines costs) of the project, as per standard research council funding rules.

Philippine applicants applying through the DPMIS must list the lead UK project investigator and collaborators as project partners using the DPMIS Proposal Template. The value of UK funding contributions should also be included in the DOST-PCIEERD application and submitted as part of the project’s line-item budget as “UK-NERC counterpart”.

For UK applications, in addition to the standard Je-S proforma, the lead component of each proposal should include the following documents:

- **A Case of Support** (up to six pages) comprising:
 - a common previous track record incorporating all the UK and Philippine organisations involved in the PPD (up to three sides of A4)
 - a description of the proposed PPD project (up to three sides of A4) detailing the preliminary ideas for a proposed project to be submitted to the strategic

large grant call. This should also include information about where you may be lacking appropriate team members, along with an explanation of how you would go about identifying the key personnel and building the relevant capacity needed for the proposed project. Teams also need to include COVID-19 related contingencies planning, detailing innovative solutions to partnership and capacity building, networking and working internationally.

- **Justification of resources** (up to to pages) comprising:
 - UK costs for all UK research organisations involved. This includes all directly incurred costs, investigator effort, use of pool staff resources, overseas travel and expenses (paid at 80%), any access to shared facilities and equipment (with equipment funded at 50% FEC). Any minor directly incurred T&S costs for Philippine project partners (payable at 100% and not exceeding 10% of the total UK budget) should also be included. Further information on what to include in the Justification of Resources is available in section E of the NERC Research Grants Handbook.
 - Philippine costs for all Philippine organisations involved. This should justify the personnel services (PS), materials and other operating expenses (MOOE) and equipment outlay (EO).
- A common **Outline Data Management Plan** (up to one side of A4) if data are to be collected as part of the PPD. The [NERC Data Policy](#) must be adhered to, and an [outline data management plan](#) produced as part of proposal development. NERC will pay the data centre directly on behalf of the programme for archival and curation services, but applicants should ensure they request sufficient resources to cover preparation of data for archiving by the research team.
- **Project Partner Letter(s) of Support** (up to two sides of A4 each) is required from each named project partner:
 - For UK partners, this letter should confirm that the support and facilities required to enable the associated collaborations will be made available.
 - For Philippine partners, the Je-S system also requires “letters of support”. Please submit blank documents for each partner as no formal letters of support are required.
- **CVs for each of the named Philippine collaborators** (maximum two pages per person) should be combined into one document as attachment type ‘Non-UK Components’.
- Completed **DOST-PCIEERD Proposal Proforma** as attachment type ‘Non-UK Components’. The Philippine PI will need to share a PDF copy of the application submitted through DPMIS with the UK PI.

Each component proposal (including the lead) will additionally require:

- **CV for each named UK PI, Co-I, research staff post and visiting researcher** (maximum two pages per person)
- PIs wishing to use NERC facilities will need to submit a mandatory ‘technical assessment’ with their proposal (excluding HPC) as detailed in the “Additional Information Section”. NERC Services and Facilities must be 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. 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](#).

UK applicants must ensure they leave enough time for their proposal to pass through their organisation's Je-S submission route before this date. Any proposal that is incomplete, or does not meet NERC's eligibility criteria or follow NERC's submission rules (see [NERC Grants Handbook](#)) will be rejected.

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.

No associated studentships can be requested under this call.

For Philippine researchers, please follow the DOST Grants in Aid Proposal Format found in the e-Proposal portal at dpmis.dost.gov.ph. All instructions for submission are also available at this portal.

All required supplementary files such as workplan, endorsement of the Head of the Agency, gender and development scoresheet, scientific basis/theoretical framework, letter of intent/letter of cooperation from interested adopters of the project results and risk management plan should also be attached through this portal by 24:00 (Philippine time) on 21 January. A copy of the complete proposal in PDF form should then be sent to the UK PI ahead of the Je-S closing time of 16:00 hours (UK time) on 21 January.

For Philippine applicants, only proposals from eligible entities that meet all of the eligibility criteria as stipulated in the guidelines for the [Grants-in-aid programme of the Department of Science and Technology and its Agencies](#) will be evaluated against the evaluation criteria.

Proposals to be submitted and or funded under this announcement must demonstrate the advancement of science and technology alignment to this call.

Proposals (including all project documents submitted) must be written in English and comply with the proposal submission instructions and requirements set forth in this announcement, otherwise these proposals will be rejected.

Proposals must be received by the DOST-PCIEERD on or before the proposal submission deadline specified in this announcement. Applicants are responsible for ensuring that their proposals reach the DOST-PCIEERD by the submission deadline. Proposals received after the submission deadline will be considered late and returned to the sender without further consideration unless the applicant can clearly demonstrate that lateness was due to mishandling on the part of DOST-PCIEERD.

How we will assess your application

NERC is managing the assessment process on behalf of the NERC/DOST-PCIEERD partnership. Proposals will be internationally peer-reviewed by an assessment panel of independent experts across the disciplinary breadth of the programme. Feedback will be provided to both successful and unsuccessful applicants.

NERC and DOST-PCIEERD will use the recommendations of the panel along with the overall call requirements and available budget in making the final funding decisions. The funders are aiming to achieve a balanced portfolio of projects that best address the overarching aims of the programme.

Assessment criteria

Partnership and project development plans: effectiveness of the PPD team's plans to develop the appropriate collaborative partnerships and capacity required for the development of a strategic large grant proposal.

Research excellence: the originality and quality of the proposed research ideas and questions the team is seeking to develop further.

Fit to scheme: proposals will be directly scored against the degree to which they seek to address the objectives and scope of the call.

COVID-19 contingency planning

The PPD and strategic large grant assessment panels will also be asked to consider COVID-19 related contingency planning to ensure proposals are viable

and future-proofed in light of any on-going COVID-19 related disruptions.

Knowledge exchange and impact

Knowledge exchange (KE) is vital to ensure that environmental research has wide benefits for society and should be an integral part of any research. A separate Pathways to Impact statement is not required, but applicants should still consider how they will or might achieve impact outside the scientific community and include this as part of their Case for Support. Impact activities do not have to be cost-incurring, but relevant costs can be included and must be fully justified within the Justification of Resources statement.

Contact details

Charlotte Hawkins, Programme Manager, NERC:

charlotte.hawkins@nerc.ukri.org

Ninaliza H. Escorial, Chief Science Research Specialist, PCIEERD:

nhescorial@pcieerd.dost.gov.ph

Additional info

Programme funding

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.

NERC funding for this call is available through the Partnerships and Opportunities programme which enables NERC to respond to timely opportunities in partnership with other research funders (national and international funding bodies and government departments) on small to medium-scale strategic research activities.

DOST-PCIEERD 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.

NERC facilities

Prior to submitting a proposal, applicants wishing to use a NERC service or facility must contact the facility to seek agreement that they could provide the service required.

Applicants wishing to use most NERC facilities will need to submit a mandatory 'technical assessment' with their proposal. This technical assessment is required for aircraft but not for NERC marine facilities and HPC. 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. The costs for the service or facility (excluding marine facilities and HPC costs) must be included within the Directly Incurred Other Costs section of the Je-S form and also within the facilities section of the Je-S form. Further information on [NERC services and facilities](#) can be found on the NERC website.

Programme management

A Programme Executive Board (PEB) is providing strategic direction for the programme and acting as the ultimate decision-making authority for the programme fund. The PEB will be chaired by representatives from NERC and DOST-PCIERRD and may include wider representatives and relevant users/stakeholders as required.

Reporting requirements

Successful UK PIs will be required to submit a final report at the end of their PPD projects demonstrating how the research strategy and collaborations developed and any associated outputs. A Final Expenditure Statement will also need to be submitted.

For PPD grants, Philippine PIs are required to submit Quarter Progress and Financial Reports. Once the projects are completed, the PIs are required to comply with the requirements for completed projects as stipulated in the DOST Administrative Order No. 011 Series of 2020 Revised Guidelines for the Grants-In-Aid Funds of the Department of Science and Technology and its agencies.

Timeline

○ 2 November 2020

Call opens

○ 21 January 2021

Partnership and project development grant application closing date

○ March 2021

Partnership and project development assessment panel

- **Mid-April 2021**
Partnership and project development projects start
- **May 2021**
Strategic large grant application opening date
- **July 2021**
Strategic large grant application closing date
- **September 2021**
Strategic large grant assessment panel
- **October 2021**
Strategic large grants start

Related content

[Minerals and Mining in the Philippines Scoping Workshop](#)

NOTE This is the first phase of our new website – let us know if you have [feedback](#) or would like to [help us test new developments](#).