UK – Indonesia – Malaysia – Philippines - Thailand Small Scale Research Partnerships Call for Proposals 2016

RCUK – DIPI - Ristekdikti - MoHE- DOST- TRF Small Scale Research Partnerships Call

Objectives and Scope

The Research Councils UK (RCUK), the Indonesia Science Fund (DIPI), the Ministry of Research Technology and Higher Education Republic of Indonesia (Ristekdikti), the Ministry of Higher Education Malaysia (MoHE), the Department of Science and Technology Philippines (DOST), and the Thailand Research Fund (TRF) are pleased to invite applications to the UK – Indonesia – Malaysia – Philippines - Thailand Small Scale Research Partnerships Call for Proposals 2016.

The aim of this call is to provide 1-2 year flexible short-term support for research that will provide new insights and stimulate creative thinking to tackle the real world problems and will contribute to the economic development and welfare of Southeast Asia. Proposals could bring new collaborations and different disciplines/approaches together, and enable researchers to explore new regional or international approaches.

Successful proposals are expected to generate robust data which will lay the groundwork for future avenues of investigation. Small Scale Research Partnership Grants are not intended to support a logical progression of an already established research project or other types of on-going work; therefore, the nature of these awards will be more exploratory. Although an element of networking is permissible through these grants, grants should aim to have some form of tangible output.

Early career researchers are particularly encouraged to apply. Please check the Eligibility Criteria of each funding agency.

We invite proposals which address the following topics:

- Creative Economy and Cultural Heritage (Malaysia only)
- Energy - Food – Water - Environment Nexus (Indonesia, Malaysia, Philippines, Thailand)
- Mental Health (Indonesia, Malaysia, Philippines)
- Capacity Building in Big Data and Technology Development through Astronomy (Indonesia, Malaysia)
- Skills for using Large Facilities (Indonesia, Malaysia)

The longer term objective is to establish sustainable collaborations between UK and Southeast Asian researchers that will increase the competitiveness of these researchers in gaining funds for excellent research in future funding calls, either under the Newton Fund or through other routes.

Please note that different Southeast Asian partners are taking part in different topics, for information on which Southeast Asian Countries can participate in which topic, their

eligibility rules and the amount of funding available please refer to the application guidance. **Please note failure to attach the mandatory attachments and complete the proposal form as outlined in the application guidance could result in your proposal being rejected. Please ensure you read the guidance thoroughly before starting your proposal.**

Proposals within the themes listed above are welcomed from across the remits of the UK Research Councils. Recognising the multidisciplinary nature of the thematic areas, the development of interdisciplinary collaborations is particularly welcome.

Consortia should consider how their proposal makes the best use of available expertise in the UK and Southeast Asia, the added value of collaboration and how the proposal will meet the **Official Development Assistance (ODA)** requirements of this Newton Fund activity.

Background of the Newton Fund

The UK contribution will be channeled from the Newton Fund. The Newton Fund is an initiative intended to strengthen research and innovation partnerships between the UK and emerging knowledge economies. It was launched by the Chancellor in April 2014, and will deliver £735million of funding over the course of seven years.

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 countries on the OECD Development Assistance Committee list. Newton Fund countries represent a sub-set of this list. For more information, please visit the RCUK Newton Fund page; http://www.rcuk.ac.uk/international/newton/.

The Newton Fund requires that the funding be awarded in a manner that fits with Official Development Assistance (ODA) guidelines. All applications under this call must therefore be compliant with these guidelines. http://www.newtonfund.ac.uk/about/what-is-oda/

Themes

Creative Economy and Cultural Heritage

The presence of creative and cultural economies is both a key indicator and a strong driver of sustainable development. The creative and cultural industries are valued not only for their inherent economic value, but also increasingly for the role they play in the development of new ideas and technologies and the associated non-monetised social benefits. Culture enables and empowers society to take control of its own development agendas, be it health, education, employment, equality or youth engagement and situate it within unique regional contexts that respect the local values, conditions and resources that may support, or stand in the way of, positive change.

In the countries of Southeast Asia, a considerable quantity of manufactured goods are produced, however the focus on production has not led to the generation of the kind of added-value found in most knowledge-based economies. This 'added value' is found via the integration of culture, design, technology and innovation, a blend of elements that

should lead to the production of unique products and services that will encourage sustainable economic growth, poverty reduction and social transformation.

Many of the countries of Southeast Asia have distinct and vibrant cultural scenes and emerging areas of growth. Following the success of the 'Korean Wave', other countries have attempted to follow the blueprint and reduce their reliance on imported media and entertainment. Both the Philippines and Thailand have growing Film Industries which has created opportunities for local creative writers, artists, producers and designers. The fashion industry is another area developing rapidly in SE Asia, in part due to the relatively youthful population (50% is under 30) and provides young people with a creative outlet as designers that can also be used to generate a living. Young entrepreneurs have also been behind the establishment of web and app design and digital media companies, which rely on a high level of creativity, technical proficiency, design skills and marketing savvy and provide services that have not previously existed, or traditionally been provided by foreign companies. Outside of urban populations, there is a rich vein of interest in traditional craft practices, and other aspects of cultural heritage, such as music and food, have engendered a sense of pride and generated significant interest and revenue via tourism.

The UK has substantial research expertise in the creative industries and the commercialisation and preservation of cultural heritage so would be very well positioned to partner on exploratory research programmes and knowledge transfer into the developmental potential of these sectors in SE Asia.

Energy - Food – Water - Environment Nexus

The 'nexus' is a way of thinking about the interdependencies, tensions and trade-offs between essential ecosystem services such as food, water and energy, in the wider context of land use, environmental change, health and wellbeing, and global supply chains. These different systems are inextricably linked, and improvements in one sector can have adverse impacts in another.

The nexus requires a deep understanding of multi-functional landscapes and ways to manage the environment sustainably for multiple ecosystem services. It is underpinned by a number of cross-cutting areas, for example:

- valuing nature and natural capital (including stocks and tipping points);
- sustainable prosperity and the green economy;
- sustainable behaviour across supply chains;
- human health and nutrition;
- farmed animal production including health and nutrition
- resource efficiency, including resource use efficiency
- sustainable intensification;
- forecasting extreme weather; and
- resilient agriculture and food systems.

For example, how can agriculture deliver a better food system: using less land, water and energy; reducing losses and wastes; addressing key nutritional needs; maintaining acceptable levels of safety; and maintaining other ecosystem services and the natural capital on which it and they depend? The nexus requires interconnected thinking across the natural and social sciences, and between researchers, policy, business and civil society. *

Areas of interest include:

- Re-envisaging growth for a sustainable future with a particular social science focus on:
    - Consumption - responding to the issues of climate change in the region particularly how behaviours are shaped and mediated differently by various influences such as values and belief systems and how they operate at different locales and scales.
    - Governance of sustainable resource use -understanding what the issues are in the region around the governance of sustainable resource use such as learning how local, national and international organisations interact and drive societal responses to the nexus issues particularly from a comparative view point across political systems and traditions

- Developing more sustainable, resilient and efficient food and non-food production systems while mitigating impacts on the environment and taking into account the need for multi-functional landscapes:

    - Taking an integrated approach across farming systems and the food supply chain in order to deliver sufficient, affordable, nutritious and safe food. This includes understanding the interactions between genotype, phenotype and the environment in order to enhance crop and livestock production, improve the nutritional profile of food, feed and additives/ingredients, and improving efficiencies in food supply chains through the reduction of food loses and wastes due to for example, a lack of control of crop biology or microbial contamination.
    - Better integration of the biology of crops and farmed animals with their management and the agri-environment, in multidisciplinary studies of farming systems. Development of new tools, technologies and data analytics is required to accelerate the breeding of crops and livestock better adapted to the future world, and to drive precision approaches to agriculture with more informed and timely decision-making; and
    - Alongside food production, there is also a huge opportunity for agriculture as a source of renewable industrial feedstocks for energy, chemicals, non-food products and materials in a new bio-based economy.

- Understanding how the processes of natural variability and manmade change work – as a whole Earth system, from global to local scale, from millions of years past to the present and into the future; developing whole-system knowledge to inform responsible management of the environment for multiple benefits.
- Understanding how environmental processes (physical, chemical and biological processes that interact in land, water and air) control resource** availability and how we can use resources responsibly; developing this knowledge to help use and recycle resources safely and efficiently, to live within the Earth's limits, and to steward natural resources for future generations.
- Understanding the relationships between ecosystem stocks and service flows, and benefits that are delivered as a result, such that the critical levels of the stocks are understood to allow the identification and so avoidance of the abrupt and damaging change in the delivery of benefits (i.e. tipping points).

* Please note that the research under this theme must focus on the interconnected nature of the nexus, and not any single sector in isolation. For example, projects focussing solely on energy technologies will not be considered.

**(food, water, energy, minerals and other essential services we get from nature such as ecosystem)

Mental Health - community based recovery following natural disasters

This theme particularly focuses on recovery from trauma associated with environmental disasters or conflict, and inter-relationships with other public health challenges. We wish to fund research on transitions people make from trauma and are particularly interested in mental health within a community context.

Wide scale societal and environment events such as natural disasters and conflict are traumatic, with long term effects on health. People and communities react to, and cope with, these effects in a variety of ways, and will have different levels of in-built resilience to cope. Health systems (both formal and informal) also often adapt to respond to the needs that arise in many ways, from small scale community based activity to raise awareness of, and support those with specific mental health issues, to new policies focussing on mental health. Research is needed to understand the complexity of these situations and find out what has happened and what has worked in different settings in order to suggest solutions. There is a particular focus on community based approaches to dealing with the mental health consequences of natural disasters , although proposals that link to the broader health system are also welcome. It is particularly important to develop innovative solutions to these long term problems that are developed and tested in the contexts in which they will operate. Research looking in to issues around inequality in these contexts is also welcome, including access to services.

Mental health disorders are often experienced as long term, chronic, conditions and place considerable pressures on existing health systems and budgets. Mental health affects efforts to meet development goals and public health challenges such as promotion of gender equality, reduction of child mortality, improvement of maternal health, and reversal of the spread of HIV/AIDS. There is a need therefore to embed mental health awareness across all aspects of national, regional, local and community level health and social policy, health system planning and delivery of health care.[1] Therefore building research capacity in mental health, particularly in research focussed on health and community systems is central to progress in this area and collaboration among SE Asian and other international researchers in mental health is seen as a key facilitator of this process.[2]

This call encourages researchers from a variety of backgrounds (including health care, psychology, anthropology for example) to work together to investigate these complex issues. Proposals that apply the learning from one context to a variety of other international settings and contexts are also welcome.

Research areas of interest may include, but are not limited to:

1) Learning from and developing community based responses to mental health challenges in the wake of environmental disaster and/or conflict, including co-design of responses and services.
2) Immediate and longer term responses to environmental disaster and/or conflict and the relationship between the two

[1] 'No health without mental health' M. Prince *et al*, The Lancet, September 04, 2007
[2] 'Mental health in Southeast Asia' A. Maramis *et al*, The Lancet, January 25, 2011

3) Inequalities in quality and access of mental health services in the context of environmental disaster and/or conflict in different contexts and how this might be addressed.
4) Awareness, resilience or susceptibility to mental health challenges in the context of environmental disaster and/or conflict and how this varies over time and by social circumstance.

Capacity Building in Big Data and Technology Development through Astronomy

Science and technology are the differentiators between countries that are able to tackle poverty effectively by growing and developing their economies, and those that are not. The extent to which developing economies emerge as economic powerhouses depends on their ability to grasp and apply insights from science and technology and use them creatively. Innovation is the primary driver of technological growth and drives higher living standards.[3]

Helping Southeast Asian partner countries to meet Sustainable Development Goal (SDG) 4 through enabling quality technical, vocational and tertiary education in areas and thereby increase the number of young adults who have relevant technical and vocational skills for employment in decent jobs is one way to improve the economic development of these countries. This will help increase much sought-after science and technology advancement that leads countries towards an innovation driven society in the long run. This builds on SDG 8 in promoting economic productivity through technology upgrading and innovation to focus on high-value added sectors, and SDG 9 by enhancing research, upgrading technological capabilities and encouraging domestic technology development, research and innovation.

Astronomy is a unique and cost-effective way to further economic development because technological and scientific revolutions underpin economic advances and improvements in health systems, education and infrastructure. [4] National research programmes in astronomy inspire the young to enter careers in science and technology. This not only creates an immediate impact on skills and training by encouraging students to study science and engineering, and equipping students with skills that can be exploited in other sectors leading increased economic development but it pushes the boundaries of science and technology and so supports the growth of a high-technology economy.

The UK has internationally leading expertise in areas such as telescope instrumentation, advanced optics, data handling and analysis. Moreover the UK has advanced the use of astronomy in STEM education programmes at all level both in the UK, through the National Space Academy, and in South Africa under the Newton Fund.

We propose activities around the following:

STEM education in schools

Capacity building in engineering post degree level through instrumentation development, robotics and advanced optics.

[3] IEET 'The Role of Science and Technology in the Developing World in the 21st Century', Lee-Roy Chetty, 2012
[4] International Astronomy Union Strategic Plan 2010 - 2020

Capacity building in computing post degree level through astronomy data handling and analysis

Applicants must explain what skills will be developed, how this benefits the wider Southeast Asian economy and what future Southeast Asian research needs this meets.

Skills for using Large Facilities

Large facilities such as synchrotrons, neutron sources and high power laser facilities have impact in a broad range of science areas.

Synchrotron light covers a broad area of the electromagnetic spectrum, from infrared through to hard X-rays, and is used for research in biology, physics, materials and engineering, and structural and environmental chemistry. The range of materials that are studies is remarkably wide ranging from biomolecules to nanomagnets, and ancient Greek helmets to chocolate. The techniques available include X-ray diffraction, X-ray spectroscopy (XAFS), small-angle/wide-angle scattering, soft X-ray spectroscopy, photoemission, and imaging.

Neutron sources provide detailed information on the structure and dynamics of materials on the scale of atoms and molecules across a very wide range of science areas including

- condensed matter science
- materials science
- chemistry
- engineering
- earth science
- engineering
- archaeometry

Wide-ranging laser applications include experiments in physics, chemistry and biology, accelerating subatomic particles to high energies, probing chemical reactions and studying biochemical and biophysical processes.

We propose activities in general capacity building to improve country's ability to undertake and disseminate scientific research in order to maximise its impact in ODA relevant research areas. Activity should cover pure and applied science and be multi-disciplinary in nature. Activity may also include improving technical skills in instrumentation and data management. For example, up-skilling students, researchers & managers in a range sciences in country through mobility and partnering schemes with relevant universities and research institutions. This would be delivered through access to ISIS, Diamond and the Central Laser Facility.

How to apply

Submitting your Proposal

This RCUK – DIPI – Ristekdikti – MoHE – DOST - TRF call will be managed through RCUK systems and hosted by EPSRC on behalf of all seven research councils, DIPI, Ristekdikti, MoHE, DOST, and TRF.

The full deadline is **16:00 BST (22:00 WIB, 22:00 ICT, 23:00 MYT, 23:00 PHT) 02 August 2016**. Any proposal received after this deadline **will not** be considered for funding.

Researchers will be responsible for developing their own collaborations. Once a research proposal is developed, UK and Southeast Asian applicants must apply jointly for funding to the RCUK -SEA Newton Small Scale Partnership Call 2016, via the EPSRC Je-S online application system (https://je-s.rcuk.ac.uk). Applications must be submitted by the UK Principal Investigator on behalf of the UK-Southeast Asia Small Scale Partnership. The application must be JOINTLY prepared and submitted in English. Once received, RCUK will share the applications DIPI, Ristekdikti, MoHE, DOST, and TRF.

The following documents must be included in the joint application.

- Joint Case for Support
- Justification of Resources (including both UK and Indonesian/Malaysian/ Filipino/ Thai justification)
- Indonesian/ Malaysian/ Filipino/ Thai costs proforma (please ensure you complete the relevant form/s to the Country/ies you are applying for funding from)
- CVs and publications
- Letters of support
- Any additional attachments required by Partner Country (please check Eligibility Criteria section of the Application Guidance document)

Failure to attach the mandatory attachments and complete the proposal form as outlined in the application guidance could result in your proposal being rejected. Please ensure you read the guidance thoroughly before starting your proposal.

Please Note: The Engineering & Physical Sciences Research Council (EPSRC) are hosting this call on behalf of the Research Councils, DIPI, Ristekdikti, MoHE, DOST, and TRF through the UK Research Councils' grant submission system known as 'Je-S'. It is a requirement of this call that successful proposals will be withdrawn from the call on Je-S after decisions have been made and re-submitted to the **lead remit council** of the proposal on Je-S for awards to be finalised and made. EPSRC remit grants will not need to be withdrawn and resubmitted.

In addition: Some Southeast Asian partners require applicants to submit to their own systems as well as Je-S. Please check the Eligibility Criteria and Funding Available section of the partner you are applying to for further information.

Key dates

Announce call for proposals (Je-S system opens)	25 May 2016

Closing date for proposals	02 August 2016
UK-Southeast Asia Joint Panels	Early October 2016
Decisions announced	End of October 2016
Successful proposals withdrawn from EPSRC Je-S system by research offices and submitted to lead council by remit (not necessary for Research Council -remit grants)	Early November 2016
Grants commence	01 December 2016

Please note that all proposals that are planning to involve the use of humans or vertebrae animals/ other organisms covered by the Animals (Scientific Procedures) Act need to contact the RCUK Newton Fund team before submission. Contact details can be found at the bottom of this document.

Grant Start Dates

Due to the tight timescales and funding restrictions of the Newton Fund, UK grants must start by **01 December 2016**; ie the 'start confirmation' must be submitted by 01 December 2016 (this is shorter than the standard 42 days for Research Council grants).

Please refer to the RCUK terms and conditions for information on what the starting procedure entails; please inform the relevant support staff in your organisation of this requirement to ensure the project starts on time.

Assessment criteria and decision making process

Following submission, applications will be checked for eligibility under the relevant funding agency's rules, you must be eligible under all of the funding agencies your proposal comes under in order to go through to assessment. To be funded, proposals must be internationally competitive and at a standard equivalent to that normally expected to be supported by each funding organisation.

An independent assessment process will be led by RCUK and DIPI, Ristekdikti, MoHE, DOST, and TRF depending on the thematic area. All funders will fully contribute to the process, in the form of formulating guidance and suggesting panel members. Applications and panel meeting comments will be shared between relevant funders.

The grants will be assessed by an independent panel formed from suggestions from all of the funders involved in each thematic area. Depending on demand, the panel may shortlist the applications received, and applicants will be contacted if this is the case.

At the panel meeting proposals will be assessed by international experts chosen from all participating funding agencies against the following criteria:

- Research merit of the proposal
- Relevance of the proposal to the strategic objectives of the Newton Fund – including potential benefits and impact
- Strength and appropriateness of proposed partnership and collaboration
- Project management structure and resources, including value for money

Contacts

Any enquiries related to this call should be directed to:

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