

Announcement of Opportunity: Exploring and understanding Colombian bio resources

Call specification

Published: 21st September

Deadline for Intention to Submit: 24th October 2017, 16:00 (BST) (via online survey)

Deadline for full proposals via Je-S: 30th November 2017, 16:00 (BST)

1 Summary

The Natural Environment Research Council (NERC) and the Arts and Humanities Research Council (AHRC) are inviting research proposals under the 'Exploring and understanding Colombian bio resources' call.

The overarching aim of this call is to gain a better understanding of socio-ecological systems in the Colombian regions of Boyacá and Cundinamarca and their response to environmental change, including climate, land use and social or political change; and the underpinning role and value of biodiversity in these ecosystems.

Projects will be expected to take an inter-disciplinary approach bringing together environmental science with arts and humanities and must address **at least one** of the following three challenges:

1. Functioning and resilience of socio-ecological systems
2. Maximising/supporting social inclusion in the sustainable management and resilience of socio-ecological systems.
3. Understanding and delivering the benefits of natural resources to support social and economic growth

NERC and AHRC will provide up to £5.5m of funding (80 per cent FEC) to eligible UK-based researchers. It is expected that 5 to 8 project proposals lasting up to three years will be funded, depending on the quality of proposals received. Successful projects must start, as a condition of funding, no later than 1st August 2018.

This call is supported by the UK through the Newton-Caldas Fund which forms part of the UK governments Official Development Assistance (ODA) commitment. This programme is a collaboration with the Departments of Boyacá and Cundinamarca who are providing support (through the Colombian Administrative Department of Science, Technology and innovation - Colciencias) for Colombian led projects. Successful projects awarded in this UK call will be expected to collaborate with the successful Colombian projects in order to add value to our respective investments and develop an integrated programme.

2 Background

Colombia holds almost 10% of the world's biodiversity and is one of the world's "megadiverse" countries, ranking first in bird and orchid species diversity and second in plants, butterflies, freshwater fishes and amphibians. There are 311 types of [ecosystems within Colombia](#), making it a country of richly complex ecological, climatic, biological and ecosystem components.

Colombia's mainland is 53% covered with natural forests which contain more than half of the terrestrial animals and plants, and more than two-thirds of terrestrial net primary production. About 2% is covered by moorlands, 19% of this moorland is in Boyacá representing the largest expanse of moorland in the country. The moorlands are considered one of the most important ecosystems for human well-being because they are a source of water to more than three-quarters of the population in these areas.

The country's biodiversity is not only important in terms of its natural heritage value and for the conservation of unique species, these natural resources are essential for their contribution to human welfare, social equality and economic development. Biodiversity both has a direct value through the provision of goods such as food, fibre, fuel, medicines, etc,

but also in how it underpins ecosystem processes and functions that contribute to other benefits such as climate regulation, soils formation, water purification and recreation, as well as providing ecosystem resilience.

After years of internal conflict a recent peace deal has meant that previously inaccessible areas of the country are now opening up to exploration. This provides an opportunity to gain greater understanding of the country's natural resources, and inform and support socially inclusive sustainable management of ecosystems, recognising the value of indigenous knowledge, historical perspectives, cultural values and heritage as a way to stimulate community engagement.

The recently launched [Colombia Bio](#) is a ten year Colombian national project that recognises the great value biodiversity represents to a country. The project aims to reduce gaps in science, technology and innovation related to the knowledge, conservation, management and sustainable use of the biodiversity, seeking to contribute to a sustainable and socially inclusive territorial development in a post conflict scenario. This call contributes to UK-Colombian collaboration under Newton-Caldas Funds and the objectives of the Colombia Bio programme.

Support for Colombian researchers is provided by the General Royalties System through the participating Departments of Boyacá and Cundinamarca. Colciencias is managing separate calls for Colombian led proposals which address the priorities of the participating Departments (see Annex 3).

2.1 The Newton Fund

NERC and AHRC funds for this programme have been received directly from the UK Government Department for Business, Energy & Industrial Strategy (BEIS) as part of the Newton Fund. 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 Newton Fund partner countries and is administered with the promotion of the economic development and welfare of partner countries as its main objective. Collaborations under the call will contribute to economic development and social welfare in Colombia, in line with the Newton Fund's aims. All applications under this call must be compliant with these requirements.

3 Programme objectives

3.1 Research objectives

This collaborative UK and Colombian research programme will support the identification and understanding of the benefits provided by biodiversity, utilising new technologies, concepts and social frameworks. Research will explore the biodiversity of Colombia, increasing our understanding (including exploring indigenous knowledge) of the flora, fauna and soil microorganisms and their role in ecosystem functioning and the delivery of benefits and services, impacts of change, and options for management and exploitation. This new exploration and understanding will contribute to the development of a sustainable natural resource economy, thereby enhancing the environmental, social and economic future of Colombia.

Where appropriate utilising new tools and techniques, for example emergent High Throughput DNA tools, Earth Observation and remote sensing, and modelling and integrated tool approaches, the programme will:

- Develop baseline knowledge of Colombian regional biodiversity, structure and function.
- Use this knowledge to understand biodiversity connectivity across scales exploring resilience to, and potential regional impacts of climate and environmental change (including management).
- Explore the linkage between biodiversity and function, and the value of that biodiversity (such as its function, provision of resilience and value in society).
- Provide a better understanding of human/nature relationships and the benefits that community engagement with the natural environment can bring to human well-being.
- Explore how the history, culture and traditional knowledge of a region can influence key challenges related to the sustainable management of its ecosystems.

The overarching aim of this call is to gain a better understanding of socio-ecological systems in the Colombian regions of Boyacá and Cundinamarca and their response to environmental change, including climate, land use and social or political change; and the underpinning role and value of biodiversity in these ecosystems. Whilst the work must benefit, and be relevant to, the two identified regions, research, if justified, can take place in regions beyond Boyacá and Cundinamarca.

Projects will be expected to take an inter-disciplinary approach bringing together environmental science with arts and humanities and must address **at least one** of the following three challenges. The challenges are based on priorities identified by the Departments of Cundinamarca and Boyacá, and are the focus of the Colciencias led call for Colombian researchers (see Annex 3). Potential questions to be addressed by UK projects are listed below the challenges as examples.

1. Functioning and resilience of socio-ecological systems

- a. What are the impacts of environmental change on biodiversity, connectivity and ecosystem services across a range of scales?
- b. How does biodiversity underpin key ecosystem processes, functions and services, which may support socio-ecological resilience and inform conservation and restoration strategies of ecosystems?
- c. Are there specific biodiversity types or critical levels of biodiversity that are required to deliver key ecosystem services and provide resilience?

2. Maximising/supporting social inclusion in the sustainable management and resilience of socio-ecological systems.

- a. What is the role of the history of a region in understanding its human/nature relationships and how can we learn from past reactions to environmental change to frame future approaches to resilience and sustainability?
- b. How does language, culture, ethics, faith and belief contribute to the understanding of biodiversity and how people interact with their environment?
- c. What is the role of communities and governance systems in managing sustainable ecosystems and mitigating against biodiversity loss, including in areas affected by armed conflict and other environmental conflicts?

3. Understanding and delivering the benefits of natural resources to support social and economic growth

- a. What are the societal benefits of biodiversity and ecosystems and how can they support social and economic growth?

- b. What integrated decision tools are required by land users and decision makers to harness the benefits of biodiversity and ecosystems?
- c. What is the relationship between biodiversity and human well-being (including in post-conflict regions)? How can people's interactions with their natural environment improve well-being?

3.2 Non-scientific objectives

The Newton Fund requires that the funding be awarded in a manner that fits with [ODA guidelines](#). All applications must therefore be compliant with these guidelines and make clear that its primary purpose is to promote the economic development and welfare of the partner country. For further information of Newton Fund see [RCUK](#).

Applicants must demonstrate how the main research outcomes will be specific to economic development and social welfare of the partner country, rather than merely creating the conditions where these might occur. Applicants should consider how their project will:

- address poverty and development issues;
- address the issue identified effectively and efficiently;
- use the strengths of the UK to address the issue;
- demonstrate that the research component is of an internationally excellent standard.

It is expected that through collaboration the projects should seek to increase the skills and knowledge base at the partners institutions in this area, improving their ability to undertake and disseminate research in order to maximise the countries impact on issues of poverty and economic growth.

Any UK benefits arising as a result of the project must be secondary, as the primary purpose of the project must be to support the economic development and welfare of partner countries.

UK researchers must demonstrate that the research is compliant with ODA requirements and therefore eligible to receive support from the Newton Fund. Applicants should address these points in both the Je-S summary and then more fully, in the Case for Support. As a requirement of funding, UK researchers must also complete a separate 'ODA statement'.

Compliance with ODA requirements will form part of eligibility checks. Proposals who do not clearly articulate in their proposal how their research meets these requirements, will be rejected and not undergo peer review.

4 Programme requirements

4.1 Programme funding

NERC and AHRC funds for this programme have been received directly as part of the UK Governments [Newton Fund](#). £5.5m of funding (80 per cent FEC) will be available to eligible UK-based researchers.

It is expected that 5 to 8 proposals of a cost between £700K-£1.1M and lasting up to three years will be supported, depending on the quality of proposals received.

Requests for studentships or capital equipment are not eligible for inclusion.

Successful applicants will be required to attend a launch meeting in Colombia in July 2018 and a finale event in Colombia in early 2021. Costs to attend these events will be covered by NERC and AHRC for a limited number of people per project.

4.2 Implementation and delivery

The proposal must be a collaborative effort between NERC and AHRC researchers and all projects will be expected to take an inter-disciplinary approach bringing together environmental science with arts and humanities. Research must be undertaken in Colombia in order to address the objectives of the Newton Fund, and should address the research objectives outlined in this document which are aligned to Colombian call priorities. Research may be undertaken outside of the Departments of Boyacá and Cundinamarca where it is demonstrated it adds value to the research challenges of the supporting Departments, and the objectives of the Colombia Bio programme.

Support for Colombian researchers is provided by Colciencias through the participating Departments of Boyacá and Cundinamarca. For administrative purposes the UK and Colombian calls are being run as separate calls and will undergo separate peer review (see Annex 3 for details of the Colciencias calls). Where UK projects will run for a duration of 3 years, the Colombian supported projects will run for a maximum of 18 months.

Colombian research collaborators who are not eligible to apply for the Colciencias run calls, may be included on the UK proposal as a project partner, but must be able to demonstrate that they have support for their participation in the project from other sources. Costs for Colombian researchers who are not eligible for the Colciencias run calls cannot be requested through the UK call; they must be supported through other sources in Colombia, for example through their institution.

Successful UK projects must start, as a condition of funding, no later than 1st August 2018¹.

Whilst the calls are being run and peer reviewed as separate activities and there is no requirement to develop joint projects, it is a basic function of the programme there should be a strong interaction between the UK and Colombian researchers and research, and that the UK research will provide clear benefit to the Colombian researchers and will inform on the challenges identified by the regions. Projects will therefore be required to demonstrate how they intend to interact with the awarded Colombian projects and potentially wider research base, for example how they will deal with the duration differences between the project and how they could align and support projects across the programme.

The successful projects from both the UK and Colombian calls will be brought together at a launch and integration workshop in Colombia in 2018, the aim of which is to support linkages and collaboration between the projects, to ensure synthesis and an integrated programme of activity.

A finale event will also be held in Colombia in early 2021. Costs to attend the launch and finale event will be covered by NERC/AHRC for a limited number of people per project.

¹ Please note the normal three month start period rules outlined in RCUK Terms and Conditions GC4 do not apply to these projects.

Additional mid-term events may be organised in the participating Colombian Departments in order to disseminate findings near the end of the Colombian supported projects (potentially in 2019). UK projects are expected to attend at least one of these events, and should include the costs to do so within their Je-S application.

4.3 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.

All applicants must consider how they will or might achieve impact outside the scientific community and submit this with their application as a [Pathways to Impact](#) statement, with associated delivery costs where relevant. Pathways to Impact activities do not have to be cost-incurring; it is not a requirement to include funded activities. Any funds required to carry out any proposed, outcome-driven activities identified within the Pathways to Impact **must** be fully justified within the Justification of Resources statement.

The Pathways to Impact will identify those who may benefit from or make use of the research, how they might benefit or make use of the research, and methods for disseminating data, knowledge and skills in the most effective and appropriate manner.

An acceptable Pathways to Impact is a condition of funding. Grants will not be allowed to start unless unacceptable Pathways to Impact are enhanced to an acceptable level within 1 month of notification of the panel outcome.

All funded projects may also be required to engage with programme-wide KE activities, in which case appropriate funding for which will be provided by the programme.

4.4 Data Management

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 resource to cover preparation of data for archiving by the research team.

For successful proposals a full Data Management Plan (DMP) should be mutually agreed between the Data Centre and the Principal Investigator within three to six months of the start date of the grant. At the end of an award Investigators are required to offer the appropriate Data Centre a copy of any dataset generated, so that the data can be made available for other researchers to use.

4.5 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 a NERC facility will need to submit a mandatory 'technical assessment' with their proposal (including aircraft but excluding ships 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 here on the NERC website. The costs for the service or facility 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.

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 & 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.

4.6 Programme management and integration

In order to support integration across the UK and Colombian projects, a small amount of additional funding will be made available for the successful UK proposals to bid for. The successful UK PI's (working as far as possible with Colombian partners) will be required submit a joint proposal to NERC/AHRC for use of these funds. These funds will be used for integration activities which help the different UK and Colombian supported projects work together and add value to the whole body of research and researchers. This may include things like shared events, exchanges, short training courses, stakeholder/user engagement and impact, synthesis and legacy activities at a programme level (this will be in addition to their project level pathways to impact activities).

5 Eligibility

5.1 Specific eligibility criteria for UK based researchers

Normal individual eligibility applies and is in Section C of the [NERC research grant and fellowships handbook](#). Research Organisation eligibility rules are in Section C of the handbook. Independent Research Organisations (IROs) must be [eligible for Research Council funding](#).

Investigators may be involved in no more than two proposals submitted to this call and only one of these may be as the lead Principal Investigator (PI).

6 How to Apply

6.1 Intention to Submit

Closing date: 16:00 (BST) on 24th October 2017

Applicants are required to submit an '[Intention to Submit](#)' (ItS). This will provide a brief summary of the proposed research, researchers and anticipated costs. Applicants can also nominate reviewers at this stage for their proposal. The ItS will not be assessed but will be used to gauge the level of interest in the call for resource planning purposes and allow us to pre-approach reviewers. Submission of an ItS is a requirement for this call and full proposals will not be accepted unless an ItS has been received.

You will not be provided feedback on the ItS, however if we consider a proposed application to be ineligible with regards to the researchers involved or the scope of research, you will be advised of this prior to the full bids deadline.

Due to a delay to the launch of the Colombian calls NERC & AHRC reserves the right to pause, delay or cancel the full proposal stage following ItS submission. Applicants will be notified should this occur.

6.2 Full Proposals

Closing date: 16:00 (BST) on 30th November 2017

Full proposals must be submitted using the Research Councils' Joint Electronic Submission system (Je-S). Applicants should select Proposal Type - 'Standard Proposal' and then select the Scheme – 'Directed International' and the Call – 'Exploring & Understanding Colombian bio resources'.

Applicants must ensure that their proposal is received by NERC by 16:00 (BST) on the closing date (at which point the Je-S portal closes). Applicants should 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 research grants and fellowships handbook](#)), will be office rejected and will not be considered.

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.

Proposals for this call should be submitted in standard grant format following the requirements outlined in Section F of the [NERC research grant and fellowships handbook](#).

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.

Colombian partners that are not requesting support from Colciencias but providing their own institutional support should be included as Project Partners on the Je-S form indicating the total contribution from their institution to support their involvement. Their role should also be

described in the Case for Support. Colombia researchers applying to the Colciencias call should not be included on this application, as at the time of submission the outcome of these calls will not be known.

The expected start date for projects funded under this Announcement of Opportunity is 1st August 2018 at the latest.

[RCUK grant terms and conditions](#) will apply. Additional conditions related to Newton Fund support may also be applied to these awards. This will be confirmed prior to award.

Full Proposal components

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

1. A **Case for Support** comprising:
 - a) a common **Previous Track Record** incorporating all Research organisations involved in this proposal (up to 2 sides of A4)
 - b) a common **Description of the Proposed Project** (up to 8 sides of A4 including all necessary tables, references and figures) to include:
 - i) Underlying rationale and scientific issues to be addressed.
 - ii) Specific objectives of the project, including their relevance to objectives of the call.
 - iii) Methodology and approach.
 - iv) Risks and mitigation strategies.
 - v) Programme and/or plan of research, evidence of access to required facilities, data, collections.
 - vi) Management of both project and resources, identifying the training and career development opportunities for personnel working on the project.
 - vii) How the proposal addresses Official Development Assistance (ODA) guidelines, including a justification about the gains to be obtained by working in research collaboration between UK and Colombia
2. **Outline Data Management Plan** (up to 1 side of A4) to include any relevant costs (see Data Management section above). Note that the Outline plan should now be submitted as a separate document of the type 'Data Management Plan', rather than as part of the case for support.)
3. **Justification of Resources** (up to 4 sides of A4 for all UK Research Organisations in the proposed grant) should explain why the requested costs from NERC and AHRC are required.
4. **Pathways to Impact** (up to 2 sides of A4).

This should include an outline of:

- a) those who may benefit or make use of the research;
- b) how they might benefit and/or make use of the research; and

- c) Methods for disseminating data/knowledge/skills in the most effective and appropriate manner.
5. **Project Partner Letter(s) of Support** (up to 2 sides of A4 each). A Letter of Support is required from each named Project Partner. This letter should confirm that the support and facilities required to enable the associated collaborations will be made available. No other letters of support should be attached.
6. A **CV** of up to two sides of A4 for each named UK PI, Co-I, research staff post and visiting researchers.
7. Each component proposal (including the lead) will additionally require the following attachments, where applicable:
- Facility forms** where applicable.
 - PIs wishing to use **NERC facilities** will need to submit a mandatory 'technical assessment' with their proposal (excluding HPC). For NERC, this means a quote for the work which the facility will provide (See facilities section above for full details).
8. **ODA Compliance Statement** (up to 1 side of A4)

This should be uploaded as an attachment type of 'Non-UK Components'. All research funded through the Newton Fund will form part of the UK's Official Development Assistance (ODA) and thus it is a requirement that funding be awarded in a manner that fits with ODA guidelines. Therefore, research proposals submitted to this call should describe how the proposed project meets the Official Development Assistance requirements of this call by answering the following questions:

1. Which country/ countries on the DAC list will directly benefit from this proposal?
2. How is your proposal directly and primarily relevant to the development challenges of these countries?
3. How do you expect that the outcome of your proposed activities will promote the economic development and welfare of a country or countries on the DAC list?

Guidance on ODA compliance is provided in Annex 1

7 Assessment procedure and criteria

NERC and AHRC will check all proposals submitted for compliance to ODA criteria prior to the peer review process. Proposals which do not clearly show how they meet these criteria will be deemed ineligible for funding and will be rejected at this stage.

NERC and AHRC will seek the expert opinion of reviewers for each proposal submitted.

PIs will be given the opportunity to provide a written response to the peer review comments prior to the Moderating Panel meeting.

All proposals will be assessed against the following criteria:

- **Research excellence:** a proposal that demonstrates excellence can be characterised by terms such as novel, timely, exciting, at the international forefront, adventurous, elegant or transformative, but need not demonstrate all of these.
- **Fit to Call:** proposals will be assessed against the extent to which they address the following requirements:

- The research objectives of the call as detailed in section 3.1, including the requirement that all projects must take an inter-disciplinary approach bringing together environmental science with arts and humanities.
- The non-scientific objectives as detailed in section 3.2.

In determining which projects to fund, NERC and AHRC will select a balanced portfolio of projects that best address the overarching aims of the programme.

8 Key dates

▪ AO published	September 2017
▪ Intention to submit deadline	24th October 2017
▪ Full Application deadline	30th November 2017
▪ Assessment panel	April 2018
▪ Grants awarded	May 2018
▪ Grants start	No later than 1 st August 2018

9 Grant start dates and conditions

Successful grants will be funded for up to 3 years and are should start by 1st August 2018 and conclude no later than 31 July 2021 to align with the Newton-Caldas Fund timescales.

Due to financial restraints of the Newton Fund Programme, grant extensions 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.

10 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.

Applicants should be aware that according to the Newton Fund requirements, there will be some additional terms and conditions associated with the UK grants which are awarded. Additionally, UK Investigators must assist the NERC with any additional reporting requirements requested by the Department for Business, Energy and Industrial Strategy.

11 Contacts

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Annex 1 – Guidance on ODA eligibility

This interpretation has been developed from two documents, which should be viewed in parallel: i) DFID, “What is ODA?” document; ii) OECD [“Is it ODA?”](#)

General ODA eligibility guidance

When assessing whether an activity is eligible as ODA or not, delivery partners will consider whether projects and programmes satisfy OECD criteria on eligibility by whether or not they:

- a. aim to promote the welfare and economic development of a country or countries on the [DAC list of ODA recipients](#);
- b. are designed to address a development need; and
- c. focus on problems in developing countries.

Spending on research projects which benefit DAC countries in broader ways than just poverty reduction can be eligible according to the criteria above, although poverty reduction is a very good indicator of an activity being ODA eligible.

Research

The above criteria are supplemented in the OECD guidance, which notes the following in relation to the eligibility of research to be classified as ODA.

*“Only research **directly** and **primarily relevant** to the problems of developing countries may be counted as ODA. This includes research into tropical diseases and developing crops designed for developing country conditions. The costs may still be counted as ODA if the research is carried out in a developed country.”*

BIS and delivery partners will use a literal interpretation of “primarily relevant”. Research funded through BIS’s research budget remains focussed on funding research excellence, which ensures that value for money is maximised. With ODA-eligible research this will remain the case and so “primarily relevant” will be interpreted as follows:

- a. Research should have an intent to investigate a specific problem or seek a specific outcome which will have an impact on a developing country or countries on the DAC list in the immediate or longer-term. Evidence should be available if required to justify that the issue is a developing country problem.
- b. Research does not need to be *solely* relevant to developing countries, therefore there may be other beneficiaries² to a piece of Government ODA research, although countries on the DAC list should be the **primary beneficiary** of this research; i.e. if a problem occurs in both the developed and developing countries, the research should be focused on problems which are more prevalent in developing countries – and that this focus on developing country problems is clear.
- c. For example:
 - i. Research conducted into malaria at a UK institution counts as ODA (Malaria infection is a major contributor to morbidity and mortality in developing countries and the intention of the research is to tackle this disease)

² However if a project examines both a developed and a developing country (maybe some sort of comparative analysis) where there are benefits for both countries, only the developing country-relevant proportion of the spend would be counted.

- ii. Research conducted at a developing country institution into cancer can count as ODA if this is a particular cancer priority in that developing country and/or it is building technical capacity in the developing country.
- iii. Research into diseases of broader relevance e.g. HIV, TB, flu, may be counted if the nature of the specific research question being addressed by the study is relevant to problems specific to that developing country (e.g. where the intention is to research the disease because it is most prevalent in the developing world or where the research is into an intervention tailored to developing countries e.g. DAC countries' difficulties in keeping vaccines cool, where developing thermo-resilient vaccines could be a justifiable use of ODA spend).
- iv. Including research and innovation capacity building activities, to e.g. increase the skills and knowledge base and support the development of research infrastructure (within a developing country) both at country-level and for specific sectors important for welfare enhancement and economic growth. It should be aimed at improving developing countries' ability to undertake and disseminate research to promote the welfare and economic development of a DAC country / countries.

Questions you may wish to consider when writing your proposal regarding ODA eligibility include:

- Is the project addressing the economic development and welfare of an ODA eligible country?
- Is there a development need that my project or activity is addressing?
- Are the countries involved on the [DAC List of ODA Recipients](#) (the Development Assistant Committee of the OECD) or will countries on the DAC list directly benefit from the research?
- Is my activity credible or is there evidence of the need?
- Would this project or activity be applied in an ODA eligible country – when, how and with whom?
- What would the impact of my project or activity be, and who would benefit?
- How does my project or activity contribute to sustainable development?
- What would success for this activity look like?
- How would success or impact be measured?

Annex 2 - Collaborating Partners

The Natural Environment Research Council (NERC) – The [Natural Environment Research Council](#) – is the leading funder of independent research, training and innovation in environmental science in the UK. NERC invests public money in world-leading science, designed to help us sustain and benefit from our natural resources, predict and respond to natural hazards and understand environmental change. We work closely with policymakers and industry to make sure our knowledge can support sustainable economic growth and wellbeing in the UK and around the world. NERC is supported by the Department for Business, Energy and Industrial Strategy (BEIS).

The Arts and Humanities Research Council (AHRC) - The [Arts and Humanities Research Council](#) funds world-class, independent researchers in a wide range of subjects: history, archaeology, digital content, philosophy, languages, design, heritage, area studies, the creative and performing arts, and much more. This financial year the AHRC will spend approximately £98 million to fund research and postgraduate training in collaboration with a number of partners. The quality and range of research supported by this investment of public funds not only provides social and cultural benefits and contributes to the economic success of the UK but also to the culture and welfare of societies around the globe. AHRC is supported by the Department for Business, Energy and Industrial Strategy (BEIS). For more information visit the [AHRC website](#) or follow @ahrcpress on twitter.

Colciencias is the Colombian administrative department of science, technology and innovation, focussing on four specific areas – education for research, research, innovation and culture. Through its research strand Colciencias promotes the development of knowledge generation and capacity strengthening for research and development. Research which contributes to solving the problems of the regions and the country as a whole are emphasised with priority areas including environment, biodiversity and habitat; agriculture; sea and aquatic resources; and social and human sciences, amongst others.

Annex 3 – Colciencias call scope

Boyacá Open Call

1. AXIS 1. C.T.e.I FOR CLIMATE VARIABILITY

According to the Intergovernmental Panel on Climate Change (IPCC), climate variability is understood to be the variations in the mean state and other statistical climate measurements (such as standard deviation, occurrence of extreme phenomena, etc.) across all temporal and spatial scales, beyond specific meteorological phenomena. Variability may be due to internal natural processes within the climate system (internal variability) or variations in anthropogenic external forcing (external variability).

We seek to finance up to two (2) projects that contribute knowledge or applications in the following areas:

- 1.1. ***Socio-ecosystemic interaction in terms of resilience, mitigation, and adaptation to climate variability***: relating socio-economic interactions with their ecosystemic environment, linked to impacts and/or strategies for mitigation and adaptation to climate change.
- 1.2. ***Impact of climate variability on biodiversity***: measuring, analyzing, and modeling the impact of climate variability on the amount, abundance, and relative distribution of species and ecosystems in a given area.

2. AXIS 2. C.T.e.I FOR THE CONSERVATION OF STRATEGIC ECOSYSTEMS

According to the Ministry of Environment and Sustainable Development, strategic ecosystems are those that guarantee the supply of essential environmental goods and services for the sustainable human development of the country. These ecosystems maintain equilibriums and basic ecological processes, such as climate and water regulation, purification of air, water, and soils, and the conservation of biodiversity.

We seek to finance up to five (5) projects that contribute knowledge or applications in the following areas:

- 2.1. ***Restoration, recovery, and conservation of high mountain ecosystems with an emphasis on water resources***. According to the 5th National Report on Biodiversity in Colombia with regards to the Biological Diversity Agreement, the degradation and loss of ecosystem services affect the wellbeing and development of certain sectors of the economy. Much like there are drivers of degradation, there are drivers of recovery and conservation of ecosystem services. In some transformed areas, it is economically profitable to undertake processes of restoration and recovery in order to generate ecosystem services. In particular, the projects financed would seek to:
 - Generate research that would allow the creation of an interactive mapping tool for the water resources of Boyacá, the strategic ecosystems, and the services derived from them. This would feed into decision-making and inform conservation processes for the water resources in the department.

- Identify protocols or technical manuals for (participative) ecological restoration of water replenishment zones (aqueducts, streams, properties, or water producing areas).
- 2.2. **Restoration, recovery, and conservation of high mountain ecosystems with regards to species of flora and fauna:** According to the Ministry of Environment and Sustainable Development, anthropic intervention (human activity) is the primary cause of the reduction of forest cover in high mountain ecosystems. Indiscriminate burning, extensive ranching, water erosion and changes to the natural movements of water, mining operations, quick colonization, and the introduction of exotic species represented a threat to flora and fauna endemic to these ecosystems. In particular, the projects financed would seek to:
- Generate tools and materials to guide ecological restoration processes in high mountain ecosystems (superpáramo, subpáramo, páramo, high Andean forest).
 - Identify protocols or technical manuals for the ecological restoration and rehabilitation of species of flora and/or wildlife.

3. AXIS 3. C.T.e.I FOR THE SUSTAINABLE USE OF BIODIVERSITY IN BOYACÁ

According to the National Policy for Biodiversity developed by the Ministry of Environment and Sustainable Development, the National Planning Department, and the Alexander Von Humboldt Institute, it is essential to promote the sustainable use of the components of biodiversity through adequate prospecting and valuation, with the purpose of turning the nation's comparative advantage into a real one that can promote local and regional development.

We seek to finance up to five (5) projects that contribute knowledge or applications in the following areas

- 3.1. **Identification and prospecting of sustainable uses of biodiversity for commercial purposes:** investigate and analyze useful species of flora and/or fauna in ecosystems such as the *llanero* foothills, dry forest, tropical rainforest, high Andean forest, and páramo and determine the socio-economic benefits they may provide to local communities.
- 3.2. **Implementation of multi-criteria valuation systems for biodiversity and its ecosystem services:** develop valuation studies for biodiversity and its ecosystem services that can allow for a comprehensive understanding of socioecological systems, integrating sociocultural, economic, and ecological dimensions with the aim of supporting decision making and generating instruments for their sustainable management in the territory. In particular, the following valuations should be carried out:
- Valuation of natural capital, environmental accounting, and ecosystem services
 - Valuation of water resources
 - Valuation of supply, regulation, and support
 - Valuation of biocultural assets

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The overarching objective is to strengthen the production of high impact knowledge and development within the department.

Proposals should achieve this by addressing either;

a) Resilience and mitigation of socio-ecosystems to climatic variability.

Ecosystem-Based Mitigation and Adaptation Processes that focus on research to increase and maintain adaptive capacity, and reduce the risk of socio-ecosystem degradation or collapse to environmental change (including climate change).

Research to boost the resilience of socio-ecosystems to maintain and manage the risk of biodiversity loss and its ecosystem services.

Historical changes in the distribution of species, populations, communities of fauna and flora, by altitudinal and latitudinal displacements, together with their involvement in land planning policies and processes.

Simulation models of the effect of climate variability on strategic ecosystems, biodiversity and their ecosystem services as a basis for policy and planning design.

Conservation and restoration of ecosystems as adaptation measures (ecological connectivity, natural regeneration mechanism and species with restoration potential).

b) Encouraging green growth.

The guidelines for this challenge are:

Processes of valuation and generation of knowledge for the sustainable and integral management of the biodiversity and the ecosystem services. This allows integrating the values of ecosystems and biodiversity into local planning, development processes, poverty reduction strategies and environmental accounting.

Research in Green Growth processes and the generation of foundations to develop a Bio economy based on R & D of biodiversity.

Green businesses in the categories of Sustainable Goods and Services from Natural Resources, Biotrade and Business sectors for the Restoration; Subsectors Biotechnology: Genetic resources and derived products, Products derived from wild fauna, Timber, Non-Timber Forest Products according to FAO, natural ingredients for industry and scientific tourism of nature.

Bioprospecting and bioprocesses from native and/or naturalized species of Colombian biodiversity.

Competitive Intelligence Processes: Studies leading to the generation of goods and services based on biodiversity and its ecosystem services, in order to include them in productive chains with added value. Including technology surveillance.

c) Identification and promotion of the use of non-conventional renewable energies.

Renewable Non-Conventional Renewable Energy (ERNC) refers to wind, solar, geothermal, ocean and all renewable energy sources that do not currently have massive application such as large reservoir hydroelectric plants, which are classified as conventional. It is hoped that it will be possible to investigate for Cundinamarca by means of the following guidelines:

Research for the generation of non-conventional renewable energy derived from waste:

- Agricultural and forestry waste
- Animal waste
- Waste from agricultural and forestry industries

Research for the generation of non-conventional renewable energy derived from energy crops.

The development of physical, chemical and biological processes to improve the energy use of biomass.

d) Relations between the construction of Peace and the integral management of Biodiversity in the territories of Cundinamarca.

The Government of Cundinamarca, consistent with the current historical challenge of constructing a culture of peace from the heart of Colombia with benefits in the global environment, has directed its efforts through articulating the future management of the department in the field of post-conflict.

Recognize the interactions and resilience mechanisms of socio-ecological systems, as well as the uses and transformations of biodiversity in a sustainable manner by local communities to assess and contribute to post-conflict negotiations from criteria of redress, compensation and remuneration to these societies; their environmental practices, and providing economic alternatives and livelihoods.

Analysis and study of prospective opportunities for development models based on biodiversity and ecosystem services in local economies.

To analyze how the loss of biodiversity affects the human integrity and well-being of these communities, through the evaluation and assessment of the impact of armed conflicts on strategic ecosystems.

Address the relationship of biodiversity to local communities affected by armed conflicts and other environmental conflicts, and the significance and re-significance of these relationships in peacebuilding and territorial planning, decision-making and governance.

Capacity building and training for demobilized people in restoration, conservation and sustainable uses of biodiversity projects.