

NEWTON FUND INSTITUTIONAL LINKS BIODIVERSITY IN LATIN AMERICA GUIDELINES FOR APPLICANTS APRIL 2018 VERSION 0.11

Overview of change(s) from previous version:

Change	Page in version 0.10	Page in version 0.11
Peruvian portal open to 3 July 2018 13.00 (local time)	18	18

Countries included in this call are:

Argentina, São Paulo/Brazil, Chile, Mexico and Peru

Call opens: 9 April 2018

Call closes: 28 June 2018 16:00 hrs UK time

1. Background

The Newton Fund builds research and innovation partnerships with 18 partner countries to support their economic development and social welfare, and to develop their research and innovation capacity for long-term sustainable growth. It has a total UK Government investment of £735 million up until 2021, with matched resources from partner countries.

The Newton Fund is managed by the UK Department for Business, Energy and Industrial Strategy (BEIS), and delivered through 15 UK delivery partners, which include the Research Councils, the UK Academies, The British Council, Innovate UK and the Met Office. For further information visit the Newton Fund website at www.newtonfund.ac.uk. Tackling global challenges – such as extreme weather conditions, urbanisation, access to affordable health care, food and energy security, and meeting the social and economic needs of a growing population – requires an integrated research and innovation approach, bringing together communities from different disciplines, sectors and countries in high-quality collaborations.

The Newton Fund Institutional Links Programme is designed to establish links beyond the level of the individual researcher and innovation practitioner, opening up opportunities for sustainable, solution-oriented research and innovation collaborations between academic groups as well as with the private and third sector.

The aim of this programme for Biodiversity in Latin America is, through collaborative multinational research and capacity building, to provide trans-regional level understanding of the role of biodiversity and ecosystem functioning and the services they provide, to inform management of environments for sustainable development, balancing environmental, economic and social development needs.

A common challenge in Latin America is to develop a resilient natural resource economy. Social and economic policy linked to environmental pressures will result in land-use changes affecting biodiversity and ecosystem processes at multiple scales. Moving to a natural resource economy will necessitate radical improvements in the quality and quantity of information on the biodiversity and the ecosystem services the biodiversity sits within. To deliver this economy, data on Latin American biodiversity provide essential knowledge underpinning conservation, sustainable management and our understanding of ecosystem functions and the services they provide. In many areas the data required for the next-generation models of ecosystem function and landscape scale management are lacking.

The programme will align to several SDGs including: 15, (protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss”). The broad context of the programme is described in 8 (promoting sustainable economic growth), 12 (promoting sustainable production), Annex 1.

2. Overview of the funding opportunity

The Newton Fund Latin America Biodiversity programme is comprised of 3 phases described below, the current call is described in Phase 2.

Phase 1 – Researcher Links Workshops and Travel Grants: Capacity and networks

Led by the British Council, this phase ran capacity building and mobility schemes in the first year of the programme to increase partner countries’ R&D capacity and boost interaction between LATAM countries and the UK, setting a stronger foundation for large scale research collaboration.

Phase 2 – Research Expedition Programme (**Current**):

Led by the British Council, this phase will fund research expeditions aimed at documenting biodiversity and its links with society in poorly studied areas of Latin American countries and building associated research capacity in LATAM countries. This will establish a baseline for: 1) understanding habitats and species; 2) studying biodiversity for sustainable livelihoods and bio-economy; 3) maintaining and restoring natural capital; or 4) integrating ground data with emerging technologies.

Applications to this call are not restricted to successful applicants in the phase 1 call.

This programme is aimed at developing research expeditions focused on bi- or multi-lateral proposals between the UK and one or more of the countries that are part of this regional initiative. Each proposal will be presented by at least two Lead Applicants and must include at least as many researchers from the U.K. as from LATAM countries.

The proposal will need to include the technical background to the theme, making a case for the importance and the timeliness of the research expedition, and explain why the UK and partner country applicants are particularly well-suited to carry out the expedition at this time. It must describe applicant’s past experience in carrying out biodiversity expeditions, the scientific standing of the applicants and their institutions, and any previous interactions that the applicants and/or their institutions have had with each other.

It is expected that all expeditions will fall under the areas agreed for the regional programme entitled: “Biodiversity – ecosystem services for sustainable development”.

Priority areas (see Annex 1 for more information):

1. Understanding habitats and species
2. Biodiversity for sustainable livelihoods and bio-economy
3. Global Climate Change, Biodiversity and ecosystems
4. Maintaining and restoring natural capital

ODA requirement: All applications must demonstrate relevance to economic development or social welfare of the partner countries. Any proposals for links with Chile must include the

participation of a second eligible country or be able to demonstrate impact relevant to the region more generally.

Phase 3 - NERC: Research programme (to be announced in due course)

This will be a multi-lateral (LATAM country and the U.K.) research call based on the thematic areas identified by the LATAM funders and developed within Phases 1 and 2.

Institutional Links programme

Newton Fund Institutional Links grants provide small-scale funding for collaborations between the UK and the participating Newton Fund countries¹ in each call to:

- Initiate new research and innovation collaborations between academic groups, departments, and institutions in partner countries and the UK
- Develop existing collaborations at group, departmental, and institutional level
- Encourage these collaborations to work with non-academic organisations and individuals to support the exchange of research and innovation expertise and the translation of research knowledge into tangible benefits
- Establish local hubs for UK-partner country activity in a particular area, enabling engagement from the wider research and innovation community.

The Institutional Links Programme is designed to be flexible and responsive to in-country needs, allowing applicants to establish collaborations on specific areas linked to country priorities and development needs, and to bring in relevant private and third sector partners, including small and medium enterprises (SMEs), non-governmental organisations (NGOs), technology transfer offices, and other not-for-profit organisations.

Grants for this call will be up to £125,000 for up to 24 months.

For best fit to the local context and development needs, priority areas, specific innovation challenges and additional application requirements have been set at a country level through discussion with national stakeholders. **Please refer to Appendix 1 for country-specific guidance before you prepare your proposal.** Proposals which do not follow the country-specific guidance **cannot be considered for funding.**

3. Scope of the programme

Grants under the Newton Fund Institutional Links programme allow partners to collaborate internationally, and gain access to new research environments, facilities, knowledge, and expertise, in order to enhance the quality of their research and enable them to translate research and innovation into economic and societal benefit.

All research and innovation collaborations funded by this programme will:

- **Establish new research and innovation links, or significantly develop existing links, between research groups, departments or institutions with the potential for longer-term sustainability.** A key aim of the collaboration will be to support research and innovation capacity building in the partner institution, as well as to stimulate longer-term links between the UK and partner countries for research and innovation. We would encourage applicants to use this as an opportunity also to engage with the commercial and not-for-profit sectors.

¹ Links with particular additional countries may be possible in individual calls; please check Appendix 1

- **Focus on topics or themes which have relevance to the economic development and welfare of the partner country.** Institutional Links grants are intended to support areas relevant to the economic development and social welfare of partner countries. Before preparing your proposal, please see section 4 for a definition of development-relevant research and Appendix 1 for additional priority or challenge areas for individual countries.

Wherever possible, Institutional Links collaborations should demonstrate how they will benefit the wider research and innovation community in the partner country.

Collaborations may also be established as UK-partner country centres of excellence – based in the partner country – in a particular research area, acting as a resource hub for the wider research community in-country and a focal point for other activities, (e.g. seminars, technical training workshops).

Countries to be involved in the Research Expeditions call in Latin America April 2018 call are:

Argentina, São Paulo/Brazil, Chile, Mexico and Peru

When designing your proposal, you should consider how best to involve early career researchers to promote their development and, more generally, to build researcher capacity, especially in the partner country.

Newton Fund Institutional Links grants can cover costs which support research and innovation collaboration, including: human resources costs; travel costs associated with exchange of researchers, students and staff from partners and other organisations; the costs of organising meetings, seminars and training; and other activities to establish and strengthen collaborative links. Grants can also include a limited contribution to other research-related costs (including equipment, consumables and non-staff fieldwork costs); however, this is capped at 30% of the total value of the grant. As funding for the project can be disbursed via both the UK and the partner country funding agencies, in some countries there may be restrictions on partner country costs – please refer to Appendix 1 for details.

Institutional Links grants can also support the training of technical staff, or finance other activities necessary for the translation of the research into benefit, thereby laying the foundations for longer-term impact on the research and innovation landscape, and on economic development and social welfare. All expenditure must be detailed in the budget spreadsheet provided at the following link:

https://britishcouncil-cxobw.formstack.com/forms/application_form_newtonil_2018_april_latam

In addition, a summary of costs to be covered by the grant must be included in the online application form and must contain justifications, (e.g. periods of research assistant time, why consumables or equipment are needed). Six-monthly financial reporting on grant expenditure, and narrative reporting using ResearchFish will be required as a condition of the grant.

4. Relevance to economic development and social welfare [Official Development Assistance (ODA) eligibility]

For the purpose of the Newton Fund Institutional Links Programme, we define research and innovation with development relevance as activities that have the potential to contribute to the economic development and social welfare of Newton Fund low- and middle-income countries², benefitting low-income and vulnerable populations in these countries.

Please note that Chile is no longer eligible for ODA. Any proposals for links with Chile must include the participation of a second eligible country or be able to demonstrate impact relevant to the LATAM region more generally.

² As defined by the OECD DAC list of official development assistance (ODA) recipients
<http://www.oecd.org/dac/stats/documentupload/DAC%20List%20of%20ODA%20Recipients%202014%20final.pdf>

In order to be considered for funding under the Newton Programme, **all proposals must clearly articulate a plausible pathway to positive impact on these populations within a short- to medium-term timeframe (3–15 years). Applications which do not meet this criterion cannot receive UK Newton Fund support.**

In some disciplines, development relevance can be longer-term and less direct than in other areas and impact may be societal. In all cases, it is the responsibility of the applicant to articulate how the research area or activity proposed will meet these criteria. Applicants should not expect reviewers to make assumptions about development impact that is not clearly described within the proposal.

Under this call, the research and innovation challenge areas that will be given priority **are specified further in Appendix 1.**

For more on our approach to ODA, please see <http://www.newtonfund.ac.uk/about/what-is-oda/>.

Failure to demonstrate ODA eligibility will render your application ineligible regardless of other success criteria. Please make sure you consider the ODA relevance of your application.

In order to show development relevance within the context of their proposed project, applicants are advised to include within their application reference to any local or national consultation, links to government policies, and existing links with government institutions.

Agreements for ownership and exploitation of intellectual property generated through project activities must be consistent with the primary aim of addressing development issues.

5. Eligibility

Proposals must fulfil the following criteria in order to be eligible for funding under this Programme:

- Each proposal must have one Principal Applicant from the UK **and** one Principal Applicant from each partner country
- Principal Applicants must be Leading Researchers³ or Established Researchers³
- Principal Applicants from the UK must be permanent employees of the Royal Botanic Gardens Kew or Royal Botanical Garden Edinburgh. The Principal Applicants' institutions (the 'Lead Institutions') must have the capacity to administer the grant.

If you want to find a partner from any of these institutions, please write directly to the appropriate person below:

Royal Botanical Garden Edinburgh:

- Prof. Peter Hollingsworth, Director of Science, PHollingsworth@rbge.org.uk

Royal Botanic Gardens Kew:

- Dr Colin Clubbe, Head of Conservation Science, c.clubbe@kew.org
 - Dr Abigail Barker, Head of Bioinformatics and Spatial Analysis, a.barker@kew.org
 - Dr Alan Paton, Head of Collections, a.paton@kew.org
 - Dr William Baker, Head of Comparative Plant and Fungal Biology, w.baker@kew.org
 - Dr Paul Wilkin, Head of Natural Capital & Plant Health, p.wilkin@kew.org
 - Dr Tim Utteridge, Head of Identification & Naming, t.utteridge@kew.org
- The expedition team must include at least as many researchers from the LATAM countries as from the UK.

³ For an indication of profiles for the two categories, we suggest applicants refer to the European Commission document 'Towards a European framework for research careers' https://cdn5.euraxess.org/sites/default/files/policy_library/towards_a_european_framework_for_research_careers_final.pdf

- Individual departments within a single institution can make multiple applications per call provided that the proposed activities are clearly different.
- Principal Applicants may only submit one Institutional Links application per Institutional Links call.
- Principal Applicants that have received Institutional Links grants **in previous years** can submit further applications for Institutional Links provided the proposed activities are clearly distinct from, or build on, any already funded through the Newton Fund. Principal Applicants may not apply if they have already received an Institutional Links grant that year.
- Organisations affiliated to higher education institutions in the UK or any other country and based in the partner country, (e.g. an overseas campus) may apply as the Lead Institution in the partner country provided that other eligible higher education institutions or research organisations are also involved as Associated Partners in-country.
- Organisations cannot apply as Lead Institutions in Links with their *own* affiliates in other countries.

To support the translation of research and innovation into benefit, Principal Applicants are encouraged to include in their proposals Associated Partners affiliated with:

- Other research or higher education institutions
- Technology transfer offices
- Not-for-profit organisations (including NGOs)
- For-profit/commercial organisations (including SMEs)

Not-for-profit higher education institutions or publicly-funded research organisations **are eligible** to apply as Lead Institutions in the partner country.

For-profit organisations and not-for-profit organisations can participate in but are usually **not** eligible to apply for Institutional Links grants. Furthermore, **for-profit organisations are not eligible to receive any grant funds except to cover travel-associated costs.**

Eligibility checks will be applied to all proposals on receipt. Please see Appendix 1 and 2 for a full list of eligibility criteria, specific criteria may vary per country. If you are unsure about your organisation's eligibility, for UK see the link at Footnote 4; for partner countries, please contact the local British Council office.

6. Funding available

The level of grant funding available from the Newton Fund depends on the country: please see Appendix 1 for country-specific guidance and funding limits.

Funds will be disbursed directly to the Lead Institution(s), (i.e. the Principal Applicants' institutions) according to the approved final budget. Applicants may be asked to adjust their budget if their request does not fit within funding guidelines.

An advance payment of 90% of the Newton Fund grant will be made on signature of the grant agreement, followed by one payment of 10% dependent on approval of reports by the British Council. Please note that payment ratios can vary for different countries.

In some cases the whole grant will be awarded to the UK Lead Institution, which will then disburse the funds to the Lead Institution in the partner country; in other cases there is a separate grant agreement with each Lead Institution.

Lead Institutions may transfer funding to Associated Partners for activities which support the objectives of the collaboration and the overall Programme⁴. Any costs of Associated Partner contributions should be included in the proposed budget for the respective country. As detailed

⁴ Note that for-profit organisations are only eligible to receive funds to cover travel-associated costs.

above, for-profit organisations are not eligible to receive any grant funds except to cover travel-associated costs.

Please note that Appendix 1 specifies further, country-specific information on eligible and ineligible costs.

Please complete the budget spreadsheet as provided on the call website with details of all costs:

www.britishcouncil.org/education/science/current-opportunities/latam-institutional-links-2018

Please also complete the budget summary on the online application form with the totals from your budget spreadsheet and a brief justification for the amounts applied for.

The following sections detail the costs that can and cannot be included in your budget request.

6.1 Eligible costs

Institutional Links grants are intended to contribute to the direct costs of establishing and operating your collaboration, (i.e. costs directly related to implementing activities contained in the proposal).

The British Council is committed to equal opportunities and diversity and will consider, on a case by case basis, requests for support to encourage under-represented groups to engage in Institutional Links activity, so long as sufficient justification is provided.

Institutional Links grants **can cover:**

Category	Type	Percentage limits	Notes
Human Resources costs	Staff costs for personnel working directly on the grant-funded project: salaries and fees of temporary research and research assistant personnel, and other staff recruited to work on the project, for example data collection staff in partner country.	None See country specific guidance for more details	This includes on-costs such as superannuation, and national insurance payments. Indirect costs cannot be covered and are assumed to be contributed by the principal institutions.
	A proportion of staff costs for permanent staff of lead institutions.	Limited to 30% of total human resources funds requested	This includes on-costs such as superannuation, and national insurance payments, etc.

Category	Type	Percentage limits	Notes
Other research related costs	Essential research equipment for use on the project.	Other research related costs are limited to 30% of total grant requested (unless specified in Appendix 1).	<p>If the applicant requests more than 30% of the total budget requested under this category, the project will be considered ineligible.</p> <p>Permission must be obtained from British Council before the purchase of equipment over £5,000 if the application is successful. Criteria are normally:</p> <p>Equipment is essential to delivery of the project and cannot be expected to be provided by institutions</p> <p>Equipment will be used in the partner country and will remain there on project completion.</p>
	Consumables (Costs incurred in obtaining permits and field equipment, in accessioning and analysing collections, and in community engagement and dissemination will be considered under consumables).		
	Specialist software licences essential to the collaboration.		
	Access fees to facilities or library services		
Operational Costs	Travel (economy class) and subsistence costs to the UK and partner countries.	None See country specific guidance	<p>In line with British Council policies and the criteria detailed in Appendix 1.</p>
	Visa fees, vaccinations and medical insurance for travel essential to collaboration, to the UK and partner countries.		
	Costs of meetings, training events and seminars integral to the collaboration.		
	Basic catering costs associated with events or meetings directly relating to the collaboration.		<p>This can include short-term room hire, hire of audio-visual equipment (projectors, etc.) and stationery supplies (flip-charts, etc.)</p> <p>Attendance at events which are not part of the project, included in the proposal, will only be funded exceptionally, and only if the collaborators will be presenting the project.</p>

Category	Type	Percentage limits	Notes
Communications costs	Publication costs directly related to the collaboration	None (see country specific guidance)	This includes web page development by external providers, if appropriate. We particularly encourage open access publishing.
	Use of telecommunications such as video / audio / web conferencing		
Other costs	Bank charges for transfer of funds from the Lead Institution to other Partners		Note that for-profit organisations are only eligible to receive funds for travel associated costs.

6.2 Ineligible costs

Institutional Links grants **cannot cover**:

- Full economic costs (FECs)
- Institutional overheads, administration fees and other indirect costs
- Costs of staff based in commercial or for-profit organisations
- Costs of permanent staff in Associated Partner organisations
- Purchase or rental of standard office equipment (except specialist equipment essential to the research). This includes:
 - IT hardware – laptops, personal computers, tablets, smart phones, Mac workstations, computer parts and peripherals, etc. Any standard hardware which would routinely be used by researchers and academics will not be funded.
 - Office software.
 - Desks, chairs, filing cabinets, photocopiers, printers, fax machines.
 - Mobile phone rental or purchase.
- Tuition Fees.
- Bench Fees (for example PhD, Masters or Undergraduate study).
- Costs related to writing up, promoting or disseminating previous research.
- Attendance at conferences or other events unless this is to present outputs and outcomes of the project.
- Patents costs.
- Costs relating to the construction, procurement or rental of physical infrastructure, (e.g. office buildings, laboratory facilities). It is expected that any rooms and facilities essential for the routine operation of collaboration are provided as an in-kind contribution by the participating institutions. These can be detailed as an in-kind contribution in the budget breakdown.
- Entertainment costs such as:
 - Gifts
 - Alcohol
 - Restaurant bills or hospitality costs for personnel not directly participating in the project.
 - Excessive restaurant costs
 - Excessive taxi fares

- Other indirect costs not listed in the above table or detailed in Appendix 1.

Please contact UK-InstitutionalLinks@britishcouncil.org if you are in doubt which costs the Institutional Links Programme can and cannot cover.

To ensure value for money, the budget requested in your proposal (including human resource costs) should cover only costs that are essential, appropriate and relevant to the collaboration. The proposal should maximise cost share through direct and indirect institutional contributions, in-kind funding, other funding sources, and private sector support.

Please indicate in the appropriate budget spreadsheet (and summarise as indicated on the application form) funds applied for from other sources to cover the collaboration; please clarify the status of the funding applications, (i.e. successful; decision pending). Please indicate when you will know the outcome of any pending applications.

For most countries, there is no minimum requirement for in-kind funding in the application, but these contributions will be looked upon favourably as a demonstration of long-lasting commitment to the programme.

7. Project duration

The maximum duration of the proposed collaboration is 24 months. Funding, if approved, begins from signature of the Grant Agreement by the British Council, funding from partner countries begins from signature of the Grant agreement by the partner agencies as specified in Appendix 1. Formal project start dates will be set in the grant agreement by the British Council. Expenses incurred by the institutions prior to the effective start date, including any costs incurred in the production of the proposal, cannot be charged to the grant.

The timeline takes into account the following steps from applicants:

1. Preparation of expedition (e.g. agreements, permits and logistics);
2. Field expedition (e.g. community engagement and collection of biological material and data);
3. Post field work in country and U.K. (e.g. processing and accessioning of collected biological material);
4. Data compilation and analysis, preparation of expedition report; and
5. Dissemination of information (e.g. leaflets, publications).

8. Ethics and research governance

It is essential that all legal and professional codes of practice are followed in conducting work supported by this Programme. Applicants must ensure the proposed activity will be carried out to the highest standards of ethics and research integrity.

In the online application form, applicants must clearly articulate how any potential ethical and health and safety issues have been considered and how they will be addressed, ensuring that all necessary ethical approval is in place before the project commences and all risks are minimised. Specifically, applications that involve research on animals, human participants, human tissue or patient/participant data must be accompanied by necessary permission certificates from the relevant local ethical review committees/authorities in the UK and the partner country, or an undertaking to obtain this permission in advance of the activity commencing. Failure to do so will result in applications being rendered ineligible and any funding already committed through this Programme being rescinded.

Please refer to the Research Councils UK 'Policy and Guidelines on Governance of Good Research Conduct' (<http://www.rcuk.ac.uk/Publications/researchers/grc/>), the InterAcademy Partnership report 'Doing Global Science: A Guide to Responsible Conduct in the Global

Research Enterprise' (<http://www.interacademycouncil.net/24026/29429.aspx>) or contact us at UK-InstitutionalLinks@britishcouncil.org for further guidance.

9. Diversity

The British Council is committed to equal opportunities and diversity in all our activities. This includes avoidance of bias due to gender, disability, racial or ethnic origin, sexual orientation, or religious belief. Applicants are therefore encouraged to include participation by researchers from under-represented groups in the teams implementing their proposed research. Applicants may apply for funding to cover extra costs for such participation, for example, for people with disabilities who may otherwise not be able to participate, or for childcare. Please describe any action you are taking to encourage diversity under "Collaboration" on your application form.

Please make costs necessary to cover this inclusion clear in the 'human resources' section of the budget request within your application.

Please contact us at UK-InstitutionalLinks@britishcouncil.org for further information on funding. For more on the British Council's approach, see our Equality Policy at: https://www.britishcouncil.org/sites/default/files/equality_policy_1.doc.

10. Submission process

The deadline for submission of a completed application including all supporting documentation is **16:00 UK time on 28 June 2018**. Proposals submitted after the deadline will not be considered for funding.

The deadline applies to all parts of your application, including upload of fully completed supporting documentation. Any applications which are not submitted *in full* by the deadline, with all required supporting documents, will be considered *ineligible*. Appeals against this decision will not be accepted.

Applicants for all calls **must** submit a completed online application form https://britishcouncil-cxobw.formstack.com/forms/application_form_newtonil_2018_april_latam which includes the upload of supporting information. The online form allows applicants to enter information and save it for a later date until final submission. There are strict character limits for each section which cannot be exceeded.

In addition to filling in the online form, applicants are required to upload the following documents, as described, by the deadline. As above, **late submission of supporting documents, or submission of documents which do not comply with these requirements, will render the application *ineligible*.** The documents are:

- Principal Applicants' CVs (up to two sides of A4 each)
- A detailed project budget (template available on the British Council call webpage)
- Letters of support from the UK and partner country Principal Applicants' institutions **in English**, on headed paper, signed by the Head of Institution, Head of Department or other person with appropriate delegated authority, expressing specific commitment to the proposed project, willingness to receive funding, a description of in-kind support to be given and describing why the experience and capability of the Principal Applicant is particularly suited to the project content. Please note that supporting letters must not be signed by the Principal Applicants.
- If the proposal includes Associated Partners, a pdf file **combining together signed letters on letter headed paper from each partner containing 300 words on the expertise they will bring to the project and the role they will take.** There is only one slot for uploading Associated Partners letter, so all supporting letters **must** be submitted as a **combined** document. Links to partner websites should be included if applicable. Letters from every Associated Partner listed in the application must be provided.
- Documents specified by the supporting agency in Appendix 1, if any.

Any other documents uploaded with your application or sent late or separately will be not be considered, unless these are specified in Appendix 1).

Applications must be in English.

To assist you in developing your application and sharing content with your partners, you can access a Word version of the online form here:

www.britishcouncil.org/education/science/current-opportunities/latam-institutional-links-2018

This is solely to allow you to develop your responses in a convenient format. The final version of your application **must** be submitted using the online form.

If you experience problems with the online submission system, please contact UK-InstitutionalLinks@britishcouncil.org **before** the submission deadline. If you alert us to technical issues only after the deadline, we may not be able to take them into consideration when assessing the eligibility of your application.

Before the completed online application form can be submitted to the system, applicants will be asked to confirm on the form that they have:

- obtained permission to submit the proposal on behalf of the UK institution(s) **and** of the partner country(ies) institution(s). This must be confirmed by attaching Letters of Support from the respective institutions signed by the Head of Institution, Head of Department or other person with appropriate delegated authority.
- confirmed the Principal Applicants' Institutions, (i.e. the Lead Institutions') willingness to receive the funds and to sign a grant agreement with the British Council or the national partner, also confirmed in the Letters of Support.
- complied with British Council policies on prevention of fraud, bribery, money laundering and addressed any other financial and reputational risk that may affect a transparent and fair grant award process. See:
<https://www.britishcouncil.org/organisation/transparency/policies/anti-fraud-and-corruption>

Once the online application is submitted, the system will generate a unique application ID number. Applicants should note this number and use it in all communications with the British Council. Applicants who have not received this ID number should contact the British Council at UK-InstitutionalLinks@britishcouncil.org.

11. Applicant screening

In order to comply with UK government legislation, the British Council may at any point during the application process, carry out searches of relevant third party screening databases to ensure that neither the applicant institutions nor any of the applicants' employees, partners, directors, shareholders is listed:

- as an individual or entity with whom national or supranational bodies have decreed organisations should not have financial dealings
- as being wanted by Interpol or any national law enforcement body in connection with crime
- as being subject to regulatory action by a national or international enforcement body
- as being subject to export, trade or procurement controls or (in the case of an individual) as being disqualified from being a company director, and/or
- as being a heightened risk individual or organisation, or (in the case of an individual) a politically exposed person.

If the applicant or any other party is listed in a Screening Database for any of the reasons set out above, the British Council will assess the applicant as ineligible to apply for this grant call.

The applicant must provide the British Council with all information reasonably requested by the British Council to complete the screening searches.

Please read the text to this effect on the application form and tick the box to show that you understand this.

12. Selection process

Selection begins with an eligibility check by the British Council against the eligibility criteria given in these Guidelines, including Appendix 1 (Country specific guidance) and the Eligibility Checklist at Appendix 2).

Eligible proposals then undergo independent external quality review on the basis of quality, fit to development needs and country priorities, capacity building potential and likely sustainability of the collaboration, as follows:

- Assessment and scoring in the UK by independent experts (see Appendix 3 for assessment form).
- Thorough review in the partner country(ies).
- Review by a UK Review Panel of experts, which determines a UK panel score, ranks applications and makes recommendations for funding. The Review Panel considers whether proposals are of high quality (being intellectually innovative, well-focused and methodologically sound), and whether the activity has the potential to have a real impact on economic development and social welfare in the partner country.
- Review of development relevance against Official Development Assistance (ODA) definitions established by the OECD and guidance developed by the Newton Fund with advice from the UK Department for International Development, see <http://www.newtonfund.ac.uk/about/what-is-oda/>. All proposals must clearly articulate a plausible pathway to positive impact of the research on the lives of low-income populations and to a contribution to the economic development and social welfare of the partner country within a reasonable timeframe (3–15 years). If the proposal is deemed not to meet this essential criterion, it will be rejected for UK Newton funding however high the quality of the proposed research.
- Final decision making in the partner country based on UK and partner country review and ODA scores, in collaboration with UK Newton Fund partners, in-country stakeholders and national co-funding organisations.

In the UK, eligible proposals are reviewed by one of five Review Panels:

- **Biological and Medical Sciences**
- **Engineering and Physical Sciences**
- **Environment, Agriculture and Food Sciences**
- **Social Sciences**
- **Arts and Humanities.**

Please indicate in the application which Review Panel should assess the proposal, and select up to three subject area(s) in priority order. We reserve the right to allocate your proposal to a different Review Panel.

Proposals are quality assessed against the criteria at Appendix 3, resulting in a total score between 0 and 60. Those receiving a final score from the Panel meeting of less than 30 will be considered not fundable. However, achieving an average score equal to or above the threshold does not mean that the proposal will be funded.

Country-specific priorities and challenge areas will be considered in the final decision, in addition to the general assessment criteria, see Appendix 1 for priorities by country.

Only proposals which have clearly articulated relevance to economic development and social welfare (as defined in Section 4 above) will be considered for funding.

Successful applicants will be notified approximately 5 months after the call deadline.

13. Data protection

How we use your information

The British Council will use the information that you are providing for the purposes of processing your application, making any awards, monitoring and review of any award.

We shall share any necessary data on your application with the UK Department for Business, Energy and Industrial Strategy, and with our funding partners in your country in order to assist with management of the application process; any decisions on grants will be made in collaboration with them.

Organisation details, where collected, are used for monitoring and evaluation and statistical purposes. Gender information, where collected, is used solely in preparing statistical reports.

The British Council collects country of origin for reporting and statistical purposes and to contact you within your own country.

Under UK Data Protection law you have the right to ask for a copy of the information we hold on you, and the right to ask us to correct any inaccuracies in that information. If you want more information about this please contact your local British Council office or the Data Protection Team inforgovernance@britishcouncil.org or see our website: <http://www.britishcouncil.org/privacy-cookies/data-protection>.

14. Contractual Requirements

- The contracting authority is the British Council which includes any subsidiary companies and other organisations that control or are controlled by the British Council from time to time (see: www.britishcouncil.org/organisation/structure/status).
- The successful applicants will be expected to undertake activities in the UK and in the Newton Fund countries listed in section 3 of these guidelines (Scope of the Programme).
- The British Council is subject to the requirements of the UK Freedom of Information Act, (“FOIA”). Please indicate in your application whether FOIA also applies to your organisation, so that we can reflect this in the Grant Agreement should you be successful in your application.
- The British Council’s contractual approach in respect of the grant is set out at www.britishcouncil.org/education/science/current-opportunities/newton-institutional-links-july-2017
- (Terms and Conditions of the Grant Agreement) (“Grant Agreement”). By submitting a response to this call for applications, you are agreeing to be bound by the terms of **these guidelines and the Grant Agreement without further negotiation or amendment**.
- In the event that you have any concerns or queries in relation to the Grant Agreement, you should submit a clarification request to UK-InstitutionalLinks@britishcouncil.org in accordance with the provisions of this call for applications by the application deadline. The British Council reserves the right not to make any changes to the Grant Agreement.
- The British Council is under no obligation to consider any clarifications / amendments to the Grant Agreement requested following the application deadline.

15. Contact details

All queries or comments about this call should be addressed to the Institutional Links email address: UK-InstitutionalLinks@britishcouncil.org.

APPENDIX 1: COUNTRY-SPECIFIC GUIDANCE

To ensure optimal fit to the local context and development needs, priority areas, specific innovation challenges and additional application requirements – such as maximum grant sizes and durations – have been set at a country level through discussion with national stakeholders.

This appendix provides country-specific guidance which applicants should consider in conjunction with the main body text of this document **before** preparing their proposals. Proposals which do not take into account the country-specific guidance **cannot be considered for funding**.

1. Argentina	
Co-funder:	N/A
Duration of grants:	Up to 24 months
Size of grant:	Up to £125,000 with a 50/50 split between UK and country costs
Thematic priority areas:	1) understanding habitats and species; 2) studying biodiversity for sustainable livelihoods and bio-economy; 3) maintaining and restoring natural capital; or 4) integrating ground data with emerging technologies.
Contractual arrangements:	
British Council will award to successful applicants in the UK (Kew and RBGE), which complies with all requirements including to secure match funding from a partner institution in Argentina.	
Additional eligibility criteria:	
There is no match funding agency in Argentina, therefore it is requested that if any of the principal applicants from the UK side is interested in applying for funding in Argentina, to show in the application that enough match funding to conduct the activity has been secured through a partner institution. This will need to be evident in the application, the budget, and necessary documents to prove this is secured.	
Other considerations	
Submission process:	
Through the British Council website alone.	

2. Brazil	
Co-funder:	FAPESP – Sao Paulo Research Foundation
Duration of grants:	Up to 24 months
Size of grant:	FAPESP will match partner's investment with equivalent research effort and up to R\$235.000 per project, for research and expedition costs. It is envisaged that applications will be for a balanced partnership, not specifically in monetary terms but with equivalent research commitment and efforts from both partners.
Thematic priority areas:	1) understanding habitats and species; 2) studying biodiversity for sustainable livelihoods and bio-economy; 3) maintaining and restoring natural capital.

Contractual arrangements:
British Council Newton Fund will issue a grant agreement to the UK Lead Institution and manage the UK side of the grant. FAPESP will issue a contract with the Lead Institution from the State of Sao Paulo and manage the Sao Paulo side of the grant.
Additional eligibility criteria:
<p>Only researchers associated with private or public Higher Education or Research Institutions in the State of São Paulo are eligible to apply. FAPESP will only fund multilateral proposals, with a partner from the UK, one from Sao Paulo and another from a third partner country (Argentina, Chile, Peru or Mexico).</p> <p>At FAPESP, submitted proposals should follow rules and guidelines of the Regular Project category, including eligibility specifications, and eligible costs. More information available at: www.fapesp.br/apr. <i>Exceptionally under this opportunity, the Regular grant can cost up to R\$235.000 and can cover expedition's travel expenses for PhD or postdoc students holding a FAPESP scholarship whose advisors are members of the research team.</i></p> <p>If the grant is approved, the same students may also apply for a Research Internships Abroad grant (BEPE), for short and medium term research internships in partner country's institutions for development of the research proposed. The submission can be made at a later stage. Sao Paulo applicants must contact FAPESP to confirm their eligibility for the call before developing the proposal. Requests for eligibility letters should be sent to chamada-il-latam@fapesp.br, containing the following information in either Portuguese or English:</p> <ol style="list-style-type: none"> 1. Curricular Summary of the Principal Investigator and Co-PIs from the State of São Paulo (as described in www.fapesp.br/sumula); 2. Information about whether the applicant is currently a PI of a FAPESP ongoing project (indicate the project number); 3. Name and Institution of the Researcher Partners; 4. Tentative title and 5-line abstract (in English) ; 5. Budget to be requested to FAPESP in BRL; 6. Time devoted to the project by the SP Researcher (hours/week), and duration of the project. <p>Important: Eligibility queries will be answered within a period of up to 20 days upon receipt of the e-mail. Queries submitted close to the call deadline may not be granted in time, and the proposal will be considered ineligible.</p>
Other considerations:
In case of approval, a Letter of Agreement must be signed between the involved institutions, in which the intellectual property rights, confidentiality and publications will be treated together, respecting the intellectual property policies of each funding agency. It is expected that the costs of intellectual property management is agreed between the research institutions. In case of FAPESP funding, the presentation of the Letter of Agreement is mandatory before signing the grant.
Submission process:
<p>In addition to the submission via British Council, FAPESP also requires applicants from institutions from the State of Sao Paulo to submit a proposal through SAGE platform. All the documents listed in the SAGE system are required as components of the proposal, being essential for the merit analysis. It is recommended that, before submission, the SP PI verify if all documents are included in the proposal. Proposals with any missing document will be returned to the PI without review.</p> <p>A PDF copy of the documents of the collaborators (Full Proposal components, CV etc.) should be</p>

included in the SP proposal as Supplementary Documents.

3. Chile	
Co-funder:	N/A
Duration of grants:	Up to 24 months
Size of grant:	Up to £125,000 with a 50/50 split between UK and country costs
Thematic priority areas:	1) understanding habitats and species; 2) studying biodiversity for sustainable livelihoods and bio-economy; 3) maintaining and restoring natural capital; or 4) integrating ground data with emerging technologies.
Contractual arrangements:	
<p>British Council will award to successful applicants in the UK (Kew and RBGE), which complies with all requirements including to secure match funding from a partner institution in Chile.</p> <p>There is no match funding agency in Chile for this call, therefore it is requested that if any of the principal applicants from the UK side is interested in applying for funding in Chile, to show in the application that enough match funding to conduct the activity has been secured through a partner institution. This will need to be evident in the application, the budget, and necessary documents to prove this is secured.</p>	
Additional eligibility criteria:	
<p>Any proposals for links with Chile must include the participation of a second eligible country or be able to demonstrate impact relevant to the region more generally. This impact must be clearly articulated in the application process.</p>	
Other considerations:	
Submission process:	
Through the British Council website alone.	

4. Mexico	
Co-funder:	N/A
Duration of grants:	Up to 24 months
Size of grant:	Up to £125,000 with a 50/50 split between UK and country costs
Thematic priority areas:	1) understanding habitats and species; 2) studying biodiversity for sustainable livelihoods and bio-economy; 3) maintaining and restoring natural capital; or 4) integrating ground data with emerging technologies.
Contractual arrangements:	
<p>British Council will award to successful applicants in the UK (Kew and RBGE), which complies with all requirements including to secure match funding from a partner institution in Mexico.</p>	

Additional eligibility criteria:
There is no match funding agency in Mexico, therefore it is requested that if any of the principal applicants from the UK side is interested in applying for funding in Mexico, to show in the application that enough match funding to conduct the activity has been secured through a partner institution. This will need to be evident in the application, the budget, and necessary documents to prove this is secured.
Other considerations:
Submission process:
Through the British Council website alone.

5. Peru	
Co-funder:	CONCYTEC
Duration of grants:	Up to 24 months
Size of grant:	Up to £125,000 with a 50/50 split between UK and Peru costs
Thematic priority areas:	1) understanding habitats and species; 2) studying biodiversity for sustainable livelihoods and bio-economy; 3) maintaining and restoring natural capital; or 4) integrating ground data with emerging technologies.
Contractual arrangements:	
British Council Newton Fund will issue a grant agreement to the UK Lead Institution and manage the UK side of the grant. Likewise, CONCYTEC, through FONDECYT, will issue a grant agreement to the Peruvian Lead Institution and manage the Peruvian side of the grant. It is expected that the budget will be split 50-50 approx. among each partner, considering that CONCYTEC will fund up to S/ 250,000 of the proposal's budget.	
Additional eligibility criteria:	
<ul style="list-style-type: none"> • Lead Applicants based in Peru must be working for an eligible institution: <ul style="list-style-type: none"> ○ Non-profit private and public universities with license or under licensing process of SUNEDU ○ Non-profit private or public research centres or institutes. • Lead Applicants based in Peru must hold a Masters or PhD degree, and must have led at least 4 or 2 research projects, respectively. • Please review the complete eligibility criteria established for Peruvian Lead Applicants by CONCYTEC in the site explained below. 	
Other considerations:	
Eligibility of Peruvian applicants will be done by CONCYTEC, while eligibility of British applicants will be done by the British Council.	
Submission process:	
<ul style="list-style-type: none"> • One joint application submitted via British Council's online platform • Peruvian Lead Applicant should comply with Peruvian specific guidelines ("Bases"), register as applicants and submit the required additional documentation via the Peruvian online platform as stated in this website http://www.cienciactiva.gob.pe/convocatorias/investigacion-cientifica/fondo-newton-paulet-biodiversity-institutional-links-expediciones-2018-02 • Registration in the Peruvian online portal will be open until July 3 2018. 13.00hrs (local time) 	

- **Important: Applications that are not registered in the Peruvian portal will not be considered eligible and this decision is not subject to appeal.**
- If you have questions, please write to PeruNewton@britishcouncil.org

APPENDIX 2: ELIGIBILITY CRITERIA CHECKLIST

Eligibility criteria checklist	
The application	
The application has been submitted by the applicants by the published deadline.	
The application has been submitted by a principal applicant in the UK and a principal applicant based in one of the partner countries listed in Appendix 1.	
<ul style="list-style-type: none"> • Principal Applicants from the UK must be permanent employees of the Royal Botanic Gardens Kew or Royal Botanical Garden Edinburgh. • Principal Applicants in partner country have complied with above mentioned eligibility criteria. 	
The applicants have included two (2) supporting letters, one from each of the two Lead Institutions, on headed paper, signed by the Head of the Institution, Head of Department or other person with appropriate delegated authority, giving specific commitment to the project as described in Section 10 of these Guidelines. Supporting letters are not signed by the Principal Applicants.	
Applicants have submitted a detailed budget request using the appropriate budget spreadsheet provided.	
If there are associated partners, a letter from each partner has been unloaded as required within a single pdf.	
Each section of the application form has been completed in full and complies with instructions given.	
The application form and supporting documents have been completed in English.	
The principal applicants have submitted only one (1) application under this Institutional Links call.	
If either principal applicant has previously received a Newton Fund Institutional Links grant then the proposed activity builds significantly upon the existing project.	
The budget	
The budget requested under “other research related costs” is 30% or less of the total budget requested (unless specified otherwise in Appendix 1).	
The budget requested for permanent staff costs is 30% or less of the total budget requested for human resources costs.	
If the partner country Lead Institution is affiliated in any way with a higher education or research institution in another country, (e.g. UK, USA), the proposal includes other eligible higher education or research institutions in the partner country.	

APPENDIX 3: ASSESSMENT CRITERIA AND SCORING SYSTEM

Assessment of the quality and development relevance of the proposals will be performed by expert reviewers, and the final funding decisions will be made in discussion with British Council country office and in-country partners. Only proposals that have clearly articulated relevance to economic development and social welfare of the partner country will be considered for funding. In addition, only proposals with an average score of 30 points or more for Sections 2 to 4 are considered fundable.

Section 1: Relevance to economic development and social welfare	Score	Range
<p>The proposal clearly articulates a plausible pathway for the research to lead to positive impact on the lives of people on low income and contribute to the economic development and social welfare of the partner country and within a reasonable timeframe (3–15 years). Please see section 4 of the guidelines for further details.</p>		YES/NO

Section 2: Research/innovation quality and background	Score	Range
<ul style="list-style-type: none"> • The academic importance and timeliness of the research/innovation topic is clearly demonstrated. • The Principal Applicants have sufficient relevant experience to undertake the proposed research collaboration and achieve the stated objectives. • The value added – to institutions and/or the wider research and innovation community – by the collaboration between the partnering institutions is clearly described. • The collaborating institutions are of appropriate academic standing. • The benefits and relevance of the research to the UK and partner country institution is clearly described. 		0–20
	<p>20 points: Meets all criteria to an exceptional level</p> <p>16 to 19 points: Meets the majority of the criteria to a very high level</p> <p>11 to 15 points: Meets the majority of the criteria to a high level</p> <p>6 to 10 points: Meets the majority of the criteria to an adequate level</p> <p>1 to 5 points: Meets some of the criteria to an adequate level</p> <p>0 points: Fails to meet any of the criteria to an adequate level.</p>	

Section 3: Proposal	Score	Range
		0–20
<ul style="list-style-type: none"> The description of the proposed collaboration includes clear, feasible and realistic objectives as well as potential for long term impact. Applicants clearly articulate specific outputs anticipated from the collaboration and objectives likely to be achieved The proposal explains the benefits to both the UK and partner country researchers/innovation practitioners, institutions and end-users of the research or the products and services that will result from the project activity, in particular taking into account who might benefit and how they might benefit. There is strong evidence of support from the applicants' institutions and Associated Partners (where applicable). The proposed collaboration supports new links or significantly extends and develops existing links. If the applicants' institutions are collaborating already, there is clear evidence that the grant would add significant value to the collaboration. The proposal includes a clear and feasible description of the arrangements for project managing the collaboration and communication between partners. The proposal represents value for money; all costs are fully justified. 	<p>20 points: Meets all criteria to an exceptional level</p> <p>16 to 19 points: Meets the majority of the criteria to a very high level</p> <p>11 to 15 points: Meets the majority of the criteria to a high level</p> <p>6 to 10 points: Meets the majority of the criteria to an adequate level</p> <p>1 to 5 points: Meets some of the criteria to an adequate level</p> <p>0 points: Fails to meet any of the criteria to an adequate level.</p>	

Section 4: Sustainability and capacity building	Score	Range
		0–20
<ul style="list-style-type: none"> The potential in terms of professional development and capacity building for researchers, innovation practitioners and other individuals participating in the collaboration is clearly described. The collaboration supports the institutional capacity to translate research into economic or societal benefit, for example through establishing new relationships with non-academic partners, or setting up new processes for technology transfer. The proposal includes a clear and feasible description of how the participating institutions/organisations intend to sustain their collaboration over the longer-term. The participating institutions demonstrate a commitment to the collaboration through provision of in-kind funding (note that matched funding is an essential requirement for proposals from a subset of countries). 	<p>20 points: Meets all criteria to an exceptional level</p> <p>16 to 19 points: Meets the majority of the criteria to a very high level</p> <p>11 to 15 points: Meets the majority of the criteria to a high level</p> <p>6 to 10 points: Meets the majority of the criteria to an adequate level</p> <p>1 to 5 points: Meets some of the criteria to an adequate level</p> <p>0 points: Fails to meet any of the criteria to an adequate level.</p>	
Total score for quality assessment (Section 2 + Section 3 + Section 4)	Score	Range
		0–60

Annex 1: Programme Scope

1. Understanding habitats and species

Many regions in LATAM are either underexplored for biodiversity, or are suffering significant biodiversity loss. Across the region, biodiversity is still very poorly described compared with that of temperate regions. There are three key knowledge deficiencies: 1) while some taxa are relatively well known (for example tropical plants or birds) these are rarely surveyed in sufficient detail across their entire ranges, which detracts from our ability to understand ecosystem functioning or human impacts at this level; 2) other key biodiversity groups (for example, fungi, soil organisms), are not well studied at any level; 3) interactions between organisms, such as those above- and below-ground, across trophic levels, or with geochemistry are poorly understood yet are likely play a key role in regulating habitats and biogeochemical cycles.

These three knowledge gaps mean that there is a need to: 1) expand existing sample networks for well-sampled taxa; 2) supplement networks with basic assessments and valuations for poorly studied taxa, including evaluations of their distribution, abundance and community composition, and; 3) field experiments that link biodiversity with their functional roles in intact and human-disturbed systems.

We have a very limited understanding how the species richness and its functional consequences in terms of levels of biodiversity required to provide the ecosystem services we need and how to manage land and resource use to support important biodiversity-ecosystem function relationships in an integrated way.

The objective of this theme is to better understand the relationship between habitats and species and species composition across what is an increasingly anthropogenic region. There is a need specifically to understand the functional role of biodiversity in LATAM ecosystems across a range of ecosystem goods and services, environmental gradients and scales typical of real landscapes.

2. Biodiversity for sustainable livelihoods and bio-economy

There is an urgent need in Latin America to develop a resilient natural resource economy. Social and economic policy linked to environmental pressures will result in land-use changes that will influence biodiversity and ecosystem processes at multiple scales. Moving to a natural resource economy will necessitate radical improvements in the quality and quantity of information on the biodiversity and the ecosystem services the biodiversity sits within. There is a need to link biodiversity to function, and to better understand the different ways in which biodiversity imparts value (for example, through functions, through resilience and through iconic species).

To help deliver a stable economy, data on Latin American biodiversity will provide essential knowledge underpinning sustainable management and our understanding of ecosystem function. In many areas the data required for the next-generation models of ecosystem function and landscape scale management are lacking. There are three major challenges: a) implementation of high throughput monitoring; b) modelling and understanding land-use biodiversity function metrics; c) delivering an integrated tool for decision makers. Each of these involves a large effort, given the scale within the region, and so exemplar approaches may be required.

The objective of this theme is better understand the biodiversity resource available within the region, using new technological and skills capacity, to monitor, model; and provide decision making tools directed towards ensuring the regions bio-economy is biodiversity based and thus sustainable.

3. Maintaining and restoring natural capital

Many pressing biodiversity challenges in Latin America relate to human interactions with biodiversity, either negative (e.g. anthropogenic impacts) or positive (e.g. sustainable economic activities and livelihoods based on biodiversity, development of successful bio-economies, climate-smart agriculture etc.). This requires intensified research efforts into the identification of species, landscapes or ecosystems of potential use: for example the identification of wild species for food, forestry, health or biotechnology. Research in these contexts, integrating community-level perspectives, priorities and knowledge with scientific understanding of biodiversity, requires an interdisciplinary approach.

The challenges of managing biodiversity in situ in Latin America are intricately linked with these issues. Whilst fundamental research into the status of species and ecosystems provides critical guidance for management strategies of, for example protected areas, these approaches are not always successful. Development of a better understanding of the natural capital that biodiversity represents and the ecosystem services it delivers – from multiple perspectives including local populations, and across ‘natural’/human-modified/urban landscapes – and integration of these values into decision-making, will be essential for sustainable management.

Prioritisation and delivery of successful ex situ conservation efforts requires a greater understanding not only of the properties, traits and relative importance of target taxa (e.g. threatened species, useful species, endemic species), but also of the techniques necessary for their long-term maintenance. For example, fundamental information on which seed plant species can be stored through traditional approaches, and which (e.g. recalcitrant species) require development of specialised approaches such as cryopreservation, is still lacking for large proportions of the Latin American flora.

The objective of this theme is better understand presence and in-situ value of the biodiversity resource within the region, through the use of a range of natural capital approaches (and beyond economic valuation only). In doing so, and in association with the other themes this will inform on the most suitable approaches for maintaining the biodiversity.

4. Global Climate Change, Biodiversity and ecosystems

Whilst regions within LATA are hotspots of terrestrial biodiversity, the loss, fragmentation and degradation of the habitats across the region are drivers of global biodiversity loss and have important implications for the global climate system. For example, the loss of tropical forests has important implications for the global climate system, as well as a range of other ecosystem services. Deforestation is second only to the combustion of fossil fuels for energy generation as a source of greenhouse gas emissions.

The objective of this theme is to place the better understanding of LATAM biodiversity, its range, functioning and management, within a global and climate impact context.

Delivery of programme

Integrating ground data with emerging technologies

New technological capacity is enabling rapid improvement in quality and quantity of information on biodiversity and ecosystems at regional, national, and international scales. This is mirrored by enhanced data visualisation and predictive capability of modelling approaches. Changes are occurring at both ends of the biodiversity analysis spectrum: advances in genetic metabarcoding have enabled a rapid assessment of biodiversity at highly resolved spatial and taxonomic scales; earth observation (EO)

sensors, e.g. European Copernicus satellites, deliver unprecedentedly high-resolution spatial and temporal observations of biophysical parameters.

Of equal importance is the capability in ground-based data collection on Latin American biodiversity, which provides essential knowledge underpinning conservation and understanding of ecosystem function. These data provide a fundamental complement to, and verification of, remotely sensed and genetic information. Whilst technological advances in earth observation and modelling offer huge potential for multi-scale survey, prediction and monitoring of biodiversity in Latin America, the value of the information they deliver will depend on the quality and quantity of the ground data supporting them. Knowing what species are is vital for next-generation models of ecosystem function; and whilst remote sensing is suitable for landscape scales, it cannot name individual species. In particular, it is clear that rare species – often taxonomically neglected and hard to name – may play disproportionate roles as environments change.

In many parts of the region such ground-based data are still lacking. There remains a pressing need to fill knowledge gaps, which can only be achieved through targeted, fundamental ground-based biodiversity studies. The roles of approaches such as species inventory and checklists, collections, taxonomic identification, ecological studies and establishment of permanent monitoring plots, therefore remain vitally important in this context. The challenge here is to ensure that field data are collected in standardised, compatible formats, and based on accurate identifications aligned to standardised taxonomic frameworks, such that data can not only be connected and shared effectively at regional scale, for example in the context of evaluating the impacts of climatic change on ecosystem function and species distribution, but also integrated systematically into emerging techniques for biodiversity analysis and monitoring.

Barcoding and metabarcoding techniques offer potential for rapid generation of high-resolution ground data, and their use will often depend on connecting individual sequences to named organisms. However, the underlying taxonomic/genetic data set does not currently exist for many regions. The true value of both data sets will rely on their integration and a strategic, coordinated approach is required for achieving this at regional scale.

Advances in EO (such as the increasing range of biophysical parameters for example from the ESA Climate Change Initiative (CCI) and the Essential Biodiversity Variables (EBV) programme), genomics, and modelling and computation, can be used to analyse high-resolution spatial datasets of biodiversity and ecosystem services and their spatial patterns and temporal changes. Ensuring the value of analysis at these scales requires the presence of ground based (taxonomic/ecological) data; together they may enable a more objective and spatially relevant assessment of changes in land management and ecosystem resilience.

Regional approaches to research and management of biodiversity are therefore hampered by the lack of consistent data frameworks and their interoperability. For example, there is a lack of standardised vegetation classifications, which differ widely across Latin America, especially where biomes and ecosystems are shared across national borders. Better agreed definitions of biomes and ecosystems would allow generation of checklists for major formations such as rain forests, savannas and dry forests, which do not currently exist, and would facilitate regional analysis and cooperation.