

international development collaborations

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International collaborations are increasingly viewed as key to successful development research and to address shared global challenges. Collaboration may result in a higher profile and greater impact of the published research, innovative approaches and more rapid circulation of ideas. Nevertheless, there is always a cost in resources and time and collaboration alone does not ensure equity in partnership. 4, 5, 6, 7

International development research funding is predicted to triple in the UK between 2016-2021 which will drive a huge increase in research partnerships between the UK and low- and middle-income countries (LMICs). There is currently a scarcity of work looking at the role of funders in building equitable North-South research programmes. This report aims to respond to this gap by summarising models of North-South research programmes and current practices by funders.

We interviewed research funders about the detailed models and practices they have used in eleven North -South research programmes. We also surveyed Southern science funders and ministries about their perspectives on these programmes (Appendix 1). This report is not intended as an exhaustive summary of all models or activities, nor as a concrete set of guidelines to follow, but aims to share international learning and experiences. Unless otherwise referenced, the conclusions are based on comments from individuals during interviews and surveys.

The report is primarily aimed at staff in research funder organisations, particularly those working in research call and programme design and delivery. Wider members of the research for development community may also find the analysis useful in understanding current funder approaches.

This report covers:

- Chapter 1: Models of North-South research collaboration programmes
- Chapter 2: Practices that funders have implemented with the aim of increasing the fairness of research partnerships
- Chapter 3: Challenges and learning from international development research partnership programmes

Contents

Introduction 1. Why, or why not, North-South research partnerships? 2. The role of partnerships in strengthening research systems 3. Equity in partnerships	1 2 3 4 5
Chapter 1: Partnership funding models 1. Funding source and lead agency 2. Programme goal 3. 'Top-down' or 'bottom-up' agenda setting 4. Geographical scope 5. Partnership structure 6. Financial and research management structure 7. Defining funder role in the programme Case Studies	7 9 10 10 11 11 12 14 15
Chapter 2: Funder Practices 1. Making calls accessible and supporting new partnerships 2. Funders requirements in calls 3. Peer review: balancing tensions 4. Addressing power dynamics during partnerships 5. Funder-led activities post-award 6. Ongoing monitoring of projects 7. Benefit sharing of the outcomes of research	23 23 24 26 28 29 30 30
Chapter 3: Challenges and learning 1. Barriers to participation 2. Politics and priorities 3. Capacity Strengthening 4. Funders role in partnerships 5. Equitability beyond Principal Investigators	32 32 32 33 33 34
References Appendix 1: Interviewees and organisations surveyed Appendix 2: Research partnerships guidelines and tools Appendix 3: Swedish Research Links Evaluation criteria	35 37 38 40

10 ways in which funders can influence equitable partnerships

- **1. Inclusive agenda-setting.** Working with governments, funders and research communities in low- and middle-income countries (LMICs) to develop research programmes that meet their needs. This requires taking the time to develop strategic priorities independent of budgetary pressures and being open and honest about the objectives of funders.
- **2. Funding new research questions and valuing complementary skills and knowledge:** New research questions answered using complementary competencies are more likely to lead mutual benefits to all. Funders can value the contributions that each partner brings including resources such as access to local biodiversity and genetic resources, a data, networks and local knowledge.
- **3. Setting the tone:** Funders can set the tone around expectations of equity within partnerships. This includes providing clear guidelines and recognising the time and costs of building international collaborations.
- **4. Rewarding skilled project managers and team players:** Managing diverse research teams that are equitable, culturally-sensitive yet rigorous and impactful requires skills that are under-emphasized in academic training. Funders can ask project leaders about their approach to managing collaborations and build in project management resources.
- **5. Looking for equality beyond the leaders:** Equity for a wider group engaged with the research including non-academic partners, students, technicians and contractors is important. Institutional diversity, with the inclusion of a wide-range of perspectives, has been observed to be an important factor in successful collaborative initiatives.⁹
- **6. Equitable budgets, research and financial management.** Funders should be consistent in funding allowable to Northern and Southern partners, including for overheads, equipment costs and salary levels. Directing financial and research management through Northern institutions is perceived to influence power relations and equitability. Funders can directly fund Southern institutions, partner with Southern governments or work with regional funds such as the <u>Alliance for Accelerating Excellence in Science in Africa (AESA)</u>. However, flexibility is also important, enabling teams to develop structures that respond to different capacities and challenges.
- **7. Providing ongoing institutional capacity strengthening:** The ability of research organisations to support and manage international research projects plays a major role in whether they are successful. To ensure these projects lead to longer-term sustainability funders need to plan their role in programmes to monitor the partnerships and build institutional capacity.
- **8. Widening participation.** Supporting research partnerships beyond the 'usual suspects' requires reaching untapped excellence in LMICs and more proactively building research networks, both North-South and South-South. This also requires a nuanced understanding of the varying research abilities, infrastructure and contexts in different countries.
- **9. Investing for the long-term:** Trust is a vital component of research collaborations and takes time to build. There is some evidence that longer-term research partnerships are more successful but funding systems do not always support sustained North-South research collaborations.⁵
- **10.** Working closely with other funders and agencies in the North and South: Improving consistency and join-up amongst funders is needed to simplify application systems and reduce duplication. This includes increased partnership and communication with Southern ministries and agencies about projects in their country and more matched-effort or co-funded programmes.

^a The Nagoya Protocol on Access and Benefit Sharing (ABS) is an addition to the <u>Convention on Biological Diversity</u> (CBD). It aims to ensure the fair sharing of benefits arising from the use of genetic resources.

Introduction

There is a long-term trend of increasing international research collaboration. ¹⁰ This has been described as a 'Fourth Age', where new ideas and knowledge are developed by networks rather than individuals, institutions or nations. ² In today's world of common global agendas, including the <u>Sustainable</u> <u>Development Goals</u> and the Paris Agreement on Climate Change, effective partnerships between Northern and Southern research institutions are seen as critical to support action on mutual challenges that transcend national boundaries and disciplines. ^{5, 6} This is observed in the increasing number of North-South research programmes that have started over the past decade. Equitability of research partnerships is increasingly valued by both the North and South, characterised by mutual responsibility and mutual benefits for all partners. ^{5, 11} Fairer research partnerships are thought to be important for ownership, strengthening capacity, long-term sustainability, efficiency and improving development and scientific outcomes, as well as seen as a good in their own right. ^{6, 12} But moving beyond the concept of equitability to embedding it in research partnerships is harder.

The very notion of North-South partnership has turned into yet another development buzzword. Virtually everyone seems to agree with it in principle, but actual practice shows that implementing equitable partnerships is difficult: money flows tend to determine decision-making and actual division of labour.

Cabonnier (2014)

Many articles have explored equitability within North-South research cooperation from the perspectives of individual researchers, and there are evaluations of several programmes. However, literature comparing the structure of North-South research programmes and the role of funders is relatively scarce.⁴ This report aims to contribute to this area of understanding by summarising:

- 1. Models of North-South research collaboration implemented by funders
- 2. Practices that funders have implemented with the aim of increasing the fairness of research collaborations
- 3. Challenges and learning in international development partnership programmes

Before setting out to explore the different models of programmes and practices, it is important to reflect on the role of North-South research partnerships, why researchers and funders enter into them and overarching aspects of equitability. Within this we must stress a recognition of the varied contexts and strengths of the research system that exist in different countries. The 'North-South' dichotomy is increasingly becoming obsolete, with a spectrum of research systems and forms of partnerships. However, it is useful for recognising that high-income countries are usually still in the driving seat - either with control over the initiation, funding or management of research programmes in international development.

There are also many different types of research partnership. This report is focused on research funding programmes that link individuals or teams of researchers in the global North and South. This is not because these are better or more important (as we discuss briefly below), but are particularly relevant in the UK context with a predicted tripling of development research funding from 2016-2021. A large proportion of this funding will support North-South research partnerships and so provides an important opportunity to learn from current practices around the world. This was a rapid study and so this report doesn't explore the role and practices of Southern funders, which provide an important perspective and a potential area for future analysis.

On one hand, most donors adopt the rhetoric of the demand-driven approach, suggesting that their goal is to support Southern priorities, as defined by Southern researchers, leaders and community members themselves. On the other hand there is strong support amongst donors and Southern researchers in particular, for the idea that partnerships should be mutually, and even equally, beneficial. Indeed, many of the Southern researchers I interviewed objected to the notion that their views should automatically predominate above those of their Northern counterparts and donor representatives. Integrating the concerns of all partners and donors is, they argued, an essential part of productive research cooperation, and respect for the Northern citizens who provide the bilateral agencies' money. As these researchers stress, demand-driven partnerships and mutually beneficial partnerships are not necessarily mutually exclusive. Yet, balancing the interests of Northern and Southern researchers, institutions, communities and governments is rarely a simple task. While the prevention and resolution of poverty is surely in the general interest of both the North and South, there is clearly heated debate over the best route to take to achieve this goal, and it would be a grave oversimplification to suggest that Southern priorities can always be met without a cost to the interests of Northern actors at numerous levels. Bradley (2008)

The Southern organisations surveyed for this report valued North-South research programmes as an opportunity for their researchers to work with new collaborators, gain access to resources and equipment, and for mutually beneficial research around global challenges. ^{12, 13} Due to the limited funding for research in some regions and the magnitude of socio-economic and developmental challenges, these programmes are seen as of strategic importance in developing research capacity and contributing meaningfully to solve challenges. Programmes that are particularly valued are those that focus on the priorities of the South, recognise the mutual value to both the North and South, emphasise knowledge sharing, Southern leadership, and support improved scientific infrastructure and publication in international journals. ^{7, 14} Additional reasons for Northern funders include improving development outcomes, for science diplomacy, responding to the internationalisation of science and to work with the best scientists wherever they are in the world.

Access to funding is the principal impetus for researchers to partner alongside the opportunity to be involved in cutting-edge, interesting science, ^{4, 11} although preserving academic reputation and integrity is more important than funding (Table 1). ⁴ In fragile or conflict-affected regions, affiliation with prominent Northern organisations can provide a degree of protection to political pressures faced by Southern researchers undertaking sensitive work. ⁴ North-South collaboration can substantially increase scientific productivity, and international co-authorship, with collaboration with both Northern and Southern scientists equally valued, but for different reasons. ⁸ International collaboration can also lead to the establishment of new fields of research, such as the cooperation between Norway and South Africa leading to new fisheries research programmes. ⁵

Table 1: Benefits and challenges of North-South research partnerships^{7, 15}

Benefits

Partnerships offer considerable mutual benefits both to the Northern and Southern institutions and researchers. The most important of these are as follows:

 Better access to scientific resources (laboratories, equipment, expertise) and talent, expertise and ideas, including access to increasingly complex (and often large-scale) instrumentation.

Challenges

Several authors caution that the costs of working in partnership may often exceed the benefits. The resulting challenges include:

- More complex management and decision-making processes.
- Additional workload required to maintain the partnership over and above existing responsibilities.

- Mutual learning and knowledge exchange between partners that may lead to broadened perspectives and new solutions to key challenges.
- Greater access to financial resources
- Enhanced research impact
- Capacity building for individuals, institutions and national research systems.
- Improved quality, cost efficiency and productivity of research programmes.
- Improved institutional and individual profile and esteem.
- Long-term relationship and continuity that is not dependent on individuals.

- Higher financial costs and difficulty in overhead recovery.
- Power imbalance and research agenda dominated by the Northern institution
- Side-lining of local and long-term research agendas.
- Diversion of staff and resources away from parts of the Southern institution not involved in the partnership.
- Logistical challenges (visas, international travel, difficulty transporting samples between countries).
- Tensions due to cultural differences.
- The wider political and social context.

However, the positives of North-South research partnerships does not make them an unalloyed good (Table 1). They can side-line and undermine local and long-term research agendas, devalue domestic research and have higher administration and management costs. Research agendas are still frequently dominated by Northern policy concerns, whilst 'partnering' is often the only way for Southern researchers to access funding, resulting in many 'forced rather than volunteered' partnerships. The requirement for partnering with Northern researchers can reduce the ability of individual Southern researchers to direct and develop their own interests and autonomous agendas, which may be qualitatively different to the trending issues in Northern research. These issues result in many researchers preferring to apply for funding from foundations or independent funders that offer more flexibility in the structure of projects and partnerships.

This doesn't undermine the value of North-South research partnerships, but suggests that they should be used judiciously as part of a varied funding landscape that also includes direct funding to Southern researchers and local funding. The structure of North-South partnerships and the practices by funders may also be able to overcome some of these challenges.

2. The role of partnerships in strengthening research systems

<u>Elsevier</u> recently attempted to articulate the link between levels of international research collaboration and indigenous scientific capacity. Based on bibliometric trends in total publications and international collaboration they suggested four stages of development of a country research system (Table 2).

In the 'pre-development phase' international collaboration occurs with a small number of active incountry researchers, fluctuating from year-to-year. In the 'building-up phase', the level of international collaboration increases, often funded by foreign or international agencies, with expertise built in specific areas. 'Consolidation and expansion' results from countries having increased levels of national funding with local journals increasingly indexed in international indices and rising levels of national co-authored papers. The number of internationally co-authored papers increases, but at a rate that is lower than that of the country's total output; hence, the percentage of internationally co-authored papers declines. With 'internationalisation' countries become global research leaders leading to an increase in the proportion of co-authored international publications.

Table 2: UNESCO-Elsevier research development stages and bibliometric indicators

Development stage	Information on data	Trend in publications total	Trend in international collaboration
Pre-development	Limited research activity and no clear science policy or structural funding of research. Indicators prone to large annual fluctuations.	(.) Low or limited	(.) Low or limited
Building up	Collaborations with developed countries are established. National researchers enter	(+) Increase	(++) Large increase
Consolidation and expansion	The country develops its own scientific infrastructure. The amount of funds available for	(++) Large increase	(-) Decline
Internationalisation	Research institutions in the country increasingly take the lead in international collaborations.	(+) Increase	(+) Increase

The study is based on indexed publications in international, peer reviewed journals, which is likely to underestimate the extent of collaboration between researchers around the world, especially in low— and middle-income countries (LMICs). However, it is useful for highlighting that rising levels of international collaboration must be balanced with strengthening investment in national science systems. Gaillard notes that 'although international collaboration is part of the strength of the national science system, there is a limit beyond which it can become a threat or at least a major weakness." This was written in the context of Senegal, where >95% of its publications were internationally co-authored in 2006; more than 40% of them with a single institution, the French Research Institute for Development (IRD). Gaillard questions whether this is an example of a sustainable national science or whether the national science system is vanishing beneath the level of international collaboration.

3. Equity in partnerships

Justice and fairness in collaboration is an important attribute for both Northern and Southern researchers looking for partners, alongside good scientific practice, competence, respect for the agendas of partners, trust and effective leadership.¹¹

Many studies have suggested that economic and scientific inequalities between countries contributes to inequitable research partnerships with the wealthier partner prone to dominating the selection of partners, the research agenda, the decision-making process, budget management and publication.^{7, 22, 23} Other authors have suggested that the major challenge is in doing research across disciplines rather than in North-South research partnerships *per se*.²⁴ Even partnerships that start out equitably, with objectives set collaboratively and clear responsibilities allocated, appear to become more unequal as they approach publication, dissemination of the outcomes and policy impact.⁶

The <u>Research Fairness Initiative</u> is a new global reporting system which aims to drive fairer research partnerships. It identifies fifteen different areas before, during and after research, that are important for fair research partnerships, developed through a global consultation process, which will be the basis of reporting (Figure 1). Prior to standard information being available through this mechanism to explore practices by funders, this report contributes an analysis of current models, practices and challenges by funders in several of these areas.

Figure 1: Research Fairness Initiative reporting areas^b

Fairness of opportunity

Relevance to communities

Early engagement

Fair research contracting

Fair matching and cofinancing

Fair recognition of management capacities

Fair process

Minimising negative impact

Fair local hiring, training and sourcing

Respect for local ethics review

Fair data ownership, storage, access and use

Full cost recovery, where possible

Fair sharing of benefits, costs and outcomes

Research systems capacities

Intellectual property and technology transfer

Innovation systems capacities

Due diligence

Best practice

^b Based on diagram in Andanda P, Wathuta J, Leisinger K and Schroeder D, <u>National and International Compliance Tools</u>, a report for TRUST.



Chapter One Partnership Funding Models

Chapter 1: Partnership Funding Models

Funders around the world shared the details of their models for supporting international North-South research partnerships (Table 3 and Appendix 1). This chapter outlines the key structural characteristics and decisions that funders make in designing partnerships. It also contains seven case studies outlining distinctive research partnership models. This is not an exhaustive list and there is a bias towards UK activities. The programmes were chosen as they share properties with major new UK funding streams. In general they are characterised by:

- Main funding source from Northern agencies
- Explicit focus on North-South research partnerships
- Multi-year/ongoing programmes with repeated funding calls
- Programmes that do not have single discipline or single thematic focus

Table 3: Programmes and funders interviewed for report

Programme Name	Funder	Country
Africa Capacity Building Initiative	Department for International Development (DFID), managed by Royal Society	UK
Developing Excellence in Leadership, Training and Science Initiative (DELTAS)	Wellcome Trust and DFID, managed by Alliance for Accelerating Excellence in Science in Africa	UK
International Community-University Research Alliance (ICURA)	International Development Research Centre (IDRC) and the Social Sciences and Humanities Research Council of Canada (SSHRC)	Canada
Newton Fund	Department of Business, Energy and Industrial Strategy (BEIS) and numerous delivery partners.	UK
NWO-WOTRO Science for Global Development (department of the research councils which develops and manages various research funding programmes)	Ministry of Education, Culture & Science, Ministry of Foreign Affairs, Department of Development Cooperation and Trade	Netherlands
Partnerships for Enhanced Engagement in Research (PEER)	USAID and nine US government-supported research agencies, managed by the US National Academies	US
Research Programme Consortia (RPC)	DFID	UK
Science and Technology Research Partnership for Sustainable Development (SATREPS)	Japan Science & Technology Agency (JST), Agency for Medical Research and Development and Japan International Cooperation Agency (JICA)	Japan
Swedish Research Links	Swedish Research Council	Sweden
Swiss Programme for Research on Global Issues for Development (r4d programme)	Swiss Agency for Development and Cooperation (SDC) and the Swiss National Science Foundation (SNSF), managed by the SNSF	Switzerland
Our Planet Our Health (OPOH)	Wellcome Trust	UK

Key variations and decisions in models

1. Funding source and lead agency

The funding source and funding agencies involved in the research partnership programme strongly influence the priorities, financial flows and research management structure of the programme. Sometimes a funding agency's involvement is driven by government priorities, or may evolve in tandem with, or from, the research or development aims of the programme. There are six main overarching structures (Figure 2).

Single or multi-agency: increasing the number of funding agencies involved increases the complexity of the programme, number of competing priorities and systems to streamline. However, it brings together complementary expertise from different agencies, for instance in development impact and research excellence. For multi-year, multi-agency programmes some countries have set-up new joint bodies to coordinate activities. Other programmes such as the Newton Fund involve many funders but each agency develops it's own calls following a programme-level allocation of funding.

Northern, joint or Southern-managed: the majority of programmes are Northern funded and managed. Joint North-South programmes are typically bilateral partnerships with middle-income countries. There is a demand for Southern ownership and more partnerships with Southern funding agencies in research programmes. Pioneering efforts include the shift in delivery of the <u>DELTAS</u> programme from the Wellcome Trust to the <u>Alliance for Accelerating Excellence in Science in Africa (AESA)</u> and the <u>TASENE</u> collaboration between the Netherlands, Sweden and Tanzania.

Figure 2: Varieties of funding agency structures for North-South research programmes

Increasing complexity of funding arrangement

Single funding agency, Northern managed

This is the simplest and most traditional structure for programmes where they are funded and led by a single agency, either a development agency, foundation or research council in a Northern country.

Multi-agency funding, Northern-managed

These are normally joint programmes between development agencies and research councils. Some agencies will create a joint coordinating body (r4d, WOTRO), whilst others will typically have the development agency funding the Southern partner and the research council funding the Northern partner (ICURA, SATREPS).

Single funding agency, joint North-South managed

Few organisations have funding offices in the North and South. The PEER programme receives funding from both USAID centrally and USAID incountry operating units, with both involved in developing thematic calls and choosing projects that align with country strategies. The projects are led by Southern researchers.

Multi-agency, joint North-South managed

These are typically bilateral partnerships between funders in the North and South, with each side funding researchers based in their country. The Newton Fund consists of bilateral partnerships between the UK and fifteen middle-income countries. TASENE is a co-funded postdoctoral partnership programme between COSTECH (Tanzania), NWO-WOTRO (Netherlands) and SIDA (Sweden).

Single funding agency Southern-managed
Not applicable to this report

Multi-agency, Southern-managed

These are still rare. The DELTAS programme is funded by the Wellcome Trust and DFID but programme management is led by AESA. There are also an increasing number of examples of South-South programmes.

2. Programme goal

The aims of the programme should drive its design. The main criteria are typically:

- Scientific excellence: rigorous and original research that advances knowledge boundaries
- Development impact: research that promotes equitable and sustainable development
- Capacity strengthening: resulting in increased capability to conduct high quality research, lead international research projects and achieve development goals
- **Tackling global challenges:** research that contributes to shared global challenges, such as the Sustainable Development Goals, using interdisciplinary and transdisciplinary approaches.^c

There are trade-offs between these criteria and programmes may weight or prioritise them differently. For instance, if the focus is on new ideas or technologies, originality of the proposal will be key. However, highly novel research may not deliver development impact on the timescale desired for other programmes, which may prioritise rigorous research with development impact. Requirements for policy-relevant, interdisciplinary or multi-stakeholder research and North-South partnerships are all ways that funders exercise influence over research agendas.⁵

3. 'Top-down' or 'bottom-up' agenda setting

Programmes should meet the fundamental principles in the <u>Paris Declaration on Aid Effectiveness</u> that 'Developing countries set their own strategies for poverty reduction, improve their institutions and tackle corruption' and that 'Donor countries align behind these objectives and use local systems'. ²⁵ This can be achieved through 'top-down' approaches, involving LMIC funding agencies and governments, 'bottom-up' approaches working directly with researchers and communities, or a mixture of the two.

Top-down approach: research programmes are more likely to succeed if they respond to and are integrated into national priorities in Science, Technology and Innovation (STI) or development strategies. ²⁶ This is important on both sides of the collaboration. Southern ministries and funding agencies strongly called for greater involvement in the development of funding programmes to ensure that the research responds to local needs, builds sustainable research capacity and that in-country agencies are aware of research occurring locally. Their involvement can also help speed up administration processes for the transfer of funds, equipment, visas or intellectual property. However, staff turnover can be an issue.

Case study: Newton Fund

The Newton Fund consists of bilateral partnerships between the UK and fifteen middle-income countries. The Newton Fund supports research on topics that are priorities for partner countries with calls designed jointly by UK and partner country funders. Newton Fund staff in each partner country use their understanding of the local political and research context to broker relationships between funding agencies and promote opportunities to researchers.

The internationalisation of Brazil's science is a key factor behind the country's enthusiasm for working with the Newton Fund. A bilateral governmental board has been created to discuss the main priorities for collaboration. However, the complex context in Brazil, with 26 State Funding Agencies and a Federal Agency, can make it difficult to coordinate responses and reach consensus. UK funders often arrive with partially developed proposals, which are viewed as useful to help build consensus amongst the Brazilian funding agencies.

^c For the purpose of this document we define these terms as: *Interdisciplinary*: integrating knowledge and methods from different disciplines from the outset of a project; *Transdisciplinary*: involving researchers from different disciplines and other stakeholders variously in the design, execution and implementation of research. The exact levels of participation will vary depending on the context and research topic.

Bottom-up approach: Many programmes entirely funded by Northern countries have a broad geographical reach which makes engagement with individual countries to develop strategic priorities difficult. Research councils are also normally more accustomed to 'bottom-up' approaches, using open or broad thematic calls with project proposals based on the experience and expertise of researchers. This enables research to address high-priority issues that are known to local researchers, but may be neglected by central government authorities. However, if there is insufficient time for proposal development or proposals are accepted from Northern institutions without partners having been identified, this undermines collaborative agenda development. There may also be competing interests and differences in opinion over whose development priority matters, with researchers in the South inhabiting 'ivory towers at least as high as those of their counterparts in the North'. NWO-WOTRO Science for Global Development formulates calls through a consultative process involving scientists, ministries, NGOs and other stakeholders to ensure it responds to priorities in the North and South.

4. Geographical scope

Most programmes in this report fund partnerships between a single Northern country and one or more countries that are on the OECD DAC list of ODA recipients. Some programmes emphasise research with the poorest communities and focus on lower income countries (e.g. r4d programme). Other programmes prioritise untied aid or global excellence and are open to all countries around the world, although they will specify that LMICs should be partners on projects (e.g. DFID, Wellcome Trust and NWO-WOTRO). The categorisation or exclusion of certain countries can stymie the development of sustainable research capacity, such as the classification of Botswana as 'middle-income', whilst domestic funding is scarce.⁵

5. Partnership structure

Research partnership programmes can be individual-individual, institution-institution or consortium or network models involving a large number of researchers at different institutions within one or more countries. Table 4 describes a number of advantages and disadvantages for each model taken from the 'Building institutions through equitable partnerships in global health Conference Report'.⁷

Table 4: Advantages and disadvantages of different types of partnership⁷

Type of partnership	Advantages	Disadvantages
Individual to Individual	 Personal choice and commitment. Mutual benefit for both researchers. Flexible and cost effective 	No direct institutional strengthening.Only benefits individual researchers.
Institution to institution	 Sharing resources can be of benefit to both institutions. Can provide continuity that is not dependent on individuals Establishes a framework for research capacity development. Can establish clear agreements on sensitive issues such as data sharing, IP and publication. Facilitated by new communications technologies. 	 The partnership can be dominated by one institution. Individual researchers may be pushed into 'forced marriages'. A formal, time-defined agreement can tie one or other partner into a long-term, unproductive relationship. Termination of the partnership can be difficult and have wider consequences such as an impact on broader relations between institutions.
Consortium or network	 Prevents duplication of research. Allows sharing of ideas without fear of competition. Provides increasing opportunities for Southern leadership. 	 Too much investment can go into maintaining the infrastructure of the consortium. Can stifle scientific competition and inventiveness. Can cause tensions between partners who do not agree with the 'consortium's view'.

^d This has been termed the 'Ganuza dilemma' from Enrique Ganuza who spoke about the heterogeneous nature of development demands and the difficulty of determining what constitutes a 'Southern agenda'.

6. Financial and research management structure

Differences in responsibility for financial and research management can play a huge role in partnership power dynamics, whilst difficulties can severely affect the smooth and efficient running of research projects. When things go wrong, project management takes up a huge amount of time for both funders and researchers to resolve issues.

Several programmes mandate structures within the project partnership, such as where the lead Principle Investigator (PI) is based and the flow of funding. These are sometimes dictated by the legal remit of the funding agency. Where programmes have a significant capacity strengthening element, they generally aim for greater Southern ownership and leadership.

Four main models exist:

- a. **Northern:** Named project lead at and funding distributed via a Northern institution (frequently with co-PIs at other Southern and Northern institutions)
- b. Joint: Project leadership and funding split between Northern and Southern partners
- c. **Southern:** Named project lead at and funding distributed via a Southern institution
- d. **Flexible or open structure:** funding recipients are able to set up a project structure that fits their needs.

There are strengths and weaknesses associated with each model (Table 5). Ideally, there would be the capability and flexibility for the funding to go to the lead organisation whether Northern or Southern, or with a co-PI model with each partner directly receiving their share of funding to ensure equitability in project ownership. However, increasingly stringent financial and due diligence procedures are making it more difficult for Southern institutions to meet requirements and therefore take the lead, or in some cases be partners, on projects.

Some funders try to rebalance the potential power dynamics that stem from Northern financial management by having co-Pls managing the research. There is a lack of analysis of the extent to which this eliminates power imbalances. A number of programmes have also attempted to reverse the power relationship from the outset, with the funding call open to Southern institutions which then select suitable partners (Southern or Northern). This aims to increase the agenda-setting power of the Southern partners. This includes many IDRC programmes, the Austrian APPEAR programme and the Dutch 'demand-led' programmes in the 1980s and 1990s.⁶ However, some Southern researchers believe this is still an imposed structure and reflects an erroneous assumption that Southern institutions are all 'weak and need project management experience'. They would prefer flexible policies that enable researchers to set-up the project and financial management structure dependent on their needs.⁵

Table 5: Strengths and weaknesses of different financial & research management models

Model **Details Strengths** Weaknesses Northern Research councils, in Less additional burden on Lack of experience in Northern particular, normally fund North research funder. institutions to manage, -South research programmes undertake risk assessments and Confidence in capacity of via Northern institutions in release funding to partner Northern institutions to their own countries and institutions in the South can slow manage financial flows in large devolve financial management projects. down research. and due diligence to them (e.g. • Northern institutions may have • Northern institutions and PIs can Swedish Research Links, r4d greater flexibility to transfer be both perceived and feel like 'a programme, Africa Capacity funder' in the relationship and funds in response to the needs Building Initiative) of their partner. Southern researchers may feel like junior partners in the Relieves administrative burden of Southern partners. project. Project agreements may be led by Northern institutions with less capacity in Southern institutions to ensure equitability.

Joint

Frequently used in bilateral or joint programmes between development agencies and research councils. Usually will have a PI per partner with each country funding its own researchers or the development agency funding the Southern partners (e.g. Newton Fund, ICURA, SATREPS)

- Increased equitability in partnership with joint ownership of funding and research management.
- Helps build research leadership and management capacity at both an individual and institutional level.
- Increased complexity of reporting procedures.
- Fixed structures that may not adapt to the different contexts of different partnerships.

Southern

Used in programmes that have an explicit emphasis on Southern leadership. More typical of development agencies or foundations that have processes and experience of funding overseas organisations. (e.g. IDRC, DELTAS, PEER)

- Ownership of the research and link to development need is clear.
- Helps build research leadership and management capacity at both an individual and institutional level.
- Funder has a better understanding of the challenges faced by Southern researchers and institutions.
- Southern institutions may not have the financial processes to administer large, multipartner programme or accrual accounting systems to cope with funding agencies making payments in arrears.
- The funder may need to provide significant additional support to build financial and research management capacity.

Open or flexible model

Used in programmes that emphasis global competitiveness or have more flexibility in where they fund e.g. philanthropic organisation or development agencies (e.g. Our Planet Our Health, WOTRO, Research Programme Consortia)

- Increased competition.
- Flexibility for researchers to build preferred project set-up.
- One lead organisation/PI increases resolution of problems internally.
 - Non-academic organisations (e.g. practitioners) can also lead projects.
- Southern researchers may be less likely to be successful as leads in globally competitive calls.

Examples

Overcoming power dynamics from Northern-led financial management model

All funding goes through the UK institution in the Africa Capacity Building Initiative. However, equitability is a key aspect of the programme and therefore the consortia have used a variety of project management structures with the aim of balancing power dynamics. The majority have a project manager based in one of the African institutions, making it the hub for communication and research management. One consortium, where there were strong existing relationships prior to the project, is rotating the project management around all four institutions, whilst another has a part-time administrator in the UK and in an African institution—an 'international job share'. Some consortia have a model where all of the money goes to the African partner leading on project management and they distribute money to the other institutions depending on the budget for that year. Other African partners are concerned about funding sitting in bank accounts, so ask for money to be transferred on need, such as when they want to buy equipment.

Co-leads

In co-funding models, <u>IDRC</u> funds the international collaborator and the Canadian research council funds the Canadian PI. The aim is to have co-leads who are jointly responsible for the project and where no-one feels like a junior partner in the project. IDRC has observed that in different projects the Northern or Southern PI might be more experienced with knowledge flowing in both directions.

Matched effort

The <u>Newton Fund</u> funding from the UK side is Official Development Assistance (ODA), with 'matched effort' provided by partner country funders. This recognises that the research infrastructure and the cost of doing research are not equivalent in the UK and low— and middle-income countries (LMICs), or in different regions within countries.

Devolving management to Southern funders

The <u>DELTAS programme</u> has entirely devolved ownership and management of the programme to the <u>Alliance for Accelerating Excellence in Science in</u> Africa (AESA). The financing goes to the African lead institution who manages the funds and releases them to other partners. Due to the challenge of transferring funds to the North, money for Northern partners is held by the Wellcome Trust. However, it is only released when requested by the lead African Institution.

Globally competitive call

The <u>Our Planet Our Health</u> programme didn't' specify any requirements for the structure of the partnerships. Lead Pls and partners could come from any country and either academic or non-academic organisations, nevertheless the successful projects were all led by Northern academic institutions. An analysis of the proposals indicated that this was not due to a lack of grant writing skills, rather than the Southern-led proposals did not provide the systems-level perspective that the call was looking for.

7. Defining funder role in the programme

Funders often view themselves as a partner in these programmes, with a more developed and labour intensive role than in traditional research programmes. This involves a variety of support activities (see Chapter 2) resulting in higher administration costs. The r4d programme has a management budget of 10% of the global budget for evaluation, ongoing monitoring by five review panels, support activities and synthesis. However, other funders are more restricted in their budgets and their flexibility to increase staff costs to provide additional support. There is lack of research on whether the level of ongoing funder support provided improves the fairness and equity in the partnership.

Many projects suffer because of issues related to institutional capacity. These challenges are difficult to address at individual project level, with 'stop-start' funding and a high level of project-based funding hampering sustainable institutional development. Funders are well placed to develop processes across programmes to provide additional support.

Typical challenges for Southern institutions include:^e

- Poor quality or unreliability in the systems needed to support research including water, roads, staff recruitment, electricity, bandwidth for internet access, email systems and finance management
- Lack of awareness of free access to journals through, for example, 'Research4Life' (http://www.research4Life (http://www.research4Life (http://www.research4Life (http://www.research4Life (http://www.research4Life (http://www.research4Life (http://www.research4life.org/)
- Challenges for research students include significant delays in registration and in examination
 processes, lack of institutionalised courses and heavy teaching and administrative loads which impact
 on supervisors' ability to provide adequate support for doctoral students
- Laboratories are often neglected in terms of training, infrastructural support and professional recognition including lack of training for laboratory technicians
- Long delays in transferring funds to African institutions, and then passing these to students, are common, particularly when Northern institutions have little experience of working with Southern institutions
- Lack of merit-based promotion holding back young researchers and challenge of winning initial internationally-funded grants in institutions that rely on these for research

^e Insight from personal comments and discussion with Capacity Research Unit (CRU) at the Liverpool School of Tropical Medicine

Case Studies

These case studies give an overview of the priorities and project models for seven North-South research programmes.

International Community-University Research Alliance (ICURA)

Funding agencies: International Development Research Centre (IDRC) and the Social Sciences and Humanities Research Council of Canada (SSHRC)

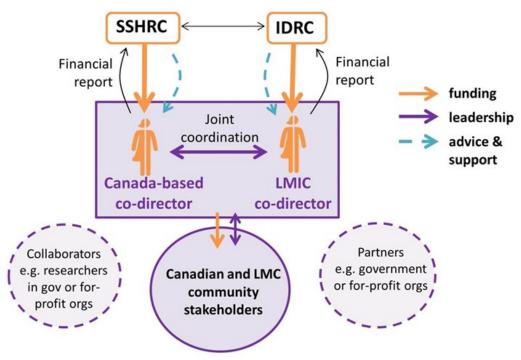
Aim: To develop multidisciplinary research of relevance to communities in Canada and participating lowand middle-income countries (LMICs).

Partners: Community groups and higher education institutions in LMICs and Canada.

Research priorities: Social science research on environment & natural resource management; information & communication technologies for development; innovation, policy and science; or social and economic policy

Project budget: \$2 million Canadian dollars over 5 years (\$1 million Canadian dollars to each team)

Project model



Details

The International Community-University Research Alliance (ICURA) was a five year programme that funded four consortia between 2009-14. A fundamental aspect was supporting collaborative and comparative research in partnership with communities in both Canada and a low- and middle-income country (LMIC). It used a co-Principal Investigator model with the Canada-based researcher funded by the Canadian research council and the LMIC PI funded by IDRC.

Each ICURA project included:

- · a research component
- an education and training component such as research skills training, apprenticeships etc
- a knowledge-mobilization component including workshops, seminars, colloquia, policy manuals, publications and public lectures that met the needs of both academic and community partners.

Partnerships for Enhanced Engagement in Research (PEER)

Funding agencies: USAID and US government-supported agencies

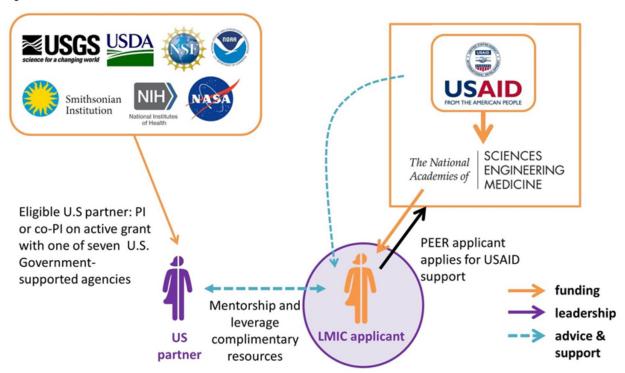
Aim: Provides funding for developing-country scientists to conduct development-oriented research in partnership with U.S. government-supported researchers

Partners: Lead applicant in a low- or middle-income country (eligible country depends on topic) working with a US partner who has a government grant. The program also has two private sector partners, National Instruments and General Electric, who contribute resources and technical expertise to the awardees.

Research priorities: Changes year on year based on USAID development priorities.

Project budget: Awards are for between 1-3 years. \$40,000-80,000 US dollars per year for single institution projects or \$80,000-100,000 US dollars per year for multiple institution projects.

Project model



Details

Calls open annually for proposals from PEER applicants who must be from, and based, in an eligible LMIC country. The funding from USAID is administered by the US National Academies of Science, Engineering and Medicine and goes directly to the PEER Principle Investigators (PI) institution. The PEER PI leads the project working with a US-based researcher who must be a PI or co-PI on an active research award at one of seven US government agencies.

The US partner does not automatically receive any additional funding and is not required to contribute any funds to the partnership. Their role varies from being a full collaborator to providing mentorship as and when required.

Allowable costs for the PEER PI include salaries and stipends, training, travel, equipment, supplies, organizational expenses for workshops and conferences, and limited institutional indirect costs if essential to the project.

Research Programme Consortia (RPC)

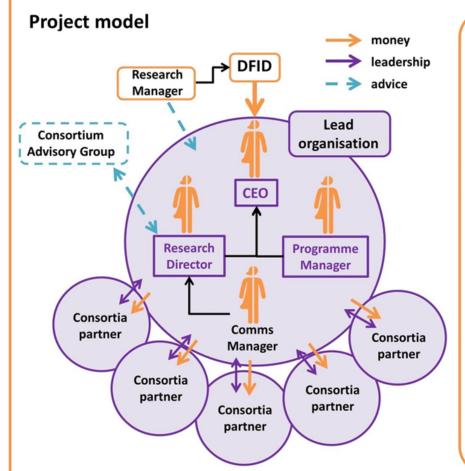
Funding agencies: Department for International Development (DFID)

Aim: Developing centres of specialisation around a particular research and policy theme focused on quality research outputs relevant to practitioners or policymakers.

Partners: Consortia of four to six partner institutions with one lead organisation. Lead and partners can be based anywhere in the world. Must include at least three institutions from LMICs and explicitly states that applications from Southern-based lead organisations are welcome. Partners can be academic, civil society and/or commercial organisations.

Research priorities: The RPC model has been used by DFID in a number of areas, including health.

Project budget: £6-7.5 million over 5-6 years.



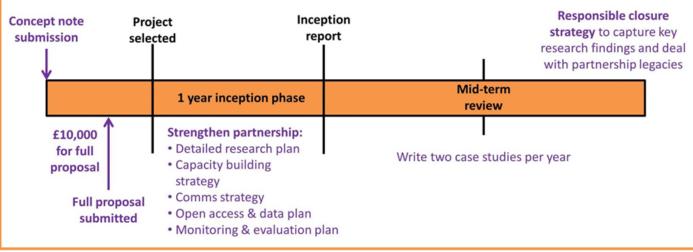
Desired outcomes

- Coherent body of high quality, policy-relevant new knowledge that raises profile of southern researchers
- Strategic communication of research
- Development of a 'critical mass' of research, research support and institutional support in LMICs

Partnership requirements

- Clear overview of the roles and responsibilities of each partner and potential for devolving responsibilities to southern based partners
- Transparent allocation of resources to partners
- All partners sign proposal, budget, inception report and policies on open-access & ethics
- Should be gender balanced

Project timeline



The Royal Society-DFID Africa Capacity Building Initiative

Funding agencies: Funded by the Department for International Development (DFID) and managed by The Royal Society.

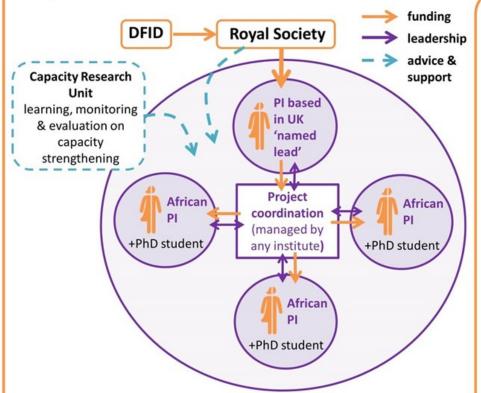
Aim: To strengthen the research capacity of universities and research institutions in sub-Saharan Africa by supporting the development of sustainable research networks.

Partners: Consortia consisting of one UK research organisation and three African institutions from different eligible countries.

Research priorities: Water & sanitation, renewable energy, soil-related research

Project budget: Up to £1,243,000 over 5 years.

Project model



This pilot programme is testing new approaches to capacity strengthening, equitable partnerships and research excellence.

10 consortia have been funded initially. They have varied management structures. The majority have a project manager based at one of the African institution partners or shared between institutions.

Each African institution has at least one PhD student with the aim to build a cohort of students networked across Africa. Building institutional capacity is also a key priority with support for lab technicians and research support staff.

Budget requirements

Expense	Budget per partner	Total Budget
A PhD studentship for each of the African Pl's	£60,000/studentship	£180,000
Research costs	Up to £20,000 per year for each research group	£400,000
Exchanges of researchers	Costs for travel and subsistence of up to £10,000 per year per lab	£200,000
Equipment purchasing, repair and maintenance	Up to £10,000 per year for each African laboratory	£150,000
Additional training modules (workshops and seminars)	Up to £10,000 per year for each PI	£200,000
Co-ordination and management costs	10% of the value of the grant	£113,000
Total Budget		£1,243,000

Science and Technology Research Partnership for Sustainable Development (SATREPS)

Funding agencies: Japan Science & Technology Agency (JST), Agency for Medical Research and Development and Japan International Cooperation Agency (JICA)

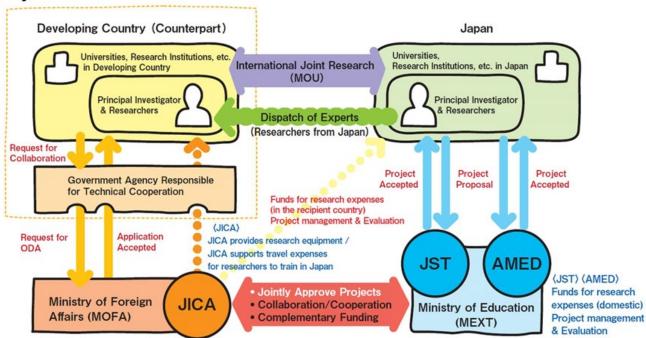
Aim: To enhance cooperation in science & technology, develop new technology, knowledge and innovation and support capacity development.

Partners: Japanese researchers and partner researchers in any country on the OECD DAC list.

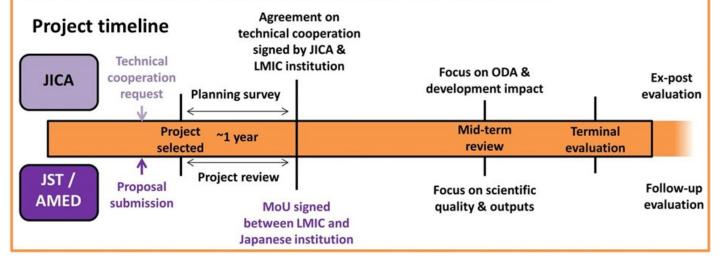
Research priorities: Environment & energy, bio-resources, disaster prevention & mitigation, infectious disease control.

Project budget: Approximately \$300,000 US dollars per year to the Japanese partner and \$500,000 US dollars per year to support the counterpart country Principle Investigator (PI) over 3-5 years.

Project model



The partner country researchers apply for funding using the technical cooperation process in their country via the Japanese embassy, whilst Japanese researchers apply separately to JST. Successful projects are jointly chosen by the funding agencies, with JST funding the Japanese researchers and JICA supporting the partner country researchers. There is an expectation that the Japanese researchers will be based in the partner country full-time or close to full-time during the project. From 2008-2016, 115 projects were supported in 46 countries, with just over half of the projects in Asia.



Swiss Programme for Research on Global Issues for Development (r4d programme)

Funding agencies: Joint programme of the Swiss Agency for Development and Cooperation (SDC) and the Swiss National Science Foundation (SNSF).

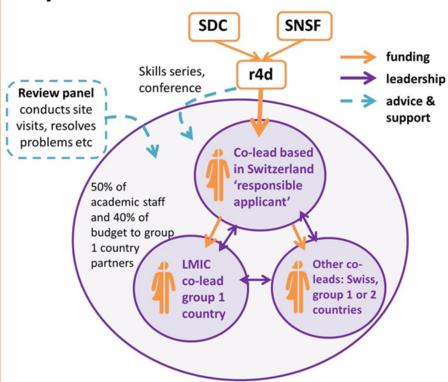
Aim: The r4d programme supports research aimed at solving global problems with a focus on least developed, low- and middle-income countries. It aims to generate new knowledge and apply innovative, transnational research results in policy and practice.

Partners: Partnerships of researchers at research institutions in Switzerland, at least one research group in a least developed, low-income or lower-middle income country (Group 1) and, if relevant, researchers from upper-middle income countries (Group 2).

Research priorities: Five thematic calls on social conflicts, employment, food security, ecosystems, public health and three thematically open calls.

Project budget and duration: Projects in thematic calls receive CHF 300,000-500,000 Swiss francs per year for a maximum of 6 years (mid-term evaluation after three years). Global budgets for projects of thematically open research calls receive a maximum of CHF 600,000 Swiss francs for a duration of 4 years.

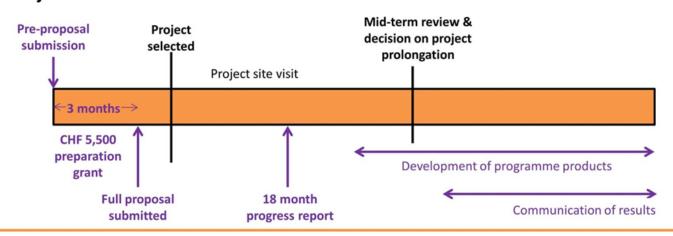
Project model



Priorities

- Inter- and transdisciplinary research partnership projects particularly between social, natural sciences and engineering
- Application of research results in policy and practice
- Research cooperation that adds significantly more value than individual research projects
- Findings that are relevant to several or many developing countries and world regions (potential for scaling-up)
- Partnerships should follow the 11 revised principles of the Commission for Research Partnerships with Developing Countries (KFPE)

Project timeline



Swedish Research Links

Funding agency: Swedish Research Council

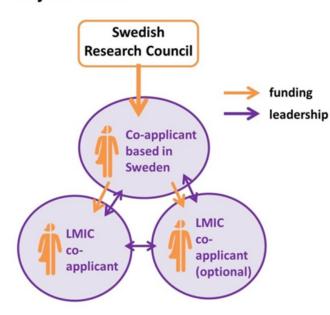
Aim: To support the development of long-term research collaboration of high scientific quality and to strengthen the exchange of knowledge between Swedish researchers and researchers in low and lower-middle income countries.

Partners: One principle researcher in Sweden and one, or up to three, co-responsible researcher(s) in different low and lower-middle income countries (the first three columns of the OECD DAC list).

Research priorities: The program is open to researchers in basic and applied research within all academic disciplines. It encourages multi- and interdisciplinary collaborations.

Project budget: Maximum of SEK 400,000 Swedish krona per year for up to 3 years. Up to SEK 100,000 Swedish krona per year can be used for minor project-related costs.

Project model



Details

The programme aims to establish long-term new research partnerships and support high quality research that:

- addresses global challenges that disproportionally affect LMICs and their most vulnerable people.
- is of relevance to equitable and sustainable development

The impact and long-term potential of the partnership is a key criteria. The research plan should be developed jointly, be based on mutual benefit and include collaboration of equal value. The grant covers research visits, a small amount for equipment and consumables, but does not cover salaries or scholarships.



Chapter Two Funder Practices

Chapter 2: Funder Practices

This chapter details the specific practices that funders have implemented pre-call, during calls and post-award with the aim of increasing the equitability in North-South research partnerships.

1. Making calls accessible and supporting new partnerships

The majority of applicants to North-South research partnership programmes appear to hear about opportunities through existing contacts. For the USAID PEER programme 45% of applicants in low- and middle-income countries (LMICs) and 53% of US scientists heard about the programme through collaborators. 70% of awardees knew each other previously with 44% working together previously. 30% met for the first time through the PEER programme. This illustrates the importance of existing networks and suggests that programmes may be less accessible to researchers that are not already well-connected.

Interviewees were concerned that programmes may be 'hitting the low-hanging fruit', with existing partnerships generally more likely to win grants especially when timescales for submitting applications are short. Scaling up programmes to support new partnerships may be more challenging. Below are a few examples of activities funders have used to increase the accessibility of calls or support new partnerships.⁸

a) Match-making

The Dutch NWO-WOTRO Science for Global Development programme organises matchmaking workshops when a call has just been published. An advert is put out and anyone interested submits an application with an overview of their capabilities, interest and track record. People are selected to attend the workshop, with an attempt to 'match-make' between people and institutions. The people who attend don't necessarily correlate with those who are successful at winning grants. Nevertheless, it is a useful method for connecting people who may win funding in the future.

b) Reaching under-represented groups

The Newton Fund staff based in-country play an important role in disseminating information about opportunities to local researchers. They also play an important role in highlighting pockets of excellence and building links between UK funders and Brazilian institutions or regions that don't have many existing international collaborations. This requires commitment from funders and researchers as the partnerships take longer to build and there is a higher risk that projects may not lead to the desired outcomes.

c) Sharing examples of good proposals

The Our Planet Our Health team were looking for project proposals that explored complexity and systems approaches in their calls. This was difficult to summarise in a short description on the website. They shared proposals of past projects they have funded to illustrate what they were looking for and expressly requested that researchers should speak to them about their ideas.

d) Preparatory grants

A number of programmes use a two-stage call process with a preparatory grant available to enable applicants to meet face-to-face and develop their full proposal (Table 6). There is no analysis of the ideal amount of funding for preparatory grants. However, all programmes that have used this approach believe it has been invaluable for developing equal partnerships, co-creating research proposals, overcoming interdisciplinary and cross-cultural barriers, hammering out difficulties and to compensate for initial short lead-in times. The funding has been particularly valuable where larger consortia are involved, or both academic and non-academic partners.

f Data from the PEER programme co-ordinators and evaluators.

⁸ Other examples of activities by funders to support collaboration during calls can be found in the UKCDS report: Kunaratnam, Y (2017) Striking the Balance: Competition, Collaboration and Impact in International Development Research Calls and Programmes, UKCDS

Table 6: Details of preparatory grants for different programmes

Programme	Amount provided	Details
Africa Capacity Building Initiative	>£100,000	Defined as networking phase of grant. Process allowed new partners to be involved and Southern institutions to introduce themselves to Northern partners, 'almost like a dating service'. Six out of ten successful consortia involved at least two partners that didn't know each other before the project.
DFID Energy RPC	Up to £80,000	After short-listing based on an initial concept note, consortia are given up to £80,000 to further develop their consortia and write full bids.
DFID Health RPC	£10,000	Organisations that were successful at the Expression of Interest (EoI) stage were eligible for up to £10,000 to bring partners together to discuss the proposal and meet the call criteria.
ICURA	C\$30,000	Eligible expenses are limited to travel, workshops, meetings, secretarial support and communication and dissemination activities.
Our Planet Our Health	£30,000	Projects had an initial lead-up time of three months to submit the preliminary application. Once shortlisted they had four months and could apply for up to £30,000 as a planning grant. This funding could be used flexibly. Some projects employed people to do preliminary data analysis, whilst the majority used it to bring all the partners to meet face-to-face.
r4d programme	Up to CHF5500 Swiss francs	Projects that are invited to develop a full proposal can apply for a preparatory grant. The funding is not mandatory and some projects do not use it. The funding can only be used to cover accommodation and travel.

2. Funders requirements in calls

Information that funders request in proposals can set the tone and expectations for research partnerships (Table 7). Funders can request information during proposal submissions or set out requirements that project plans or Memoranda of Understanding (MoUs) should be shared with funders in the initial stages of the project, perhaps before funds are released.

Table 7: Requirements by funders in project proposals

Activity	Details
Capacity Strengthening Assessment	The DELTAS and Africa Capacity Building Initiatives require an assessment of institutional research management capacity to be submitted, including financial management.
Demonstrating partnership strength in the proposal	 Activities or requirements for demonstrating the strength of the partnership in the proposal include: Letters of support or interest from partners stating their interest and how they see themselves contributing to and benefiting from the project. Asking PIs to share their past experience in managing collaborative research programmes and their philosophy for managing them. A page description of how the project and application fulfils the demands for equal partnership, how the partnership will provide added-value to the research project and the partners long-term plans for collaboration.
	 A description of how project partners and stakeholders will be involved in setting up the project and the management structure for the project both across disciplines and countries.

Memorandum of Understanding or Consortium plan

Several funders require research partners to discuss and sign MoUs, which helps them to talk through the partnership relationship prior to any issues occurring. Both WOTRO and the r4d programme require that a consortium/project agreement is signed by all partners before they release funding. However, Southern partners may have less experience or support to negotiate agreements. WOTRO provides a consortium agreement format, whilst the r4d programme bases their template on the KFPE fair partnership guidelines.

These MoUs include details on:

- transparent budgets and payment schedules to each partner
- roles and responsibilities of each partner, communication and leadership structure
- description of the contribution of each partner to the project
- authorship and use of findings including intellectual property (IP)
- data management plan for accessing and sharing data
- how the project will resolve any problems

Project Plan

When a SATREPS project is approved, JICA spends a year working with the researchers and government officials in the recipient country and researchers in Japan to develop a detailed plan for the project. This includes the overall aims, training of researchers, inputs and obligations of recipient countries and equipment needed. The project is only officially started once this plan has been signed by all partners.

Africa Capacity Building Initiative consortia must include a project plan that responds to the capacity strengthening assessment. This covers training for PhD students, lab technicians and research support staff.

The Swedish Research Links project plan focuses on how the partnership will develop through the programme, which might include specifying how the researchers have developed the application together.

Advisory Group

DFID requires that research programme consortia have an independent steering committee to provide external advice. The success of these has varied and the role, remit and engagement should be clearly articulated. Within the SATREPS programme, JICA requests the recipient country to form a Joint Coordinating Committee (JCC) headed by a high ranking person from the government of the recipient country and involving the PIs from both countries. The aim is to foster impact, good management and Southern ownership. The JCC meets once a year and monitors the progress of the project.

Budget

International research collaborations are more costly in terms of administration and management than single country projects. Ensuring that projects allocate sufficient budgets for travel costs, project and financial management and additional support activities, such as training, is important for successful and fair partnerships (Table 8). Major complaints from projects include that there is insufficient funding for salaries, PhDs, equipment, maintenance and overheads. Another issue around fairness is the allocation of salaries and costs to different partners. Some projects pay similar amounts to all organisations; others differentiate based on the costs of doing research in different places. Southern interviewees stressed the importance of allowing the same types of costs to be funded for all partners and the inequality of Northern researchers being paid several times more for the same work as Southern researchers. Flexible budgets enable researchers to adapt or expand the research agenda to ensure its continued relevance to unforeseen events, discoveries or political changes.⁵

^h The Swiss <u>Commission for Research Partnerships with Developing Countries</u> updated its <u>11 Principles for Research in Partnership Guide</u> in 2012. The 11 principles and 7 questions point to fundamental factors enabling or hindering research in partnership.

Requirements Details

Financial conditions

The r4d programme applies several financial conditions with the aim of improving equitability within the research partnerships.

- 1. **Minimum 40% of budget for Southern country partners:** there is no maximum limit on the Southern country allocation, which may go up to 75-80% of the project spend.
- 2. **50% of the academic personnel must be based in an LMIC:** This aims to ensure that there is expertise in-country and support for PhDs and post-doctoral researchers. This requirement requires detailed analysis of person months spent on the project. Generally the projects have a higher number of academic staff based in Southern countries than in Switzerland.
- 3. **10-15% of the budget must be allocated to communication and research uptake:** all projects have a communication and application strategy, hire communication experts and use a variety of tools such as documentaries and factsheets to communicate their research.

Overheads

Overheads should be an important source of longer term investment for Southern institutions. All of the programmes studied allocate overheads to Southern partners, ranging from limited costs based on a justification up to 20% of costs. IDRC also encourages grant holders to discuss how to apportion overheads between Southern partners. This level of funding may still not be equivalent to indirect overheads in the North (up to or greater than 50%). Varying funder policies result in a lack of clarity over what constitutes direct or indirect and allowable and non-allowable costs. A lack of awareness of what constitutes research management and auditable processes to determine full economic costs may also result in low amounts budgeted for overheads than needed.

Project manager

Our Planet Our Health and the r4d programme ask projects to show clear arrangements for the leadership and management of the programme in proposals and ensure that they are budgeting for a project manager (not the PI) to support coordination and communication across the consortium.

Travel and training costs

Applicants may be conditioned to underestimate and under-budget for communication, training and travel costs that support effective working in international and transdisciplinary collaborations. These costs are particularly vital for involving early-career team members and for building vibrant networks that will have longer-term success after the project has finished. Funders can signal to applicants that these costs are important and valued in applications.

Financial administration

Where the financial administration is undertaken by a research institution rather than the funder there will be costs both in skills and time to manage the international funding arrangements. This should be factored into budget allowances.

3. Peer review: balancing tensions

Peer review or project selection is a vital process that contributes to whether partnerships that are likely to be equitable are chosen. Funders have taken steps to improve their processes to assess partnerships, but this is still an area where this is much to learn. The KFPE project selection manual suggests that every selection process is determined by:

- The actors involved and the knowledge and skills they bring
- The criteria applied such as scientific quality, development relevance, and capacity strengthening
- The information supplied in the project proposals
- The methods used for sorting, processing, synthesising and comparing the project proposals

a) Selection criteria

Funders apply additional criteria to assess the partnership quality, development relevance and impact during peer review alongside traditional research quality criteria. Complementary capability is viewed as very important as well as the ability of the partnership to deliver added value beyond the individual researchers. However, funders recognise tensions between different criteria around delivering research excellence, capacity strengthening (including Southern leadership), equitable partnerships, inter- and transdisciplinary research and development impact.

The weighting of criteria often depends on the main focus of the call. There might be a greater weighting for research excellence if the aim is new ideas, or an emphasis on capacity strengthening if a key aim is building Southern research systems. Unless originality is a specific objective of the call, WOTRO looks for rigorous and very good, rather than 'excellent' research, with an emphasis on development relevance. The timeframe is also important; a project may be very relevant but may not deliver impact for development in a short timeframe.

Swedish Research Links peer review criteria

Assessment of the proposals produces a score for scientific quality and separately for relevance to the programme. Additional criteria used specifically to assess the partnership are:

- Complementarity of the research: is there complementary expertise? Does the cooperation bring mutual added value? To what extend is the collaboration based on principles of co-design, mutual benefit and equality? Does the project partnership have an appropriate gender balance?
- Can support for the proposed research collaboration lead to the establishment of a long-term research
 partnership, support new researcher-to-researcher relationships or develop new research if based on a
 previous collaboration?

The Swedish Research Council also focuses on gender equality with the aim that men and women should have the same success rate and average grant size. Peer review panels are required to take gender aspects into account *throughout* their review work. Gender equality is used as a boundary condition for the prioritisation of applicants that are of equivalent, or of near equivalent, quality. Applications from the underrepresented gender are given higher priority.

Swiss Research for Development peer review criteria

The r4d programme recognises the trade-offs between their triple challenge of interdisciplinary, transdisciplinary and North-South research partnerships. They include the KFPE criteria for project selection but still feel that it is a challenge to assess which partnerships will be successful. Specific partnership criteria used are:

- Applicants' scientific track record and composition of the consortium (interdisciplinarity, concerted coordination, synergies and complementarity)
- Balanced distribution of duties, responsibilities, competencies between partners

b) Peer review panel

Questions can arise about the weight given to criteria, not just in the rules but also in practice by the reviewers. There can be a tension within review panels between a focus on research excellence and on meaningful, equitable partnerships and capability building.

Table 9: Activities undertaken by funders to improve equitability during peer review

Details Requirements International and non-Most funders use panels which combine academic and development experience for academic peer reviewers North-South research programmes. WOTRO has been able to build a pool of reviewers who work for NGOs, government or the private sector, have an academic background and also understand development challenges on the ground. WOTRO has found it vital to combine the assessment of societal relevance and scientific excellence within one panel, otherwise the criteria are assessed in isolation. The committee consists of researchers and practitioners and they all provide assessments against both criteria. A quick analysis by the WORTO team of projects selected indicated that societally relevant projects generally seemed to be scientifically strong as well, and concerns that academic criteria were overriding development impact were unfounded. The Swedish Research Links programme is exploring how they can increase the representation of reviewers from the Global South whilst balancing the potential increased costs. They are exploring whether there are Southern researchers based in Europe that could be invited to future panels. **Training and providing** To improve the selection process for the Africa Capacity Building Initiative, the clear guidelines programme team asked an expert in capacity building to present at the beginning of each peer review session on learning and good practice in other programmes. The team also defined more clearly what capacity building meant for the programme and for each bid there was a table discussion to help draw out the different perspectives and understanding of panel members. Four eminent African scientists were also invited to the panel alongside Fellows of the Royal Society to improve dynamics.

¹Criteria that are specific to the partnerships call are highlighted (full details in Appendix 3).

Interviews with project partners	Despite the cost, the Wellcome Trust always flies in four team members for interviews at funding meetings. They find this is very revealing in observing whether there is a mutual partnership and good relationships between the key team members. The Our Planet Our Health team also briefed the committee before the funding meeting using the KFPE 11 Principles of Good Partnership guide.
Reviewers comments	Feedback from reviewers is an opportunity for capacity building. The evaluation of the PEER programme has shown that Southern PI's value the feedback from reviewers to understand how they can improve their proposal. The r4d programme reviews the usefulness of panel member's comments. This can help to drive improvements in peer review and produce more useful comments to applicants.
Ongoing support role	The review panel members remain involved throughout the r4d programme providing ongoing support to projects to keep them on track towards their goals. They go on site visits, help to resolve team issues related to interdisciplinary/multicultural research collaborations and provide feedback on progress reports. The reviewers, who come from academic, policy and international backgrounds, are paid CHF 500-1000 Swiss dollars per day for their work. It is important to provide clear information upfront to panel members on the workload, both how much and when. The r4d programme team plays a key role supporting the relationship between panel members and projects.

4. Addressing power dynamics during partnerships

Several programmes have focused on processes to improve equity in research management given the potential for unequal power dynamics to set in because the flow of money is frequently going via Northern institutions (Table 10). These 'soft processes' can influence the tone of the project.

Table 10: Activities used by funders to address power dynamics during research projects

Activity	Details
Awarding letters	The Royal Society wrote to all co-PIs when awarding the Africa Capacity Building Initiative grants. This helped set the tone that this was a joint successful bid with joint responsibilities.
Site visits	The Royal Society and DFID make site visits to the Africa Capacity Building Initiative institutions. They've made an effort to target countries that don't get visited as frequently by international funders.
Communication with projects	The role of funders and their management style in these programmes tends to have evolved to be one of supporting, consulting and collaborating with programmes. Many staff members talk about these programmes being as much partnerships and learning experience between funders and projects, as between researchers. They are also aware of the need to communicate beyond PIs, across the whole team. The Royal Society communicates on a day-to-day basis through the project coordinator, wherever they're based, and emails the whole research team about opportunities and conferences.
Building financial management capacity	The r4d programme provides training to financial officers at universities and in the project teams to support financial management and the auditing process. In the Africa Capacity Building Initiative some project coordinators based in African institutions have done an exchange with research and finance offices in the UK institution to understand their financial systems. The PEER programme offers financial and administrative training annually for participating institutions to learn about USAID funding and regulations. IDRC's financial administrators and analysts provide ongoing direct administration support to the Southern institutions they provide funding to.
Encouraging Southern leadership	The Africa Capacity Building Initiative is working with the Southern principle investigators to take on more responsibilities in the projects around supervision and publications. They have found variability in the willingness of Southern researchers and institutions to take on this responsibility because of institutional pressures, bureaucracy, hierarchies and, sometimes, ease of allowing another organisation to lead.

5. Funder-led activities post-award

Funders often run a number of activities during the lifetime of projects (Table 11). These are typically aimed at achieving greater join-up, shared learning and added-value across a programme beyond the individual projects.

Table 11: Post-award activities

Activity	Details
Award holders meetings	WOTRO hosts an award holders meeting in one of the partner countries at the beginning of programmes where they explain what they mean by partnership, outputs, impact pathways and theory of change.
Project kick-off workshop	WOTRO gives all selected projects money to organize a kick-off workshop bringing together researchers and broader stakeholders. The project has to send a report of the workshop describing the process and results of the workshop, the role of each of the partners and what they have learnt from it.
Training sessions	The r4d programme run a skills series to discuss and reflect with project teams on topics such as intercultural communication, research partnerships, mixed methods research, data management, impact and communication. Due to the funding available, these only bring together Swiss-based researchers/project coordinators. By using webinars and sharing the material on the website they are able to reach the project teams in the 45 partner countries. The PEER programme provides training on writing policy briefs, speaking to broad audiences, grant writing and has hosted webinars for women scientists. The Royal Society is planning to run webinars for PhD students and on ensuring that partnerships are explicitly equal.
Annual research or review meetings	Most projects or programmes have annual meetings; some funders leave these to projects to organise and others are more hands-on. Both the Royal Society and Our Planet Our Health (OPOH) programmes encourage peer-to-peer learning across projects about how to coordinate large international collaborations in comparable and contrasting situations. These have helped build relationships across consortia and increase data-sharing etc. As the OPOH programme has developed they are now focusing on building the relationships between more junior team members. The Royal Society is also bringing together a wider group of team members than normal, hosting a meeting for PIs, project managers, PhD students and potentially technicians. Bringing together project managers enables them to discuss the minutiae that often hold up research, such as visa applications and acquiring and
Summer schools	importing equipment. Many projects that involve students and postdocs run summer schools. DFID has tried to encourage consortia to run courses together to increase the learning and links across projects.
Additional funding	The PEER programme has started providing supplementary funding to PIs for activities that help to support research uptake.

6. Ongoing monitoring of projects

Monitoring and reviews during programmes can help to assess how well the partnerships and projects are functioning.

Due to its strong capacity strengthening element, the Africa Capacity Building Initiative has integrated support from the <u>Capacity Research Unit</u> at the Liverpool School of Tropical Medicine into the programme. They are providing ongoing learning, monitoring and evaluation through site visits and interviews. By being involved right from the start and interviewing team members individually, from PhD students to Pls, they have been able to build a rapport with teams and hear quickly about any problems.

During the mid-term review of the ICURA programme, IDRC asked for statements from both academic *and non-academic partners* about what they were learning, what was working well and what wasn't. This enabled non-academic partners to have a voice in the assessment process and provided a more rounded perspective on the partnership. WOTRO holds a workshop halfway through the programme where the projects have to complete a self-assessment about what is or isn't working. WOTRO also interviews partners in private during projects which gives them a sense of whether there is a functioning mutual partnership.

The Joint Coordinating Committee set-up by JICA for the SATREPS projects, headed by a high ranking official from the government of the recipient country and involving the PIs from both countries, meets annually to assess the progress of the project. The PIs also have to report on mobility and travel, especially of early-career researchers. At the mid-term review a joint funder team goes to the counter-part country and requests both PIs to report in terms of both the project and governance.

Both WOTRO and the r4d programme require financial monitoring from each partner institution, both North and South. The process in the r4d programme is time-consuming for both the Swiss National Science Foundation and the projects. However, because it is structured by sub-projects and country partner it means that it is very transparent and enables the teams to monitor where money is going and being spent and ensure that the financial requirements (e.g. 40% of budget to Southern partners) are being adhered to.

7. Benefit sharing of the outcomes of research

Most funders use their standard policies around intellectual property and data-sharing or rely on individual projects to develop their own processes in memorandum of understandings or project agreements. There are concerns that Northern institutions with more experience and research support staff may end up with stronger rights and that standard policies may not respond to existing inequalities between research systems in the North and South.

WOTRO has a <u>set of regulations</u> to guide development research partnerships. This covers everything from the ownership of results (with the consortium agreement needing to take into account the interests of developing countries), to open access publications and intellectual property (stipulating that agreements must enhance the accessibility, affordability and applicability of results in developing countries).

There is increasing consideration about data sharing and open data, but there are tensions. Open data can support the more rapid production of research results. However, it could result in a 'data drain', where researchers in Southern countries don't have the infrastructure to assess, process and generate new publications from the data gathered in their countries as rapidly as the North. One interviewee suggested that samples should not be processed and analyzed outside of Africa unless in unique justified instances. WOTRO requires data to be added to an open access repository three years after termination of the project to provide time for project partners to have exclusive access to analyse the results.



Chapter Three
Challenges and learning

Chapter 3: Challenges and learning

Despite the wide-range of practices and processes implemented, there are still many challenges that interviewees felt needed to be addressed to fully establish equitable research partnerships in the future. These are summarised below.

1. Barriers to participation

Complex funding application processes: Southern researchers are faced with a wide variety of funding application processes and portals with a lack of consistency. Standardisation of processes amongst funders, simpler explanations, a shared process for accrediting institutions or working directly with funders in-country could reduce burdens on Southern institutions and researchers.

Confidence in applying as PI: An evaluation of a DFID-ESRC joint programme showed that 80% of the PIs were from the UK, but that the success rates for Southern PIs were a little higher than that of UK applicants.²⁹ Applicants from the South tended to be unaware (or unconvinced) that they could apply as PIs, some assuming that whatever the rules might say, PI positions were *'essentially reserved for the British'*.²⁹

Follow-on funding: A major criticism from researchers has been the lack of availability of follow-on funding after the initial investment of time and resources to build a partnership. This is especially acute for bilateral partnership programmes where that pot of funding may be the only option for the structure of the partnership. This is particularly important when some evidence suggests that new and/or successful initiatives tend to be built on previous collaborative success or existing networks, allowing the consolidation and application of lessons learned.¹⁰

Selection bias towards more experienced researchers and existing partnerships: Most of the programmes are very competitive with a success rate of around 10%. This leads to a selection bias towards more experienced researchers, existing partnerships and LMICs with a more developed scientific infrastructure. Interviewees wondered whether additional processes were needed to support younger scientists or scientists in countries with less infrastructure and if these should these be included in selection criteria.

Practical challenges of partnerships: Building partnerships that move beyond participation to joint outcomes is a challenge. Summative evaluations of programmes observe relatively few joint North-South collaboratively authored papers, although these may come towards the end of projects and not be captured in evaluations. There is also lots of work to be done to improve practical issues that affect partnerships around data sharing, information-sharing, communication and sharing materials.

2. Politics and priorities

Valuing Southern priorities. A major concern of Southern funding agencies and ministries is improved alignment of projects and programmes with country priorities and increased coordination between funders in the North and South. Suggestions included joint steering committees (including when programmes are not co-funded) and communicating with Southern organisations about projects proposed or approved in their country. Honesty and realism about programme objectives are also important. Research priorities and skills in Northern countries may not match those that Southern countries need. Some PEER PIs have found it difficult to find partners in their areas of interest, such as operational health research, as they are not priorities for funders in the North.

Supporting science, research and innovation policies: Research collaboration between Northern and Southern countries can be constrained by a lack of national and institutional level research and innovation strategies. This suggests a role for increased support for science and innovation policy formulation, for instance, building on the work of the African Science, Technology and Innovation Indicators programme.¹⁰

Responding to the impacts of world events: Wider political and economic events, such as currency fluctuations affecting the value of the award or students being consistently refused visas to attend training, can have a big impact on projects. This can be both in terms of morale and how quickly and easily scientific goals can be achieved.

Changing priorities in Northern countries: Changing priorities of funders and governments in Northern countries risks opening up an ever-widening gap between Northern and Southern countries around research leadership. New types of funding such as challenge funds may not include partnership at all as a priority. Funders are increasingly introducing more stringent financial due diligence procedures and academic criteria which can limit the ability of Southern institutions to lead projects or be partners. Researchers in Northern countries may be more able to rapidly align their work and have access to the skillsets to work on new research priorities such as systems or interdisciplinary research. Changing priorities and budgets amongst funders mean that it is difficult to run consistent multi-agency long-term programmes, with most programmes run by a single agency unless there are strong political drivers for join-up.

3. Capacity Strengthening

Increasing Southern leadership of projects: Anecdotally most programmes observe that projects built on previous partnerships are more equitable with Southern researchers taking on more research leadership and receiving greater international recognition, such as sitting on panels like the IPCC. However, it is not clear if this is inevitable and that participation leads to greater equity in the long-run. Few programmes have an overt research leadership capacity building element and there is uncertainty about the best approach to increase Southern leadership.

Valuing and building research management capacity: Institutional capacity and research support processes underpin whether research is done in a smooth and efficient way. If financial processes fail, research members aren't able to get to meetings, projects go into debt, are not able to fund their graduate students and the whole project can collapse. Research management capacity is also important for the longer term sustainability of science systems in LMICs. Based on learning from their pilot project, the Royal Society would build in a more conscious process to support research and project management processes in the future. They would work closely with project managers from the beginning to make sure they have the tools they need to act as the central point for communication across their consortium.

Location of project management matters: Changing the location of project management seems to influence the dynamics of the research partnership even when funding is directed through a Northern institution. The Africa Capacity Building Initiative has found that if the project coordination is based at one of the African partners, they inevitably become the prominent partner, even more so than the UK PI.

Skills, expectations and time in large-scale collaborations: Building new relationships is time intensive. This is particularly challenging for large-scale collaborations focused on global challenges which might involve 10-15 partner in different countries, from different disciplines and include non-academics. These types of projects are not routine for PIs and require time, resources and a consultative approach to develop a shared understanding of the problem and a joint plan. This is in tension with the pressure in academic environments to publish and to deliver impact on short timescales. Project length needs to be considered including recognising the amount of time needed to build relationships. The skills of academics and project coordinators who can effectively manage these collaborations also need to be valued. An evaluation of the IDRC ICURA programme suggested that the funder should consider whether research groups 'should have demonstrated prior research cooperation before undertaking large-scale projects jointly'. 30

4. Funders role in partnerships

What to do when problems arise in partnerships? If a partnership is not working or a partner is not delivering, PIs tend to redistribute work and take an organisation out of the partnership. This is due to the pressures to deliver outcomes and impact in a short time frame. Funders are concerned about their role in this situation. Should they put in more resources to try and support struggling partners or is this for the projects to sort out themselves? What is the optimum level of funder administrative and project support? Some funders are exploring activities or processes outside of individual programmes that projects could call on when needed and that incentivise institutions to improve their partnership practices.

Being fair to partnerships: Funders have a responsibility to provide clear guidance and expectations to researchers such as how to balance tensions between research excellence, capacity strengthening, development impact and partnerships.

Taking risks and learning from failure: Funders should set the tone that failure in partnership is valid and expected and that they want to work with projects to understand and learn from failures as well as successes.

Understanding financial structures: Funders tend to have little knowledge of the financial administration set-up if the flow of finances is going through a Northern institution. The general view of funders is that the responsibility lies with researchers to manage the finances. This creates a multitude of different systems depending on the risk appetite and experience of the Northern institution in working with Southern partners. As the financial management role is perceived to have a big influence on equitability in partnerships, there is a question around whether funders should take more responsibility to understand the systems being set-up, develop processes for directly funding Southern institutions themselves or provide additional training for Northern institutions.

5. Equitability beyond Principal Investigators

The focus of most thinking and literature is around equality between lead researchers. But where the research is involving others team members, whether students or non-academic partners, their capabilities and engagement affect the whole project.

Supporting students and scholarships: Evaluation of the USAID PEER and Innovation Labs programmes showed that students are among the primary beneficiaries of these programmes. Many go on to be senior scientists in ministries and research institutes. However, they are more sensitive to tiny fluctuations in the length or the amount of a grant than PIs. Reductions in funding amounts, delays in grants being agreed or lengths of projects bring shortened will all affect the ability to train students, particularly PhDs. Students also suffer from a lack of mentorship, institutional support and clear research career pathways, particularly the step to postdoctoral research.⁷

Staff turnover: Where projects are aiming for policy influence or rely on data from public agencies, the rapid rotation of staff in NGOs, industry, public agencies or government can inhibit partnerships.

Non-academic partners: Non-academic partners often feel that they are not being treated equitably and are simply being used for delivery, uptake or communication rather than as a real partner in the programme. Some analysis suggests that the real challenge in multi-stakeholder collaborations is not aligning Northern and Southern agendas, but in coordinating different approaches and interests between academics, civil society, policymakers and business leaders.⁵

Laboratories, technicians and support staff: Laboratories are critical for many types of research but are one of the weakest components of research systems in Southern institutions. They are often neglected in terms of training, infrastructural support and professional recognition. The training needs and involvement of staff in research support units and graduate schools, and particularly laboratory technicians, are often overlooked even though these individuals are essential for research.

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Appendix 1: Interviewees and organisations surveyed

We are very grateful to the following interviewees, reviewers and survey respondents.

Adjoa Anyimadu – The Royal Society, UK

Diego Arruda - Newton Fund Officer, Brazil

Lauranne Botti – Research Fairness Initiative (RFI), Switzerland

Andy Cherry – Association of Commonwealth Universities (ACU), UK

Marina Diniz Neo Brini - FAPEMIG, Brazil

Peter Evans - Department for International Development (DFID), UK

Karen Fowle - United States Agency for International Development (USAID), USA

Saskia Heijnen - Wellcome Trust, UK

Carel IJsselmuiden - COHRED, Switzerland

Nidhee Jadeja - Wellcome Trust, UK

Siri Jorgensen Bjarnar - Swedish Research Council, Sweden

Tom Kariuki - African Academy of Sciences (AAS), Kenya

Julia Kemp - Department for International Development (DFID), UK

Tirop Kosgey – Kenya National Research Fund, Kenya

Judith de Kroon - NWO-WOTRO, Netherlands

Glaudini Loots - Department of Science & Technology (DST), Republic of South Africa

Nina Marshall – Economic and Social Sciences Research Council (ESRC), UK

Hassan Mshinda – Tanzania Commission for Science and Technology (COSTECH), Tanzania

Jo Mulligan - Department for International Development (DFID), UK

Zoleka Ngcete – Medical Research Council, South Africa

David O'Brien – International development Research Centre (IDRC), Canada

JPR Ochieng'-Odero - East Africa Research Fund, Kenya

Mitsuharu Ohta - Japan Science & Technology Agency (JST), Japan

Britta Radeloff - Swedish Research Council, Sweden

Callie Raulfs - United States Agency for International Development (USAID), USA

Claudia Rutte - Swiss National Science Foundation (SNF), Switzerland

Jasdeep Sandhu - Department for International Development (DFID), UK

Ken de Souza - Department for International Development (DFID), UK

Andrew Shaw - Department for International Development (DFID), UK

Dan Wilhelmsson - Swedish Research Council, Sweden

Claudia Zingerli - Swiss National Science Foundation (SNF), Switzerland

Appendix 2: Research partnerships guidelines and tools

Global reporting tool	<u>The Research Fairness Initiative</u> is a new global reporting tool aimed at improving transparency, increasing the use of best practices, and developing new benchmarks to improve fairness in research partnerships – especially in relation to the needs of LMICs.
Funders tools – designing programmes and project selection	KFPE. 2005. 'Choosing the Right Projects: Designing Selection Processes for North-South Research Partnership Programmes'. Bern: KFPE.
	OECD Global Science Forum, <u>Opportunities</u> , <u>Challenges and Good Practices in</u> <u>International Research Cooperation between Developed and Developing Countries</u> , 2011
North-South research partnership guidelines	A Guide for Transboundary Research Partnerships: 11 principles & 7 questions to support researchers, policymakers and funders to design effective cross-cultural research partnerships (2012 updated version)
	The Montreal Statement on Research Integrity in Cross-Boundary Research Collaborations is a one-page statement that sets out the key responsibilities of individual and institutional partners in international research collaborations
	Research Africa, Facilitating research partnerships: Notes for researchers and research managers (2013)
Partnership or self-	University of Wisconsin Extension Manual for Evaluating Collaboratives, 1998
assessment toolkits	Successful collaborative partnership: Key elements and a self-assessment inventory by Spink and Merrill-Sands (1999) was developed for use by CGIAR Centres and their partners, either at the start-up phase of a partnership or later on, to reflect on strengths and priorities for improvement.
	Partnership Building: Practical Tools to Help You Create, Strengthen, Assess and Manage Your Partnership or Alliance More Productively (2007)
Ethics and risk assessment	The <u>TRUST</u> project aims to foster adherence to high ethical standards in research globally and to counteract the practice of "Ethics dumping" or the application of double standards in research, by co-developing with vulnerable populations tools and mechanisms for the improvement of research governance structures
	KNAW. 2014. 'International Scientific Cooperation: Challenges and Predicaments. Options for Risk Assessment'. Amsterdam: Royal Netherlands Academy of Arts and Sciences.
	Responsible Research and Innovation Tools, a three-year project (2014-2016) funded by the European Commission with a wide-range of resources for considering research practices.
Fair contracting and collaboration agreements	The Council on Health Research for Development (COHRED) has developed a <u>number of tools and resources</u> for developing fair research contracts.
	Victoria Henson-Apollonio (2005), <u>Collaborative Agreements: A 'how to' guide</u> . ILAC Brief from Institutional Learning and Change (ILAC) Initiative
Multi-stakeholder	The Partnering Toolbook: An essential guide to cross-sector partnering (2011)
partnership guides	Multi-Stakeholder Partnership (MSP) guide (Wageningen UR's Centre for Development Innovation) and portal http://www.mspguide.org/
	'Collaboration: What makes it work' is based on a review of research literature on factors that influence the success of collaboration. The Inventory identifies 20 factors that researchers have found to relate to the success of multi-organisational collaborations and two statements for each factor.

Thematic guides	Good Practices in Educational Partnerships Guide (2010) shares learning from the Africa Unit's UK-Africa Higher Education partnerships
Public-private partnerships	IFPRI Guidelines for Public-private Partnerships for Agricultural Innovation Hartwich and colleagues (2007) provide a set of detailed guidelines for assessing public-private partnerships based on an analysis of 125 such partnerships in 12 Latin American countries
Evaluation	World Bank Sourcebook for Evaluating Global and Regional Partnership Programs (2007)

Appendix 3: Swedish Research Links Evaluation criteria

The assessment of Swedish Research Links applications is made using the following Swedish Research Council's grading system.

1. The assessment of the scientific quality of an application is made using five basic criteria.

Novelty and originality
Scientific quality of the proposed research
Merits of applicant(s)
Feasibility
Complementarity of the research

The assessment of the relevance to the call objectives is made with a separate criterion.Relevance to program/call objectives

Below you will find a description of the criteria. Some of the criteria are scored on a seven-grade scale, while others are scored on a three-grade scale. The scores are reported in Prisma^k in assessment notes or a preliminary statement, depending on if you are a reviewer or rapporteur of an application.

Basic criteria for the assessment of scientific quality

Novelty and originality (grading scale 1-7)

Guiding questions:

- Does the project convincingly challenge prevalent opinions and practice?
- Is there potential for the creation of new knowledge, exciting new ideas and approaches, directions for research and understanding of the research field?
- Does the project include use of novel technologies/methodologies, or innovative application of existing methodologies/technologies in new areas?

Scientific quality of the proposed research (grading scale 1-7)

Guiding questions:

- Is the project scientifically significant?
- Does the overall design of the project, its research questions and hypotheses meet the standards of highest quality?
- Are the scientific/intellectual merits of the proposed research clear, convincing and compelling?
- Does the proposed project have the character of thoroughness, e g in its definition of the problem and proposed solutions, and review of the state of the art?

Merits of applicant(s) (both Swedish and international project leaders) (grading scale 1-7)

Guiding questions:

- Does the applicant(s) have sufficient research experience, expertise, level of independence and scientific network for implementation of the proposed project?
- Of what merits are the previous publications and other scientific achievements (e.g. supervisor
 experience, external funding) in relation to stage of career and active time for research: do these show
 a distinct and independent line of research or in case of a researcher in his/her early career stage, the
 potential of such? Focus is on the most relevant and important reports, with emphasis on quality
 rather than quantity.
- Is there ability to successfully disseminate research findings?

40

Feasibility (grading scale 1-3)

Guiding questions:

- Is the general design, including time schedule, optimal for implementing the proposed project?
- Does the project (Collaboration project) include the availability and accessibility of relevant personnel, skills, equipment, facilities/infrastructures and other necessary resources?
- Is the environment suitable for carrying out the proposed research?
- Are the proposed research methods, infrastructures, equipment and fieldwork appropriate?
- Does the project aim to establish long-term research collaboration and contain a realistic plan for how to raise funds for such collaboration?

Complementarity of the research (the added value of the research collaboration) (grading scale 1-7). *Guiding questions:*

- Is there appropriateness of the team members in terms of availability and complementarities of all the relevant expertise, and in how the different roles and responsibilities are distinguished?
- Does the cooperation bring mutual added value to the research; compared to if the partners were not working together?
- Can the cooperation lead to transfer of knowledge between applicants?
- Is the collaboration based on principles of co-design, mutual benefit and equality?
- Does the project partnership have an appropriate gender balance?

Overall assessment of the scientific quality Overall grade (grading scale 1-7)

The above base criteria are weighed together into an overall grade which should reflect the "quality profile" of the application. The base criteria will serve as assessments of single components and not as scores to be mechanically calculated to form the overall assessment grade of the scientific quality of the application. Thus, the grade **cannot** be a mean value or a sum of the five criteria. The individual reviewer, and the panel, must in each case reflect on what level of quality an application achieves as a whole. For the evaluation of applications, the criteria Complementarity could be the guiding one.

Relevance criterion

Please note that the grade for relevance for each of the types of grants refers to the objectives of that specific call. Below is a description and guiding questions for each call. In the next section you can find further information on the evaluation of relevance.

Relevance to program/call objectives (grading scale 1-3)

The evaluation of the relevance to the call should be based on the motives as described by the applicant in the application's relevance description. The relevance to the call objectives is evaluated separately from the other criteria. It should not be part of the overall grade.

1. Relevance to the call objectives *Guiding questions:*

- Does the proposed project match to the relevance description in the call objectives?
- Does the proposed research have the potential to create preconditions for better living conditions for people living in poverty and under oppression?
- Does the proposed research promote equitable and sustainable development in low-income or lower middle-income countries?
- 2. Relevance for the development of long-term research partnerships *Guiding questions:*
- Can support for the proposed research collaboration lead to the establishment of a long-term research partnership?
- Does the collaborative research contribute to the establishment of new researcher-to-researcher relationships?
- If principal investigators have collaborated before, is the proposed collaboration based on a new research topic? What were the experiences of that previous collaboration?
- Can additional funding lead to new collaborative research proposals with realistic ideas on how to obtain funding?

