



Research capacity strengthening in Africa

Trends, gaps and opportunities

A scoping study commissioned by DFID on behalf of IFORD

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* Disclaimer: The views presented in this paper are those of the authors and do not necessarily represent the views of DFID or IFORD

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Contents

List of acronyms	4
Executive summary	7
1. Introduction and study objectives	9
2. Donor approaches to research capacity building.....	12
2.1 Overview	12
2.2 Funding	12
2.3 Geographical coverage	13
2.4 Typology of capacity strengthening approaches.....	13
2.5 Approaches disaggregated by donors	14
3. Evidence of effectiveness?	18
3.1 Evaluation evidence	18
3.2 Key informant interviews	19
4. Conclusions and recommendations for DFID.....	23
4.1 Harmonisation	23
4.2 Partnerships	24
4.3 Modes of support.....	24
4.4 Monitoring and evaluation	24
4.5 Thematic/disciplinary focus.....	25
Bibliography.....	26
Appendix 1: Bilateral donor funding of research capacity strengthening support.....	29
Appendix 2: Donor support to research capacity strengthening in Africa	35
Appendix 3: Intermediaries – organisations and networks	165
Appendix 4: Geographical spread of research capacity strengthening support in Africa ..	172
Appendix 5: Evaluations	182
Appendix 6: Annotated bibliography.....	188
Appendix 7: Key informant interviews	212

List of acronyms

AAU	Association of African Universities
ACE	Arts and Cultural Education Programme (Norad)
AERC	African Economic Research Consortium
AfDB	African Development Bank
AfDBI	African Development Bank Institute
ACBF	African Capacity Building Foundation
AERC	African Economic Research Consortium
AGRA	Alliance for a Green Revolution in Africa
AICAD	African Institute for Capacity Development
ASARECA	Association for Strengthening Agricultural Research in Eastern and Central Africa
AVU	African Virtual University
AU	African Union
AusAID	Australian Agency for International Development
BMZ	German Federal Ministry for Economic Cooperation and Development
CGIAR	Consultative Group on International Agricultural Research
CHET	Centre for Higher Education Transformation (South Africa)
CIAT	International Centre for Tropical Agriculture
CIDA	Canadian International Development Agency
CIFOR	Center for International Forestry Research
CIRAD	Agricultural Research Centre for International Development (France)
CODESRIA	Council for Development of Social Science Research in Africa
CORAF/WECARD	West and Central African Council for Agricultural Research and Development
CRCBD	Collaborative Research and Capacity Building for Development (USAID)
CRD	Central Research Department (DFID)
CReST	Centre for Research on Science and Technology
CRSP	Collaborative Research Support Programmes
DAAD	German Academic Exchange Service
Danida	Danish International Development Agency
DCO-OC	DGIS Research and Communication Department
DDRN	Danish Development Research Network
DFG	German Research Foundation
DFID	Department for International Development (UK)
DGIS	Dutch Ministry of Foreign Affairs
EC	European Commission
ENCAP	Environmental Assessment and Management Capacity Building Program (USAID)
ENRECA	Enhancement of Research Capacity (Danida)
EPFL	Swiss Federal Institute of Technology
ERNWACA	Educational Research Network for West and Central Africa
EU	European Union
FARA	Forum for Agricultural Research in Africa
GDN	Global Development Network
GFAR	Global Forum on Agricultural Research
G-RAP	Ghana Research and Advocacy Programme
GTZ	German Agency for Technical Cooperation
HED	Higher Education for Development Program (USAID)
HINARI	Health InterNetwork Access to Research Initiative (WHO)
HIV/AIDS	Human (Acquired) Immunodeficiency Virus/Syndrome
HRCS	Health Research Capacity Strengthening initiative (Wellcome Trust)
HRP	UNDP/UNFPA/WHO/World Bank Special Programme of Research, Development and Research Training in Human Reproduction
ICT	Information Communications Technology

ICSU	International Council for Science
ICT4D	Information Communications Technology for Development
IDRC	International Development Research Centre (Canada)
IEHA	Initiative to End Hunger in Africa (USAID)
IFAD	International Fund for Agricultural Development
IFORD	International Forum of Research Donors for Development
IFP	International Fellowship Programme (Ford Foundation)
IFPRI	International Food Policy Research Institute
IFS	International Foundation for Science
IITA	International Institute for Tropical Agriculture
ILRI	International Livestock Research Institute
INASP	International Network for the Availability of Scientific Publications
IRD	Research Institute for Development (France)
IRRI	International Rice Research Institute
ISP	International Science Programme
JICA	Japan International Cooperation Agency
K4DP	Knowledge for Development Programme (WBI)
KFPE	Commission for Research Partnerships with Developing Countries (Switzerland)
M&E	Monitoring and Evaluation
MDG	Millennium Development Goal
NARS	National Agricultural Research Systems
NCCR N-S	National Centres of Competence in Research North-South (Switzerland)
NEPAD	New Partnership for Africa's Development
NGO	Nongovernmental Organisation
NOMA	Norad's Programme for Master Studies
Norad	Norwegian Agency for Development Cooperation
NPT	Netherlands Programme for the Institutional Strengthening of Post-secondary Education and Training capacity (NUFFIC)
NUFFIC	Netherlands Organisation for International Cooperation in Higher Education
NUFU	Norwegian Council for Higher Education's Program for Development Research and Education
ODA	Official Development Assistance
ODI	Overseas Development Institute (UK)
OIRAD	Office of International Research, Education, and Development (Virginia Tech, USA)
OSSREA	Organisation for Social Science Research in Eastern and Southern Africa
PHEA	Partnership for Higher Education in Africa
PRSP	Poverty Reduction Strategy Paper
RCS	Research Capacity Strengthening
RIU	Research into Use Programme (DFID)
RUF	Danish Council for Development Research
RUFORUM	Regional Universities Forum for Capacity Building in Agriculture
SADC	Southern African Development Community
SAREC	Department for Research Cooperation (Sida)
SARPN	Southern African Regional Poverty Network
SCARDA	Strengthening Capacity for Agricultural Research in Africa (DFID)
SDC	Swiss Agency for Development and Cooperation
Sida	Swedish International Development Cooperation Agency
SISERA	Support for Economic Research in Africa
SIU	Norwegian Centre for International Cooperation in Higher Education
SNSF	Swiss National Science Foundation
TDR	UNICEF/UNDP/World Bank/WHO Special Programme for Research and Training in Tropical Diseases
UNDP	United Nations Development Program
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFPA	United Nations Population Fund

UNICEF	United Nations Children's Fund
UNRISD	United Nations Research Institute for Social Development
USAID	United States Agency for International Development
USHEPiA	University Science, Humanities and Engineering Partnerships in Africa
WB	World Bank
WBI	World Bank Institute
WHO	World Health Organization
ZIL	Swiss Centre for International Agriculture

Executive summary

This report aims to provide an overview of donor support for research capacity building in Africa so as to inform the International Forum of Research Donors for Development (IFORD) and especially the Department for International Development (DFID)'s thinking about the value-added role they can respectively have in this environment, either as individual institutions or in partnership with other donors. In the case of DFID, the report is also designed to inform the Central Research Department's thinking around the role of capacity building in its next five-year research strategy and 20-year Vision of development for poverty reduction.

The study included a desktop/web review of grey and published literature, a systematic review of existing evaluation documents and key informant interviews with donors, intermediary organisations and African institutions that receive support. The objectives of the study were to: i) identify the leading donors in the field of research capacity strengthening; ii) identify the level and modalities of support; iii) identify possible areas of duplication and omission in terms of thematic/disciplinary and geographic coverage; iv) suggest where DFID (and other donors) can add value; and v) identify opportunities for collaboration and partnership with which DFID can engage. Outputs include answers to these questions (summarised below), an annotated bibliography on research capacity strengthening approaches and experiences and a series of databases containing detailed information about research capacity building approaches supported by different types of donors, estimated donor spending levels, programme coverage (themes, geographical focus, phase in the knowledge generation and knowledge translation cycle) and evaluation findings.

A mapping of donors that support research capacity building in Africa revealed a wide range of capacity building initiatives covering the whole continent and a broad range of disciplines and themes. Estimating the amounts that donors invest in research capacity building is difficult for a number of reasons. However, the illustrative figures that the report provides show that the overall proportion of dedicated spending for research capacity building is relatively low.

In terms of types of capacity building activities, the study shows that there are some differences in focus by clusters of donors. **Bilaterals** tend to invest in individual training (particularly postgraduate programmes and PhD study), institutional support to universities and facilitating partnerships and networks. **Multilateral donors** appear to focus less on individual-level funding or on universities, and instead provide institutional support to independent research organisations and networks. They invest heavily in supporting thematic-focused networks. The focus of **private foundations** to date has been on supporting sector-specific multi-donor research networks, some of which also include individual-level support through research fellowships.

In terms of sector focus, donors appear to invest overall more in capacity building work that focuses on health and agriculture, natural and physical sciences and economics, with less attention accorded to humanities and non-economic social sciences. Most donors focus predominantly on knowledge generation at the expense of other stages in the knowledge cycle, but there are signs that a number of donors are moving towards developing initiatives that address other stages, such as the development of research agendas and the communication and uptake of research findings.

A review of evaluation literature and key informant interviews were conducted to form an understanding of the effectiveness of research capacity building interventions to date. The evaluations reviewed highlighted a number of achievements that initiatives have reached. These include greater dissemination of research findings, increased enrolment on postgraduate programmes, better research administration and management capacities and overall improved research quality. Networks and partnerships were also found to be useful in many cases for linking

up researchers. Challenges that were identified included difficulties in achieving impact on policy and the limited demand-led quality of research.

Interviews with key informants allowed us to build a more in-depth understanding of issues related to effectiveness of research capacity building and they highlighted a number of challenges that such initiatives face. First, strengthening universities and graduate programmes is critically important if capacity building is to be sustained, but it is also a long-term and time-consuming pursuit. Second, partnerships between Northern and Southern institutions can be useful, but only if they built on relations of mutual trust and respect, respond to Southern partner demands and do not add to cumbersome donor requirements. Third, understanding the local context and building on existing capacity was a prerequisite for successful capacity building mentioned by a number of interviewees, which is still overlooked by many donors. There was also a general consensus that there is a need to support local capacities in linking research topics to local policy priorities. Finally, several key informants emphasised the need to strengthen links to industry and to support the translation of research into commercially viable products.

The report makes the following key recommendations to DFID.

- Although there is increasing collaboration among research capacity building donors, there is still substantial room for improvement. Better data collection and communication about donors' initiatives could be a first step in terms of **harmonisation**. Ideally, this process would be informed by an understanding of what type of coordination would serve beneficiary organisations most and how it could support national governments' efforts to improve their research and innovation systems.
- The findings in the report underscore the value of supporting long-term **partnerships** that are mutually respectful and based on demand from institutions in the South. There is also scope to explore in-country partnerships, such as those between research institutes and the private sector.
- Our findings suggest that most research capacity support is focused on knowledge generation. Given DFID's emphasis on **bridging research and policy**, coordinating with donors that are moving into the area of knowledge translation could be a fruitful area in which to invest.
- **Monitoring and evaluation** is an area that warrants urgent attention to improve learning from existing programmes. A key challenge for DFID and IFORD would be to develop a conceptual framework for research capacity building M&E.
- **Social sciences and humanities** would seem a potentially important area of contribution as it appears to receive lower levels of investment than natural sciences and technology.

1. Introduction and study objectives

Working to strengthen local expertise and scientific capacity is one of the most effective and lasting ways to affect positive policy change (Hrynkow et al, 2003).

1.1 Background

As part of a broader commitment to harmonise development donor approaches and activities, the development research donor body, the International Forum of Research Donors for Development (IFORD), has recognised the importance of taking stock of international initiatives designed to strengthen development research capacities in Africa.² The UK Department for International Development (DFID), which is currently designing its next five-year research strategy (for 2008–2013) informed by a 20-year vision of DFID's value-added role as a development research donor, is leading this process on behalf of IFORD, as it has a particular interest in identifying areas where it can best contribute and opportunities for cross-donor collaboration and/or complementarity.³

The purpose of this report is to provide an overview of the levels and modalities of donor support for research capacity strengthening in Africa in order to inform these strategic choices and decision making processes.

Rather than being exhaustive in scope, the report focuses on major initiatives carried out by leading bilateral, multilateral and private foundation donors who specialise in research capacity strengthening. Building on an earlier but broader study commissioned by DFID and undertaken by the Overseas Development Institute (ODI) about the international development research landscape,⁴ it maps out the quantity and types of donor support reaching African research institutes, think tanks, universities and networks. In addition, it discusses the views of the beneficiaries of such initiatives and, where evaluation evidence is available, the impacts of donor support. These data are then analysed to identify potential gaps and opportunities that future DFID support to research capacity strengthening in Africa could fill.

1.2 Definitions and concepts

The literature as well as the key informant interviews revealed a range of different definitions and understandings of research capacity building. Some focus more on technical and resource transfers (e.g. Kharas, 2005), whereas others take a broader view and emphasise that any capacity building initiative must be informed by a nuanced understanding of the local socio-cultural and political context (e.g. Harris, 2004).⁵ In such cases the focus is not on developing capacities that do not exist, but rather on identifying and strengthening existing local capacities.

² The importance of such coordination was reinforced during this study, as we learned that other scoping studies have also been undertaken recently by Sida/SAREC and also by the IDRC and DFID-funded Capacity Building Collective (although the latter is somewhat broader than research capacity building).

³ As a crosscutting theme, capacity building for development research and research utilisation is one of DFID's stated priorities. However, how support for research capacity strengthening meshes with DFID's broader emphasis on tackling problems 'with the best means available', which often entails using Northern research centres and laboratories (Åkerblom, 2007), will clearly have to be debated and addressed.

⁴ Jones and Young (2007) argue that 'Decision-making should be based on a clear "theory of change" and if possible a corporate definition of capacity building so staff and stakeholders alike are clear about DFID's goals and underlying assumptions.' In this regard, this follow-up study is seen as an important first step in this process.

⁵ Costello and Zumla (2000), for example, call for a phasing-out of the 'annexed site' approach, whereby foreign-led and funded research in developing countries remains semi-colonial in nature and dominated by Northern research priorities and research management.

Other authors place considerable emphasis on the power relations between Northern donors and providers of research capacity strengthening services, and Southern 'beneficiary' organisations. They argue that any initiative to support research capacities needs to be seen as a two-way collaborative process, whereby Northern partners stand to learn as much as Southern partners (e.g. Harris, 2004; Stein and Ahmed, 2007). However, in order to ensure the sustainability of capacity strengthening efforts, promoting local ownership over research priorities and agendas is of central importance (e.g. Velho, 2004).

Another important thread in the literature is a differentiation between the various levels of capacity building, commonly divided into individual-, institutional- and system-level approaches. At the **individual level**, capacity building initiatives focus on building up a critical mass of researchers competent in a particular thematic, disciplinary or methodological area, typically through the provision of postgraduate training or small research grants. As we discuss below, individual-level approaches have more recently expanded to include a broader range of stakeholders involved in knowledge generation, translation and uptake processes.

At the **institutional level**, the concern is with improving organisational structures, processes, resources, management and governance issues (including institutional reward systems that encourage partnership modes of working), so that local institutions are able to attract, train and retain capable researchers.

Although a comparatively newer area of focus, the **system-level** approach is designed to improve national and regional innovation environments. The emphasis here is on the development of coherent policies, strategies and effective coordination across sectors and among governmental, nongovernmental and international actors. It includes attention to funding transparency, remuneration, continuing education and access to information, as well as strategic planning, priority setting, knowledge management and demand creation (see e.g. Nuyens, 2005).

We take a holistic view of research capacity building, and in this report are interested in: i) **different levels** (individual, institutional, enabling environment); ii) all **phases of the knowledge generation and knowledge translation cycle** (from setting the research agenda and research design through to research use and communication); and iii) the **relational dimensions of capacity building** (Are the actors involved forging equitable and sustainable partnerships? Are individual efforts coordinated and/or complementary and building towards a larger vision of enhancing local capacity to generate and use knowledge of relevance to the region's development challenges?)

1.3 Methodology

The methodological approach adopted for this study included the following components:

- 1) A desktop review of published and grey literature on research capacity building, focused on both international and Africa-specific sources⁶ (please see Appendix 6 for this annotated bibliography).
- 2) 20 key informant interviews with development research donors (bilaterals, multilaterals and private foundations), intermediary organisations that provide various capacity building services in the African region, and universities and research institutions that receive such support (see Appendix 7 for a comprehensive list of key informants). The objective of these interviews was to identify:

⁶ Interestingly the available literature focuses largely on experiences in the health and science, technology and innovation sectors. We therefore made a particular effort to complement this sectoral focus with telephone interviews among donors, intermediaries and beneficiaries involved in the social sciences and humanities.

- The key approaches to research capacity building undertaken by different donors and intermediary organisations, including conceptual understandings, time horizons and a focus on stages in the knowledge generation and knowledge translation cycle;
 - The perceived strengths and weaknesses of these different approaches in terms of quality and impact;
 - The geographic, thematic and/or disciplinary focus of these capacity strengthening initiatives;
 - The level, adequacy and sustainability of funding for research capacity building;
 - The types of monitoring and evaluation (M&E) mechanisms in place to assess programme efficacy;
 - Key gaps in the current capacity building environment; and
 - Opportunities for collaboration or complementarities.
- 3) A supplementary web-based review to gather information about leading donors who invest in research capacity strengthening, including their history, objectives (including key target audiences and end users), funding, main programmes, recent evaluations, future plans, etc.
 - 4) A systematic review of available evaluations on research capacity building approaches (see Appendix 5).⁷
 - 5) Regular engagement with Central Research Department (CRD) staff and IFORD members to understand their priorities and objectives for this scoping paper.

It is important to note from the outset that, owing to time constraints and particularly to limited budget and evaluation data, we were not able to answer all of the research questions as systematically as we would have liked. Such a result will require better data collection and knowledge management mechanisms among donors, as well as greater investment in the evaluation of capacity strengthening approaches.

1.4 Layout of the study

The report is structured as follows: Section 2 begins by presenting a typology of capacity building approaches informed by the literature as well as an initial sample of key informant interviews. It then maps the major funders' approaches to research capacity strengthening in Africa, including i) the volume of funding they invest, ii) the modalities they use to deliver support, iii) the main beneficiary institutions and networks, iv) the geographical spread of their programmes and v) the sectoral and/or disciplinary focus of their work.

Section 3 focuses on the impact of research capacity strengthening efforts, drawing on evaluation evidence where available as well as key informant interviews with donors, intermediaries and beneficiary organisations. It seeks to highlight examples of good practice as well as areas of duplication or omission.

Section 4 presents our conclusions and recommendations as to how DFID (as well as other donors) could potentially fill existing gaps and also identifies opportunities for joint donor support. More detailed information on donor approaches, their history of involvement in this field, funding patterns, key intermediary and beneficiary organisations, geographical and thematic focus and evaluation findings are presented in the appendices.

⁷ Although others have developed bibliographies on capacity building for policy advocacy (e.g. Blagescu and Young, 2006) and capacity building in general (e.g. Taylor et al., 2007), this is the first publicly available annotated bibliography focusing on research capacity building, especially in the African region.

2. Donor approaches to research capacity building

2.1 Overview

This section presents our key findings about the level, approach and mode of support provided by leading international donors involved in research capacity strengthening in Africa. It maps existing support mechanisms and programme coverage among bilateral, multilateral and private foundation donors, as well as seeking to identify critical gaps and opportunities to improve existing efforts. The literature suggests that a mapping of this nature with an eye to greater donor harmonisation and coordination is urgently needed, given what Roberts (2005) described as the 'largely uncoordinated strategies and domestically driven policies towards capacity building in Africa'.

2.2 Funding

The difficulties entailed in providing accurate figures for donor funding of research capacity strengthening initiatives are numerous. Therefore, the funding league table we present below should be viewed as illustrative only. Although it represents our best efforts to assemble existing data and support from a number of key informants to this end, much greater attention to systematic and comparable data collection is required on the part of the donor community if we are to develop an accurate understanding of investment in this field.

Problems we encountered in carrying out this exercise included: i) research capacity strengthening being integrated into research projects but only appearing in budgets as funding for research projects (i.e. donors often do not differentiate between funding for research and research capacity strengthening); ii) the fact that research capacity strengthening work often spans a number of different sectors and budgets (e.g. education, support to higher education, development research, health, agriculture, etc.); iii) the long-term nature of investment in research capacity strengthening and the fact that many projects span different annual budgets; iv) the hidden costs of research capacity strengthening work, e.g. the question as to whether programme office staff costs should be included, as many programme officers provide mentoring and support to researchers and institutes; and v) where specific research capacity strengthening budgets can be identified, insufficient disaggregation by region, let alone by country, renders it difficult to estimate spending for Africa.

What does stand out in our donor spending league table is that the leaders in the capacity building field differ somewhat from those in the broader development research field (see Jones and Young, 2007). The Netherlands, Sweden, the International Development Research Centre (IDRC) (Canada) and the Research Institute for Development (IRD) (France) would appear to represent the leading bilateral donors. The World Health Organization (WHO) would appear to be the most significant multilateral in this field, and Rockefeller, Ford and more recently Hewlett lead among the group of private foundations. However, the overall proportion of spending dedicated to research capacity strengthening seems to be relatively limited, with the biggest overall donors spending comparatively little. For example, several key informants emphasised that Gates Foundation funding has done little to boost research capacity strengthening, as it has only very recently come to recognise the importance of this approach.

Table 1: Donor research capacity support in Africa spending league table⁸

Agency	Approximate annual budget (US\$)	Year
DGIS/NUFFIC	140m	2005
PHEA	>60m	2005–2006

⁸ See Appendix 2 for details and caveats.

WHO	>40m (TDR, HRP)	2007
Rockefeller	c.25m	Annually
Sida/SAREC	c.25m	2006
IDRC	>20m	2006–2007
Norad	c.20m	2007
Hewlett	<20m (policy research institute funding programme)	2008
Ford	?<20m	Annually to 2010
ISP	c.3m	2007

2.3 Geographical coverage

The geographical coverage of support for research capacity is broad, with all countries in the region, with perhaps the exception of Mauritius, receiving donor support from at least one source. However, there is also considerable diversity as to the number of donors providing support in any one country – about one-third of all countries have just a single source, a quarter have two or three sources and the remaining countries (42%) benefit from multiple forms of support (up to nine sources in the cases of South Africa and Ethiopia). It is interesting to note that Anglophone African countries are disproportionately represented in the group receiving support from multiple donors. This suggests that perhaps more attention has to be paid to language and socio-cultural barriers if those countries with low levels of support are to be targeted more effectively by the donor community. However, owing to data limitations, we are not able to assess the volume of support per country, only the number and type of support (partner country agreement, scholarship programme or targeted research capacity strengthening programme).

2.4 Typology of capacity strengthening approaches

In order to identify concrete opportunities to strengthen and complement existing initiatives, the following discussion reviews capacity strengthening initiatives by bilateral, multilateral and private foundation donors according to a four-part typology, which we derive from our reading of the literature (see Appendix 6) and an initial sample of key informant interviews.

Levels looks at whether or not donors are focused on the individual, institution or enabling environment as their point of entry (see discussion above). Donors may be involved in only one area or, increasingly, in two or three levels as part of a hybrid, flexible approach. The level at which donors are involved also shapes their primary Southern partners (see Appendix 3).

Modes refer to how research capacities are enhanced, and may include a variety of funding (individual scholarships, research grants), training (short courses, MA and PhD courses, production of training materials, technical assistance, capacity building for end users), partnership (research partnerships, mentoring, peer-to-peer learning), network and infrastructural support mechanisms (e.g. funding for libraries, laboratories).

Content refers to the sector, crosscutting theme or academic discipline around which research capacities are developed. As we discuss below, there has been considerable attention to enhancing capacities in the health and agricultural sectors, natural sciences, technology and economics, but less support provided to humanities and non-economic social sciences. The literature suggests that this is not simply a matter of prioritising particular issues, but also linked to different politics of bridging research and policy. Natural science research tends to be the domain of highly specialised experts and the knowledge produced by these is often accepted as objective

and technical, whereas policy debates related to social sciences and governance are by nature more contested.⁹

Stages refer to the phase in the research process at which support is targeted. Whereas earlier capacity building initiatives focused primarily on knowledge generation, more recently there has been growing attention on the development of research priorities and agendas (including their relevance to policy and local development challenges), as well as strengthening capacities to communicate research to key stakeholders and promoting uptake by end users (both policy and civil society audiences). This is shaped in part by a number of developments in recent years that have made the exploration of research–policy–practice links in Africa increasingly important, particularly the role that **African research** can have in informing policy and practice on the continent. **Democratisation** since the 1990s has opened up spaces for broader discussion and debate in the policy process, although obstacles remain, such as limited transparency and participation. Simultaneously, negative experience with structural adjustment, which was implemented on the basis of economic theory rather than context-specific evidence (Ayuk and Jones, 2005) and a broader ‘knowledge dependence’ related to aid dependence (Ogbu, 2006) have resulted in an impetus for **home-grown solutions** in international development: the New Partnership for Africa’s Development (NEPAD), poverty reduction strategy papers (PRSPs) and the Millennium Development Goals (MDGs) all require local research capacity and stronger links between locally relevant research and the policy process (Ayuk and Jones, 2005).

2.5 Approaches disaggregated by donors

It is important to begin by noting that a number of important intermediary organisations (providers of research capacity building services) are funded by various donor community consortia. These include organisations such as the African Economic Research Consortium (AERC), the African Capacity Building Foundation (ACBF), the Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA), the Center for International Forestry Research (CIFOR), the Council for the Development of Social Science Research in Africa (CODESRIA), the International Institute for Tropical Agriculture (IITA) and the International Network for the Availability of Scientific Publications (INASP) (see Appendix 3 for details). While such coordinated multi-donor efforts are clearly to be commended, a closer analysis of support to research capacity strengthening by different clusters of donors reveals a number of important differences in approach, level and mode of funding, and focus in the knowledge cycle.

2.5.1 Bilaterals

History: The length of time that bilaterals have been involved in capacity strengthening varies considerably, with SAREC, IRD and IDRC enjoying the longest history of explicit capacity strengthening work. While many donors have had a longer involvement with programmes that target individual capacities, a focus on institutional and especially system-level capacity strengthening is much newer for many donors (post-2000).

Levels and mode: Bilaterals appear to be the main funder of **individual**-level capacity building initiatives. Agencies such as the German Academic Exchange Service (DAAD), the Danish International Development Agency (Danida) and the Dutch Ministry of Foreign Affairs/Netherlands Organisation for International Cooperation in Higher Education (DGIS/NUFFIC) fund a large number of scholarship programmes, whereas IDRC places greater emphasis on peer-to-peer learning through research networks and mentoring programmes whereby Northern resource

⁹ A number of authors challenge this distinction/dichotomy and argue for more public participation in policy informed by natural sciences. Scoones et al. (2006), for example, argue that public engagement in scientific debates and policy processes is necessary to address how research agendas are framed and the social purposes they serve, and to ensure that poorer people and communities will benefit from them (see also Leach and Scoones, 2006).

persons are paired with Southern, often junior, researchers to develop and implement a research project. The Swiss Agency for Development and Cooperation (SDC) invests in a sizeable programme for young researchers; Japan and the Netherlands also place a particular emphasis on exchange programmes for researchers and other knowledge stakeholders.

However, broadly speaking, bilaterals are largely focused on providing **institutional** support to universities in Africa through the provision of research funding, support for research infrastructure (libraries, laboratories etc.), the production of training and teaching materials for universities and support to MA and PhD programmes (especially the International Science Programme – ISP). This is an area where there are notable capacity gaps. The literature emphasises that key problems with research in universities include low salaries, lack of research funding, a high teaching burden for faculty and a resulting lack of a culture of research, low-quality facilities and low access to documentation (Sawyer 2004; Langsam and Dennis, 2004).

There is also a strong emphasis among bilaterals on facilitating partnerships between Northern higher education institutions and Southern counterparts, many of which have now enjoyed multi-year and even multi-decade relationships. In addition, a number of bilaterals support thematic-based research networks on health, agriculture (Danida), higher education, arts/culture (the Norwegian Agency for Development Cooperation – Norad), applied sciences (SDC) and physical and mathematical sciences (ISP).

In terms of work at the **system** level, fewer bilaterals are involved.¹⁰ The key exceptions are the French Agricultural Research Centre for International Development (CIRAD), the Swedish International Development Cooperation Agency/Department for Research Cooperation (Sida/SAREC) and the Japan International Cooperation Agency (JICA). Working in the agricultural field, CIRAD seeks to support national research systems through the identification of research skills and training requirements, drawing up, implementing, monitoring and evaluating related training plans and supporting research management processes. Sida/SAREC, which has one of the longest track records in the research capacity field, is focused on integrating the long-term support that it provides to universities with national government's broader national research systems. Key informant interviews with SAREC highlighted that achieving such synergies is viewed as critical to achieving the sustainability of capacity strengthening work in the region. JICA is new to this area, having traditionally focused on individual-level approaches, but in 2006 launched the Asia-Africa Knowledge Co-creation Program: New Mechanism for Promoting Asia-Africa Cooperation in order to promote a more systematic approach to cross-regional learning, especially in critical but under-resourced areas such as community development and private sector development.

Content: Overall bilaterals appear to invest more in capacity building work that focuses on health and agriculture, natural and physical sciences and economics. There is less overall attention accorded to humanities and non-economic social sciences, with important exceptions represented by Norad (arts/culture, higher education) and NUFFIC (education, civil society, policies on poverty and good governance). Also of note is the fact that, although agencies such as IDRC believe it is critical to have 'something concrete to hang capacity building support on', i.e. a learning-by-doing approach, Sida/SAREC's support is not thematic or discipline-based. Instead, its primary focus is on strengthening national higher education institutions to produce and reproduce postgraduate-level researchers, and all the management, fundraising, governance etc. challenges that this demands.

Stage in knowledge cycle: Although there has been a historic focus on knowledge generation, bilaterals are increasingly also investing in capacity strengthening to improve support for developing demand-led research agendas, for research communication and dissemination

¹⁰ A number of other agencies conceptualise their support to multilateral agencies and research networks as system-level work but do not accord it the same level of explicit strategic attention.

activities and for the uptake of knowledge by end users. DFID's earmarking of 10% for research communication in its grants to development research centres (DRCs) and research partnership consortia (RPCs) was mentioned several times as an example of best practice in promoting knowledge translation. Others actively involved in this field emphasise the importance of stimulating the demand for policy-relevant knowledge. As Ayuk and Jones (2005) point out, to date 'Centres have not been proactive in exploring the demand side of policy research.' Donors seeking to address the imbalance of the supply and demand of research knowledge include IDRC, whose activities in this area range from awards to development journalists to its new Knowledge Translation Initiative to support its multi-year multi-country Growth, Globalization and Poverty programme. Similarly, the DGIS is now involved in a partnership programme to strengthen research-policy linkages with knowledge institutions whereby young researchers conduct projects for the ministry and civil servants have opportunities to publish scholarly research and pursue postgraduate studies linked to their work.

2.5.2 Multilaterals

History: In terms of multilaterals, the WHO, the Consultative Group on International Agricultural Research (CGIAR) and the ISP have been involved in capacity strengthening since the 1960s/1970s and have over the years developed a diverse portfolio of work. More recent arrivals include the World Bank and especially the World Bank Institute, the International Foundation for Science (IFS), the International Council for Science (ICSU) and the African Development Bank (AfDB).

Level and mode: Although multilaterals do not focus as much on the **individual** level, the WHO has several innovative programmes that could be applied to other sectors: re-entry grants to encourage young scientists from disease-endemic countries to return to their home institutions within 12 months after graduation, and research grants for higher education or postdoctoral training within a developing country institution.

In general, the focus of multilaterals is on providing **institutional** support to independent research organisations and research networks rather than universities, with the exception of the United Nations Educational, Scientific and Cultural Organization (UNESCO) which has a specific mandate to focus on higher education. The WHO and CGIAR, for example, both provide funding to research teams based at developing country research institutions in order to support their ability to develop rigorous research proposals and projects. The World Bank Institute places a great deal of emphasis on short thematically-focused training courses, which have a strong focus on assisting 'clients' to apply knowledge to development challenges.

Content: Multilaterals invest heavily in supporting thematic-focused networks. There would appear to be a larger number of initiatives focused on health, agriculture, the natural sciences, natural resource management and the environment (see Table 2 below). However, the European Union (EU) and particularly the World Bank Institute and the AfDB are focused on issues of poverty reduction, governance, trade and regional integration. What we cannot tell from available data is the relative investment and size of these various networks.

Table 2: Thematic foci of research networks supported by multilateral donors in Africa

Health – reproductive health, infectious tropical diseases and vaccination research	WHO, new programme by Wellcome Trust, EU
Agriculture and food security	CGIAR, EU
Natural sciences, traditional knowledge systems, ethics	ISP, ICSU
Energy and natural resource management, environment, technology, security, space	EU ¹¹ under 7 th Research Framework Agreement

¹¹ It was particularly difficult to collate information on EU research capacity strengthening efforts, in part because such efforts cut across multiple programmes and sectors. We were also unable to identify an EU staff member with an overview of relevant capacity strengthening activities.

Poverty reduction and MDGs, macroeconomic dynamics, growth, trade, governance and institutions, investment climate	AfDB's Knowledge Management Trust Fund, World Bank
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Stage in the knowledge cycle: Like the bilateral donors, earlier capacity building work focused primarily on knowledge translation, but agencies like the WHO and the World Bank in particular are now increasingly focusing attention on research communication and support for knowledge management capacities. The WHO, for example, provides funding for communication and writing workshops which aim to strengthen communication skills, science writing and information management. The World Bank Institute's Knowledge for Development Programme (K4DP) is underpinned by the Bank's growing emphasis on the knowledge economy, and seeks to support knowledge management, research synthesis and learning from best practices.

2.5.3 Private foundations

History: The role of private foundations in supporting research capacity strengthening is relatively new but is rapidly expanding, as exemplified by the consortium of donors (Ford, Hewlett, Rockefeller, Carnegie, Andrew W Mellon, MacArthur, Kresge Foundations) involved in funding the Partnership for Higher Education in Africa (PHEA).

Level and mode: The focus to date has been on supporting sector-specific initiatives, especially through multi-donor research networks, such as the AERC, the Association of African Universities (AAU), the University Science, Humanities and Engineering Partnerships in Africa programme (USHEPIA), and CODESRIA. A number of donors also support these thematic networks at the individual level through the provision of research fellowships (e.g. Mellon, Rockefeller, Hewlett). Private foundations are also investing in providing infrastructural support, including an innovative connectivity project dubbed the Bandwidth Consortium linked to PHEA.

Content: Private foundations have largely focused their research capacity efforts on agriculture, health (including population and reproductive health, HIV/AIDS), education, the environment and economic development. The Ford Foundation would appear to stand out from the pack as its thematic foci in Africa are less traditional: asset building and community development, peace and social justice, knowledge, creativity and freedom.

Stage in the knowledge cycle: Again the primary emphasis has been on supporting knowledge generation among private foundations. However, the Ford Foundation invests substantially in media and creative communications approaches, and the Hewlett foundation has recently announced a multi-year US\$100million programme to support independent policy research institutes in order to promote the capacity of African researchers to engage in policy-relevant research.

As can be seen from the above discussion, a large number of diverse research capacity strengthening initiatives are being supported by bilateral, multilateral and private foundation donors. Although there appears to be an increasing tendency towards greater cooperation as well as growing awareness of the importance in investing in knowledge translation and the creation of national research environments that facilitate the uptake of development knowledge by policy and civil society stakeholders, there is still a great deal to be done to provide well coordinated, synergistic programmes and policies. This is particularly the case in the areas of non-economic social sciences and humanities, which demand a high level of understanding of the local context, relationships among academia, civil society and the state and power relations. The following section turns to a discussion of the relative effectiveness of these initiatives, based on the limited evaluation evidence that is available and telephone interviews with donors, intermediary organisations and beneficiary institutions.

3. Evidence of effectiveness?

3.1 Evaluation evidence

Overall, our review of the evaluation literature reinforced Blagescu and Young (2006)'s conclusion that organisations involved in supporting research capacity building initiatives have been weak in monitoring the impact of their interventions. Part of the problem is that attempts to evaluate capacity building efforts and learn from past experiences have been constrained by the fact that i) capacity strengthening is often embedded in other programmes and thus difficult to separate out and monitor and evaluate specifically; and ii) outcomes are typically medium- to long-term and not easily attributable to a single intervention. In addition, programmes focused on learning-by-doing often lack not only a clear conceptualisation of capacity strengthening but also a theory of cause and effect (ibid).

Evaluations were only publicly available for a limited number of donors involved in capacity strengthening initiatives. These included IDRC, Sida and Danida among the bilaterals and the World Bank among multilaterals (see Appendix 5 for details).¹² We were unable to find evaluations in the field for private foundations. Similarly, evaluations of the work of intermediary organisations¹³ – i.e. those that are funded by donors in order to provide capacity building support to beneficiary institutions – were also scarce. It should be noted, however, that some key informants pointed out that evaluations may have been carried out but not widely circulated within organisations let alone to the broader public for learning and communication purposes.

Among the evaluations we reviewed, Danida, Sida and the World Bank relied predominantly on internal evaluations whereas, in the case of IDRC programmes, the Support for Economic Research in Africa (SISERA) Network and the Ghana Research and Advocacy Programme (G-RAP), external evaluations carried out by independent consultants were commissioned. A combination of methods was used in most cases, involving desk-based reviews of research outputs, interviews with staff and partners, field visits, participant surveys and/or interviews with end users (government decision makers, donors and nongovernmental organisations – NGOs). In several cases, case studies of comparable programmes (IDRC, 2007) and tracer studies to understand the chain of impact had also been undertaken (Sida, 2000).

In terms of common strengths identified by these evaluations, the following improvements following capacity building support were highlighted:

- Networks were a useful means to link up researchers and identify common or complementary research agendas;
- Strong North-South partnerships had been forged;
- Dissemination of research papers had been widespread;
- There had been increased enrolment rates in local MA and PhD programmes;
- Research administration and research management capacities had improved;
- Research quality and researcher skills had improved.

However, a number of important challenges were also emphasised. These included:

- Limited impact of research generated on policy;
- Limited demand-led nature of research;
- Lack of quality assurance for research supported by capacity strengthening programmes;
- Exclusively local projects tending to be less fruitful than North-South partnerships;

¹² If the donors for which evaluation evidence was available had carried out multiple evaluations, we reviewed a representative sample of these.

¹³ See Appendix 3 for details of intermediaries.

- A lack of gender analysis and gender balance within research capacity initiatives;
- Need for more industry–university cooperation to enhance the utility of research capacity building efforts;
- Inadequate (both regularity and quality) monitoring and evaluation (M&E) mechanisms;
- Limited inroads into general institutional strengthening.

3.2 Key informant interviews

Given the paucity of evaluation data, we complemented our analysis with telephone key informant interviews with donors, intermediary organisations and representatives from beneficiary institutions. The key themes that emerged were as follows (examples of best practice are summarised in Table 3 below).

Long-term horizons and sustainability

Rebuilding universities and graduate programmes is critically important owing to its multiplier effect: African countries need to be able to produce and reproduce quality researchers, as well as cope with the challenges of research management, funding transparency and sustainability. As Johann Mouton from the Centre for Research on Science and Technology (CReST) argues:

'Most African universities are very fragile, they are largely dependent on donor funding and government goodwill. In this kind of situation, there is no stability over time and little opportunity to accumulate intellectual capital. Long-term institutional stability should be the government's – rather than the donors' – responsibility. Instead, donors should work with those institutions that are stable and have most capacity and potential.'

Although some donors in the field are concerned about the seemingly 'endless task' involved and the complexities and time-consuming nature of building up a sufficiently nuanced picture of the national research environments in diverse country contexts (e.g. Sida has been working in this area over the past 30 years), it is also the case that Latin American and East Asian countries have largely succeeded in developing quality university and graduate programmes. In this regard, a number of key informants emphasised the need for greater cross-regional learning, and a forthcoming report by Sida/SAREC comparing the cases of Vietnam (successful) and Sri Lanka (less successful) should provide a useful model for such analysis.

Partnerships

Beneficiaries emphasised the importance of supporting partnerships between Northern and Southern institutions, but also underscored the fact that donor requirements can sometimes be excessively cumbersome, especially in the case of institutions receiving multiple funding sources. In this regard, the quality of the partnerships monitoring framework developed by the Educational Research Network for West and Central Africa (ERNWACA) may provide a useful tool. Partnerships also need to be balanced on genuine collaboration, according to Kathryn Touré of ENRWACA:

'Northern partners can be an asset if they are motivated to work with African researchers and help them get research published. Often Northern researchers simply take the data and publish it themselves. Only if they are willing to support and help local young researchers to get published is the partnership worth anything.'

Building on existing capacities

Several key informants lamented the fact that donors typically fail to recognise existing capacities and to use needs assessments as the starting point for capacity strengthening work. Needs assessments need to be based on an understanding of the history and context, especially as it is often the case that capacity has existed in the past but then has disappeared. As Ebrima Sall from CODESRIA argues, it is important to understand why this has happened:

'The main problem with donor approaches is that it is often assumed that there is no existing capacity at all. There is always previous experience and expertise somewhere, and it is this pool of people that capacity strengthening should aim to expand.'

A number of beneficiaries noted that one of the key attributes of a good research capacity strengthening donor is an in-depth understanding of the local context. Moreover, for capacity building efforts to be effective, donors have to focus on sectors and institutions that have the greatest potential to develop and to contribute to the country's development in the long run. Identifying such areas of comparative advantage and niche sectors, in coordination with governments, universities and research institutions, should be the starting point for an effective research capacity building strategy.

Policy relevant research

There was a general consensus that there is a need to support local capacities in linking research topics to national and regional policy and development priorities, as much research produced in the continent is of limited or no value to decision makers.

Industry linkages

Several key informants emphasised that there is not necessarily a correlation between the number of MSc and PhDs trained and economic and social development. In the context of globalisation and growing urbanisation and industrialisation, it is necessary to cross the knowledge divide to strengthen links to industry and to support the translation of research into commercially viable products.

Table 3: Summary of best practices in research capacity building in Africa

Recommendations	Examples of good practice
Collect data on capacity building initiatives and communicate with other donors to coordinate support more effectively, both at the policy level as well as at the level of individual projects and beneficiaries	<ul style="list-style-type: none"> • PHEA coordinates seven independent foundations' funding for higher education development in Africa. During 2000–2005 the founding partners contributed more than US\$150m to fund research, institutional research units, research-focused graduate training and infrastructure in six African countries. • DFID, IDRC and Wellcome Trust Health Research Capacity Strengthening (HRCS) Initiative in Kenya and Malawi. • Joint Hewlett Foundation and IDRC initiative to support West and East African social policy think tanks through core funding and research capacity strengthening activities, with planned funding of US\$150m over 10 years. • CGIAR research centres, which are funded through a central funding mechanism.
Be prepared to commit for long time periods and to provide core support	<ul style="list-style-type: none"> • The Rockefeller Foundation has been involved in research capacity building for about 50 years. • Norad has been supporting research capacity strengthening for over 40 years. The current Norwegian Programme for Development, Research and Education provides funding for five years. • Sida/SAREC, ISP and the WHO Special Programme for Research and Training in Tropical Diseases (TDR) have been involved in training researchers and providing core support to universities and research institutes in Africa for at least 30 years. Their end vision is the capacity of countries to produce and reproduce PhD graduates so that development issues can be tackled by local researchers. • Danida Enhancement of Research Capacity (ENRECA) has been supporting research capacity since 1989. The Danish International Health Research Network, for example, has been involved in Tanzania for 12 years.
Priority should be given to understanding local context, donor staff should ideally be based	<ul style="list-style-type: none"> • IDRC's functions have been decentralised to three regional offices in Africa, which allows for closer collaboration with recipients of funds and better local knowledge. • National Centres of Competence in Research North-South (NCCR N-S)

<p>in the country, or at least have a strong background in the region and travel there regularly</p>	<p>(Switzerland) – funded by SDC – has an extensive network of institutes and organisation in Africa, which allows it to have a strong knowledge of local issues.</p> <ul style="list-style-type: none"> • IRD has an extensive network in Africa, with a presence in a number of countries. 36% of its staff work overseas, 600 of its technical staff are from the South, and foreign researchers are directly involved in its research programmes. • A number of donors are increasingly funding projects through their embassies.
<p>Build on and support existing capacity, expertise and institutions, particularly those built with African initiative</p>	<ul style="list-style-type: none"> • Strengthening Capacity for Agricultural Research in Africa (SCARDA) and UHSEPiA are both examples of projects that have been initiated and led by an African institution and subsequently funded by Northern donors. SCARDA is funded by DFID and USHEPiA by a consortium of independent foundations.
<p>Revise partnerships so that demand comes from the South and that incentives are right for multiple stakeholders to participate in at all stages of research</p>	<ul style="list-style-type: none"> • IDRC's funding proposals are led by Southern institutions. • Carnegie Corporation's funding mechanisms provide Southern partners with greater voice over resource allocation. • TDR responds effectively to Southern demand in its research capacity development. Southern partners set the focus and have decision making power over many issues. Northern involvement is increasingly informal and Southern partners are actively sought. • ISP invites groups to apply for funding and these research groups decide their research focus. • Danida-supported projects are meant to be collaboratively designed and implemented by the Southern and Northern partners to suit the circumstances of each. The informal and formal training of Southern researchers in partner institutions is considered of central importance.
<p>Explore ways to support Southern partners' research management and knowledge management skills so that control over funds can be devolved as much as possible</p>	<ul style="list-style-type: none"> • International research institutes and networks based in Africa work as intermediaries between local research institutions and donors, and support local partners in project management and donor reporting as well as in overall research capacity building. Examples include CGIAR centres, such as CIFOR and the International Rice Research Institute (IRRI), and networks such as ERNWACA and AERC. • Sida/SAREC grants universities minor funds to use for faculty research and fellowships in order to improve fund management capacities
<p>Build partnerships with national governments and coordinate support with broader national research and innovation policies and plans</p>	<ul style="list-style-type: none"> • In Mozambique, Sida was invited by the Science and Technology Minister to help develop a research strategy which incorporated training of ministerial staff in relation to research and policy. In Tanzania, this process is still at a dialogue stage and Sida is trying to raise awareness of the importance of research and assistance needed by researchers. • The World Bank/International Fund for Agricultural Development (IFAD)-supported Agricultural Research Centre in Ethiopia links national and regional level governmental, researcher and practitioner stakeholders in coordinating research agendas and priority setting, implementing and communicating research.
<p>Address issues of gender balance in design of research capacity building</p>	<ul style="list-style-type: none"> • The Carnegie Corporation works to enhance women's opportunities in higher education by providing scholarships; addressing problems of retention, performance and career development; and building knowledge through documentation and networking. • The African Academy of Sciences provides scholarships, mentoring and workshops to build capacity among women scientists. • The annual Gender Institute at CODESRIA brings together African researchers to strengthen gender analysis in African social science research.
<p>Research capacity building should focus on all stages of the</p>	<ul style="list-style-type: none"> • A recent initiative by Wellcome Trust and IDRC to support social policy think tanks is an example of support for policy research and bridging research and policy.

<p>research process, including research synthesis and communication of research to policymakers and practitioners</p>	<ul style="list-style-type: none"> • Danida-supported partnerships regularly involve Southern and Northern researchers in planning research that is relevant to the host country's development, and support the dissemination of research results. • DFID's Research into Use (RIU) programme.
<p>M&E of research capacity building is an area that warrants urgent attention, starting with a broad conceptual framework that could be shared by all donors</p>	<ul style="list-style-type: none"> • IDRC's evaluation of the policy impacts of its development research over 20 years, many of which include strong research capacity components. This evaluation sought to tease out crosscutting lessons from development research in diverse sectors and implemented in diverse country contexts.

4. Conclusions and recommendations for DFID

Overall, this study has highlighted the dearth and relative fragmentation of knowledge about capacity building support for research and research uptake in the African region. In light of these limitations and in particular given the unevenness of available information, it is difficult to map the field with sufficient accuracy so as to make robust recommendations as to how DFID could best add value to this field. Nevertheless, our literature review and in particular our phone interviews with key informants underscored the fact that DFID is a respected development research donor with a number of important potential comparative advantages that could be built on to make a valuable contribution to broader research capacity strengthening efforts. Our conclusions and recommendations focus on five key areas: harmonisation, partnerships, modes of support, M&E and thematic and disciplinary focus.

Given the strong emphasis in our findings on the long-term commitment needed to realise effective research capacity strengthening, developing a sequenced approach with short-, medium- and long-term objectives in each of these areas will be important. Broadly speaking, we would recommend that in the **short run** DFID focus on improving its own data collection efforts with regard to research and RIU capacity building, and encourage other donors to do the same. This would include more in-depth evaluations of its existing capacity strengthening efforts so as to have a more solid evidence base about the strengths and weaknesses of DFID's approach to date. At the same time, DFID could broaden the type of capacity building activities it is involved in by initiating pilot programmes around some of the key areas mapped out below and/or partnering with other donors embarking on similar initiatives.

In the **medium term**, armed with evidence from a better base and drawing on examples of best practice detailed in Table 3, DFID could invest more in establishing itself as a leading donor that supports capacity strengthening for under-funded areas and those in which DFID has a comparative advantage, particularly non-economic social science research and research into use approaches.

Over the **longer term**, DFID should ensure that its research capacity enhancing efforts are coordinated with efforts by national governments to strengthen the broader research and innovation enabling environment, and not undermining or duplicating local initiatives. This could include support for the development of independent research institutes or centres of excellence in DFID's potential areas of comparative advantage, in partnership with other like-minded donors such as IDRC, the Ford Foundation and the Wellcome Trust.

4.1 Harmonisation

- There is a growing level of coordination and collaboration among development research donors with respect to support for research capacity building, particularly in the form of jointly funded intermediary organisations and thematic research networks. However, there is still much room for improvement, especially given very high capacity strengthening needs in Africa and still relatively limited funding.
- A first step in terms of harmonisation that DFID and IFORD could support would be better data collection and communication about research capacity strengthening work, in order to develop a more accurate picture of the research capacity support environment. Ideally, this would start from the bottom up, i.e. through the prism of what type of harmonisation and coordination would serve beneficiary organisations most. This could be as simple as agreeing on shared reporting procedures for all donors that fund any university or institute, but could also require donors to get together at the local level with each institution they fund to carry out systematic needs assessments.

- An equally important and urgent step is for DFID and IFORD to consult with national governments so that research capacity development work can be harmonised with the development of broader national research and innovation systems. Given that a number of other donors have a long track record in providing institutional support to universities in the region, and the fact that such support demands very long time horizons, DFID may be better placed to provide support to independent research institutions so as to support a diversity of voices and development thinkers.
- Harmonisation could also include a more strategic approach to the geographic coverage of existing and future research capacity strengthening programmes, as presently coverage is very uneven, particularly outside Anglophone Africa.

4.2 Partnerships

- Both the literature documenting best practice and key informant interviews emphasised the value of supporting long-term partnerships based on mutual respect and trust between Northern and Southern research institutions. However, it is important that such partnerships be based on demand from the South. Here, DFID could draw on IDRC's model of funding proposals led by Southern institutions, and/or develop funding mechanisms that provide Southern partners with greater voice over resource allocations within such partnerships (e.g. Carnegie). Support in strengthening research management and knowledge management skills within Southern research institutions could also help to make more equitable partnerships viable and in keeping with quality assurance standards.
- Another important area of partnership that has been underutilised is that of links between research institutes and the private sector. Given that this an area where few donors have concentrated resources and attention, it would seem to represent a potentially fruitful avenue for further exploration.

4.3 Modes of support

Our findings suggest that research capacity support is focused largely on knowledge generation within universities and research networks, with little attention to the design of questions that resonate with national policy and development agendas and limited support for conducting and communicating policy research. Given DFID's emphasis on peer recognition for its RIU programme, coordinating with donors that are moving into supporting capacity development in this area – especially the Hewlett Foundation and IDRC – could be a fruitful area in which to invest. This could also include support for research synthesis work which is largely ignored in the literature, but emerges as critical if we are to reap and build upon the benefits of existing knowledge.

4.4 Monitoring and evaluation

- This is an area that warrants urgent attention. A large number and variety of research capacity strengthening initiatives have been undertaken, but systematic learning from these programmes has been very weak. A key challenge for DFID and IFORD would be to develop a conceptual framework for M&E: What is the theory of change in research capacity building? What are the expected outcomes? What are the indicators? What is the optimal balance between evaluating capacity building in terms of policy-relevant research and the extent to which it informs policy on the one hand, and supporting the achievement of more traditional academic indicators, particularly the number of journal publications, with which African key informants are also concerned?
- DFID could also support a broader donor community effort to invest in monitoring and evaluating capacity building work, including existing multi-donor-funded intermediary

organisations and networks, and its own learning-by-doing modes embedded within DPCs and RPCs. These findings then need to be widely communicated and shared among donors, intermediaries, beneficiaries and potential beneficiaries. Given existing evaluation evidence that suggests that the gendered dimensions of such work have been overlooked in such programmes, particular attention should be paid to addressing this lacuna.

4.5 Thematic/disciplinary focus

- Lastly, our findings indicate that natural sciences, health, agriculture and economic research are all receiving multiple forms of capacity strengthening support. By contrast, there appears to be a significantly lower investment in the social sciences and humanities. Given a growing realisation that poverty reduction, inclusive growth and good governance require more than technocratic solutions and instead call for critical social science, investing in support of (especially non-economic) social science methods and research would appear to be a potentially important area of contribution. This would, however, demand attention to and understanding of the local socio-cultural context, and the politics of the research–policy–practice environment, including governmental openness to critiques of existing social policies and governance practices.
- Supporting national and regional social science associations and networks could be an important avenue of support in this respect. These organisations often have experience in institutional support for universities and research institutes and benefit from good knowledge of the local context. Supporting their existing work and exploring new areas of cooperation may be a good way to support social science and humanities research capacity in Africa.

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Appendix 1: Bilateral donor funding of research capacity strengthening support

The problems with providing accurate figures for donor/funder funding of research capacity strengthening are numerous. These include research capacity strengthening being integrated into research projects but only appearing in budgets as funding for research projects (often donors do not differentiate between funding for research and research capacity strengthening); research capacity strengthening work often spans a number of different sectors and budgets (e.g. education, support to higher education, development research, health, agriculture); research capacity strengthening involves long-term investment and many projects span different yearly budgets; the hidden costs of research capacity strengthening work- for example should programme office staff costs be included as many programme officers provide mentoring and support to researchers and institutes.

Agency/country	Annual spending on research capacity strengthening (US\$)	Annual spending on research capacity strengthening (US\$) in Africa	Year of spending figure
DGIS/NUFFIC ¹	>160m	140m	2005
USAID ²	>100m		2006
IDRC ³	>80m	>20m	2006–2007
Sida/SAREC ⁴		c.25m	2006
Norad ⁵	>25m	c.20m	2007
Danida ⁶	>15m		2004–2007
IRD ⁷	<20m		2006
Germany ⁸	N/A	N/A	
CIRAD ⁹	N/A	N/A	
CIDA ¹⁰	N/A	N/A	
AusAID ¹¹	N/A	N/A	
SDC ¹²	N/A	N/A	
JICA ¹³	N/A	N/A	

Footnotes

1 Figure based on 2005 NUFFIC expenditure on its NFP programme (US\$35m) and US\$200m commitment to NPT programmes in 2005, including approximately US\$140m in Africa. 2005 NPT country expenditure (in euros):

Benin 6,291,490

Ethiopia 10,091,148

Ghana 16,521,649

Mozambique 10,052,552

Rwanda 13,145,708

Tanzania 11,287,987

Uganda 12,759,816

South Africa 4,835,646

Zambia 7,333,540

The 2006 DGIS department for Research and Communication (DCO/OC) central research programme budget was US\$34m. Since 2005 the department has also spent c. US\$55m on supporting capacity building, representing 55.9% of the total DCO/OC budget. In 2005, DMFA committed US\$24.1m to CGIAR and in 2007 US\$32.8m to the GAVI Alliance.

2 As USAID doesn't keep central figures on research spending for each USAID bureau and support to research capacity strengthening cuts across a number of bureaus and themes it is very difficult to get an accurate figure for USAID spending on RCS. However, in 2006 US\$148m was spent by USAID on health-related research. In 2005, CGIAR received around US\$55m in funding from USAID. Over 20 years OIRED has spent in excess of US\$45m in Africa on CRSP related projects.

3 Figure based on 2006–2007 total allocation of funding to IDRC research programmes – US\$112m (this figure rises to US\$140m if funding from outside partners is included). A 2005 survey highlighted that 75% of all IDRC research projects contain research capacity strengthening elements. In 2006–2007 IDRC allocated US\$24m to research programmes in Sub-Saharan Africa and US\$6m to the MENA region.

4 This figure is based on Sida bilateral research cooperation in 2006 to its African partner countries: Burkina Faso (US\$800k), Ethiopia (US\$2.3m), Mozambique (US\$3.3m), Rwanda (US\$3.5m), Tanzania (US\$7.1m) and Uganda (US\$7.1m). This figure does not include Sida support to regional institutes, multilaterals and networks working in Africa to strengthen research capacity.

5 This estimate is based on the following: The total budget frame for the current NUFU programme period (2007-2011) is US\$50m, of which US\$30m is directed to African institutes, making an annual figure of US\$6m. The total budget frame for the current NOMA programme period (2006-2010) is US\$57m, and has a large focus on Africa, thus we can estimate that it would be in line with NUFU annual spending, c. US\$6m a year. On top of this under the Norad–Tanzania agreement, key partners in the country will between them receive US\$6m every year till 2010, and to increase support to Sudanese research The Norwegian Ministry of Foreign Affairs has in accordance with NUFU guidelines, set aside US\$10m over five years (starting from 2007) to university cooperation between institutions in Norway and Sudan.

6 This estimate is based on the following: In 2004 Danida committed US\$7.5m to ENRECA capacity building projects. It provided a further US\$1m to support Danish research networks including the Danish International Health Network, Danish Development Research Network (DDRN) and Network for Smallholder Poultry Development, which are all involved in research capacity strengthening work. It provided a further US\$13m to Danish Research Council and other Danish institutes supported development research. In 2004 Danida also supported multilateral organisations involved in development research in the sectors of agriculture (CGIAR), social research and health research. Funding for this support was nearly US\$11m. The central funds for the Danida Fellowship Centre in 2007 are nearly US\$10m, with US\$7.5m supporting training activities of a political, strategic or technical, innovative nature for participants from programmes and projects in the Danida programme countries. The remaining money is earmarked for MBA-studies at Copenhagen Business School (Emerging Leaders Scholarship Program).

7 This estimate is based on IRD having a budget of 115 million euros (US\$163m) in 2006, with €95 million (US\$134m) spent on staff costs in France and overseas. Of the remaining money not all is spent on research capacity strengthening. IRD 2006 Research sector spending (euros):

Natural hazards and climate 10.5m
Sustainable management of Southern ecosystems 21.15m
Water resources and access to water 23m
Food security in the south 20m
Public health and health policy 19m
Development and globalisation 20m

8 No figures are available for combined German support to research capacity strengthening in Africa.

9 No figures are available for CIRAD support to research capacity strengthening in Africa. CIRAD had a budget of just over €180m in 2005. A large proportion of this budget is funded by the French government (c.70%), and CIRAD also received funds from the EU (€16.1m in 2005).

10 CIDA provides RCS through funding to multilateral and regional research initiatives in Africa. A wide ranging percentage of this funding goes towards RCS in Africa thus making it very difficult to estimate CIDA's specific funding of RCS in Africa.

CIDA support to multilateral organisations	
Consultative Group on International Agricultural Research (CGIAR)	US\$106m 1999–2007
Global Health Research Initiative (GHRI)	US\$3m 2005–2006
Global Alliance for Vaccines and Immunization (GAVI)	US\$6m/yr US\$160m one-time grant in 2004–2005
AIDS Vaccine Research and Development	US\$50m 2002–2006
Global Polio Eradication Initiative (GPEI)	US\$42m 2004–2005
International Partnership for Microbicides (IPM)	US\$15m 2004–2007
International Land Coalition (ILC)	US\$450 K 2005–2008

CIDA Support to African Organisations	
Pan-Africa Bean Research Alliance (PABRA)	US\$7.5m 2003–2008
Forum for Agricultural Research in Africa (FARA)	US\$3.25m 2003–2006
Southern Africa Migration Program (SAMP)	US\$6m 1996–2005
SAHARA: Regional HIV/AIDS Initiative	US\$2.2m 2005–2007
Agroforestry for Sustainable Rural Development in the Zambezi River Basin	US\$39m 1985–2006
Zimbabwe and Mother-to-Child Transmission of HIV/AIDS (ZVITAMBO)	US\$4.5m 2003–2006
Biosciences Eastern and Central Africa (BECA)	US\$30m 2003–2009
African Trade Policy Centre	US\$5m 2003–2007
Research on Agricultural Productivity	US\$40m 2002–2006
AGRYHYMET Regional Centre (ARC)	US\$5.1m 2000–2007
African Medical and Research Foundation (AMREF)	US\$10m 2001–2006

11 There are no central figures for AusAID support to Research Capacity Strengthening. AusAID does fund the following programmes, organisations, institutes etc. that provide a degree of RCS support in Africa:

The Joint Economic Aids & Poverty Programme (JEAPP) US\$225,000 (annually) for HIV/AIDS research (South Africa and Lesotho)

Trade Law Centre (Tralac) c. US\$1m over three years in part for trade-related research (Southern Africa)

Trade and Industrial Policy Strategies (TIPS) c. US\$1m over three years in part for trade-related research (Southern Africa)

South African Institute for International Affairs (SAIIA) c. US\$1m over three years in part for trade-related research (Southern Africa)

University of Pretoria: US\$160,000 over two years for masters in trade scholarships in part to build trade research capacity in Southern Africa

UNICEF Children and AIDS Program US\$10m over three years with a small portion for research

DFID Regional Hunger and Vulnerability Program c. US\$1m

– funding is used to build the capacity of national vulnerability assessment committees to research, collect and analyse vulnerability data

Australia – South Africa Joint Economic Research Program US\$225,000 (Australian and South African Treasuries with various Australian and South African researchers)

12 No figures are available for SDC support to research capacity strengthening in Africa.

13 No figures are available for JICA support to research capacity strengthening.

Multilateral donor funding of research capacity strengthening support

Organisation	Annual spending on research capacity strengthening (US\$)	Annual spending on research capacity strengthening (US\$) IN Africa	Year of spending figure
WHO–TDR ¹⁴	>30m	>20M	2005
HRP ¹⁵	“”	“”	2007
IFS ¹⁶	<5m		
WB ¹⁷	N/A	N/A	
AfDB ¹⁸		N/A	
CGIAR ¹⁹	N/A	N/A	
ICSU ²⁰	N/A	N/A	
EU/EC ²¹	N/A	N/A	

Footnotes

14 The 2005 TDR budget was US\$50m. Capacity strengthening work/partnerships counted for US\$20m of this, but this figure under values other research capacity strengthening work not included in specific capacity strengthening projects. Since TDR was established in they have spent over US\$250m on RCS.

15 HRP 2006–2007 budget: US\$39m. US\$11.7m of this is for technical cooperation with countries, which includes national research capacity strengthening.

NB: The estimated total financial resource available to WHO for 2006–07 is US\$3.32bn. The proposed WHO programme budget for 2006–2007 called for a spending of US\$108.5m on Communicable Disease Research, US\$74.6m for the Health Information, Evidence and Research Policy programme and US\$138m to be spent on the Knowledge Management and IT programme.

16 The IFS annual budget is US\$5m.

17 Figures for WB and WBI spending on research capacity strengthening globally and in Africa are not available. The portfolio of WB projects under implementation in Africa as of April 2007 amounts to US\$19.2 billion. In order to maximise the impact of assistance, the allocation of IDA resources across countries has mirrored the quality of policies and institutions. Several countries – Burkina Faso, Ghana, Mali, Mozambique, Senegal, Tanzania and Uganda – have, as a result, received increased assistance. Between 1995 and 2004, the WB provided some US\$9 billion in lending and close to US\$900 million in grants and administrative budget to support capacity building in Africa. It has also granted US\$158 million over 1991–2004 to ACBF.

18 Figures for AfDB and AfDBI spending on research capacity strengthening globally and in Africa are not available. Between 1987 and 1998, the Bank provided a total of US\$36.561 million to research organisations covering a number of important sectors including: agriculture, health, finance, education, gender, environment and macroeconomic development research. The ADFI resources approved by the Bank for the furtherance of research and capacity building initiatives for the period rose from UA6.0 million (2002–2004) to UA15 million. In 2006, US\$97m was spent by the ADF on education.

19 Figures for CGIAR spending on research capacity strengthening globally and in Africa are not available. In 2005 the alliance's expenditure was US\$452m. The US was the largest donor (US\$54.8m), followed by the World Bank (US\$50m) and DFID (US\$44.2m). The Alliance received US\$14m from private foundations including US\$10m from the Rockefeller Foundation. Expenditure by research output:

Germplasm improvement – 17%

Germplasm collection – 12%

Sustainable production – 33%

Policy – 18%

Enhancing NARS – 20%

Expenditure by region:

Sub-Saharan Africa – 46%

Asia – 30%

Latin America and Caribbean – 14%

Central and West Asia and North Africa – 10%

20 Figures for ICSU spending on research capacity strengthening globally and in Africa are not available. ICSU 2005 income was US\$4.5m.

21 Figures for EU and EC spending on research capacity strengthening globally and in Africa are not available. The total funding for the 7th Research Framework Programme is nearly US\$4bn 2007–2013. Within this framework international cooperation funding is US\$260m.

Foundation/trust funding of research capacity strengthening support

Agency	Annual spending on research capacity strengthening (US\$)	Annual spending on research capacity strengthening (US\$) in Africa	Year of spending figure
Wellcome Trust ²²	> 50m		2005–2006
Rockefeller ²³	c. 30m	c. 25m	Annually
Ford ²⁴	> 28m		Annually
Hewlett ²⁵	> 25m		2006
Carnegie ²⁶		15.8m	2005–2006
Mellon ²⁷		< 5m	Annually

Initiatives supported by foundations

PHEA ²⁸		>60m	2005–2006
AGRA ²⁹	N/A	N/A	

Footnotes

22 The Wellcome Trust annual expenditure in financial year 2005–2006 was £484 million (US\$1bn). Total international spend was: £72.5m (US\$150m) – including direct grants to researchers overseas, and awards to researchers at UK locations for research overseas. Within this funding is support to research capacity strengthening.

23 Figure based on key informant from the foundation's estimate. The foundation has also spent nearly US\$150m on establishing a green revolution in Africa over the past seven years including a US\$50m grant to AGRA.)

24 In 2005 the foundation invested over US\$500m in grants, fellowships and programme support. In 2005 it spent US\$142m on the Asset Building and Community Development Programme, US\$93m on its human rights programme, and US\$92m on the governance programme. Within these programmes the foundation supports research capacity strengthening but no figures are available for the total spending on this support. The figures used in the table are based on the US\$280m the foundation has pledged towards the International Fellowship Programme over the next ten years (2000–2010). The Foundation is a partner in PHEA. See footnote 20.

25 In 2006, The William and Flora Hewlett Foundation awarded US\$292,040,335 in grants and disbursed US\$211,762,058 in grant and gift payments. The figure used in the table is an estimate based on the following:

In 2006 the foundation invested US\$36.3m in its global development programme. Part of this programme goes towards supporting RCS in Africa, including a recently established project with IDRC to support social policy think tanks in Africa. Through its education programme the foundation supports Open Educational Resources, and since 2001, the Foundation has invested close to US\$70 million in Open Educational Resources; today it supports a US\$33 million portfolio of over 68 grants. The Foundation is a partner in PHEA. See footnote 20.

26 The corporation's International Development Programme (IDP) grants budget 2005–2006: US\$15.8m. IDP provides support to sub-Saharan African countries to:

- Strengthening African Universities
- Enhancing Women's Opportunities in Higher Education
- Revitalizing Selected African Libraries

The Foundation is a partner in PHEA. See footnote 20.

27 Over the past 18 years the South Africa program of the Foundation has made grants of over US\$75 million dollars (additional grants were made through the Foundation's Population and Conservation and the Environment programs). Currently the foundation spends c. US\$5m annually in South Africa. The Foundation is a partner in PHEA. See footnote 20.

28 During 2005-2006 PHEA grants totalled US\$61m. Between 2000 and 2006 PHEA grants including some attention to training or capacity building totalled US\$120,109,849, 53.85% of PHEA grants in this time period. For 2005–2010 the partnership foundations have pledged a minimum of US\$200m.

29 AGRA plans to spend US\$20m on its Education for African Crop Improvement (EACI) Initiative, which includes support to research capacity strengthening. Overall, US\$150m has been provided from the Gates Foundation (US\$100m) and the Rockefeller Foundation (US\$50m)

Appendix 2: Donor support to research capacity strengthening in Africa

Bilateral donors: Approach to research capacity strengthening

Organisation	History	
CIRAD www.cirad.fr	CIRAD was established in 1984 bringing together nine French agricultural research institutes to create a public-sector industrial and commercial enterprise under the aegis of two French ministries: Research and Cooperation.	
Approach to research capacity strengthening		
Institutional	Individual	Environment/national research systems
<p><i>Research partnerships – research platforms in partnership (PCP) and international research units (URP)</i></p> <p>CIRAD favours long-term partnerships within local research and teaching structures, with which it implements joint programmes. PCPs and URPs aim to pool both teams and resources. CIRAD believes they are an excellent way of bringing research and training closer together so as to increase the scientific capacity of the researchers involved.</p> <p><i>PCP objectives</i></p> <ul style="list-style-type: none"> • Build new partnerships to pool know-how and improve researcher practices • Promote bridges between research and education, by supporting training for young researchers and students • Make optimum use of pooled skills, to ensure the success of research projects and produce development tools adapted to stakeholders' requirements • Programme research in accordance with stakeholders' concerns • Produce quality scientific results • Assess the impact of research actions on rural development and the environment <p><i>Additional institutional support</i></p> <ul style="list-style-type: none"> • Support of the conception and establishment of institutional policies concerning documentation, publication or communication • External reviews of structures and products, 	<p>CIRAD's strengthened links with universities involve providing students with teaching and supervision, and also assigning researchers to universities in developing countries.</p> <p>Every year, CIRAD scientists help to supervise more than 250 PhD students, and receive 170 researchers from developing countries on individual on-the-job training courses. Individual training may be provided in response to various types of requirements:</p> <ul style="list-style-type: none"> • PhD or post-doctoral training • courses as part of diploma-oriented training • advanced scientific concepts, techniques or methods • specialised on-the-job training. <p><i>CIRAD grants</i></p> <p>CIRAD can also provide financial support for PhD and post-doctoral students, researchers from developing countries and professionals, to enable them to achieve their training objectives or perfect their skills. The calls for applications issued by CIRAD take the form of incentives for which CIRAD research units and support teams can apply.</p> <p>The incentives concerning training and capacity building respond to various requirements:</p> <p><i>Support for training at PCPs</i></p> <p>This is geared towards receiving and training local partners with a view to strengthening PCPs and URPs. This may mean individual training (in a CIRAD laboratory, for example) or group courses (training</p>	<p>CIRAD provides national research systems with various types of support, including:</p> <ul style="list-style-type: none"> • defining skills requirements • analysing scientific training requirements in line with the partner organisation's strategic priorities • drawing up scientific training plans • implementing and monitoring scientific training plans • scientific and technical information management • research management

<p>possible changes, human resources and training programmes</p> <ul style="list-style-type: none"> • Help with building information systems: analysis of requirements, establishment of specifications, choice of technical solutions, support of construction, planning, training • Compilation and promotion of research results: inventories of scientific operations, summaries and dissemination of results on paper and CD-ROM 	<p>modules, workshops) designed, organised and run as part of PCP/URP operations. Particular attention is paid to training young researchers.</p> <p><i>Support for PhD students</i> This is intended to help research units increase their capacity to receive young research trainees. It should supplement other sources of funding and not cover the full cost of preparing a thesis. It does not replace graduate grants.</p> <p><i>Reception and training of scientific partners from developing countries</i> This is intended to consolidate and diversify scientific partnership networks through training and reception of students with the intention of drawing up projects. The support takes the form of travel grants for short stays at CIRAD laboratories.</p> <p><i>Reception of post-doctoral students</i> CIRAD offers grants for stays by post-doctoral students. European and international candidates may apply.</p> <p><i>Diploma-oriented training</i> CIRAD's researchers are heavily involved in higher education. Every year, they provide more than 4,200 hours of teaching and receive almost 600 students on courses within their teams in the French overseas regions, Montpellier or abroad. Almost 40% of those students are from developing countries. CIRAD also works with universities and colleges in both industrialised and developing countries to design and run diploma-oriented courses including: Certificate of specialised veterinary studies CES (Certificate of Higher Studies) in animal epidemiology Master specialisation : 'Animal husbandry in the Mediterranean and the tropics' Spécialité de Master Surveillance épidémiologique des maladies humaines et animales Masters in agronomic and agri-food science and technology and a speciality in Animal production in hot regions (PARCP)</p>	
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	<p>CIRAD teams are also involved in two European Masters under the 'Erasmus Mundus' programme: - 'Sutrofor', Master of science in sustainable tropical forestry development- 'Agris Mundus', Master of science in sustainable development in agriculture.</p> <p><i>Group training</i> CIRAD every year organises training workshops in France and in the South (mainly at its PCPs and URPs). Every year more than 70 group training courses take place in the South.</p>	
Organisation	History	
IRD www.ird.fr	IRD was established in 1944, and has been working in Africa since 1946.	
Approach to research capacity strengthening		
Institutional	Individual	Environment/national research systems
<p><i>Cooperative research</i> IRD research is conducted in liaison with French higher education and research institutions and with partners in the South. 36% of the Institute's staff work overseas, 600 of its technical staff are from the countries of the South, and foreign researchers are directly involved in its research programs. Each research group receives funding of 20k euros a year from IRD. This money is often used as leverage with other donors/funders.</p> <p><i>Support for teams</i> Since 2002, IRD has been supporting the emergence and consolidation of research teams in the South by selecting 'new IRD partner teams' (JEALs) which are partnered by IRD units to help them build up their self-reliance and increasingly integrate into the international scientific community. By 2006 there were 32 teams from Africa, Latin America and Asia, all receiving three years' scientific and financial support from the IRD.</p> <p><i>Partnerships</i> Sub-Saharan Africa is a priority area for IRD. Its involvement with Portuguese-speaking African countries is continuing to develop, with assistance missions to the research ministry in Mozambique. IRD is also working</p>	<p><i>Individual grants</i> In 2006 the Institute gave 179 grants to nationals from Southern countries, including 129 doctoral thesis grants, 5 Master's grants, 20 in-service training grants and 25 scientific exchange grants. IRD aims to provide assistance through a researcher's career.</p> <p><i>Teaching modules</i> In Africa, IRD has joined forces with Orléans, Paris V and other French universities to set up teaching modules, particularly modules on geographical information systems and demography. Designed as decision aids, these teaching modules will be incorporated into distance learning platforms. In Senegal and Benin, the Institute has organised two Master's courses- one on water and one on medical entomology.</p>	<p><i>Networking</i> In 2006, to help Southern teams integrate more easily into international networks, IRD organised a number of regional and theme-based workshops including 'The Young Researchers' Days in Dakar and the first JEAL encounter-workshop (which brought together 33 new partner teams in a videoconference between the IRD centres in Bolivia, Burkina Faso and Paris). To complement the specialist training dispensed to new teams and young researchers, IRD launched new general training modules to assist them in the other aspects of their profession – project management, submitting research proposals, team management, scientific publications and documentation monitoring.</p> <p><i>Dissemination of research</i> As well as research, IRD's mission includes disseminating the scientific information it produces to a variety of audiences, and sharing knowledge with its partners in the Southern countries where its researchers work. Books, databases, symposia, films and the media are all employed to this end. In 2006 more than 2,000 articles were published in the press about the work of the IRD and its researchers, prompted by scientific news bulletins and press releases</p>

<p>more closely with, countries in East and Southern Africa – Kenya, Ethiopia, Tanzania and Mozambique. This opens new prospects for regional partnerships. Cooperation with institutes and universities in Kenya and Ethiopia has also increased, with a focus on social science and water-related issues. In West and Central Africa, the Institute has worked to foster the development of regional partnerships. The main focus was on multidisciplinary programmes in the Niger river basin, involving Niger, Mali, Guinea, the Niger River Authority and the Senegal River Authority. IRD also wants to see more South-South cooperation projects, particularly between Africa and Latin America. With this in mind it has organised exploratory missions between Brazil and Mozambique. The IRD centres continue to open up to African partners and now also play host to other French and European research bodies.</p> <p>Other resources IRD has labs in Benin and Senegal, and a Research and Development Information Centre in Burkina Faso</p>		<p>issued by the Institute. The IRD website receives nearly four million hits a year.</p>
Country	History	
<p>Germany: BMZ support to: DAAD, DFG, Alexander Von Humbolt Foundation www.bmz.de http://www.daad.de www.dfg.de www.humboldt-foundation.de</p>	<p>BMZ funds a number of research capacity strengthening projects administrated by DAAD, DFG and the Alexander Humbolt Foundation. DAAD has been supporting university management bodies in developing countries since 2001.</p>	
Approach to research capacity strengthening		
Institutional	Individual	Environment/national research systems
<p><i>DFG – Programme to Encourage Cooperation with Scientists and Researchers in Developing Countries</i> This programme aims to promote North-South research cooperation. DFG covers German institutions' costs, while BMZ covers the Southern partner's. Funds can be made available for education of Southern researchers within country or in Germany through the collaborating German institution(s). Funds are also available for the dissemination of results, journals, workshops and conferences.</p> <p><i>DAAD subject-specific university partnerships with</i></p>	<p><i>Alexander Von Humboldt Foundation – fellowship for Southern researchers</i> The Georg Forster Research Fellowship for postdoctoral researchers is available to Southern researchers to support their research in collaboration with a German institute for 6-24months</p> <p><i>DAAD postgraduate degree courses with relevance to developing countries</i> DAAD supports a total of 35 continuing training programmes offered by Germany's universities to Southern students.</p>	

<p><i>developing countries</i> Through this project 83 partnerships with high-quality projects in a wide range of subject areas are currently being supported. The programme not only funds the partner universities in the developing countries; it endeavours at the same time to enhance the German universities' understanding for and expertise in development cooperation.</p> <p><i>DAAD – equipment donations for universities in developing countries</i> This programme provides academic staff working at these institutions with the material resources required for cooperation with German colleagues.</p>		<p><i>DAAD - country-related scholarships for young academics and researchers from advanced developing countries</i> This programme, again financed by the BMZ but administrated by DAAD, is intended for young engineers from Argentina, Chile and Mexico, and from India, Indonesia, Thailand, the Philippines, Vietnam and Sudan. Under this programme, foreign funding organisations or the participating universities themselves provide scholarships for study stays in Germany lasting up to 13 months, while the DAAD generally covers the cost of language courses and guidance, counselling and supervision.</p>	
<p>Organisation</p> <p>Danida –ENRECA www.um.dk <i>Danida Fellowship centre</i> www.dfcentre.com <i>Danish International Health Research Network Danish</i> http://enrecahealth.ku.dk/ <i>Network for Smallholder Poultry Development</i> http://www.poultry.life.ku.dk <i>Danish Development Research Network (DDRN)</i> http://ddrn.dk</p>		<p>History</p> <p>ENRECA was established in 1989 by Danida to complement the work of the Council for Development Research (RUF), which supports mainly individual Danish researchers in their work on development issues. An evaluation of ENRECA in 2000 and the Hernes report of 2001 strongly endorsed the principle of capacity building through twinning arrangements, according to the 'sandwich' model applied in ENRECA projects and recommended closer links between RUF/ ENRECA and other research programmes, including country-level sector programmes. The reports also encouraged the Ministry of Foreign Affairs to develop a research strategy/policy. During 2002, a re-organisation of research development aid took place in the Ministry of Foreign Affairs, including a merge of the ENRECA and RUF programmes. In 2004 the ENRECA Health Network was superseded by the Danish Research Network for International Health.</p>	
<p>Approach to research capacity strengthening</p>			
<p>Institutional</p> <p><i>Bilateral Programme – ENRECA – Long-term Twinning and Sandwich Model</i></p> <p>ENRECA is a partnership arrangement between Danish and host-country institutions with the purpose of promoting mutual learning through collaborative research and research capacity enhancement. The objectives of the programme are:</p> <p>1) to promote research of significance for the social and economic development of the country 2) to improve the capacity of the country to utilise results</p>		<p>Individual</p> <p><i>Danida Research Fellowship Programme</i> Managed by the Danida Fellowship Centre, this programme is a component of the Danish bilateral support to capacity building in Danida programme countries and covers the training and education needs of Danida financed projects and programmes through grants of fellowships for studies in Denmark, in the candidates' home country or in the region. The support is channelled through sector programmes or budget support. The programme and project-financed training may comprise tailor-made courses, degree giving studies, or participation in cross-sectoral courses. The</p>	
		<p>Environment/national research systems</p> <p><i>MultiLateral Support</i> Danida provides funding to multi-lateral organisations including CGIAR, IRRI and INASP.</p>	

<p>of international research 3) to improve the quality of the training offered at institutions of higher learning</p> <p>ENRECA works at the institutional level with both Danish and host-country partners through a 'twinning' arrangement. Typically both partners are university institutes or departments, so that it actually works at the sub-institutional level. A secondary, but still important, aim is to stimulate the interest, and increase the competence, of the Danish partner in research on issues important to developing countries.</p> <p>ENRECA funds collaborative projects as a vehicle for enhancing co-operation and mutual learning. The main criteria governing the choice of activities are the likelihood that the collaboration will lead to effective capacity building; scientific merit; and relevance to development. A growing number of ENRECA projects involve research institutions from several developing countries, as a means of encouraging South-South research collaboration. Projects are meant to be collaboratively designed by the prospective partners to suit the circumstances of each, so there is considerable variation in the modalities of different projects. However, the following features are fairly standard:</p> <ul style="list-style-type: none"> • co-operation on planning and implementation of research activities in the host country which are relevant to its development; • professional inputs by Danish and host-country researchers; • education of researchers and other professionals from the host-country institution through a programme of postgraduate degrees and non-degree training; • various types of on-the-job training, including 'learning by doing' in collaboration with staff of the Danish partner institution; • enhancement of the host-country institution's research capabilities through the provision of equipment, literature and improved communication facilities; • support for the dissemination of research results both locally and internationally; 	<p>programme provides grants to Master and Ph.D. studies carried out at Danish universities, designed as sandwich studies, when possible. It is emphasised that the studies are to be based on Danida's activities in the developing country, and the subject of the thesis is expected to be an integrated part of the existing activities.</p> <p>In 2003 there were 108 fellowship holders for degree studies, (with an average period of study of 5.1 months) out of a total of 602 fellowship holders that year. The central fellowship funds primarily support training activities of a political, strategic or technical, innovative nature that the Royal Danish Ministry of Foreign Affairs, embassies, and programmes/projects in programme countries may want to promote.</p> <p>In 2006 275 fellows were from Africa, representing 40% of the total fellows the Danida Fellowship Centre supports.</p> <p>Links to further details on fellowships support by the centre:</p> <p>Cross-sectoral courses - either mainstreaming issues or in management disciplines</p> <p>Sector specific training - either courses for one or two sectors or tailor-made courses specially designed to fulfil the needs of an individual programme/project</p> <p>Degree studies - master and Ph.D. programmes</p> <p>Strategic initiatives - political, strategic and technically innovative training activities</p>	
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<p>involvement of developing country researchers in international research networks.</p> <p>The Programme's policy and general direction is provided by a 30-member Advisory Panel of eminent Danish researchers, which includes all the members of RUF. Applications are generally initiated, and always submitted, by the Danish members of the proposed partnership, although the application itself must be completed jointly by the two partners, with the host-country partner certifying that this is the case. ENRECA support is provided in three-year phases, at an average of DKK5 million (approximately US\$950k – 2007).</p> <p><i>Danida also supports the following research networks which support north-south research collaboration, disseminate research findings and support national and regional research systems :</i></p> <p>The Danish Research Network for International Health http://enrecahealth.ku.dk/</p> <p>The Danish Research Network for International Health took over from the former ENRECA Health Research Network in 2004 and from August 2006, entered into a new three-year project phase with funding from Danida. In this phase, the Network hopes to promote a closer interplay between health-related research and development aid.</p> <p>The Network aims to strengthen the dialogue and interaction between research and development assistance in international health as a means of improving health in low-income societies, in line with the principles of Danish Development Aid. More specific objectives are, in collaboration with associate partners, to contribute to the strengthening of health research and its integration in health sector development. This is done through collaborative research projects between Danish and African partners. The network currently has research projects in Kenya, Ghana, Tanzania, Guinea Bissau.</p> <p>Network research themes:</p>		
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- Prevention and control of communicable diseases affecting the poor (e.g., malaria, TB and HIV/AIDS)
- More effective health care systems with enhanced equity
- Improved reproductive and sexual health
- Improved child and adolescent health

Network for Smallholder Poultry Development

<http://www.poultry.life.ku.dk>

NSPD is a network established to support activities in Danish agricultural sector programmes. The Network was founded in 1997 by groups of researchers and development workers from the Danish resource base. The network's members are actively involved in research, education and development activities in Bangladesh, Benin, Burkina Faso, Bolivia, Kenya, Mozambique, Nicaragua, Tanzania and Vietnam. The overall objective of the Network is poverty alleviation and improved welfare of poor people achieved through support to sustainable improvements of the traditional scavenging smallholder poultry production, which in many societies is the responsibility of women. The support will develop improved capacities regarding poultry production and health as well as strengthen institutional capacities. To achieve the goals, the Network will initiate and undertake multidisciplinary activities with a holistic approach. These will relate to the fields of project implementation support, education and institution building, and coordination of research. The network supports a number of ENRECA projects.

Danish Development Research Network (DDRN)

<http://ddrn.dk>

As of January 2007, the Research Network for Governance, Economic Policy and Public Administration (GEPPA), the Network for Agricultural Research for Development (NETARD) and the Research Network for Environment and Development (ReNED), merged into the Danish Development Research Network (DDRN). The purpose of the merger was to enhance cross-sectoral North-South collaboration and coordination of research for development. The new network is also

<p>expected to provide a more efficient and easy entry to the Danish resource base for Danida and other stakeholders within research for development. The development objective of DDRN is to contribute to the inclusion of research and research-based knowledge in development assistance and in partner countries' development activities.</p> <p>To reach this goal, DDRN works with three IMMEDIATE OBJECTIVES:</p> <ul style="list-style-type: none"> • Dissemination and exchange of information between development programmes and the research community within agriculture, environment and governance. DDRN provides, filters and amplifies information and research-based knowledge; • Fostering an engaged and committed network of members. By providing the necessary information channels, mechanisms and tools, DDRN facilitates community building, interaction and collaboration among its members; • Promotion of production and exchange of research-based knowledge relevant to development assistance within agriculture, environment and governance. DDRN facilitates thematic platforms, North-South partnerships and establishment of links at national, regional and international levels. 				
Organisation	History			
IDRC www.idrc.ca	IDRC was established in 1970. For a brief history of IDRC see http://www.idrc.ca/uploads/user-S/11394255461History_rev_e.pdf			
Approach to research capacity strengthening				
Institutional	Individual	Environment/national research systems		
Research capacity strengthening is central to IDRC's work (<i>'IDRC will strengthen and help to mobilise the local research capacity of developing countries...'</i> – IDRC Corporate Strategy and Program Framework 2005–2010). A 2005 survey found 75% of all research projects involved elements of research capacity strengthening. By the year end 2006–2007 261 projects with explicit research capacity strengthening objectives were active globally.	At the individual level, IDRC favours peer-to-peer learning, supporting researchers through education, training, and mentoring among other means. They, in turn build the capacity of others. IDRC focuses on building the capacity of individuals around the operational and management aspects of organisations - how to plan, implement, manage, and monitor a program or project. In addition, IDRC supports networks, providing researchers opportunities to collaborate with			

<p>IDRC adopts a variety of activities to support research capacity strengthening. A 2005 study (see link below) highlighted the following approaches to capacity strengthening from interviews with IDRC staff:</p> <ul style="list-style-type: none"> • Small grants funding • Training courses (research and evaluation methodologies and approaches) • One-on-one exchanges • Study exchanges, visits • Conferences, workshops and other professional public venues or forums • Networks and networking • Award programs (Agropolis, EcoHealth Award) • Learning by doing • Linking senior researchers with junior researchers • Having recipients work with experts • Writing experiences (manuscripts, theses, articles for peer-reviewed journals) • Sustained mentoring • Centres of Excellence <p>http://www.idrc.ca/uploads/user-S/11593620421Capacity_Building_at_IDRC_-_Some_Preliminary_Thoughts_April_2005.pdf</p> <p>Institutional IDRC funds research projects, often with North-South partnerships. Research capacity strengthening in a 2005 survey was found to be a key element in over three quarters of all IDRC supported research projects. It aims to create hubs where stronger institutes have the capacity to help institutes with lesser capacity. These hubs can provide a role in mentoring the regions researchers.</p> <p>Institutional support is set to become a key pillar in the new IDRC corporate strategy. Focus will not only be on a specific department of an institute's capacity but will</p>	<p>others.</p> <p><i>Research awards</i> IDRC Doctoral Research Awards include:</p> <ul style="list-style-type: none"> • Canadian Window on International Development Awards • The John G. Bene Fellowship in Community Forestry • The Bentley Fellowship • IDRC Internship Awards • IDRC Awards for International Development Journalism 	
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<p>include the whole institute's ability to govern/manage itself, find outside sources of funding, a niche for its work, develop research programmes etc. A pilot scheme which aims to explore what IDRC can do to underpin the sustainability of institutes, so they can use resources to effectively support research has been established. The programme aims to help institutes see their strengths/weaknesses, work through strategic plans, and create their own niches. The pilot is regional with a focus in Africa on Ethiopia, Kenya, Tanzania, Namibia, and Mozambique.</p> <p><i>Networks</i> IDRC is a strong believer in and supporter of networks including CODESRIA, AERC, SADRN, OSSREA, and ROCARE.</p> <p><i>Capacity Building in Resource Mobilization (CBRM) Programme</i> This IDRC programme works towards financial sustainability of IDRC research partners. It also plays a catalytic role in sharpening an organisation's programmatic focus and communication strategy. These elements serve to strengthen institutions and contribute to the ability and creativity of people to extend project reach, promote the uptake of research results, and influence policy. In tandem with other IDRC capacity building support, this project attempts to enhance momentum by providing training workshops and advisory services to IDRC research partners to strengthen capacity with resource mobilisation.</p> <p><i>Vision and Mission</i> CBRM envisions a research for development community capable of accessing a diversity of funding sources and other resources to maintain financial sustainability and generate the knowledge needed to address the challenges it faces. CBRM's mission is to strengthen the resource mobilisation capacity of IDRC research partners so as to assist them in establishing and maintaining their own research agendas.</p> <p><i>Objectives</i></p>		
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<p>The programme objectives are to develop and promote customised resource mobilisation tools, to strengthen skill sets and to promote emerging expertise that will contribute to building the field of resource mobilisation for development in general. The programme embraces a learning-by-doing approach and aims to build capacity at both the individual and organisational levels.</p> <p>Modalities Training workshops: These build capacity among clusters of IDRC research partners. Ongoing support is provided to facilitate the uptake of new knowledge and skills and troubleshoot problems along the way.</p> <p>Advisory services: The focus is on one organisation that engages in an institutional self assessment to identify its own capacity building needs in resource mobilisation, and develops a plan on how to address them.</p> <p><i>Hewlett Foundation/ IDRC support to Think Tanks and Policy Research Institutes</i> IDRC and the Hewlett foundation have recently established an initiative to help support Southern social policy think tanks and institutes. The pilot project covers 3–4 countries in Western and Eastern Africa. If successful the initiative will be expanded to Latin America and Asia. The initiative aims to provide core funding as well as research capacity strengthening activities. Targeted think tanks and institutes will have a focus on general social policy issues, with no sectoral bias. Funding for the initiative will be US\$100m over ten years.</p>		
Organisation		History
JICA www.jica.go.jp		JICA Third Country Training Programme was started in 1975. JICA Third Country Experts Programme was started in 1994.
Approach to research capacity strengthening		
Institutional	Individual	Environment/national research systems
<i>Partnership Programme</i> This is a comprehensive framework through which the Japanese government and the governments of developing countries (hereinafter referred to as 'partner countries') agree to jointly support the efforts of other	<i>Third Country Training Programme</i> This program began in 1975. With assistance from donor countries and aid organisations, a developing country accepts trainees from other developing countries with shared characteristics in order to transfer	<i>Asia–Africa Knowledge Co-creation Program: New Mechanism for Promoting Asia-Africa Cooperation through AICAD</i> JICA, in close collaboration with Asian countries, initiated the Asia-Africa Knowledge Co-creation Program

<p>developing countries and regions. Based on this framework, JICA works jointly with its counterpart organisations in partner countries to implement cooperation activities, such as the dispatch of experts, the acceptance of participants, and the hosting of seminars, in a comprehensive and methodical manner. There are also occasions when JICA transfers its knowledge and experience to its counterpart organisations in partner countries. As of December 2004, Japan has concluded Partnership Programmes with 12 countries: Thailand, Singapore, Egypt, Tunisia, Chile, Brazil, Argentina, the Philippines, Morocco, Mexico, Indonesia, and Jordan.</p>	<p>development expertise and skills. JICA generally implements this scheme through an organisation in a developing country to which it provided assistance in the past, thus transferring Japanese skills and expertise to trainees in other developing countries in a manner that has been adapted to meet local conditions. In fiscal 2004, 162 third-country training courses were implemented in 36 countries, taking in 3,545 trainees.</p> <p><i>Third Country Experts</i> This programme began in 1995. With support from donor nations and aid organisations, experts from developing countries are dispatched to other developing countries in order to transfer their expertise and skills. In fiscal 2004, 124 experts from developing nations were dispatched to other developing nations.</p> <p><i>JICA Scholarship Programme</i> In addition to conventional training programmes, in 1999 JICA started a long-term training program that accepts foreign students who wish to acquire graduate degrees in Japanese universities with the aim of acquiring more advanced and specialised knowledge and skills. Young administrative officers and researchers who are prospective leaders of their countries can participate based on requests from government-affiliated organisations in the program. At present, about 250 people take the program each year.</p> <p><i>JICA-IDCJ – Training Programme – Development Policies Course</i> A five-month course designed for government officials. Mainly covers development economics and project planning. This program is commissioned by the Japan International Cooperation Agency (JICA).</p>	<p>in March 2005. Under the program, African and Asian participants are engaging in sectors critical for African development, such as community development and private sector development, and making visits to Japan and other Asian countries to share and exchange knowledge and experiences.</p> <p>The goal is to generate new knowledge, ideas, perspectives, and approaches that would be appropriate and valuable to development efforts in Africa. The program is expected to serve as a mechanism to further promote Asia-Africa cooperation through which innovative approaches are explored and, if appropriate, introduced.</p> <p>The African Institute for Capacity Development (AICAD), which aims to promote human capacity building for poverty reduction and socioeconomic development in Africa, has been contributing to advancing South-South Cooperation, both within Africa and through Asia-Africa cooperation programs. The activities include, among others, research and development, training and extension, and information networking and documentation.</p> <p>Over the last three years, 353 participants from Kenya, Tanzania, and Uganda have undergone training in the field of water resource management and irrigation, which is one of the training courses offered by AICAD. AICAD is active not only in facilitating intra-Africa cooperation but also in collaborating with various Asian institutions. Most recently, in January and February 2005, an AICAD staff member participated in a microfinance training program in Indonesia, who will in turn share his knowledge with various stakeholders in Africa. And in June 2004 an expert from Kasesart University and an NGO representative from Thailand were invited to a Symposium on Research Results Dissemination held at AICAD.</p> <p>AICAD - http://www.aicad.or.ke/</p>
<p>Organisation Norad/Norwegian Centre for International Cooperation in Higher Education- SIU www.norad.no www.siu.no</p>	<p>History Norad has provided fellowship support to Southern students/ researchers for over 40 years.</p>	

Approach to research capacity strengthening		
Institutional	Individual	Environment/national research systems
<p><i>NUFU Programme – The Norwegian Programme for Development, Research and Education</i> Funded by Norad and administrated by SIU, NUFU supports institutional cooperation and projects between Norwegian universities/specialised universities/university colleges and their partner institutions in the South, directed towards building sustainable capacity and competence in research and research-based education in universities in the South. Project activities include joint research projects, education of Master's and PhD candidates, development of Master's or PhD programmes in the South, training of technical and administrative staff and publication and dissemination of research results. NUFU supports bilateral projects, regional network projects and supportive activities with an aim to contribute to the development of the institutions in the South.</p> <p>Other Support Programmes</p> <p><i>South Africa–Norway Research Programme</i> This programme is a collaborating scheme between South African and Norwegian scientists. Approx 40 mill NOK (approx US\$7m) is provided from Norway and 9 mill NOK (US\$1.5m) from South African partners.</p> <p><i>Sudan Cooperation</i> Research cooperation with Sudan is under planning at the moment.</p>	<p><i>Norad's Programme for Master Studies (NOMA)</i> This programme replaces the Norad Fellowship Programme (NFP) [also named the Norwegian Capacity-Building Programme, NCP, for an interim period], which has existed for forty years. NOMA is a programme providing financial support to develop and run Master Degree Programmes in cooperation between higher education institutions in the South and corresponding institutions in Norway. The aim of all educational activities within NOMA is to educate staff in public and private sector, as well as NGOs, in the South. Masters programmes supported through NOMA are established and developed in the South in close collaboration with Norwegian institutions. The needs and priorities of the countries in the South is the basis for cooperation between the partners in the South and in Norway.</p> <p><i>Norad Programme in Arts and Cultural Education</i> The goal of the Norad Programme in Arts and Cultural Education (ACE) is to contribute to the strengthening of cultural education institutions and to the professionalisation of artists and art forms in selected countries in the South. ACE offers support to cooperation projects between institutions for higher cultural education in the South and in Norway. Among the activities supported through the programme are scholarships for students at Diploma, BA and MA level at institutions in the South, in Norway or in combination (sandwich model). ACE also supports development of networks between institutions for cultural higher education in the South. The programme is financed by Norad and managed by SIU. The total budget frame for the current programme period is US\$2.5m.</p> <p><i>The Higher Education Master's in Africa Programme (HEMA)</i> HEMA is a Norad-sponsored collaborative programme involving the University of the Western Cape, University of Oslo, Makerere University and the CHET. The main objective of the project is to contribute to the</p>	<p><i>Regional organisations in Africa supported by Norad</i> These include: CODESRIA, ACBF, AERC and OSSREA. In addition Norad supports organisations that provide knowledge of relevance to capacity building in Africa including INASP and IFS.</p>

	<p>strengthening of higher education in Africa through building quantitative and qualitative capacity with respect to expertise on African higher education. The main activities are the further development of two existing Master courses in Higher Education in Uganda (Makerere) and South Africa (UWC) through modularising the existing curricula and integrating them in a joint programme structure with each other and the Master programmes in Oslo. CHET's role is to facilitate interaction and the development of a set of core curriculum compendiums of international and regional/local knowledge compiled from high quality articles and research reports.</p> <p>This Master's programme is the first to include a focus on the complex relationship between higher education and development. The programme is linked to a research network on expertise in higher education in Africa, giving successful applicants access to the latest knowledge in the field. The student target group is those currently involved in or aspiring to become involved in higher education, be it as administrators, researchers, policy-makers, curriculum managers, or consultants. Scholarships: A total of 8 scholarships are available. http://www.chet.org.za/hema.jsp</p> <p><i>Norwegian Development Research Support</i> In addition the Research Council of Norway finances research programmes and projects to the amount of approx US\$15m (NOK 102 million) per annum. These programs are designed to strengthen the knowledge base of development related research in Norway with a special focus on Africa. The three largest programmes receiving funding are: Globalisation and marginalisation Multi- and interdisciplinary research on development paths in the South (1998–2007) Poverty and Peace research programme (2007–2012) Global Vaccination and Global Health (2007–2011/2012).</p>	
<p>Organisation DGIS/NUFFIC http://www.minbuza.nl www.nuffic.nl</p>	<p>History Norad has provided fellowship support to Southern students/ researchers for over 40 years.</p>	

Approach to research capacity strengthening		
Institutional	Individual	Environment/national research systems
<p>DGIS funds three NUFFIC programmes related to research capacity strengthening:</p> <p><i>NPT Programme – The Netherlands Programme for the Institutional Strengthening of Post-secondary Education and Training Capacity</i></p> <p>The NPT is a programme of South-North cooperation which helps developing countries to strengthen their institutional capacity for providing post-secondary education and training. It does this by mobilising the expertise of Dutch organisations, who may call on organisations in other countries to help them meet the specific needs of Southern partners. The education and training capacity which the NPT addresses must be relevant to the sectors and themes targeted for the Dutch bilateral support given to the countries in question. More general support for the higher education sector is also a possibility, as is support for projects which cut across the chosen sectors and themes. Support can be given to organisations in the South that play an important role in the development of post-secondary education and training capacity. These include institutions for post-secondary education, government ministries, national commissions, and non governmental organisations.</p> <p>The NPT is demand-driven and flexible, and it addresses local priorities. ‘Ownership’ on the part of stakeholders in the South is an important feature of the programme. To achieve a good quality-price ratio, the grants by which Dutch organisations provide the necessary services are awarded on a competitive basis. The programme emphasises the achievement of results; in other words, it is output-oriented.</p> <p>See the web link below for specific details of NPT projects in Africa: http://www.nuffic.nl/international-organizations/services/capacity-building/npt/country-information-pages</p> <p><i>The Netherlands Periodicals Project (NPP)</i></p> <p>The NPP has as its objective the support of scientific</p>	<p><i>The Netherlands Fellowship Programmes (NFP)</i></p> <p>These are demand oriented fellowship programmes designed to foster institutional development. The NFP target group consists of mid-career professionals who are already in employment and who are nationals of and working in one of the selected countries.</p> <p>NPT and NFP were recently evaluated and are likely to change in the next few months.</p>	<p>DGIS</p> <p>DGIS research and communication department (DCO/OC) does not support direct in-country research but supports regional networks and institutes such as AERC, and is increasingly interested in innovation networks /platforms.</p> <p>DGIS-supported networks in 2007</p> <p>Netherlands Organisation for Scientific Research (NWO)/WOTRO Science for Global Development Global Development Network (GDN) African Economic Research Consortium (AERC) Organisation for Social Science Research in Eastern and Southern Africa (OSSREA) South-South Exchange Programme for Research on the History of Development (SEPHIS) African Technology Policy Studies Network (ATPS) United Nations University-Maastricht Economic and Social Research and Training Centre on Innovation and Technology (UNU-MERIT) Knowledge for Change Program (KCP) European Association of Development Research and Training Institutes (EADI) European Centre for Development Policy Management (ECDPM) Network of African Science Academies (NASAC) Royal Netherlands Academy of Arts and Sciences (KNAW) Science and Development Network (SciDev.Net)</p>

<p>libraries in developing countries by providing them with scientific publications. These are donated by individuals, organisations, libraries and publishing houses in the Netherlands. The NPP started in 1983 and has been managed by NUFFIC ever since. The project is funded from the generic subvention NUFFIC receives from the State.</p> <p>Purpose: The purpose of the NPP is to help university libraries in Africa, Asia and Latin America to build up their collections of scientific literature.</p> <p>Materials: Surplus periodicals and books are donated by the libraries of Dutch universities, hospitals, companies and research institutes, as well as by private individuals. Most donations result when libraries merge or become pressed for space, or when individual researchers retire. The NPP coordinator makes sure that the libraries overseas receive only relevant, useful materials. The books and periodicals must be in good physical condition, and periodicals are acceptable only if they are recent and in complete series. Single issues are not welcome. The publications most sought after are in English and to a lesser extent in French, Spanish or Portuguese. The project also operates a 'delayed subscription' service, which means that clients overseas are guaranteed the continued donation of certain periodicals.</p>		
Country		History
<p>Switzerland SDC NCCR North-South KFPE http://www.deza.ch http://www.north-south.unibe.ch http://www.kfpe.ch/</p>		Norad has provided fellowship support to Southern students/ researchers for over 40 years.
Approach to research capacity strengthening		
Institutional	Individual	Environment/national research systems
<p><i>The University Exchange Programme ('Echanges Universitaires')</i> This programme aims to support exchange and collaboration between Swiss universities or educational institutions and research institutions in developing and</p>	<p><i>Jeunes chercheurs (Young scientists)</i> The programme aims to support fieldwork activities of young Swiss and foreign PhD or postdoctoral students studying in Switzerland, if these activities take place in a developing or transition country in collaboration with a</p>	

<p>transition countries. Interaction of this kind should contribute to developing the educational, scientific and training capacities of the persons and institution(s) involved, as well as to strengthening the overall research capacity of the partner country. http://www.kfpe.ch/projects/echangesuniv/index.php</p> <p><i>Research Partnerships with Developing Countries</i> Co-funded by SNSF (the Swiss National Science Foundation) and SDC, this programme supports joint research projects concerning themes essential for the development of Southern countries. The partnerships must also strengthen local scientific capacities and reinforce the ties between researchers of the North and of the South. http://www.kfpe.ch/projects/rpdc/index.php</p> <p><i>Swiss Universities for Applied Sciences</i> Aims to promote collaborative research projects between Swiss universities and the south. http://www.kfpe.ch/projects/suas/suas.php</p> <p>NCCR North-South The NCCR North-South is one of twenty National Centres of Competence in Research currently supported by the Swiss National Science Foundation. The NCCR North-South was created in the understanding that development research and cooperation are matters of primary concern to Switzerland.</p> <p><i>Long-term goals of the NCCR N-S:</i></p> <ul style="list-style-type: none"> • Research: To support disciplinary, interdisciplinary and trans-disciplinary research aimed at promoting sustainable development. • Capacity development: To help strengthening institutions, primarily by building individual competence and capacity for developing socially robust knowledge for action • Empowerment: To support societies in partner countries and institutions in their effort to address syndromes in their region and find strategies to mitigate them. 	<p>local partner and his/her institution. The maximum amount granted is CHF 40,000 (c.US\$34k); this includes a contribution for the local partner. Proposals that receive subsidies from other parties and/or from the Swiss and foreign institutions involved in the project will be given priority.</p> <p>The SDC grant covers all or part of:</p> <ul style="list-style-type: none"> • Travelling costs (return trip from Switzerland to host country, travelling within the host country); • Living costs during fieldwork; • Expenses for 'minor' research material (not including PCs, etc.); • Translation expenses. <p>http://www.kfpe.ch/projects/jeuneschercheurs/index.php</p> <p><i>Research Fellow Partnership Programme for Agriculture, Forestry and Natural Resources (RFPP)</i> SDC has commissioned ZIL to manage its Research Fellow Partnership Programme for Agriculture, Forestry and Environment (RFPP details). Its purpose is to provide post-graduate research training to scientists from Switzerland and from Developing countries in order to strengthen human resource development, and to promote the development of a North-South research partnership.</p> <p>RFPP aims to strengthen human resource capacity directed to development by funding doctoral or post-doc fellowships. These fellows are embedded in research partnerships between Swiss institution and international agricultural research centres like those of the CGIAR. Thereby, they contribute to the advancement of science and strengthen the institutional linkages between Switzerland and developing countries. http://www.rfpp.ethz.ch/</p> <p><i>Master of Advanced Science MAS in Development, Technology and Society (MDTS)</i> This 26 week full time training course targets engineers, architects and qualified graduates in other disciplines from university level educational institutions in all countries. Participants should be committed to</p>	
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<p>The purpose of the NCCR North-South is also to create an institutional structure for sustainable development studies in Switzerland.</p> <p>Since its inception in 2001, the NCCR North-South has established a worldwide research network including seven institutional partners in Switzerland and some 130 research centres, universities and development organisations in Africa, Asia and Latin America. Approximately 400 researchers worldwide contribute to the activities of the NCCR North-South.</p> <p>NCCR North-South supports research on issues relating to sustainable development, particularly in developing and transition countries, but also in Switzerland. Features of the program include:</p> <ul style="list-style-type: none"> • North-South partnerships for scientific research • Integration of disciplinary, interdisciplinary and trans-disciplinary research • Interactive exchange of development research and practice <p>Research conducted under the auspices of the NCCR North-South is coordinated so as to allow for policy-oriented comparative analysis of pathways and potentials for mitigating the effects of global change that hinder sustainable development.</p> <p>As a contribution toward the strengthening of research capacities in partner regions, the NCCR North-South also conducts a programme of regional and interregional education and training workshops. The NCCR North-South is funded by the Swiss National Science Foundation and the Swiss Agency for Development and Cooperation. http://www.nccr-north-south.unibe.ch/</p> <p><i>EPFL-SDC Fund</i> In 1998 the Ecoles Polytechniques fédérales de Lausanne (EPFL), Switzerland EPFL negotiated a framework credit with the Swiss Agency for Development and Cooperation (SDC) to co-finance a series of innovative interdisciplinary projects, which</p>	<p>improving people's living conditions and to sustainable development in different regions of the world, and take an interest in problems linked to the integration of technology and sustainable development. The MDTS is based on past experience of postgraduate courses on development acquired by the EPFL and EIER-ETSHER since 1978.</p> <p>The last session of the MDTS was organised jointly with the Institut Supérieur Inter-Etats for training and research in water, energy, the environment and infrastructures (EIER-ETSHER group) and took place in Ouagadougou in Burkina Faso from 16 October 2006 through 27 April 2007. http://cooperation.epfl.ch/page57572-en.html</p>	
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<p>were launched via an internal call at the EPFL. The projects approved in the first call were completed successfully in 2001 and a second phase, endowed with a total of US\$1.5m by the SDC as well as an estimated US\$220k year from EPFL funds and contributions in kind, allowed Cooperation@epfl to launch an additional call for development research projects in 2003. As a result of the call, the EPFL-SDC fund finances five scientific partnership projects from 3 EPFL Schools. http://cooperation.epfl.ch/page60619-en.html</p> <p><i>ESAPP : Eastern and Southern Africa Partnership Programme</i> ESAPP's mission is to promote sustainable land management and sustainable regional development in Eastern and Southern Africa. By means of integrated concepts and innovative tools, research and research partnerships, capacity building and development support, it aims to enhance economic development, social welfare and ecological sustainability. http://www.cde.unibe.ch/Regions/ESAPP_Rs.asp</p>			
Organisation	History		
Sida/SAREC www.sida.se	SAREC was started in 1975 and by the mid 80s was supporting research training which led to development of today's sandwich model. In the 1990s SAREC shifted towards enhancing the research capacities of Southern national universities. In 1995 SAREC was absorbed into Sida. Sida/SAREC has been working in Africa for over 30 years. Initially they supported research councils but soon realised there was a lack of capacity for this support to be sustainable. In the past ten years, after supporting individuals and groups of researchers Sida has moved towards working directly with universities. s		
Approach to research capacity strengthening			
Institutional	Individual	Environment/national research systems	
Sida's approach to supporting research cooperation is fourfold : Bi-Lateral research cooperation with partner countries- including organisational and individual support (30% of Sida Research funding), regional research networks and special programmes (30%), thematic research programmes (30%), Swedish Development Research (10%). <i>Institutional</i> Sida has adopted a long term bi-lateral approach to supporting African universities. nfrastructural/institutional support includes building laboratories and modern library facilities, setting up local research funds and mechanisms for allocating priority among research	On an individual level Sida's support to researchers includes the training of PhD/Masters students in research projects. These are sandwich courses in collaboration from Swedish universities which serve as an intermediate stage until universities can build up enough capacity to offer their own training.	Sida provides support to universities to develop and reform their approaches to research and working with other institutes to develop national research systems. In Mozambique Sida was invited by the government to help develop a research strategy. In Tanzania Sida is in dialogue with the government regarding the government's approach to supporting research. Sida is also supporting a UNESCO run policy forum. Support to networks Sida supports a number of networks working in Africa through its regional research networks and thematic research programmes. Supported networks include AERC, CODERSIA, OSSREA. Sida also provides	

<p>proposals, and dialogue on reform of universities and national research systems. Sida also provides universities with small grants for faculty research projects and fellowships to develop management skills, and they provide support to develop universities' management/administrative capacities through the development of procedures and manuals.</p> <p>The aim is to arrive at a situation in which universities have gained credibility for managing governmental funds for basic research facilities, and are able to attract external funding from the private sector, foreign donors and foundations. Another key aim is that universities can 'reproduce' researchers through their own training programmes and act as hubs for research.</p> <p>Sida has also recently started a Swedish research links programme to encourage visits and research cooperation between Swedish and Southern universities.</p>		<p>funding to CGIAR.</p> <p>Sida is currently working with NEPAD and the African Union to strengthen its support of networks at a regional level.</p> <p>International Science Programme – ISP</p> <p>Sida-SAREC funds the International Science Programme which works in a number of African countries providing support to the key scientific areas of physics, chemistry and mathematical science. See intermediaries table for more information on ISP.</p>
<p>Organisation</p> <p>AusAID http://www.ausaid.gov.au/</p>	<p>History</p>	
<p>Approach to research capacity strengthening</p>		
<p>Institutional</p>	<p>Individual</p> <p><i>Australian Development Scholarships Program (ADS)</i></p> <p>This is a bilateral program within the Australian Scholarships initiative. They provide opportunities for people from developing countries to undertake full-time undergraduate or postgraduate study in Australia. Fields of study are targeted to address agreed priority human resource and development needs of recipient countries, in line with Australia's bilateral aid program. Scholarship holders are required to return to their country of citizenship for two years after they have completed their studies to contribute to the development of their country. Up to 1,000 Australian Development Scholarships are awarded each year across 31 countries with scholarships awarded equally between men and women. Students from Kenya, Lesotho, Malawi, Mozambique, Namibia, South Africa, Swaziland, Tanzania, Uganda and Zambia are eligible for the program. Spending on the program is approximately US\$7m for 200720–08.</p>	<p>Environment/national research systems</p> <p>Australia plays an important niche role in Africa. Given the focus on Africa by other donors and Australia's strengths in the Asia-Pacific, Australia is streamlining assistance through multilateral support and delegation to bilateral donors.</p> <p>AusAID funds the following programmes/projects with research capacity strengthening relevance to Africa:</p> <ul style="list-style-type: none"> # The Joint Economic Aids & Poverty Programme (JEAPP) US\$225,000 (annually) for HIV/AIDS research (South Africa and Lesotho) # Trade Law Centre (Tralac) c. US\$1m over three years in part for trade related research (Southern Africa) # Trade and Industrial Policy Strategies (TIPS) c. US\$1m over three years in part for trade related research (Southern Africa) # South African Institute for International Affairs (SAIIA)

	<p><i>Carnegie Mellon University (CMU) -AusAID Scholarships</i> CMU–AusAID Scholarships are offered for a one-year, full-time Masters by coursework degree to study at Carnegie Mellon University Australia. The two courses available to CMU-AusAID students are:</p> <ul style="list-style-type: none"> • Master of Science in Public Policy and Management • Master of Science in Information Technology (Management Track) - this course will only be available commencing January 2007 <p>Students from Kenya, Lesotho, Malawi, Mozambique, Namibia, South Africa, Swaziland, Tanzania, Uganda and Zambia are eligible for the programme.</p>	<p>c. US\$1m over three years in part for trade related research (Southern Africa) # University of Pretoria: US\$160,000 over two years for masters in trade scholarships in part to build trade research capacity in Southern Africa # UNICEF Children and AIDS Program US\$10m over three years with a small portion for research # DFID Regional Hunger and Vulnerability Program c. US\$1m funding is used to build the capacity of national vulnerability assessment committees to research, collect and analyse vulnerability data # Australia - South Africa Joint Economic Research Program US\$225,000 (Australian and South African Treasuries with various Australian and South African researchers)</p>
Organisation	History	
<p>CIDA http://www.acdi-cida.gc.ca</p>	<p>CIDA was established in 1968 to administer the bulk of Canada’s official development assistance programme.</p>	
Approach to research capacity strengthening		
Institutional	Individual	Environment/national research systems
		<p>CIDA provides funding to multi-lateral and regional research initiatives in Africa.</p> <p>Multilateral initiatives Cida provides funding for the following multi-lateral organisations which are to varies degrees involved in research and research capacity strengthening in Africa:</p> <p>Consultative Group on International Agricultural Research (CGIAR) Global Health Research Initiative (GHRI) Global Alliance for Vaccines and Immunisation (GAVI) AIDS Vaccine Research and Development Global Polio Eradication Initiative (GPEI) International Partnership for Microbicides (IPM) International Land Coalition (ILC)</p> <p>Regional initiatives Cida provides funding for the following regional organisations which are to varies degrees involved in research and research capacity strengthening in Africa:</p>

		Pan-Africa Bean Research Alliance (PABRA) Forum for Agricultural Research in Africa (FARA) Southern Africa Migration Program (SAMP) SAHARA : Regional HIV/AIDS Initiative Agroforestry for Sustainable Rural Development in the Zambezi River Basin Zimbabwe and Mother-to-Child Transmission of HIV/AIDS (ZVITAMBO) Biosciences Eastern and Central Africa (BECA) African Trade Policy Centre Research on Agricultural Productivity AGRYHYMET Regional Centre (ARC) African Medical and Research Foundation (AMREF)
Organisation	History	
USAID http://www.usaid.gov	USAID CRSPs were started in 1978.	
Approach to research capacity strengthening		
USAID support to research capacity strengthening cuts across a number of departments and sectors. The projects and initiative below do not cover all USAID research capacity strengthening activities. USAID is a major funder of international and regional networks including CGIAR, AERC, and many other organisations including those listed in the intermediaries table.		
Agriculture		
<i>Initiative to End Hunger In Africa -IEHA</i> Much of USAID's work on agricultural research in Africa is done in the context of the Initiative to End Hunger in Africa (IEHA). USAID is also a major funder to CGIAR.		
<i>Regional Agricultural Networks</i> IEHA provides support to regional networks that guide and make more efficient both agricultural research and policy harmonisation. These include:		
ASARECA – Association for Strengthening Agricultural Research in Eastern and Central Africa http://www.asareca.org/		
This association strives to promote economic growth, fight poverty, reduce hunger, and enhance resources through regional collective action in agricultural research for development. Established in 1993, ASARECA is a non-political organisation of the National Agricultural Research Institutes of ten countries: Burundi, DR Congo, Eritrea, Ethiopia, Kenya, Madagascar, Rwanda, Sudan, Tanzania, and Uganda. ASARECA carries out its work largely through networks it has established around individual commodities or issues. USAID provides direct support to five of those networks: the biotechnology (ECABIO) and policy (ECAPAPA) programs and the commodity networks for beans (Eastern and Central Africa Bean Research Network (ECABREN), implemented with CIAT), cassava (Eastern Africa Root Crops Research Network (EARRNET), implemented with IITA), and potato and sweet potato (Regional Potato and Sweet Potato Improvement Network in Eastern and Central Africa, or PRAPACE, implemented with the International Potato Centre). With USAID support, ASARECA has expanded from a small coordinating unit to its current role managing 17 networks and programmes, collaborating with the NARIs of the ten member countries, international agricultural research centres, universities, and other partners, and with a total annual budget of more than US\$14 million and more than 90 diverse research projects.		
CORAF/WECARD – The West and Central African Council for Agricultural Research and Development		

<http://www.coraf.org/>

This council aims to improve the efficiency and effectiveness of agricultural research in West and Central Africa by contributing to the construction and the consolidation of the capacities of the National Agricultural Research Systems (NARSs), through cooperation between its members, development partners, regional and international organisations, private sector, non-governmental organisations, and users of research results. CORAF/WECARD was created in 1987. Today it groups the NARIs of 21 countries of West and Central Africa (Benin, Burkina Faso, Cameroon, Cape Verde, Central African Republic, Chad, Congo, Côte d'Ivoire, DR Congo, Gabon, Gambia, Ghana, Guinea, Guinea Bissau, Mali, Mauritania, Niger, Nigeria, Senegal, Sierra Leone, and Togo). USAID is supporting CORAF/WECARD's role in facilitating the effective coordination of the agricultural research and development agenda for West and Central Africa. CORAF/ WECARD has also received funding from the African Development Bank, the Technical Centre for Agriculture and Rural Cooperation, DFID and IDRC. The institutional capacity of CORAF/WECARD was evaluated using the PIVA tool; its score improved by 10% in 2006.

FARA- The Forum for Agricultural Research in Africa

<http://www.fara-africa.org/>

Formed in 1997 FARA is an umbrella organisation bringing together and forming coalitions of major stakeholders in agricultural research and development in Africa. FARA complements the innovative activities of national, international, and sub-regional research institutions to deliver more responsive and effective services to its stakeholders. It plays advocacy and coordination roles for agricultural research for development, while the NARIs, advanced research institutions, and IARCs develop improved technologies along the research-to-development continuum in their respective countries and coverage areas. In 2006, in consultation with stakeholders, FARA developed the Framework for African Agricultural Productivity (FAAP) to guide CAADP Pillar IV efforts, endorsed and adopted by the All Heads of State Summit in July 2006. Numerous international and regional organisations are making substantial contributions to African agricultural development through research and capacity building. FAAP will provide the additional benefit of greater consistency with African priorities and modes of operation. FAAP is encouraging and guiding reform of research and technology efforts in Africa to improve effectiveness and alignment with CAADP objectives. USAID/Southern Africa works to improve the capacity of its major regional partner, the Food, Agriculture, and Natural Resource Policy Analysis Network (FANRPAN). FANRPAN recently developed a strategic plan with input from all 12 of its nodes and other stakeholders. The new mission is proposed as 'promoting, influencing and facilitating natural resources, agricultural and food policy research, analysis and dialogue at national, regional and global levels.' Recent results include:

Collaborative Research Support Programmes – CRSPs

<http://crsps.org/>

Since 1978, USAID has supported research, education, and outreach through Collaborative Research Support Programs (CRSP). CRSPs harness the expertise of U.S. universities in low-cost, high-impact programs that contribute knowledge, trained personnel, and technology to agriculture worldwide in the fight against hunger and poverty. The nine CRSP programs funded by USAID and other collaborating organisation focus research upon crops, including beans and cowpeas, sorghum and millet, and peanuts; broadening access to factors and strengthening input systems; livestock; integrated pest management; pond dynamics and aquaculture; soil management; and sustainable agriculture and natural resources management. CRSP programs help build national agricultural research capacity in developing countries as well as benefit American agriculture. CRSP programs embody the mutual dependence of research, outreach, and training, in which training is integrated with research, and applied solutions require outreach. CRSPs support master's and PhD-level training.

By 2010, the proposed CRSP Portfolio will consist of eight individual CRSPs. These are listed below with the year that the Request For Application (RFA) will be released

- Sorghum/Millet & Other Grains (2006)
- Peanut (2006)
- Aquaculture & Fisheries (2006)
- Assets & Market Access (2006)
- Dry Grain Pulses (2007)
- Horticulture (2007)
- Animal Source Foods (2008)
- Soil, Water & Ecosystem Services (2009)

The Office of International Research, Education, and Development (OIRE), Virginia Tech, US <http://www.oired.vt.edu/> manages a number of CRSPs including:

- Integrated Pest Management Collaborative Research Support Program – Mali, Uganda
- Peanut Collaborative Research Support Program (Peanut CRSP) – Senegal, Malawi, Zimbabwe
- Sustainable Agriculture and Natural Resource Management – Mali, Senegal, Zambia, Madagascar, Uganda
- Bio-pesticide for Grasshopper and Locust Control – Senegal
- Amhara Micro-enterprise Development, Agricultural Research, Extension & Watershed – Ethiopia

Education

Higher Education for Development (HED) Programme

<http://www.hedprogram.org/>

HED works in close partnership USAID and the nation’s six presidential higher education associations to support the involvement of higher education in development issues worldwide. HED supports its mission primarily by funding innovative partnerships that partner U.S. colleges or universities with institutions of higher learning in developing nations. HED also facilitates quarterly roundtable discussions on a variety of development issues; and publishes a variety of reports that highlight development news.

.Applicants compete for HED grant funding through a rigorous, peer-reviewed process. Once awards are made, partners design and implement programs that have significant, long-term impact on a region’s economic and social well-being.

HED projects in Africa

See <http://www.hedprogram.org/Partnerships/tabid/151/regionid/1/Default.aspx> for a list of HED projects in Africa.

Environment

Environmental Assessment and Management Capacity Building Program (ENCAP)

<http://www.encapafrika.org/>

The primary objective of the ENCAP program is to increase the understanding and awareness of USAID Missions and Mission partners in Africa of environmentally sound design and how to apply USAID’s Environmental Procedures to improve the long-term sustainability of Africa Bureau policies, programs and project activities. USAID’s environmental procedures provide one of the few systematic means to help guarantee sound design and the long-term sustainability of USAID activities. The program supports capacity building for environmental assessment that is necessary for enabling the USAID bilateral mission Program Area teams and partners, contractors, grantees and sub-grantees and, host country collaborators to prepare appropriate environmental documentation. The aim is to identify and implement adverse environmental impact mitigation and monitoring measures in accordance with USAID environmental procedures and policies.

ENCAP focuses on:

- Environmentally-sound Design and Management Course Planning and Facilitation, conducting environmental assessment courses for a wide scope of USAID staff, partners and host country government staff. Over 20 courses have been held in English and French in East and Central Africa, including Madagascar;
- Production of diverse, accessible & high-quality training and resource materials;
- Development of Best Practice Guidelines, such as the Environmental Guidelines for Small-Scale Activities in Africa (1st Edition in 1996, 2nd Edition 2003-6);
- Contribution to African Professional Capacity through the Capacity and Linkages for Environmental Assessment in Africa (CLEAA), the East African Association of Environmental Assessment, and a Professional Development Fellowship Program in the application of environmental assessment in development programs and projects.

Training	Resource dissemination	Professional development
Environmental training for	Development	Professional development of African EIA

<p>small-scale development projects Principal ENCAP-supported training includes: Environmental Assessment and Environmentally Sound Design and Management for Small-Scale Activities (ESDM) Improving Success Rates for Micro-, Small and Medium Enterprises (MSMEs) Through Cleaner Production, and Mission Environmental Officer Training.</p>	<p>dissemination of resource materials Principal resource development activities under ENCAP include the Environmental Guidelines for Small-scale Activities in Africa and the Environmental Procedures Training Manual.</p>	<p>practitioners ENCAP also supports the professional development of African environmental assessment practitioners— both by funding membership of key professionals in international associations, and providing internships and other on-the-job learning opportunities.</p>
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Fellowship Scheme

Since 2001, ENCAP has supported a Professional Development Fellowship Program for young African Environmental Impact Assessment (EIA) professionals. The program is administered by the Southern African Institute for Environmental Assessment (SAIEA) and the East African Association for Impact Assessment (EAAIA) under the umbrella of **CLEAA (Capacity & Linkages for Environmental Assessment in Africa**, a pan-African association of EIA associations and institutions). The fellowships *build* African capacity in EIA by:

1. Providing practical EIA training and experience for promising *young African* professionals;
2. Linking these individuals to national, regional, and international EIA professional networks; and
3. Strengthening regional EIA networks in Africa.

Program fellows learn by doing, participating in a professional EIA team, applied training and/or appropriately tailored engagement for a period of 2 to 6 months to gain practical EIA experience in specialised fields of their own choosing. The fellowships cover travel, lodging, meals, and other associated expenses during this period.

2007-2009 Sida PD Fellows

Sida has entered into an agreement with the International Union for the Conservation of Nature and Natural Resources - IUCN/EARO to fund 16 fellows in Eastern and Southern Africa over two years (8 per year). Recruitment for the first 8 Sida-funded fellowships will begin in July 2007.

Health

In 2006, US\$148m was spent by USAID on health-related research. 80% of this (US\$119m) was spent on the main research areas of HIV/Aids, Malaria, Tuberculosis, Reproductive Health and Family Planning, Maternal and Newborn Health, Micronutrient Deficiencies in Women and Children and Management of Severe Malnutrition, Acute Respiratory Infections and Health Systems. Over half of this funding (57%) was spent on HIV/Aids research. Reproductive health research was the second largest recipient with 21% of the total research funding and research into Malaria received 8%. See http://pdf.usaid.gov/pdf_docs/PDACH111.pdf for more details on Health-Related Research and Development Activities at USAID.

Sources: Organisations’ websites, annual reports and evaluations; interviews with staff members.

Bilateral donors: Other key information (including: sector, country focus, specific projects in Africa, funding, key partners, key networks, evaluations, and key documents)

Organisation	Sector	Country focus	Specific projects	Funding	Key partners	Key networks	Evaluations/key documents
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<p>CIRAD www.cirad.fr</p>	<p>CIRAD agricultural research is organised into the following:</p> <ul style="list-style-type: none"> Biological Systems Department Performance of Tropical Production and Processing Systems Department Environments and Societies Department 	<ul style="list-style-type: none"> Burkina Faso Cameroon Congo Côte d'Ivoire Ethiopia Ghana Guinea Kenya Madagascar Mali Mayotte Réunion Senegal South Africa Uganda Zimbabwe 	<p>in Africa</p> <p>Current Research Platforms in Partnership are taking place in Cameroon, Mali and Zimbabwe. International Research Partnerships are active in Madagascar and Senegal. Other research projects cover all partner countries (key partners</p>	<p>CIRAD had a budget of just over €180m in 2005. A large proportion of this budget is funded by the French government (c.70%), and CIRAD also received funds from the EU (€16.1m in 2005).</p>	<p>CIRAD has supported the following organisations since 2000 in scientific training:</p> <p>Institut de recherche agronomique de Guinée (IRAG, Guinea), Institut Sénégalais de Recherches Agricoles (ISRA, Senegal), Comité national de la recherche agronomique (CNRA) Mali, Institut de recherche agricole pour le développement (IRAD) Cameroon, Institut national des recherches agricoles du Bénin (INRAB, Benin), Institut d'économie rurale (IER) Mali</p>	<p><i>Sub-Saharan Africa</i></p> <p>FARA (Forum for Agricultural Research in Africa, Ghana)</p> <p>WECARD (West and Central African Council for Agricultural Research and Development, Senegal)</p> <p>ASARECA (Association for Strengthening Agricultural Research in Eastern and Central Africa, Madagascar)</p> <p>SADC/FANR (Southern African Development Community/Food, Agriculture and Natural Resources)</p> <p><i>Near East, North Africa</i></p> <p>AARINENA (Association of Agricultural Research Institutions in</p>	<p>2005 Annual report http://www.cirad.fr/en/le_cirad/pdf/cirad_05.pdf</p>
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						the Near East and North Africa)	
Organisation	Sector	Country focus	Specific projects in Africa	Funding	Key partners	Key networks	Evaluations/key documents
IRD www.ird.fr	IRD research in 2006 focused on the following themes: natural hazards and climate, ecosystems, access to water, food security, health, and globalisation For 2007 International Migration, and, Public Policy – fight against poverty and Infectious diseases, were added to the areas of research.	Countries with IRD presence: South Africa Benin Burkina Faso Cameroon Congo Côte d'Ivoire Egypt Kenya Morocco Mali Niger Tunisia Senegal Guinea Bissau Mauritania Gambia Cape Verde	<i>IRD in Africa:</i> 491 researchers and engineers; 200 research projects; 89 individual grants allocated; and 9 new Southern research teams (JEAls) in Africa. Some key projects in Africa: • AMMA Programme – analysis of the African Monsoon • Niger River basin: research in hydrology, agriculture and health • Mozambique: South-South collaboration with Brazil, on environment and health • One-day 'young researchers' event, Dakar, with UCAD • Madagascar: Research on	IRD mobilised €115 million in 2006, however, €95 million of this was for staff costs. 2006 Research sector spend (euros): Natural Hazards and Climate €10.5m Sustainable management of Southern Ecosystems €21.15m Water resources and access to water €23m Food security in the south €20m Public Health and Health policy €19m Development and Globalisation €20m Each research group receives €20k funding annually; this figure is often			2005 annual report http://www.ird.fr/us/institute/report/

			nutrition, in liaison with Gret and Cirad, on deforestation and poverty	matched by other external donors.			
Organisation	Sector	Country focus	Specific projects in Africa	Funding	Key partners	Key networks	Evaluations/key documents
Germany BMZ through: DAAD/DFG/Alexander Von Humboldt Foundation http://www.daa.d.de www.bmz.de www.dfg.de www.humboldt-foundation.de	Multi-sectoral	<i>BMZ partner countries:</i> Benin, Burkina Faso, Burundi, Chad, Côte d'Ivoire, Eritrea, Ethiopia Ghana, Guinea, Cameroon, Kenya, Lesotho, Madagascar, Malawi, Mali, Mauritania, Mozambique, Namibia, Niger, Nigeria, Rwanda, Zambia, Senegal, South Africa, Tanzania, Uganda <i>DAAD and AvH work with a more extensive list of African countries.</i>					

		<p>DAAD – African countries eligible for studentships / individual support:</p> <p>Algeria Angola Benin Botswana Burkina Faso Burundi Cameroon Cape Verde Central African Republic Chad Congo Democratic Republic of Congo Republic (Brazzaville) Côte d'Ivoire Djibouti Egypt Equatorial Guinea Eritrea Ethiopia Gabon Gambia Ghana Guinea Guinea-Bissau Kenya Lesotho Liberia Libya Madagascar Malawi</p>					
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	Mali Mauritania Mauritius Morocco Mozambique Namibia Niger Nigeria Réunion Rwanda São Tomé und Príncipe Senegal Seychelles Sierra Leone Somalia South Africa Sudan Swaziland Tanzania The Comoro Archipelago Togo Tunisia Uganda Zambia Zimbabwe <i>African Countries eligible for Alexander Von Humboldt fellowships:</i> Madagascar Malawi Angola Equatorial Guinea Sierra Leone Eritrea Mali					
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		Ethiopia Somalia South Africa Mauritania Gabon Belize Gambia Benin Sudan Ghana Mozambique Swaziland Botswana Guinea Namibia Burkina Faso Guinea Bissau Burundi Tanzania Niger Cameroon Nigeria Cape Verde Togo Central African Republic Chad Congo Uganda Côte d'Ivoire Kenya Lesotho Yemen Liberia Zambia Zimbabwe					
Organisation	Sector	Country focus	Specific projects	Funding	Key partners	Key networks	Evaluations/key documents

<p>Danida–ENRECA www.um.dk</p> <p><i>Danish International Health Research Network</i> http://enrecahealth.ku.dk/</p> <p><i>Network for Smallholder Poultry Development</i> http://www.poultry.life.ku.dk</p> <p><i>Danish Development Research Network (DDRN)</i> http://ddrn.dk</p> <p><i>Danida Fellowship centre</i> www.dfcentre.com</p>	<p>Health; agriculture; technical, social and natural sciences.</p>	<p><i>Danida Partner countries:</i></p> <p>Egypt Benin Ghana Tanzania Kenya Uganda Mozambique Burkina Faso Zambia</p> <p><i>Danida Fellowship Centre – 2006 Fellows from:</i></p> <p>Benin Botswana Burkina Faso Burundi Chad Egypt Ethiopia Ghana Guinea-Bissau Kenya Malawi Mali Mozambique Niger Nigeria Senegal South Africa Tanzania Uganda Zambia Zimbabwe</p> <p><i>Danish International</i></p>	<p>in Africa</p>	<p>In 2005 Danida allocated US\$35m to research support. It is expected that this level of funding will be kept during the next five years. A quarter of this funding goes to support international development research.</p> <p>In 2004 Danida committed US\$7.5m to ENRECA capacity building projects and US\$1.16m to research networks.</p> <p>The central funds for the Danida Fellowship Centre in 2007 are nearly US\$10m, with US\$7.5m supporting training activities of a political, strategic or technical, innovative nature for</p>		<p>Danida funds the following networks:</p> <p>AERC CGIAR CODESRIA The African Malaria Network Trust (AMANET)</p>	<p>KEY EVALUATIONS</p> <p>1) Evaluation of Danida's bilateral programme for enhancement of research capacity in DC (ENRECA), ITAD Ltd and ODI (December 2000) http://www.um.dk/NR/rdonlyres/03A91AA9-8BE1-4BF5-8FAE-220EB503E444/0/20005ENRECAFinalReport.pdf ;</p> <p>(2) Danida and Danish development research: towards a new partnership, Christian Michelsen Institute (2001);</p> <p>(3) Partnerships at the leading edge: a Danish vision for knowledge, research and development; also known as Hernes report (April 2001);</p> <p>(4) the Kenyan-Danish health research project (KEDAHR) review, HERA (June 2002); and</p> <p>(5) bridging research and development assistance: a review of Danish research networks, Christian Michelsen Institute (March 2006) Above all found at: http://www.cmi.no/publications/file/?2364=bridging-research-and-development-assistance</p> <p>6) Review of Danida-supported health research in developing countries 2007 http://enrecahealth.ku.dk/e_publications_en/danida_vol_I_2007.pdf/</p>
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		<i>Health Research network has ENRECA funded collaborative research projects in:</i> Ghana Guinea Bissau Kenya Tanzania		participants from programmes and projects in Danida programme countries. The remaining money is earmarked for MBA-studies at Copenhagen Business School (Emerging Leaders Scholarship Program).			Danish support to research capacity building and knowledge creation as an instrument in development aid. Contribution to the NUFFIC conference 23-25 May 2005: 'A Changing Landscape' making support to higher education and research in developing countries more effective: Bente Ilsøe, Project Administrator, Research Section, Development Policy Office, The Royal Danish Ministry of Foreign Affairs. http://www.nuffic.nl/pdf/os/em/ilsøe.pdf
Organisation	Sector	Country focus	Specific projects in Africa	Funding	Key partners	Key networks	Evaluations/key documents
IDRC www.idrc.ca	IDRC research areas: Environment and Natural Resource Management; Information and Communication Technologies for Development; Innovation, Policy and Science; Social and Economic Policy	The IDRC Dakar Office covers 24 countries but most projects are currently active in countries around Senegal including: Benin, Gambia, Sierra Leone, Mali, Nigeria. The IDRC Nairobi office covers 25 countries but at moment only administers projects in Uganda,	<i>Connectivity Africa - ICT</i> http://www.connectivityafrica.ca/ <i>Acacia Initiative</i> The Communities and the Information Society in Africa Program Initiative is an international program to empower sub-Saharan communities with the ability to apply information and communication technologies (ICTs) to their own social and economic development. http://www.idrc.ca/	>US\$80m is annually spent on RCS and >US\$20m in Africa. These figures are based on 2006–2007 total allocation of funding to IDRC research programmes – US\$112m (this figure rises to US\$140m if funding from outside partners is included). A 2005 survey highlighted that 75% of all IDRC research projects contain research capacity		Networks IDRC supports include: OSSERIA AERC ROCARE Association of African Universities	IDRC- Supported Capacity Building: Developing a Framework for Capturing Capacity Changes Stephanie Neilson and Charles Lusthaus, February 2007 Open file 10 - Capacity Building Strategic Evaluation - Summary of Findings of Phase 1 and 2@ April 2006, Open file Capacity Building at IDRC - Some Preliminary Thoughts Charles Lusthaus, Stephanie Nielson 2006-09-27 Phase I Report, Open file Capacity Building at IDRC - Results and Factors Supporting Results Universalia 2006-09-27 Phase II Report, Open file Evaluating Capacity Building : Building A Results Framework for A Development Agency@ Stephanie Neilson and Charles Lusthaus 2005-10 Presentatation prepared by Stephanie

		<p>Tanzania, Kenya, Zambia and Ethiopia.</p> <p>In North Africa IDRC works (from Cairo Office) in Sudan, Egypt, Tunisia and Morocco.</p> <p>CCAA first round research countries: Morocco, Mali, Sudan, Ethiopia, Eritrea, Kenya, Uganda, Tanzania, Nigeria, Cameroon, Ghana, Benin, Mozambique, Zambia, Malawi, Zimbabwe, Madagascar, South Africa.</p>	<p>en/ev-5895-201-1-DO_TOPIC.html</p> <p>In partnership with DFID:</p> <p><i>Health Research Capacity Strengthening Initiative: Kenya and Malawi</i> http://www.idrc.ca/en/ev-106713-201-1-DO_TOPIC.html</p> <p><i>Climate Change Adaptation in Africa (CCAA) research and capacity development program</i> http://www.idrc.ca/en/ev-94425-201-1-DO_TOPIC.html</p> <p>See web link below for a comprehensive list of past and current IDRC projects in Africa http://www.idrc.ca/en/ev-83025-201-1-DO_TOPIC.html</p>	<p>strengthening elements. In 2006/07 IDRC allocated US\$24m to research programmes in Sub-Saharan Africa and US\$6m to the MENA region, 33% of the programme allocation budget.</p>			<p>Neilson and Charles Lusthaus - Crossing Borders, Crossing Boundaries, 2005 Joint AEA/CES Conference - 24 to 29 October 2005, Open file</p> <p>Evaluating Capacity Building: Building A Results Framework For A Development Agency@ Stephanie Neilson and Charles Lusthaus 2005-10 Paper prepared by Stephanie Neilson and Charles Lusthaus - Crossing Borders, Crossing Boundaries, 2005 Joint AEA/CES Conference - 24 to 29 October 2005, Open file</p> <p>Strategic Evaluation of IDRC's Contributions to Capacity-Building Design Document – Overview of Strategic Evaluation, IDRC Evaluation Unit, February 2005 http://www.idrc.ca/uploads/user-S/11099636311Design_document_-_overview_(Feb._2005).doc</p>
Organisation	Sector	Country focus	Specific projects in Africa	Funding	Key partners	Key networks	Evaluations/key documents
JICA		<p>JICA partner countries in Africa: Ethiopia Ghana Kenya</p>	<p><i>Asia-Africa Knowledge Co-creation Program</i> JICA work through the African Institute for Capacity</p>				

Organisation	Sector	Country focus	Specific projects in Africa	Funding	Key partners	Key networks	Evaluations/key documents
		Malawi Senegal South Africa Tanzania Zambia	Development (AICAD)				
Norad www.siu.no www.norad.no	Thematic priorities of current NOMA programme: Education, Environment, economic development and trade, Gender, Good governance, democratic development, human rights and migration, Health, HIV/AIDS, Oil and energy, Peace and conflict resolution	<i>NUFU projects in Africa 2007–2011</i> Ethiopia, Mozambique, Ghana, Malawi, Madagascar, South Africa, Sudan, Tanzania, Uganda, Zambia, Zimbabwe <i>NOMA – The following countries are eligible for support by NOMA:</i> Malawi, Mozambique, Tanzania, Uganda, Zambia <i>Norad Programme in Arts and Cultural Education- Eligible countries for support:</i> Malawi,	See profile if need specific breakdown of projects	NUFU: The total budget frame for the current programme period (2007–2011) is US\$50m. NOMA – The total budget frame for the current programme period (2006–2010) is US\$57m. Under the Tanzania agreement key partners in the country will between them receive US\$6m every year till 2010. The Norwegian Ministry of Foreign Affairs has in accordance with NUFU guidelines; set aside US\$10m over five years	NUFU 2007-2011 participating institutions: Addis Ababa University, Ethiopia Dilla University, Ethiopia University of Hawassa (former Debub University), Ethiopia Eduardo Mondlane University, Mozambique Mekelle University, Ethiopia University of Ghana, Ghana University of Tulear, Madagascar University of Malawi, Malawi University of Pretoria, South Africa University of Stellenbosch, South Africa University of the	CODESRIA ACBF AERC OSSREA INASP IFS	NUFU Brochure 2007 http://www2.siu.no/pub.nsf/0/DC86FB42F2E5A6DFC12572F000348234/\$FILE/NUFU_brochure_2007.pdf SIU Annual Report 2006 http://www2.siu.no/pub.nsf/wten/3EE2E4C8C068E53EC12572D600332AE0?Open&it=3EE2E4C8C068E53EC12572D600332AE0&view=wten&rst=Annual%20report NUFU Programme – Annual Report 2006 http://www2.siu.no/pub.nsf/0/3EE2E4C8C068E53EC12572D600332AE0/\$FILE/SIU_AnnRep06_en_web.pdf Norad Fellowship Programme 2005 Annual Report http://www2.siu.no/pub.nsf/0/E178B2183E7805F4C1257243005CBB83/\$FILE/Norad_fellowship_annual_report_2005.pdf

		Mozambique, Tanzania, Uganda, Zambia		(starting from 2007) to university cooperation between institutions in Norway and Sudan.	Western Cape, South Africa University of KwaZulu-Natal, South Africa Ahfad University for Women, Sudan Kyambogo University, Uganda Tumani University, Tanzania University of Dar-Es-Salaam, Tanzania Muhimbili University College of Health Sciences, Tanzania Mzumbe University, Tanzania Sokoine Agricultural University, Tanzania Makerere University, Uganda University of Zambia, Zambia University of Zimbabwe, Zimbabwe Norway Aqder University College,	
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					Norway Bodø University College, Norway Norwegian School of Veterinary Science, Norway Norwegian University of Life Sciences, Norway Norwegian University of Science and Technology, Norway School of Mission and Theology, Norway University of Bergen, Norway University of Oslo, Norway University of Stavanger, Norway University of Tromsø, Norway		
					Tanzania Agreement Partners: University of Dar es Salaam Sokoine University of Agriculture Mzumbe University		

					<p>NOMA Collaborating institutions Afhad University for Women, Sudan University of Cape Town, South Africa University of Zambia Universidade Agostinho Neto (UAN), Angola Eduardo Mondlane University (EMU), Mozambique Makerere University, Uganda University of Dar es Salaam, Tanzania Muhimbili university College of Health Sciences (MUCHS), Dar es Salaam University of Malawi University of Dar-es-Salaam (UDAR), Tanzania Addis Ababa University (AAU), Ethiopia University of Gondar (Gondar)</p>	
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					College of Medical Sciences (UG), Ethiopia Muhimbili University College of Health Sciences, School of Public Health, (MUCHS), Tanzania University of Western Cape (UWC), South Africa Debu (Hawassa) University, Ethiopia Mekelle University, Ethiopia Bunda College (University of Malawi), Malawi		
Organisation	Sector	Country focus	Specific projects in Africa	Funding	Key partners	Key networks	Evaluations/key documents
DGIS/NUFFIC http://www.minbuza.nl www.nuffic.nl	NPT themes: water; agriculture; health; higher education; (including polytechnic education); environment; rural economic transformation; justice and human rights;	NPT countries: Benin, Eritrea, Ethiopia, Ghana, Mozambique, Rwanda, South Africa, Tanzania, Uganda, Zambia. Eligible African countries for	See link below for detailed breakdown of NPT supported research projects in Africa: http://www.nuffic.nl/international-organizations/services/capacity-building/npt/country-information-	2005 NFP expenditure - US\$33m 2005 NPT expenditure in Africa – US\$140m. 2005 NPT Country expenditure (in euros) Benin 6,291,490	NPT Partners: Benin Centre Autonome de Perfectionnement - Ecole Polytechnique Abomey-Calavi (CAP-EPAC), Faculté des Sciences Agronomiques	DGIS Innovation and Research Programme supports the following Networks: <input type="checkbox"/> Netherlands Organisation for Scientific Research (NWO)/WOTR	Evaluation DGIS research policy 1992-2005 http://www.minbuza.nl/binaries/en-pdf/iob-evaluatie/rapporten/rapport-304-summary.pdf

	<p>business environment; decentralisation; local government development; education; vocational training.</p>	<p>NFP: Benin, Burkina Faso, Cape Verde, Egypt, Eritrea, Ethiopia, Ghana, Guinea Bissau, Ivory Coast, Kenya, Mali, Mozambique, Namibia, Nigeria, Rwanda, Senegal, South Africa, Tanzania, Uganda, Zambia, Zimbabwe</p> <p>DGIS partner countries (interview claimed that all partner countries with any research project would have an element of RCS)</p> <p>Benin Burkina Faso Cape Verde Egypt Eritrea Ethiopia Ghana Kenya Mali Mozambique Senegal</p>	<p>pages</p>	<p>Ethiopia 10,091,148 Ghana 16,521,649 Mozambique 10,052,552 Rwanda 13,145,708 Tanzania 11,287,987 Uganda 12,759,816 South Africa 4,835,646 Zambia 7,333,540</p> <p>Since 2005 DCO-OC has spent over US\$48m supporting capacity building projects</p>	<p>(FSA-UAC) - Faculté des Sciences et Techniques (FAST-UAC) de l'Université d'Abomey Calavi</p> <p>Ethiopia Addis Ababa University Faculties of Medicine of Dehub University and Mekelle University Departments of Computer Sciences and Information Technology, Arba Minch University and Bahir Dar University Faculties of Law of Bahir Dar University and Jimma University Institute of Pastoral and Agro-pastoral Studies (IPAS)</p> <p>Ghana Accra Polytechnic Wa, Ho, Tamale and Bolgatanga Polytechnics for</p>	<p>O Science for Global Development</p> <ul style="list-style-type: none"> <input type="checkbox"/> Global Development Network (GDN) <input type="checkbox"/> African Economic Research Consortium (AERC) <input type="checkbox"/> Organisation for Social Science Research in Eastern and Southern Africa (OSSREA) <input type="checkbox"/> South-South Exchange Programme for Research on the History of Development (SEPHIS) <input type="checkbox"/> African Technology Policy Studies Network (ATPS) <input type="checkbox"/> United Nations University-Maastricht Economic and Social Research and Training Centre on Innovation and Technology 	
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		South Africa Tanzania Uganda Zambia			Rural Development and Poverty Reduction Kumasi Polytechnic & Takoradi Polytechnic Koforidua Polytechnic University of Cape Coast (UCC) Kwame Nkrumah University of Science and Technology (KNUST) Institute for Advanced ICT Studies Ghana Ltd Kwame Nkrumah University of Sciences and Technology Mozambique University Eduardo Mondlane (UEM) Universidade Pedagogico (UP) Higher Institute for International Relations (ISRI) Academy of Police Sciences (ACIPOL)	(UNU-MERIT) <input type="checkbox"/> Knowledge for Change Program (KCP) <input type="checkbox"/> European Association of Development Research and Training Institutes (EADI) <input type="checkbox"/> European Centre for Development Policy Management (ECDPM) <input type="checkbox"/> Network of African Science Academies (NASAC) / Royal Netherlands Academy of Arts and Sciences (KNAW) <input type="checkbox"/> Science and Development Network (SciDev.Net) <input type="checkbox"/> AWLAE: African Women Leaders in Agriculture and Environment <input type="checkbox"/> ILAC: Institutional Learning and Change and	
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					<p>Rwanda Institut Superieur d'Agriculture et d'Elevage (ISAE) National University of Rwanda (NUR) Institut d'Enseignement Supérieur de Ruhengeri (INES) Kigali Institute of Science, Technology and Management (KIST)</p> <p>South Africa University of Venda University of Zululand (Unizul) Cape Institute for Agricultural Training (CIAT) The Cedara, Lowveld, Madzivhandila and Potchefstroom Colleges of Agriculture</p> <p>Tanzania University of Dar es Salaam Entrepreneurship Centre</p>	<p>CAS-IP: Centres Advisory Service on Intellectual Property; both are system-wide CGIAR programmes, hosted by Bioversity International (former IPGRI).</p>	
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					(UDEC) Zanzibar Hotel and Tourism Institute (ZHTI) Iringa University College (IUCO) Mzumbe University (MU) Morogoro Vocational Instructors Training College (MVITC) College of Business Education (CBE) National Council for Technical Education (NACTE) Institute for Finance Management (IFM) Tanzania Institute of Accountancy (TIA) Institute for Rural Development Planning (IRDP) Tanzania Public Service College (TPSC) Uganda Makerere University (Faculty of Computer Science),	
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					<p>Kyambogo University, Gulu University, Mbarara University of Sciences and Technology Uganda Martyrs University Bushenyi (& Lira, Elgon, Makala, Kichwamba) Technical Colleges Nsamizi Training Institute of Social Development (NTISD) Uganda Martyrs University(UMU) Mbarara University of Science and Technology (Faculty of Development Studies) Kyambogo University & Makerere University Business School</p> <p>Zambia Copperbelt University (CBU) and University of Zambia (UNZA)</p>		
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Organisation	Sector	Country focus	Specific projects in Africa	Funding	Key partners	Key networks	Evaluations/key documents
<p>Switzerland SDC/KFPE/ NCCR North-South http://www.deza.ch http://www.kfpe.ch/ http://www.north-south.unibe.ch</p>	<p>Research Themes NCCR N-S Governance & Conflict Livelihoods & Globalisation Health & Sanitation Resources & Sustainability</p>	<p>NCCR N-S works in the following African countries:</p> <p>Burkina Faso Cameroon Chad Côte d'Ivoire Ghana Mali Mauritania Senegal Ethiopia Sudan Kenya Tanzania</p>	<p>Echanges Universitaires 2001–2007 projects: http://www.kfpe.ch/projects/echanges_univ/index.php</p> <p>Swiss Universities for Applied Sciences and Swisscontact 2003-2006 projects: http://www.kfpe.ch/projects/suas/index.php</p> <p>Research Partnerships with Developing Countries Projects: http://www.kfpe.ch/projects/rpdc/index.php</p>	<p>The NCCR North-South was established in 2001 with a four-year initial budget of US\$25m. SDC provided half of this budget.</p>	<p>NCCR North-South Partners: Addis Ababa University (AAU), Ethiopia Agency for Co-operation and Research in Development (ACORD) in Ethiopia Alemaya University, Dire Dawa, Ethiopia Amhara Regional Agricultural Research Institute (ARARI), Bahir Dar, Ethiopia Cairo University, Egypt Centre de Support en Santé Internationale (CSSI), Tchad Centre Suisse de Recherches Scientifiques en Côte d'Ivoire - CSRS Community Management of Protected Areas Conservation (COMPACT), Nanyuki, Kenya Eastern and</p>		<p>KFPE documents</p> <p>Choosing the Right Projects – Designing Selection Processes for North-South Research Partnership Programmes Priska Sieber and Thomas Braunschweig http://www.kfpe.ch/key_activities/publications/selection_process.php The aim of present publication is to help design, revise, and implement project selection processes in North-South research partnership (NSRP) programmes. In particular, it addresses the complex challenge of dealing with the multiple objectives of NSRP programmes: scientific quality, development relevance, and adherence to partnership principles.</p> <p>Improving Impacts of Research Partnerships – 2006 This KFPE-publication is based on analyses of a number of case studies encompassing a wide variety of research partnerships between the North and the South, discussions held during the various workshops of the «Impact Assessment Working Group», and the conclusions derived. The book focuses on potential impacts of such research partnerships – impacts beyond the scientific advance, namely 'attitudinal changes', impacts on capacity strengthening, and impacts on society or on decision-makers. http://www.kfpe.ch/key_activities/impact_study/index.php</p> <p>Enhancing Research Capacity in</p>

					<p>Southern Africa Partnership Programme (ESAPP) Ecole Africaine des Métiers de l'Architecture et de l'Urbanisme (EAMAU), Lomé, Togo Ecole Inter-états d'Ingénieurs de l'Equipement Rural de Ouagadougou (EIER), Burkina Faso Egerton University, Njoro, Kenya Environmental Development Action in the Third World (ENDA), Senegal Ethiopian Institute of Agricultural Research, Addis Abeba, Ethiopia Amhara Regional Agricultural Research Institute (ARARI), Bahir Dar, Ethiopia Adet Research Centre French Institute for Research in</p>	<p>Developing and Transition Countries Berne, Switzerland, 21-22 September 2000 Exchange of experience through presentation and discussion of strategies and tools for research capacity building and institutional strengthening http://www.kfpe.ch/key_activities/works_hops/conf2000.php</p> <p>Guidelines for Research in Partnership with Developing Countries – 11 Principles http://www.kfpe.ch/key_activities/publications/guidelines/guidelines_e.php</p> <p>Scientific research partnership: North-South and South-South Paper presented by Thierry A. Freyvogel, Chairman of the 'Swiss Commission for Research Partnerships with Developing Countries ' (KFPE) at the Annual Conference of the Swiss Society for Tropical Medicine and Parasitology, Neuchâtel 31.10.-2.11.1996 http://www.kfpe.ch/key_activities/publications/taf_sgtg.php</p>
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					Africa (IFRA) in Nairobi, Kenya Human Sciences Research Council (HSRC) of South Africa, Cape Town, South Africa Ifakara Health Research and Development Centre (IHRDC), Ifakara Town, Tanzania INDEPTH Network Kenya Agricultural Research Institute (KARI), Makindu, Kenya Laboratoire de Recherches Vétérinaires et Zootechniques (LRVZ), Tchad World Health Organization, Country Office Mauritania World Conservation Union (IUCN), Tanzania World Conservation Union (IUCN), Cameroon University of Nairobi - Urban and Regional	
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					Planning Department University of Nairobi - Department of Geography University of Dar es Salaam, Tanzania University of Cocody, Abidjan, Côte d'Ivoire University of Abobo Adjame (UAA), Abidjan, Côte d'Ivoire United Nations Center for Human Settlements (UNCHS), Nairobi, Kenya UNICEF, N'Djaména, Chad Sokoine University of Agriculture, Morogoro, Tanzania Pastoralist Forum Ethiopia (PFE), Addis Ababa, Ethiopia Mekelle University, Ethiopia		
Organisation	Sector	Country focus	Specific projects in Africa	Funding	Key partners	Key networks	Evaluations/key documents
Sida/SAREC www.sida.se	Multi-sectoral	Sida has bilateral research	See web link below for details of bi-lateral research	Sida 2005 bilateral research	<i>Universities in Africa (Bi-lateral cooperation)</i>	<i>Collaborating Institutions/net works</i>	<i>Policy for Research Cooperation-</i> This is an edited version of Guidelines for Research Cooperation, adopted by

		<p>cooperation with the following countries: Burkina Faso Ethiopia Mozambique Rwanda Tanzania Uganda</p>	<p>cooperation with African partners: http://www.sida.se/sida/jsp/sida.jsp?d=667&language=en_US</p>	<p>programme funding: US\$37m. 2005 Thematic research funding: US\$60m. 2005 Swedish Development Research grants: US\$14m.</p> <p>Burkina Faso Sida commitment for current agreement period 2004–2008: US\$9.5m US\$3.5m was disbursed in 2005.</p> <p>Ethiopia Sida commitment for agreement period 2002–2005: US\$15m Disbursed 2005: US\$5m</p> <p>Mozambique Sida–UEM research cooperation agreement for 2001–2005 US\$11.5m Disbursed 2005: US\$1m</p>	<p>University of Ouagadougou Université Polytechnique de Bobo-Dioulasso Central National Research Institute, Ouagadougou Addis Ababa University, Ethiopia Armauer Hansen Research Institute, Ethiopia Alemaya University of Agriculture, Dire Dawa, Ethiopia Ethiopian Science and Technology Commission, Addis Ababa, Ethiopia University of Witwatersrand, South Africa National Veterinary Research Institute, Maputo Eduardo Mondlane University, Maputo, Mozambique University of</p>	<p>(<i>thematic research programmes</i>)</p> <p>BIOEARN- Biotechnology, Bio-safety and Bio-policy in East Africa UNCST- Ugandan National Council for Science and Technology, Kampala, Uganda AFREPREN- African Energy Policy Research Network, Nairobi, Kenya UDSM- University of Dar es Salaam, Tanzania CODESRIA- Council for Development of Social Science Research in Africa, Dakar, Senegal OSSREA- Organisation for Social Science Research in Eastern and Southern</p>	<p>Sida in 1998 in order to harmonise policies and practices. The policy builds on experiences generated by SAREC. http://www.sida.se/sida/jsp/sida.jsp?d=82&language=en_US</p> <p><i>Sida Supported Master of Science Program by Distance Education in Mozambique, Vietnam, Cambodia and Namibia- Evaluation 2000</i> http://www.sida.se/?d=118&a=2235&language=en_US</p> <p><i>Building Research Capacity in Ethiopia- Evaluation 1996</i> http://www.sida.se/sida/jsp/sida.jsp?d=118&a=2138&language=en_US&searchWords=research%20capacity%20building</p> <p><i>Capacity Building and Networking, A meta-evaluation of African regional research networks- Evaluation 1996</i> http://www.sida.se/sida/jsp/sida.jsp?d=118&a=2170&language=en_US&searchWords=research%20capacity%20building</p> <p><i>Natural Science Research in Zimbabwe. An Evaluation of SAREC support for research capacity building- 1997</i> http://www.sida.se/sida/jsp/sida.jsp?d=118&a=2328&language=en_US&searchWords=research%20capacity%20building</p> <p><i>Research Capacity- Towards the Millennium Goals – 2006</i> http://www.sida.se/sida/jsp/sida.jsp?d=118&a=25264&language=en_US&searchWords=research%20capacity%20building</p>
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				<p>Tanzania Sida commitment for current agreement period 2004–2007: US\$27m. Disbursed 2005: US\$7m.</p> <p>Uganda Sida commitment for current agreement period 2005–2009: US\$26m Disbursed in 2005: US\$5.5m</p> <p>Rwanda Sida committed US\$11m SEK 78m for the period 2003–2005 Disbursed 2005: US\$3m</p>	<p>Dar es Salaam University College of Lands and Agricultural Studies Muhimbili University College of Health Sciences, Dar es Salaam Makerere University, Kampala, Uganda National University of Rwanda</p>	<p>Africa, Addis Ababa, Ethiopia AAPS- African Association of Political Science, Pretoria, South Africa AERC- African Economic Research Consortium, Nairobi, Kenya CEEPA- Center for Environmental Economics and Policy in Africa, University of Pretoria, South Africa UDSM- African Archaeology Network, Dar es Salaam, Tanzania UAPS- Union for African Population Studies, Dakar, Senegal SOMANET- Social Science and Medicine Africa Network, Nairobi, Kenya National Public Health Laboratory Bissau,</p>	<p><i>SAREC Supported Dryland Research Programmes in East Africa- 1998 Evaluation</i> http://www.sida.se/sida/jsp/sida.jsp?d=118&a=2296&language=en_US&searchWords=research%20capacity%20building</p> <p><i>Sida Supported Environmental Research Projects in Tanzania- 2000 Evaluation</i> http://www.sida.se/sida/jsp/sida.jsp?d=118&a=2233&language=en_US&searchWords=research%20capacity%20building</p> <p><i>Sida/SAREC Bilateral Research Cooperation: Lessons learned- 2006 Evaluation</i> http://www.sida.se/sida/jsp/sida.jsp?d=118&a=25352&language=en_US&searchWords=research%20capacity%20building</p> <p><i>International Centre for Research in Agroforestry, ICRAF 1990-1997- 1998 evaluation of Sida supported ICRA projects</i> http://www.sida.se/sida/jsp/sida.jsp?d=118&a=2306&language=en_US&searchWords=research%20capacity%20building</p> <p><i>Two Drylands Research Programmes in Eastern Africa: Main Report- 2002 Evaluation of two dryland research projects supported by Sida/SAREC</i> http://www.sida.se/sida/jsp/sida.jsp?d=118&a=2570&language=en_US&searchWords=research%20capacity%20building</p> <p><i>Sida-Supported Programme within the</i></p>
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						<p>Bissau, Guinea-Bissau MUCHS- Muhimbili University College of Health Sciences, Dar es Salaam, Tanzania WIOMSA- Western Indian Ocean Marine Science Association, Zanzibar, Tanzania UDSM- University of Dar es Salaam, Institute of Marine Science, Zanzibar, Tanzania RPSUD- African Research Programme on Sustainable Use of Dryland Biodiversity, Nairobi, Kenya PINEP- Pastoral Information Network Project, Department of Range Management, University of</p>	<p><i>African Energy Policy Research Network, AFREPREN- 1999 evaluation</i> http://www.sida.se/sida/jsp/sida.jsp?d=118&a=2252&language=en_US&searchWords=research%20capacity%20building</p> <p><i>SAREC Support to International and Regional Thematic Research Programs 2000-2005</i> http://www.sida.se/sida/jsp/sida.jsp?d=118&a=26700&language=en_US&searchWords=sarec</p>
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						Nairobi, Kenya AFORNET- African Forestry Research Network, African Academy of Science, Nairobi, Kenya VicRes Lake Victoria Research Initiative, Inter- University Council for East Africa, Kampala, Uganda	
Organisation	Sector	Country focus	Specific projects in Africa	Funding	Key partners	Key networks	Evaluations/key documents
AusAID http://www.ausaid.gov.au/		AusAID target countries in Africa include: South Africa Malawi Mozambique Zambia Kenya Uganda Tanzania Lesotho Swaziland	AusAID funds the following programmes/ projects with research capacity strengthening relevance to Africa: # The Joint Economic Aids & Poverty Programme (JEAPP) US\$225,000 (annually) for HIV/AIDS research (South Africa and Lesotho) # Trade Law Centre (Tralac) c. US\$1m over three	The total funding by AusAID of programmes and projects supporting research capacity strengthening in Africa is currently around US\$5m. See specific projects for a breakdown of funding to specific programmes and projects.	<i>See specific projects</i>	<i>See specific projects</i>	AusAID Scholarship programmes: http://www.ausaid.gov.au/scholar/scholarships.pdf Australia and Africa 2003-2007 Framework http://www.ausaid.gov.au/publications/pdf/africa_framework.pdf

			<p>years in part for trade related research (Southern Africa) # Trade and Industrial Policy Strategies (TIPS) c. US\$1m over three years in part for trade related research (Southern Africa) # South African Institute for International Affairs (SAIIA) c. US\$1m over three years in part for trade related research (Southern Africa) # University of Pretoria: US\$160,000 over two years for masters in trade scholarships in part to build trade research capacity in Southern Africa # UNICEF Children and AIDS Program US\$10m over three years with a small portion for research # DFID Regional Hunger and Vulnerability Program c. US\$1m – funding is used to build the</p>				
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			capacity of national vulnerability assessment committees to research, collect and analyse vulnerability data # Australia–South Africa Joint Economic Research Program US\$225,000 (Australian and South African Treasuries with various Australian and South African researchers)				
Organisation	Sector	Country focus	Specific projects in Africa	Funding	Key partners	Key networks	Evaluations/key documents
CIDA http://www.acdi-cida.gc.ca		Countries that receive CIDA ODA: Angola Benin Botswana Burkina Faso Burundi Cameroon Cape Verde Central African Republic Chad Comoros Congo Congo Democratic Republic of Côte d'Ivoire Djibouti Equatorial	<i>See key partners</i>		Pan-Africa Bean Research Alliance (PABRA) Forum for Agricultural Research in Africa (FARA) Southern Africa Migration Program (SAMP) SAHARA : Regional HIV/AIDS Initiative Agroforestry for Sustainable Rural Development in the Zambezi		

		Guinea Eritrea Ethiopia Gabon Gambia Ghana Guinea Guinea-Bissau Kenya Lesotho Liberia Madagascar Malawi Mali Mauritius Mozambique Namibia Niger Nigeria Rwanda Sao Tome and Principe Senegal Seychelles Sierra Leone Somalia South Africa Sudan Swaziland Tanzania Togo Uganda Zambia Zimbabwe			River Basin Zimbabwe and Mother-to-Child Transmission of HIV/AIDS (ZVITAMBO) Biosciences Eastern and Central Africa (BECA) African Trade Policy Centre Research on Agricultural Productivity AGRYHYMET Regional Centre (ARC) African Medical and Research Foundation (AMREF)		
Organisation	Sector	Country focus	Specific projects in Africa	Funding	Key partners	Key networks	Evaluations/key documents
USAID http://www.usaid.gov	Multi-sectoral	Africa-wide <i>HED partnership countries past/recent/ present</i>		In 2006 US\$148m was spent by USAID on health- related research.	USAID http://www.usaid.gov	Multi-sectoral	Africa-wide <i>HED partnership countries past/recent/ present Angola Benin Botswana</i>

		<p>Angola Benin Botswana Congo Eritrea Ethiopia Ghana Kenya Lesotho Malawi Mali Mozambique Namibia Nigeria Rwanda Senegal Tanzania Zambia</p> <p><i>IEHA 2006 focus countries:</i> Mali Ghana Zambia Uganda Kenya Malawi Mozambique</p>		<p>In 2002 USAID spent approximately US\$68m on agriculture-related research. CGIAR received around US\$27m in funding from USAID, CRSPs – US\$23m.</p> <p>IN 20 years OIRED has spent over US\$45m in Africa on CRSP relate projects.</p> <p>In FY 2006 17% of IEHA expenditure – US\$13.1m- was spent on human and institutional capacity.</p>			<p>Congo Eritrea Ethiopia Ghana Kenya Lesotho Malawi Mali Mozambique Namibia Nigeria Rwanda Senegal Tanzania Zambia</p> <p><i>IEHA 2006 focus countries:</i> Mali Ghana Zambia Uganda Kenya Malawi Mozambique</p>
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Sources: Organisations' websites, annual reports and evaluations; interviews with staff members.

Multilateral donors: Approach to research capacity strengthening

(NB: Some projects/initiatives/programmes etc of organisations may cut across all three approaches (institutional, individual, environment) to research capacity strengthening but only appear in one of the approaches to research capacity strengthening columns)

Organisation	History
<p>WHO http://www.who.int</p>	<p>WHO was established in 1948. See web link below for history of WHO: http://www.who.int/about/history/en/index.html</p>
<p>Approach to research capacity strengthening</p> <p>Strengthening research capacity and collaborative networks</p> <p><i>WHO has a long tradition of strengthening research capacity and research institutions in low- and middle-income countries. Its special programmes, departments, and partnerships carry out a range of country support and technical assistance activities. The designation of collaborating centres also contributes to strengthening national capacity. Through its work in this area, WHO has improved health research governance and introduced the concept of a national health research system. It has played a key</i></p>	

role in supporting Member States as they set their own research priorities and agendas, and in helping them to develop infrastructure, such as Institutional Review Boards for conducting ethical review before research involving human subjects is undertaken, developing sound protocols for research that involves human subjects, laboratory expertise, etc.

These activities have also been instrumental in promoting solidarity and in creating networks of research centres and scientists within regions and sub-regions who can engage in global research, as well as serve the needs of their countries. Networks of WHO collaborating centres are an important channel to facilitate the exchange of information, experience, and expertise between developing countries.

(Position Paper on WHO's Role and Responsibilities in Health Research – May 2006)

Current WHO research activities include:

- two co-sponsored special programmes — HRP, which concentrates on human sexual and reproductive health research, and TDR, which focuses on tropical disease research, and one initiative — IVR, which is dedicated to vaccine research. All three are solely devoted to research;
- an alliance/partnership housed within WHO, AHPSR, focuses on health policy and systems research.
- 34 technical departments at WHO headquarters engaged in research activities, especially operational and epidemiological research;
- two partnerships housed within WHO — Roll Back Malaria and Stop TB — that actively support and coordinate a broad range of research activities;
- an alliance, the World Alliance on Patient Safety, and the Commission on Social Determinants in Health, housed within WHO, addresses research issues in their respective fields.
- several public-private partnerships play important roles in global health research. WHO's role in these groups ranges from host and collaborator to participant and sponsor;
- two specialised centres located outside Geneva—the International Agency for Research on Cancer (IARC) in Lyon, France and the Centre for Health Development in Kobe, Japan; and
- 368 (of 920) WHO Collaborating Centres as of May, 2006 that are involved in a wide range of research activities.

WHO-TDR

This special programme has a strong focus on research capacity strengthening. See profile below.

WHO-HRP

This special programme has a strong focus on research capacity strengthening. See profile below.

Initiative for Vaccine Research – IVR

Strong research capacity and good practice is vital for the development of vaccines. The IVR works to support research capacity in developing countries. See link below for more information:

http://www.who.int/vaccine_research/capacity_strengthening/en/

Health InterNetwork Access to Research Initiative- HINARI

The HINARI program, set up by WHO together with major publishers, enables developing countries to gain access to one of the world's largest collections of biomedical and health literature. Over 3750 journal titles are now available to health institutions in 113 countries, benefiting many thousands of health workers and researchers, and in turn, contributing to improved world health.

<http://www.who.int/hinari/en/>

HINARI Training Materials

The TDR HINARI training package is collaboration between TDR, HINARI, the National Library of Medicine (USA), Yale University Cushing-Whitney Medical Library (USA) and Paterson Institute for Cancer Research, Manchester (UK). The individual modules were developed through TDR-funded workshops in Africa and Asia where librarians and information managers from 16 developing countries field tested the material contained herein. The training material can be used librarians and researchers alike, and in an

individual or group environment. Each module presented builds on the previous and is supplemented by tutorial sessions. The CD-ROM may be used on-line or without an Internet connection when not available

Organisation	History
WHO-HRP http://www.who.int/hinari/en/	

Approach to research capacity strengthening

Institutional	Individual	Environment/national research systems
<p>HRP is the main instrument within the UN system for research in human reproduction, bringing together policy-makers, scientists, health care providers, clinicians, consumers and community representatives to identify and address priorities for research to improve sexual and reproductive health.</p> <p>HRP research helps people lead healthy sexual and reproductive lives, by strengthening capacities of countries to provide quality information and services that enable people to protect their own reproductive and sexual health and that of their partners.</p> <p><i>Institutional</i> <i>Research Project Mentoring (RPM)</i> The RPM programme is designed to provide support to developing country centres in line with two major objectives of HRP which are: (i) to collaborate with countries in enhancing national capacity to conduct sexual and reproductive health research, and (ii) to promote use of research results in policy-making and planning in order to improve sexual and reproductive health care delivery. For more information see: http://www.who.int/reproductive-health/tcc/docs/rpm.pdf</p> <p><i>Service Guidance Centres (SGC)</i> Goal: To accelerate progress in the attainment of sexual and reproductive health through enhancing use of evidence-based tools and practice guides. Overall objectives: The creation of networks of centres of excellence for national and subnational dissemination and promotion of utilisation of reproductive health tools and guidelines derived from most current research evidence. For more information see: http://www.who.int/reproductive-health/tcc/docs/sgc.pdf</p> <p><i>Long-term Institutional Development grants (LID)</i> Covers the development of human resources essential for conducting research in reproductive health, and the development, strengthening and supply of movable non-human research resources and infrastructures.</p>	<p><i>Research Training Grants and Re-entry Grants (RTG & REG)</i> Aims to strengthen institutions or centres in the development of human resources necessary to undertake research. Aims to assist countries, through the centres, to build up a critical mass of researchers and technical staff. For more information see: http://www.who.int/reproductive-health/tcc/docs/rtg.pdf</p> <p><i>Communication and writing workshops</i> HRP supports a number of training workshops including the following:</p> <ul style="list-style-type: none"> • Scientific writing – Through exercises, researchers learn how to write articles for publication in peer-reviewed journals. • Communications skills – Researchers, programme managers and policymakers learn the skills essential for communicating effectively with each other and with the public (via the mass media). • Information management – Researchers/ managers learn how to manage information flowing in and out of a research institution. • Training of trainers in scientific writing – Senior researchers learn how to teach scientific writing to others. 	

For more information see: <http://www.who.int/reproductive-health/tcc/docs/lid.pdf>

Competitive Intraregional Research grants (CIR)

Supports multi-centre studies which foster scientific collaboration as part of the effort to develop solutions to priority regional reproductive health problems. CIR grants have been established with the aim of facilitating research around a defined theme of regional priority.

For more information see: <http://www.who.int/reproductive-health/tcc/docs/cir.pdf>

Courses Workshops Seminar grants (CWS)

Aims to support selected centres to strengthen their capacity to conduct courses, workshops and seminars on reproductive health research. Aims to foster collaboration between countries through the organisation of courses with participants from different countries.

For more information see: <http://www.who.int/reproductive-health/tcc/docs/cws.pdf>

Resource Maintenance Capital grants and Small Supply Grants (RMC & SSG)

Aims to improve reproductive health at country and regional levels through the strengthening of material resources for supporting relevant reproductive health research and for facilitating the use of practice guides.

For more information see: <http://www.who.int/reproductive-health/tcc/docs/rmc.pdf>

HRP in Africa

In 2004–2005, HRP collaborated with 42 institutions or research groups in 24 countries in Africa and the Eastern Mediterranean. 10 institutions received long-term institutional development grants or resource maintenance grants. These centres were involved in 121 studies, more than 50% of which were clinical research projects, most of them in the areas of maternal health or family planning. Among its research training activities, HRP provided support to an MSc course in biostatistics at the University of Ibadan in Nigeria, and organised workshops and short courses on various themes, including research methods, evaluation of semen, ethics, and research synthesis and systematic reviews. A special initiative is under way, in collaboration with the Population Council's FRONTIERS Project and the WHO Regional Office for Africa, to develop the Centre de Recherche sur la Population et le Développement in Bamako, Mali, as an operations research training centre for francophone

<p>Africa. Two training and protocol development workshops were held in 2004, with teams of programme managers, service providers and researchers from a number of countries. Each team chose a theme that was a priority for their country, and developed a proposal for operations research.</p> <p>Regional networks The African Reproductive Health Research and Training Network seeks to improve reproductive health in the region by linking, coordinating, and strengthening other reproductive health research networks. Membership is open to individuals⁷ and institutions involved in research and research training activities in reproductive health. In 2004– 2005, the draft constitution was finalised and an Executive Group elected. The Network also updated its research directory, and developed an information leaflet and other materials.</p>				
Organisation		History		
<p>WHO-TDR http://www.who.int/tdr/</p>		<p>WHO-TDR was established in 1975 and has been active in Africa for over 30 years.</p>		
Approach to research capacity strengthening				
Institutional		Individual		Environment/national research systems
<p>The key objectives of TDR are research and development into infectious tropical diseases and research training and strengthening. Research capability strengthening is a cross-cutting programme area of TDR and has two aims:</p> <ul style="list-style-type: none"> • promote and fund research training and institution development • increase the participation of developing countries TDR's research and development agenda. <p>Institutional <i>Research Group Development Grants</i> WHO-TDR aims to strengthen the capacity of institutions and research groups in least developed, high disease burden countries. Long-term support to institution or research group development programmes is provided through the capacity strengthening programme grant mechanism. This area of research capacity strengthening aims to:</p> <ul style="list-style-type: none"> • develop research leadership • promote the development of infrastructure and research environment • improve training opportunities • improve scientific expertise in biomedical and social sciences • improve information and communications systems • foster opportunities for scientific collaboration 		<p>TDR supports the training of researchers who are nationals of disease-endemic countries, and whose research interests are related to one or more of TDR's target diseases. Short-term training opportunities are provided through institution attachments and workshops. Longer-term training opportunities, leading to postgraduate degrees, are supported through the research training grant mechanism. An essential part of the research capability strengthening process is to encourage young scientists who have been trained in countries other than their home country, to return to their home institutions following the completion of their training. The aim is to:</p> <ul style="list-style-type: none"> • help establish strong research groups for recently trained scientists; • enable young scientists to establish their research careers and continue collaboration with their training institution. <p>As a consequence, research activities in the home institutions sustained and the institutional research capacities are strengthened.</p>		<p>In the past 5–10 years TDR has increased its focus on promoting good practices – working to international standards, project planning and management, leadership skills and good clinical practice.</p>

<p>Applications for capacity strengthening programme grants are restricted to least developed, high disease burden, low income countries. Proposals are reviewed on the basis of scientific soundness, research relevance, and explicitness of expected outcomes. Financial support can be for an initial period of one to three years, subject to annual review and satisfactory progress. The annual budget is around US\$50k. Long-term support is considered on a case-by-case basis.</p> <p><i>Project Development Grant</i> Project development grants are designed to help scientists from developing countries to formulate technically sound, full-scale research proposals (both research capability strengthening, and research and development (R&D) proposals). Funds may be used for three purposes:</p> <ul style="list-style-type: none"> • to collect baseline or preparatory data • to initiate preliminary research • to seek the advice of recognised experts in the preparation of a full-scale research proposal <p>Project development grants do not exceed 10 000 US dollars and are not renewable.</p> <p><i>RCS-Plus - Research and Development Driven Initiatives</i> RCS-Plus is the name given to capacity strengthening activities that are driven by TDR's research and development (R&D) agenda. RCS-Plus grants are intended to support projects based on targeted R&D-driven capability strengthening initiatives. Initiatives are identified and recommended by TDR. They address priority issues ranging from laboratory-based research, through field intervention research, to social, economic and behavioural research. Priority is given to specific areas with:</p> <ul style="list-style-type: none"> • the greatest potential impact on disease control; • the greatest potential impact on RCS outcomes. <p>RCS-Plus grants are open to researchers in all disease endemic developing countries.</p>	<p><i>Research Training Grants</i> Research training grants support higher degree training (locally or regionally) or short-term postdoctoral fellowships in biomedical or social science research. Grants are awarded on a competitive basis to nationals from developing countries who are working in a developing country institution. Research interests must be related to one or more of TDR's target diseases. As a matter of policy, TDR does not fund a second graduate degree immediately following completion of a first graduate degree regardless of funding source. Applicants are expected to demonstrate some research competence in a non academic research environment prior to submitting an application to TDR.</p> <p><i>Re-entry Grants</i> Re-entry grants are intended to facilitate the career development of young scientists from disease-endemic countries (DEC) returning to their home institutions within 12 months following completion of a graduate degree (MSc, PhD) or post-doctoral training period. The goal is to enable young scientists to establish their research careers within a documented career development plan. Applications must be designed as an integral part of an institutional programme that clearly documents the career development plans for the applicant.</p> <p>Proposals are reviewed on the basis of scientific merit, the career development plan for the applicant and relevance of project to the home institution. Therefore, in addition to a proposed research agenda, applications must include a career development plan developed in consultation with the immediate supervisor and endorsed by the home institution director. To increase the relevance of the immediate past training, supporting letters from 2 training supervisors are also required. Re-entry grants are awarded on a competitive basis for a 3 year period. A maximum 40 000 US dollars is awarded over the 3-year period. Applicants must be nationals of disease-endemic countries.</p>	
Organisation	History	

CGIAR http://www.cgiar.org/	<p>Created in 1971, the Consultative Group on International Agricultural Research (CGIAR) is an association of public and private members supporting a system of 16 international agricultural Centres that work in more than 100 countries to mobilise cutting-edge science to reduce hunger and poverty, improve human nutrition and health, and protect the environment. Many of the institutes within the group were established before 1971.</p> <p>See web link for detailed history of CGIAR: http://www.cgiar.org/who/history/index.html</p>	
Approach to research capacity strengthening		
<p>The CGIAR mission is to contribute to food security and poverty eradication in developing countries through research, partnerships, capacity building, and policy support, promoting sustainable agricultural development based on the environmentally sound management of natural resources.</p> <p>CGIAR's research agenda focuses on both strategic and applied research, and includes the entire range of problems affecting agricultural productivity and links these problems to broader concerns about poverty reduction, sustainable management of natural resources, protection of biodiversity, and rural development. It focuses on five major research thrusts: increasing productivity, protecting the environment, saving biodiversity, improving policies and strengthening national research.</p> <p>Research Centres in CGIAR: Africa Rice Center (WARDA) Bioversity International CIAT - Centro Internacional de Agricultura Tropical CIFOR - Center for International Forestry Research CIMMYT - Centro Internacional de Mejoramiento de Maiz y Trigo CIP - Centro Internacional de la Papa ICARDA - International Center for Agricultural Research in the Dry Areas ICRISAT - International Crops Research Institute for the Semi-Arid Tropics IFPRI - International Food Policy Research Institute IITA - International Institute of Tropical Agriculture ILRI - International Livestock Research Institute IRRI - International Rice Research Institute IWMI - International Water Management Institute World Agroforestry Centre (ICRAF) WorldFish Center</p> <p>All the research centres in CGIAR have research capacity strengthening element to their programmes. The majority fund research programmes, provide support to institutes and networks, support individuals through studentships and fellowships, and are involved in the dissemination of research. The key research centres involved heavily in Africa (CIFOR, ILRI, IRRI, IITA, and IFPRI) are profiled in the intermediaries table.</p>		
Organisation	History	
International Foundation for Science – IFS http://www.ifs.se/	<p>IFS is a non-governmental organisation) founded in 1972. Funding comes from governmental and non-governmental sources, as well as national and international organisations. The annual budget is approximately US\$5 million. IFS has 135 Affiliated Organisations in 86 countries, of which three-quarters are in developing countries and one-quarter in industrial countries. IFS has an international Board of Trustees. The IFS Secretariat is located in Stockholm, Sweden.</p>	
Approach to research capacity strengthening		
Institutional	Individual	Environment/national research systems
<i>Funding for research teams</i>	<i>Granting Programme</i>	

<p>Although the IFS Research Grant is individual, IFS strongly supports the creation of research teams.</p> <p>To jointly fund a team project, researchers who qualify for IFS support may apply for individual IFS Research grants. Each team member should describe his/her own individual research objectives as well as his/her contribution to meeting the objectives of the team. Each individual application will be evaluated based on individual merit as well as contribution to the team objectives. Team projects are evaluated on a case by case basis.</p>	<p>The IFS Granting Programme is open for project proposals from developing country scientists who meet the eligibility criteria and conduct research on the sustainable management of biological resources, including topics in both natural and applied sciences such as agriculture, soil science, forestry, biodiversity, environmental chemistry, natural products, food science, animal husbandry, veterinary medicine, aquaculture, marine resources... as well as social or economic aspects of the sustainable management of natural resources, or the production and transfer of knowledge for sustainable development.</p> <p><i>IFS Research Grant</i></p> <p>An IFS Research Grant has a maximum value of US\$12,000. It is awarded to an individual researcher, for a specific research project. The IFS Research Grant is intended for the purchase of the basic tools needed to conduct the proposed research project – equipment, expendable supplies, and literature – and to arrange fieldwork activities related to the proposed project. The grant cannot be used to pay for the aspiring Grantee's own salary or for honoraria, or to cover tuition fees or living expenses. It is expected that the IFS Grantees already receive a salary and are employed by or otherwise attached to a developing country research institution.</p> <p>The timeframe of a research project should normally be 1–3 years. After having completed an IFS supported research project, and submitted a project report, Grantees may apply for renewal grants. In total, a researcher is eligible to receive three Research grants from IFS.</p> <p>Since 1974 there have been 3,500 IFS Grantees in Africa, Asia and the Pacific, and Latin America and the Caribbean. Of these 22% are women.</p> <p><i>IFS Awards</i></p> <p><i>The IFS/Danida Award –</i></p> <p>Was established with special funds from the government of Denmark in 1996 and is given every year to IFS grantees working in Sub-Saharan Africa (up to 12/year).</p>	
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	<p><i>The IFS Jubilee Award –</i> Was established in 1997 as the 'IFS Silver Jubilee Award' to complement the IFS/Danida Award. As a mark of the 30th Anniversary, the Board decided to change the name of the IFS Silver Jubilee Award to the IFS Jubilee Award. It is given to grantees from Latin America/ the Caribbean, Asia/ the Pacific and Northern Africa (up to 8/year).</p> <p><i>The Sven Brohult Award –</i> This award is the most prestigious of the IFS Awards. It is given to an IFS Grantee once every three years. Each Award is in the cash amount of US\$10,000.</p> <p><i>Additional Support to IFS Grantees</i></p> <p><i>Travel/Publication Grants</i> IFS Grantees may apply for a travel/publication grant at the end of their research project, in order either to travel to a conference at which they will present the results of their IFS-supported research or publish the results in an international journal. A final report must have been submitted to IFS before applying for such a grant.</p> <p><i>Purchasing Services</i> IFS offers help with purchasing to those Grantees who live in countries where international purchasing of equipment and supplies is difficult. At the beginning of the grant period when the contract is being drawn up, the Grantee will be asked to choose between having the grant money transferred to his/her institution (and the Grantee then does the purchasing themselves) or leaving the grant money at IFS and using the purchasing services offered.</p> <p><i>Mentoring Programme</i> IFS is in the final stages of formulating an effective Mentoring Programme for Grantees. The Mentors will come from the wide network of Scientific Advisers used by IFS in the evaluation of research proposals.</p> <p><i>Capacity Enhancing Workshops</i></p>	
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	<p>In response to the lower success rate in accessing research grants of scientists in countries with vulnerable scientific infrastructure, IFS has developed an effective Project Conceptualisation and Preparation Course. The course analyses the scientific method and places strong emphasis on critical interaction between the participants who will formulate and re-formulate their own ideas for scientific research into a proposal which may then be submitted to a research council for funding. The participatory nature of the course ensures also that participants leave with indelible impressions of the principles which underpin the elaboration of a sound research proposal. These courses are open to both IFS Grantees and non-grantees and are held periodically in different countries.</p>	
Organisation	History	
World Bank/World Bank Institute	www.worldbank.org	
Approach to research capacity strengthening		
Institutional	Individual	Environment/national research systems
<p>The World Bank is a key funder of research capacity strengthening programmes and projects in Africa. Its support to research capacity strengthening crosses a number of WB departments and programmes and thus this profile is only a brief summary of key programmes and projects.</p> <p>Institutional The WB is a key funder of research systems, institutes and universities in Africa. Below are some examples of WB support to research capacity development in Africa:</p> <p><i>Key African institutes</i> The WB established and continues to fund the AERC, ACBF. During 1994–2004 the bank provided grants to the ACBF totalling US\$158m. It also set up the African Virtual University in 1997 and is still a major funder (US\$13m over the next three years). The WB also funds the Global Development Network –GDN (see profile below).</p> <p><i>The Africa Regional Communications Infrastructure Program - RCIP</i> RCIP aims to address this ‘missing link’ and to improve access to international connectivity by focusing on closing the terrestrial connectivity gap. Connectivity and transparency are the two over-arching development objectives of RCIP. The Program aims to extend the</p>	<p><i>WBI Scholarship Programme</i> The Programs provide opportunities for graduate studies leading to master's degree in development-related fields for mid-career professionals from World Bank member countries. WBI supplements its training programs through the management of the following two programs:</p> <ul style="list-style-type: none"> • <i>Robert S. McNamara Fellowships Program (RSM Fellowships)</i>, co-sponsored by the World Bank and Princeton University- Since the inception of the Program in 1982, 247 fellowships have been granted to fellows from a pool of about 9,000 applicants representing all regions of the World Bank. The fellows have conducted research on a wide variety of topics in development related fields. • <i>The Joint Japan/World Bank Graduate Scholarship Program (JJ/WBGSP)</i>, sponsored solely by the Government of Japan- Now in its 21st year, the Regular Program has awarded 2,707 scholarships, selected from 54,119 applicants. In addition, 1047 scholarships have been awarded in the various JJ/WBGSP Partnership Programs for a total of 3,754 	<p>Global Development Learning Network Initiated by the World Bank in June 2000, the Global Development Learning Network (GDLN) is a global partnership of more than 100 learning centres (GDLN Affiliates) that offer the use of advanced information and communication technologies to people working in development around the world. Through videoconferencing, high-speed internet resources, and interactive facilitation and learning techniques, GDLN Affiliates enable their clients to hold coordination, consultation, and training events in a timely and cost-effective manner.</p>

<p>geographic reach of broadband networks and contribute to lower prices for international capacity, while contributing to improved Government efficiency and transparency through selected e-government applications.</p> <p>Kenya, Burundi and Madagascar are involved in the first phase of RCIP which has a combined volume of US\$164.5 million, out of the US\$424 million envelope for the overall program. Other eligible countries in East and Southern Africa can join future phases of the Program on a readiness basis. RCIP is an innovative example of the emphasis on regional integration, which accounts for more than 10% of total World Bank support to Africa.</p> <p>By the end of the Program, it is expected that all capitals and major cities in East and Southern Africa would be linked to competitively priced high-bandwidth connectivity. Lower prices for international connectivity will decrease the cost of doing business and significantly improve private sector investment opportunities in the region. Universities, schools and hospitals benefit; and governments will be able to deliver services to citizens more efficiently and transparently online.</p> <p><i>Science, Technology and Innovation in Africa – The Case of Uganda and Nigeria</i></p> <p>Early this year, the government of Uganda launched the first Bank-supported Millennium Science Initiative Project in Africa. The project is financed with an International Development Association (IDA) credit of US\$30 million to support strengthening of the country’s scientific and technological capabilities in order to meet its economic growth and industrialisation targets. Another US\$180 million science and technology project in Nigeria is being supported to fund research, training, and centres of excellence.</p> <p>It has been clearly demonstrated that African countries must build up their STI capacity in order to make demonstrable progress in achieving the Millennium Development Goals (MDGs). Several Governments in Africa, including Botswana, Mozambique and Rwanda are already moving towards adopting STI policies, and investing more resources into targeted science development programs. Early in 2007, over 300 ministers, scientists, private sector and non-governmental representatives from over 60 countries gathered at the World Bank in Washington DC, to discuss the importance of science and technology in development, agreeing that improved science and technology capacity would close the gap that separates the world’s knowledge leaders from developing countries.</p>	<p>awards.</p> <p><i>WBI Knowledge for Development Program (K4DP)</i></p> <p>The K4D program includes five main product lines that are focused on clients' transition to the knowledge economy, as well as assistance to organisations in client countries on knowledge management:</p> <p>Knowledge Economy Policy services for clients, including policy reports and policy consulting advice on various aspects of the knowledge economy. K4D provides a spectrum of knowledge economy products (enhanced desk assessments, knowledge economy overview assessments, and full knowledge economy assessments) which allow us to meet the needs of different client countries.</p> <p>Knowledge Economy studies that are designed to bring together global learning and experience on the knowledge economy, such as on innovation systems. Learning events to build knowledge and skills and to facilitate exchange of experience and good/best practice on the knowledge economy.</p> <p>Knowledge products/tools, including the preparation of materials to support our learning events, websites, and the Knowledge Assessment Methodology (KAM). Knowledge Management assistance to enhance the capacity of development-oriented organisations in the client countries to achieve greater impact through the application of knowledge management tools and practices.</p> <p>:</p> <p>Knowledge Management for Organizational Capacity- (includes UNDP, ACBF, USAID, GTZ as partners)</p> <p>Objectives</p> <ul style="list-style-type: none"> • To enhance understanding of KM concepts, tools and practices among development professionals, particularly in World Bank client countries • To build staff skills within development agencies and client governments in the use of KM tools and approaches, particularly through the use of customised Action Plans • To enable development agencies and client governments to develop and implement 	
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<p>Mozambique- Higher Education Project The Development objectives of the Higher Education Project for Mozambique are to: a) enhance internal efficiency and expand the output of graduates; b) improve equitable access (gender, location, and socio-economic); and c) improve the quality of the teaching-learning process and the relevance of the curriculum. There are three project components. The first component finances activities to support overall policy and system reform and development, including new regulatory, fiscal, and accountability frameworks; new pedagogical teaching methods and programs; the use of information, communication, and technology in the delivery and teaching of higher education; an accreditation system; new or alternative sources of funding; and a HIV/AIDS prevention and support program for students. The second component focuses on institutional development and investments, improving efficiency, academic and pedagogical quality, research, and the scope of service delivery of specific institutions. The third component will, on a pilot basis before expanding nationally, initiate the introduction and operation of a publicly run and publicly financed scholarship scheme that will provide financial assistance, student outreach, and academic advisory services.</p> <p>Uganda – Agricultural research and training WB has been a key funder of research systems and institutes in Uganda (providing over US\$60m in ARTP credit). The WB recently announced a Second Agricultural Research and Training Project worth US\$12m. The objectives of the Second Agricultural Research and Training Project (ARTP II) are to generate new knowledge, strategies and technologies in support of the Government of Uganda's Plan for the Modernization of Agriculture (PMA); design and implement improved procedures and capacities for scaling-up the application of new technologies; and capacity building of the reformed National Agricultural Research System (NARS).</p> <p>Kenya – Development of National Statistics System This project has a credit amount of US\$20.5m. To establish a sustainable national statistical system to provide reliable, timely and accurate data in accordance with international standards through: (a) strengthening the capacity of the relevant statistical agencies through training and adoption of new information and communication technology; (b) carrying out legal and institutional reforms that promote statistical data development; (c) establishing linkages among statistical data producers; (d) promoting statistical information sharing among data producers and users to strengthen the quality of decision making; and</p>	<p>successful organisation-wide, and program-specific KM initiatives</p> <p>Training and technical assistance WBI also offers the Core Course in Knowledge Management for Organizational Capacity - a one-week, fee-based course aimed at individuals from developing country institutions who have only limited understanding of KM issues. The KM courses can be modified for the 'Train-the-Trainers' format to include guidance on the re-delivery of the course by partner organisations.</p> <p>For K4DProgram projects in Africa see: http://web.worldbank.org/WBSITE/EXTERNAL/WBI/WBIPROGRAMS/KFDLP/0..contentMDK:21002841~menuPK:2792491~pagePK:64156158~piPK:64152884~theSitePK:461198.00.html</p> <p>For Knowledge Partnerships for Africa see: http://web.worldbank.org/WBSITE/EXTERNAL/COURIES/AFRICAEXT/0..contentMDK:20234524~menuPK:485249~pagePK:146736~piPK:226340~theSitePK:258644.00.html</p> <p>Global Development Learning Network Initiated by the World Bank in June 2000, the Global Development Learning Network (GDLN) is a global partnership of more than 100 learning centres (GDLN Affiliates) that offer the use of advanced information and communication technologies to people working in development around the world. Through videoconferencing, high-speed internet resources, and interactive facilitation and learning techniques, GDLN Affiliates enable their clients to hold coordination, consultation, and training events in a timely and cost-effective manner.</p>	
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(e) developing a data access and dissemination strategy in conformity with relevant legislation and international good practice.

World Bank Institute (WBI)

<http://web.worldbank.org/WBSITE/EXTERNAL/WBI/0,,pagePK:208996~theSitePK:213799,00.html>

The World Bank Institute is the capacity development arm of the World Bank, and helps countries share and apply global and local knowledge to meet development challenges. WBI's capacity development programs are designed to build skills among groups of individuals involved in performing tasks, and also to strengthen the organisations in which they work, and the socio-political environment in which they operate.

The WBI aims to:

- Build capacity for development in response to specific country needs by providing learning programs and policy advice on economic management and poverty reduction, environmentally and socially sustainable development, financial and private sector development, governance, human development, infrastructure, and knowledge for development.
- Reach policymakers, academics, and development practitioners in every corner of the world. In recent years, WBI has broadened its reach to include parliamentarians, journalists, teachers, youth, and civil society leaders.
- Help clients apply knowledge to development challenges, country by country. Through courses, seminars, knowledge networks, communities of practice, and expert advice, WBI and its partners reach people all over the world, promoting the exchange of global and local knowledge.
- Uses interactive technologies as well as blended applications of new and traditional educational methods to take knowledge around the world. WBI and its partners deliver learning activities through videoconference, the web, print publications, instructional video, CD-ROM, interactive multimedia and e-learning, as well as face-to-face in the classroom.
- Works in partnership. WBI depends on a global network of strategic partnerships to promote the sharing of local and global knowledge among countries. Partners help expand WBI's professional expertise, staffing, funding, facilities, and administration. Contributions of WBI resource partners represent nearly half of WBI's total working capital. Resource partners include bilateral aid agencies, foundations, the private sector, and other organisations. More than half of WBI's activities are

developed and delivered jointly with partners in developing countries.

In fiscal 2006, WBI:

- Delivered more than 800 learning events
- Reached more than 90,000 client participants worldwide
- Had formal partnerships with 187 organisations
- Awarded 211 scholarships under the Joint Japan/World Bank Graduate Scholarship Program and the Robert S. McNamara Fellowships Program
- Had representation in the field: Burkina Faso, China, Egypt, Ethiopia, France (Marseilles, Paris), Ghana, India, Nigeria, Senegal, Tanzania and Turkey

WBI Learning Programs

These programmes cover a number of sectors and themes. Each programme designs and delivers courses, seminars, policy consultations, and other events. Below is a list of all WBI learning programs:

[Business, Competitiveness and Development](#)

[Community Empowerment and Social Inclusion](#)

[Education](#)

[Environment and Natural Resources Management](#)

[Financial Sector](#)

[Governance and Anti-Corruption](#)

[Health and AIDS](#)

[Investment Climate](#)

[Knowledge for Development](#)

[Poverty and Growth](#)

[Public-Private Partnership in Infrastructure](#)

[Rural Poverty and Development](#)

[Social Protection and Risk Management](#)

[Trade](#)

[Urban and Local Government](#)

[Water](#)

WBI and Africa

The WBI in 2007 supported programmes in Burkina Faso, Chad, Ethiopia, Ghana, Kenya, Liberia, Mozambique, Malawi, Madagascar, Nigeria, Senegal, South Africa, and Tanzania. See web link below for more detail on WBI's work in Africa:

<http://web.worldbank.org/WBSITE/EXTERNAL/WBI/0,,contentMDK:20967145~menuPK:795720~page>

PK:209023~piPK:207535~theSitePK :213799,00.html		
Organisation	History	
International Science Programme – ISP http://www.isp.uu.se/	The first ISP programme was started by the Swedish Uppsala University in 1961. At that time it was a fellowship based programme to support physics students from the south studying in Sweden. The programme quickly took on a more proactive long-term institutional research capacity strengthening focus when it was realised that researchers had little to go back to once they graduated. A chemistry programme was added in 1970 and the most recent new ISP programme- International Programme in Mathematical Science- began in 2001. Although still based at Uppsala University, the programme is now primarily funded by Sida/SAREC.	
Approach to research capacity strengthening		
Institutional	Individual	Environment/national research systems
<p>ISP at Uppsala University aims at assisting developing countries in Africa, Asia, and Latin America to strengthen their domestic research capacity within the chemical, physical and the mathematical sciences. ISP focuses on least developed countries.</p> <p>ISP comprises three units – IPPS, the International Programme in the Physical Sciences (started 1961), IPICS, the International Programme in the Chemical Sciences (started 1970) and IPMS, the International Programme in Mathematical Sciences (started 2001). The secretariat for support to build up ICT (Makerere ICT Project) at Makerere University, Uganda is also located at ISP.</p> <p>Institutional <i>Long-term support through North-South Research Cooperation</i> ISP provides long-term support to Southern research groups and networks (typically 10–20 years; in Bangladesh some projects have been running since 1977) to develop active and sustainable research environments. The aim is to create research groups and institutions which can support their own MSc and PhD level work. Research groups comprise of a Northern and Southern partner. ISP invites groups to apply for funding and research groups decide their research focus. African partners work in collaboration with Northern partners primarily in Sweden but also other European countries. All projects must be of an acceptable international scientific standard, and MSc and PhD theses produced must result in publications in refereed journals. Long-term support will only be given provided there is a positive development of the group/network. Applications and performances are reviewed by ISP international reference groups and other external referees, who make recommendations to the ISP. Ownership, to plan and decide about activities and budget, is and should be with the supported groups/networks. ISP aims to transfer administration and handling of funds as far as the local situations permit, and encourages supported groups/networks to seek other additional funding to help long-term</p>	<p>ISP support is often fundamental for starting local MSc and PhD programmes. Part of ISP support to research groups and networks goes towards funding MSc and PhD training programmes, often sandwich-type studies in collaboration with Northern partners. With increased research facilities and experience, Southern partners the periods abroad can be shortened and eventually eliminated. To overcome weak capacities in some universities ISP assists in arranging training and post graduate courses on a regional level. When regional human resources are not available for a certain course, ISP will invite a scientist from outside to train students. ISP actively works for a more equal distribution between male and female scientists and research students.</p>	<p>Research project management is currently not part of ISP's work but it is an area they are considering moving into. At the moment they use any relevant International Foundation of Science training in this area.</p>

<p>independence.</p> <p><i>Makere ICT Project</i> A linkage between the School of Graduate Studies, Makerere University and the Virtual Faculty of Information Technology of Uppsala University was established in 2001 to provide a programme of assistance administered by ISP. The objective of the co-operation is to strengthen the electronic infrastructure of Makerere University and to integrate ICT into all aspects of the University functions. The collaboration aims to: bring knowledge to Makerere University concerning information resource management and the establishment of a campus network, structures to handle it, the operation of university e-mail and internet services, the introduction of ICT into university library systems and the training of the staff and students in computer skills. The Programme also involves the placement of Makerere staff as PhD students in Information Science and technology at various universities in Sweden.</p> <p><i>International Programme in Mathematical Sciences (IPMS)</i> The IPMS support to mathematics is focused on Africa south of the Sahara, with the exception of the Republic of South Africa. In this region the number of mathematicians with a PhD does not exceed one per one million inhabitants and the number of PhD- and MSC-students is even lower. Among other things this has the effect that many fields of mathematics are not at all represented. For this, and other reasons, the support is not targeted towards any particular branch of mathematics. Another consequence is that the projects and networks supported are located at university departments in order to enhance capacity building, such as PhD-training. Although some of the research topics within the projects and networks supported have titles that associates to applied mathematics, there are lots of activities going on in pure mathematics within the PhD- and MSc-programmes.</p> <p><i>Networks</i> ISP supports south-south research cooperation and supports regional research networks. See ISP's for more information on supported networks in Africa.</p>		
Organisation		History
ICSU http://www.icsu.org		Founded in 1931. See http://www.icsu.org/5_abouticsu/INTRO_Hist_1.html for an in-depth history of ICSU.
Approach to research capacity strengthening		
Institutional	Individual	Environment/national research systems
The International Council for Science (ICSU) is a NGO representing a	<i>Grants Programme</i>	<i>ICSU Regional Office in Africa</i>

global membership that includes both [national scientific](#) bodies (112 members) and [international scientific unions](#) (29 members). Through this extensive international network, ICSU provides a forum for discussion of issues relevant to policy for international science and the importance of international science for policy issues and undertakes the following core activities:

- Planning and coordinating interdisciplinary research to address major issues of relevance in both science and society;
- Actively advocating for freedom in the conduct of science, promoting equitable access to scientific data and information, and facilitating science education and capacity building;
- Acting as a focus for the exchange of ideas, the communication of scientific information and the development of scientific standards;
- Supporting in excess of 600 scientific conferences, congresses and symposia per year all around the world, as well as the production of a wide range of newsletters, handbooks, learned journals and proceedings.

THE ICSU GRANTS PROGRAMME IS CURRENTLY SUSPENDED AND IS UNDER REVIEW

ICSU, with financial support from UNESCO, awards 10-15 grants annually to support collaborative projects proposed by its members. This 'seed-corn funding' (maximum US\$100k) is often used to lever funding from other sources and the competition for awards is very intense.

For the period 2004 and 2005, the following five priority themes have been identified for the grants programme:

- Science and Technology for Sustainable Development
- Capacity building and Science Education
- Science – Policy Interface
- Dissemination of Data and Information on Science and Technology
- Emerging Science and Technology – Creation of New Knowledge

ICSU-TWAS-UNESCO-UNU/IAS Visiting Scientist Programme

The aim of this programme is to provide institutions and research groups in the least developed countries, particularly those with limited international contacts, with the opportunity to establish long-term links with leading scientists worldwide and so help develop capacity-building in their country.

The programme is jointly sponsored by ICSU, the Third World Academy of Sciences ([TWAS](#)), The United Nations University's Institute for Advanced Studies ([UNU-IAS](#)) and UNESCO and is managed by TWAS. It provides travel support for short-term visits by senior scientists to institutions in developing countries, particularly those located in Least Developed Countries. With the exception of mathematics and physics, which are covered by specific schemes ([ICTP](#)), applications are invited for all areas of science.

The objectives of the Africa office are:

- To assist ICSU and its members in their strategic planning for activities in Africa and ensure that their plans and activities are well linked to the science community in the region, relevant networks and organisations and reflect Africa's priorities;
- To facilitate the expansion and active membership of ICSU to institutions in the African countries, where ICSU does not yet exist.
- To provide support and help with co-ordination, if needed, to scientific networks in the region and initiate new networks, where this has been identified as a regional priority; and assist the ICSU family in identifying scientists for membership of committees;
- To facilitate the free flow of scientists and scientific knowledge across the borders; and promote the participation of African scientists in activities of the ICSU family and its associated partners such as UNESCO, TWAS and NEPAD;
- To ensure efficient information transfer from ICSU and its family members to the scientific community in Africa; and the collection and dissemination of any valuable scientific information for

		<p>Africa;</p> <ul style="list-style-type: none"> • To promote and facilitate capacity building in Africa, including support for post-graduate training programmes for young scientists; and the procurement of educational and research facilities; • To promote and facilitate the mobility of African scientists within the continent; including organisation of regional and international interdisciplinary science programmes; conferences; and the exchange of professional visits; • To promote and facilitate the development of indigenous and traditional knowledge and skills; • To promote and facilitate the formation of scientific societies and academies within the continent; sub-regional partnerships on the continent; and the establishment of a database of African experts in all science fields; • To promote the principle of universality of science and science ethics; and <p>To promote and facilitate the application of science for accelerated socio-economic development of the African continent.</p>
<p>Organisation EU/EC http://cordis.europa.eu/en/home.html</p>	<p>History</p>	
<p>Approach to research capacity strengthening</p>		

Institutional	Individual	Environment/national research systems
<p>Various EU and EC departments and programmes support research capacity strengthening in Africa either directly or as part of other projects and programmes. Below are just a few examples of European support to research capacity strengthening.</p> <p>Institutional <i>EU/EC Funding to Research Institutes</i> The EU and EC provide funding to a number of research institutes, networks and organisations involved in supporting research including: CGIAR, AfDB, CIRAD.</p> <p><i>7th Research Framework Programme (FP7)</i> International cooperation is an element of the 7th Research Funding Framework. With a budget of US\$260m (2007–2013) the framework aims to encourage international research cooperation on a number of topics. Currently more than 100 countries from all over the world are involved in EU Research Programmes. One focus of the 7th Framework is to encourage research cooperation with developing countries after poor participation by developing countries in the previous 6th Research Programme (FP6). In March 2006 the EC provided an extra US\$24m to encourage developing countries to join existing FP6 research projects.</p> <p>Aims of international cooperation programme :</p> <ul style="list-style-type: none"> • Identification of S&T priorities with third countries to be used by the Themes under the Cooperation Programme; • Supporting and strengthening of the participation of third countries in the Framework Programme; • Reinforcing the bilateral S&T cooperation with targeted third countries; • Coordinating S&T national programmes of EU Member States with third countries. <p>International cooperation programme research themes: Infectious Diseases Fundamental Genomics Biosociety Food, Agriculture and Fisheries, and Biotechnology Information and Communication Technologies Nanosciences, Nanotechnologies, Materials and new Production Technologies Energy</p>	<p><i>International Incoming Fellowships (IIF)</i> This fellowship part of FP7 and is open to experienced researchers from third countries. It provides financial support to individual research projects presented by the incoming experienced researchers in liaison with a legal entity ('host organisation') in a Member State or an Associated country, as well as possibly a 'return host organisation' if the researcher's country or origin is an International Cooperation Partner Country.</p>	

<p>Environment Transport Socio-economic Sciences and Humanities Security Space</p> <p>Europe and Africa A dialogue is ongoing between the EU and African partners to identify mutual benefits and needs for cooperation in the area of Science, Technology and Research. In addition to numerous activities within previous framework programmes for research (in particular, the management of natural resources, food security, environment and the currently implemented 'European and Developing Countries Clinical Trials Partnership, EDCTP, which is a research programme for development of new vaccines and drugs to tackle major communicable diseases like HIV/AIDS, tuberculosis and malaria), the 7th EU Framework Programme for Research and Development (FP7) is open to participation by third countries for research activities in all areas of the framework programme. As is currently the case for the EDCTP, a key area for closer cooperation between the EU and Africa will include research activities, biomedical and epidemiological studies as well as applied research in the fight against HIV/AIDS and other communicable diseases, climate change and biodiversity sustainable use. In addition, several capacity building activities are being undertaken with the EDF and other thematic budget instruments that complement those financed through the Framework Programmes for Research and Development and will be pursued under FP7. (taken from <i>Joint Progress Report by the European Commission and General Secretariat of the Council to the General Affairs and External Relations Council on the implementation of the EU Strategy for Africa</i>, http://ec.europa.eu/development/ICenter/Pdf/061012_FINAL_VERSION.pdf)</p>		
<p>Organisation</p>		
<p>UN</p>		
<p><i>A number of UN organisations and departments are involved in supporting research capacity strengthening in a variety of ways. It would be difficult to list all the UN organisations/departments and their work, however, listed below are a few examples of UN organisations (UNDP, UNESCO, UN Universities) and what support to research capacity strengthening they provide.</i></p>		
<p>UNDP http://www.undp.org/</p>	<p>UNESCO http://portal.unesco.org/en/ev.php-URL_ID=29008&URL_DO=DO_TOPIC&URL_SECTION=201.html</p>	<p>UN Universities www.unu.edu</p>
<p>One of the UNDP key goals is to help develop the capacities required to achieve the MDGs. UNDP is working in 166 countries. Part of this support involves</p>	<p>UNESCO is the only UN body with a mandate in higher education. The organisation supports governments and institutions worldwide in building capacity and</p>	<p>United Nations University (UNU) – http://unu.edu/about/ UNU works to attain its capacity development goals by a</p>

<p>research capacity strengthening and helping create an environment where research can develop. http://www.capacity.undp.org/</p> <p>Specific UNDP projects in Africa UNDP's global knowledge network provides capacity development and policy support across every country in Africa in areas ranging from democratic governance and peace-building to private sector development and integration into world trade. As with all our work, the programmes reflect the African countries' own priorities and are carried out through a wide range of partnerships with government leaders, civil society and the private sector.</p> <p><i>Research Capacity in Swaziland</i> http://www.undp.org.sz/nrc.html UNDP is supporting the Government of Swaziland establish a key structure that will ensure the establishment of a national capacity to commission, undertake, manage, coordinate and provide quality assurance on all research activities conducted in Swaziland.</p> <p><i>ICT for Development – Tanzania</i> http://www.tz.undp.org/ict.html In Tanzania, UNDP provides support to implement the national ICT policy, helps and coordinates donor activities around ICT, and supports the training of IT professionals through the Cisco Networking Academy Initiative.</p>	<p>formulating policies and strategies, so that higher education fully contributes to sustainable national development.</p> <p>UNESCO supports the establishment of sustainable higher education systems by:</p> <ul style="list-style-type: none"> <input type="checkbox"/> building and strengthening capacities at the national level <input type="checkbox"/> providing global leadership concerning teacher training and related policy issues <input type="checkbox"/> developing policy options for an educational response to the challenges of globalisation through research and knowledge-sharing. <input type="checkbox"/> assisting Member states in planning for and developing sustainable policies in the use of ICTs in education in a lifelong learning perspective <p>The sub-Saharan Africa region is one of UNESCO's priority areas. The activities undertaken by the organisation in the education sector aim at reinforcing Member States' capacities to rethink the role of education and undertake the necessary renewal, reconstruction and development of their education systems.</p> <p>Higher Education – Capacity Building in Research Programme http://www.dakar.unesco.org/education_en/sup_capacity.shtml Conceived in the framework of the follow-up to the World Conference on Higher Education, the aim of this project is to contribute to strengthening research capacities of African universities by holding national and/or regional networks for training of teachers/ researchers in conceiving and developing the documents used to attract funds for university research.</p> <p>Objectives</p> <ul style="list-style-type: none"> • Reinforcing the capacities of African universities in the area of research • Increasing the expertise of teachers/researchers in conceiving and formulating projects aimed at attracting the 	<p>variety of means: Short-duration training courses and workshops Long-duration training programmes for post-graduate academics and professionals Master's, PhD. and Postdoctoral programmes Some of UNU's Capacity Development programmes are open for individual application, while participants for other programmes, which are aimed at strengthening specific institutions in developing countries over a longer term, are identified from within UNU's own networks. Many of the research projects designed and managed within the two Programme Areas at UNU Centre or by UNU's Research and Training Centres and Programmes upgrade the skills and knowledge of individuals and/or the capacity of academic or other institutions through opportunities for learning and exchange arising from their involvement in UNU coordinated project work. In line with UNU's research and capacity-development focus, UNU capacity development programmes are available exclusively at the postgraduate level. UNU fellowships are awarded to young and mid-career scholars and professionals, primarily from developing countries.</p> <p>UNU-IAS Institute of Advanced Studies – Japan http://www.ias.unu.edu UNU-IAS offers the following fellowships:</p> <ul style="list-style-type: none"> <input type="checkbox"/> PhD Fellowships <input type="checkbox"/> Postdoctoral Fellowships <input type="checkbox"/> JSPS-UNU Postdoctoral Fellowships <p>UNU-WIDER- World Institute for Development Economics Research http://www.wider.unu.edu The WIDER Ph.D. Research Internship Programme aims to provide Ph.D. (doctoral degree) students registered at a university and similar research institutions the opportunity (a) to utilise the resources and facilities available at WIDER for their PhD thesis research; (b) to produce papers suitable for publication in the WIDER discussion/research paper series and elsewhere; and (c) to work jointly with WIDER researchers in areas of mutual interest.</p>
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	<p>funds required for the development of university research</p> <ul style="list-style-type: none"> • Reinforcing collaboration between bilateral and international cooperation agencies and coordinating their actions aimed at developing research in African universities. <p>Participants The project targets all teaching staff who do not yet have the title of Professor. Participants will be selected in such a way as to cover fundamental and applied research across all areas of competence in African universities, namely science and technology, law and social sciences, medicine, arts and teaching.</p> <p>International University Cooperation International University Cooperation promotes intellectual cooperation through twinning and other linking arrangements among institutions of higher learning and academics throughout the world to permit access, knowledge sharing within and across borders. Rooted in its function is to bridge the knowledge gap and substantially reduce the brain drain by assisting the establishment of poles of excellence in Member States. Thus IUC endeavours to meet emerging challenges in an era of globalisation by advancing the use of new information technologies to build capacity and increase knowledge to advance the cause of education, science and technology, social and human sciences, culture and communication.</p> <p>UNESCO Forum on Higher Education, Research and Knowledge http://portal.unesco.org/education/en/ev.php-URL_ID=26596&URL_DO=DO_TOPIC&URL_SECTION=201.html</p> <p>This initiative focuses on research in and on higher education and knowledge. The Forum provides a platform for researchers, policy-makers and experts to engage critically with research issues and research findings.</p>	<p>UNU-INRA Institute for Natural Resources in Africa http://www.inra.unu.edu</p> <p>Based in the UNU-INRA carries out research into food security (in particular Restoration and Maintenance of the Fertility of Soils (including the Use of Indigenous Agro-minerals and Conservation of Biodiversity, Genetic Improvement and Increased Utilization of Africa's Indigenous Food Crops and Useful Plants) and provides short-term and post-graduate training and research on geo-informatics. It has also established the following online database projects:</p> <ul style="list-style-type: none"> □ AMIST--African Millennium Initiative for Science and Technology □ Directory of African Women Scientists in Natural Resources Conservation and Management
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	<p>The objective is to widen our understanding of systems, structures, policies, trends and developments in higher education, research and knowledge. Within these areas, the work of the Forum is focused on:</p> <ul style="list-style-type: none"> - gathering and engaging with existing and ongoing research - identifying research gaps and new priorities - stimulating and facilitating research - bringing to the fore current issues and debates - making available research findings - disseminating information on policies and practice <p>UNESCO and ICSU ICSU, with financial support from UNESCO, awards 10-15 grants annually to support collaborative projects proposed by its members. This 'seed-corn funding' (maximum \$100k) is often used to lever funding from other sources and the competition for awards is very intense. For 2007 all ICSU grants have been suspended and are under review.</p>	
<p>Organisation</p> <p>African Development Bank- AfDB http://www.afdb.org/portal/page?_pageid=473.1&_dad=portal&_schema=PORTAL</p> <p>African Development Bank Institute http://www.afdb.org/portal/page?_pageid=473.8852233&_dad=portal&_schema=PORTAL</p>	<p>History</p> <p>The African Development Bank is a multilateral development bank whose shareholders include 53 African countries and 24 non-African countries from the Americas, Asia, and Europe. It was established in 1964, with its headquarters in Abidjan, Côte d'Ivoire, and officially began operations in 1967.</p>	
<p>Approach to research capacity strengthening</p> <p>Although the core mandate of the Bank is development financing, it has been recognised that its success in achieving its ultimate objective of poverty reduction and sustainable development in Africa depends critically on the depth and width of its knowledge of the development challenges facing the Continent and individual African regional member country (RMC). In July 2006, the Bank instituted a new organisational structure to reposition the Bank as a knowledge institution.</p> <p>AfDB support to research and capacity building institutions in Africa – Current and proposed initiatives</p> <p>Over the years, the African Development Bank Group has been providing support to research and capacity building institutions (RCBIs) in Africa. Since 2000, a document titled <i>Bank Group Strategy and Framework for Support to Research and Capacity Building Institutions in Africa</i> has provided a comprehensive set of guidelines for selecting the beneficiary institutions. The Bank is exploring the idea of establishing a Knowledge Management Trust Fund (KMTF) to mobilise, pool, and leverage intellectual and financial resources for strengthening knowledge research capacity of the Bank and for expanding its research program with research institutions in the Regional Member Countries. The Bank will raise funds for KMTF activities mainly from its own resources as well as from bilateral donors, private sector and Foundations.</p> <p>Specifically, the KMTF resources will support the Bank's:</p>		

Research program in key areas within the five research clusters:

- Poverty Reduction and the MDGs;
- Macroeconomic Dynamics and Growth;
- Governance, Institutions and Public Sector Management;
- Investment climate and Competitiveness of African Economies; and
- Regional Integration and Trade

AfDB is also proposing or has recently started other initiatives to enhance its role as a Knowledge Institution:

- *Professorial Endowment*: These chairs will be awarded to 5 Universities in Africa, (to cut across the regional grouping) based on a competitive bidding process.
- *The AfDB Distinguished [Speakers Program](#)*: The program is devoted to sharing insights, intuitions, concepts, tools, techniques, ideas, practices, new applications, skills, experiences and major research findings that could contribute to knowledge in the 5 research clusters and to development in Africa.
- *Collaborative Research and Dissemination Activities*: The Bank will engage in broad collaborative researches with a number of African Research Institutes and international organisations.
- *The Partnership-for-Skills-Development Program (PASDEP)*: The PASDEP initiative entails exchanging staff with selected partners in private sector companies, international financial institutions, regional and national development banks, government agencies, universities and research institutes, consulting firms, unions and NGOs for a period of up to two years or more; as a way of sharing knowledge and building new perspectives that can help the drive towards attaining sustainable development in Africa.
- *The AfDB Program for Research Assistants (APRA)*: The Bank will establish the APRA on a two-year non-convertible appointment basis targeting new Bachelors degree holders with superior academic records from recognised universities in Africa.
- *The AfDB Fellowship and Post-doctoral Research Program (FEPOR)*: This program will be a non-convertible 2-12 month program, intended to provide research fellowship opportunities to qualified university graduates (fresh PhD graduates in particular), faculty or researchers from institutes in Africa.

AfDB also proposes to establish the following networks:

The African Development Research Network (AfDRN)

The Office of the Chief Economist is proposing the establishment of the African Development Research Network, (AfDRN), to strengthen the research capacity of the region and its RMCs and contribute positively to the development of policy agenda on the continent.

Its membership would include African network of universities; researchers, research and policy institutes, policy makers and private sector practitioners working together with ADB internal networks to address the issues of development of Africa and the RMCs.

African Network of Central Banks and Finance Ministries

This network will be more or less a discussion group whose permanent members are to include the Central Banks and Finance Ministries in the whole of Africa.

The purpose of the network is to promote high-level policy discussions on macroeconomic and financial issues and foster personal bonds among the central banks and Finance Ministries in Africa and between high-level policymakers from the research institutions and the ADB Research Department.

African Economic Association (AFECAS)

The ADB would facilitate the launch of a Pan-African economics association, the African Economic Association (hereafter, AFECAS). AFECAS would serve as a regional economic association to provide a forum for all economists in Africa and beyond to come together once a year to share research findings and knowledge with respect to African economies.

Specific projects supported by the African Development Fund in 2006:

Strengthening the Institutions for Risk Management of Transboundary Animal Disease (TADs) in the SADC Region (Angola, Malawi, Mozambique, Tanzania, Zambia)

Objective: Enhance livestock as a tradable and consumable commodity by strengthening capacity to detect, identify, monitor, and survey TADs in the region. The project involves networking and sharing information through enhanced information and communication technologies, capacity building, and institutional strengthening, aimed at reinforcing regional and national laboratory, epidemiological, and socioeconomic capacity.

Expected outcomes: Improved veterinary services and disease surveillance.

Cofinanciers: SADC Secretariat (UA0.34 million); participating countries (UA1.18 million).

WAEMU-Support for Higher Education in WAEMU

Objective: Improve higher education systems and promote regional integration in higher education. The project focuses on providing support for reforms and for harmonisation of higher education systems in WAEMU countries; and support for academic research and project management.

Expected outcomes: Improvement internal performance of higher education; training is responsive to social and economic needs; more efficient management of human, financial and material resources; increased mobility of students and staff between WAEMU member countries; revised curricula adopted by member countries, and mutual recognition of titles is assured.

Promotion of Science & Technology for Agricultural Development in Africa

Objective: Build agricultural research knowledge management capacity and support the adoption and dissemination of proven agricultural technologies. The project will create a functional African information and communications technology network for access and exchange of agricultural information and support the wide-scale adoption and dissemination of agricultural technologies.

Expected Outcomes: Establishment or upgrading of efficient information and communications technology (ICT) network infrastructure within and among the Forum of Agricultural Research for Africa, subregional organisations, and National Agricultural Research Institute; increased yields and production levels of diverse agricultural products; modernised agricultural production in Africa

SADC-Capacity Building for Open & Distance Learning in the SADC Region

Objective: Contribute to the development and deployment of effective and harmonised open and distance learning (ODL) and promote regional integration in the SADC region. The project comprises ODL regional policy development and strategic planning and capacity building for ODL.

Expected outcomes: Capacity and motivation of SADC in designing and implementing strategic regional ODL interventions is enhanced.

African Development Institute (AfDBI)

The African Development Institute (ADI) referred to as EADI in the current Bank's structure, has the mandate to conduct training and other capacity development activities in the Bank's Regional Member Countries (RMCs). The ADI also manages the ADB/Japan Fellowship program that provides scholarships to African students yearly, to undertake higher studies. It leads to the award of fellowships for Master degrees studies at internationally recognised universities.

AGRICULTURAL MANAGEMENT TRAINING FOR AFRICA (AMTA) PROGRAM / NORTH AFRICA MANAGEMENT TRAINING IN AGRICULTURE (NAMTA) PROGRAM

The Agricultural Management Training for Africa Program consists of training activities focusing on agricultural projects. The Agricultural Management Training for Africa (AMTA) program was initiated in 1983 by ADB, IFAD and the World Bank as a pilot phase. The program is now in its second phase with funding from IFAD and ADB. It covers 9 countries in sub Sahara Africa and 3 countries in North Africa. In North Africa (Morocco, Tunisia, Algeria), the program is known as NAMTA (North Africa Management Training in Agriculture). It consists mainly of pilot training and testing of training materials. The German Development Agency, InWENT, has joined ADB and IFAD in sponsoring the NAMTA program.

Development Management Training

The Development Management Training program of the African Development Institute is comprised of seminars, workshops, conferences and symposia organised mostly in collaboration with the Joint Africa Institute (JAI) and other units of the Bank, as well as with major development agencies such as the World Bank, the Economic Commission for Africa, the World Trade Organization, etc. The topics selected for training are to be relevant to the economic and social development of the Bank's Regional Member Countries.

Project Implementation Workshops

The Project Implementation Workshops consist of training activities focusing on Bank's Procurement and Disbursement procedures as well as Bank's Accounting and Auditing procedures. The Bank carries out Project Implementation Workshops in its Regional Member Countries. The primary aim of these Workshops is to strengthen the capacity of

RMC officials to manage Bank-funded projects and programmes.

E-learning Initiative

Many Regional Member Countries continue to express a need for training and capacity strengthening in project implementation, agriculture and natural resources management or other key development issues. Budget and human resources have always been a limiting factor in addressing Regional Member Countries training needs. The demand by far exceeds the offer of such training opportunities and training materials are often the only alternative to extend these activities beyond the primary target of the training. It is therefore necessary to develop a single-stop platform for Bank learning materials and resources for Regional Member Countries training that will make these international public goods more easily available and accessible to all. This will also enable the African Development Institute to organise online courses and coordinate Bank staff assistance to requests from Regional Member Countries through coaching and tutorial assistance.

Sources: Organisations' websites, annual reports and evaluations; interviews with staff members.

Multilateral donors: Other key Information (including: sector, country focus, specific projects in Africa, funding, key partners, key networks, evaluations and key documents)

Organisation	Sector	Country focus	Specific projects in Africa	Funding	Key partners	Key networks	Evaluations/key documents
WHO http://www.who.int	Health	Africa-wide	See TDR and HRP entries for specific WHO projects.	The estimated total financial resource available to WHO for 2006–2007 is US\$3.32bn. 70% of this is from voluntary contributions (from countries, specialised agencies and other partners). The proposed WHO programme budget for 2006–2007 called for a spending of US\$108.5m on Communicable Disease Research, US\$74.6m for the Health Information,	See TDR and HRP entries.	See TDR and HRP entries.	Position Paper on WHO's Role and Responsibilities in Health Research – May 2006 http://www.who.int/rpc/meetings/position_paper.pdf WHO Proposed Programme Budget 2006-2007 www.who.int/gb/eb/pb2006.html

				Evidence and Research Policy programme and US\$138m to be spent on the Knowledge Management and IT programme. In 2004–2005 the HRP had a budget of US\$51m.			
Organisation	Sector	Country focus	Specific projects in Africa	Funding	Key partners	Key networks	Evaluations/ key documents
WHO-HRP http://www.who.int/hinari/en/	Reproductive Health	<i>Institutions from the following countries have received institution strengthening support from HRP and/or are designated as WHO Collaborating Centres and/or are part of the HRP network of collaborating institutions:</i> Benin Cameroon Ethiopia Ivory Coast Kenya Mozambique Nigeria Senegal South Africa Uganda Zambia Zimbabwe	See web link below for a summary of HRP research projects in Africa in 2005: http://www.who.int/reproductive-health/tcc/afro_emro.html and 2005 HRP technical report page 52: http://www.who.int/reproductive-health/publications/annual_technical_reports/2005/technical_reports/2005/ext.pdf	HRP 2006–2007 budget US\$39m. US\$11.7m of this is for technical cooperation with countries, which includes national research capacity strengthening.	HRP works with a wide range of partners at universities, health research institutes and hospitals including: The Department of Obstetrics and Gynaecology, University of Nairobi, Kenya the Reproductive Health Research Unit, Johannesburg, South Africa University of Ibadan, Nigeria	African Reproductive Health Research and Training Network (REPRONET-Africa)	2002 HRP External Evaluation http://www.who.int/reproductive-health/management/evaluation.pdf 2005 HRP Technical Report http://www.who.int/reproductive-health/publications/annual_technical_reports/2005/text.pdf HRP 2006-2007 Programme Budget http://www.who.int/reproductive-health/management/hrp_programbudget0607.pdf
Organisation	Sector	Country focus	Specific projects in Africa	Funding	Key partners	Key networks	Key documents/ evaluations
WHO-TDR	TDR focuses on neglected	Africa wide with at least		The 2006-2007			Tropical disease

http://www.who.int/tdr/	<p>infectious diseases that disproportionately affect poor and marginalised populations including Malaria, Dengue, Leprosy and TB.</p> <p>Research areas and initiatives include:</p> <p>Strategic and Discovery Research; Molecular entomology; Pathogenesis and genomics; Genomics and discovery research; Product Development and Evaluation; Diagnostics; Vaccines; Drugs; Implementation Research and Methods; Implementation research; Research Capability Strengthening; Good Laboratory Practice (GLP); Multilateral Initiative on Malaria; Diseases category; Sexually Transmitted Diseases Diagnostics Initiative; Strategic Initiative for Developing Capacity in Ethical Review (SIDCER).</p>	<p>90% of African countries having at least one TDR project/programme. Current trend is to begin working with 'neglected' African countries including Chad and DR Congo.</p>		<p>budget is US\$100m. Capacity strengthening work/partnerships counts for US\$20m but this figure under values other capacity strengthening work not included in specific capacity strengthening projects.</p> <p>The 2005 TDR budget was c. US\$50m. Approximately US\$20m was spent on research capacity strengthening. Since TDR was established in they have spent over US\$250m on RCS.</p>			<p>research: progress 2005-2006 http://www.who.int/tdr/publications/publications/pr18.htm</p> <p>Building Research Capacity and an enabling Environment (chapter from above report) http://www.who.int/tdr/publications/publications/pdf/pr18/chapter4.pdf</p> <p>TDR History Book 30 years of research and capacity building in tropical diseases http://www.who.int/tdr/about/history_book/anniversary_book.htm Other TDR publications can be found at: http://www.who.int/tdr/publications/publications/default.htm</p>
Organisation	Sector	Country focus	Specific projects in Africa	Funding	Key partners	Key networks	Evaluations/ key documents
CGIAR	Agriculture	Africa-wide	See	In 2005 the	Research	See	Evaluation and

http://www.cgiar.org/	<p>The CGIAR has five areas of focus:</p> <ul style="list-style-type: none"> # Sustainable production (of crops, livestock, fisheries, forests and natural resources) # Enhancing National Agricultural Research Systems NARS (through joint research, policy support, training and knowledge-sharing) # Germplasm Improvement (for priority crops, livestock, trees and fish) # Germplasm Collection (collecting, characterising and conserving genetic resources - the CGIAR holds in public trust one of the world's largest seed collections available to all) # Policy (fostering research on policies that have a major impact on agriculture, food, health, spread of new technologies and the management and conservation of natural resources) 		<p><i>intermediaries table</i></p>	<p>alliance's expenditure was US\$452m. It received US\$450m from members, a 17% increase from the previous year. In 2005 the US was the largest donor (US\$54.8m), followed by the World Bank (US\$50m) and DFID (US\$44.2m). The Alliance received US\$14m from private foundations including US\$10m from the Rockefeller Foundation.</p> <p><i>Expenditure by research output:</i> Germplasm improvement – 17% Germplasm collection – 12% Sustainable production 33% Policy 18% Enhancing NARS- 20%</p> <p><i>Expenditure by region:</i> Sub-Saharan – 46% Asia -30%</p>	<p>Centres in CGIAR</p> <ul style="list-style-type: none"> Africa Rice Center (WARDA) Bioversity International CIAT - Centro Internacional de Agricultura Tropical CIFOR - Center for International Forestry Research CIMMYT - Centro Internacional de Mejoramiento de Maiz y Trigo CIP - Centro Internacional de la Papa ICARDA - International Center for Agricultural Research in the Dry Areas ICRISAT - International Crops Research Institute for the Semi-Arid Tropics IFPRI - International Food Policy Research Institute IITA - International Institute of Tropical 	<p><i>intermediaries table</i></p>	<p>impact of training in the CGIAR</p> <p>http://www.sciencecouncil.cgiar.org/publications/pdf/Evaluation_and_Impact_of_Training.pdf</p>
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				Latin America and Caribbean- 14% Central and west Asia and North Africa- 10%	Agriculture ILRI - International Livestock Research Institute IRRI - International Rice Research Institute IWMI - International Water Management Institute World Agroforestry Centre (ICRAF) WorldFish Center		
Organisation	Sector	Country focus	Specific projects in Africa	Funding	Key partners	Key networks	Evaluations/key documents
IFS http://www.ifs.se/	<i>The IFS Mission Statement should be interpreted widely, to include topics in both natural and applied sciences such as agriculture, soil science, forestry, biodiversity, environmental chemistry, natural products, food science, animal husbandry, veterinary medicine, aquaculture, marine resources... as well as social or economic aspects of the sustainable management of natural resources, or the production and transfer of knowledge for sustainable development.</i>	Benin Botswana Burkina Faso Burundi Cameroon Cape Verde Central African Republic Chad Comoros Congo (Republic Of) Congo (Democratic Republic of) Côte d'Ivoire Equatorial Guinea	A list of 2006–2007 grantees, including their institutes and projects can be found at: http://www.ifs.se/Database/search_results.asp?name=&year_of_grant1=2006&year_of_grant2=2007&country=1&region=Sub-Saharan+Africa+&area=1&title_en=&sort1=country_of_nat&sort2=name&Submit=Find+now	IFS annual budget is US\$5m. Donors to IFS include: Sida SNSF Norad IRD DGIS DFG DFID	See http://www.ifs.se/Partners/affiliated_orgs.asp for affiliated organisations, and http://www.ifs.se/Partners/collaborating_orgs.asp for collaborating organisations.	Networks in Africa connected to IFS: AFASSA Co-ordination of Networks for research on Biological Resources in Africa, Asia and South America http://www.afa-ssa.org ANCAP African Network for the	A 2001 external evaluation of IFS can be found at: http://www.ifs.se/Publications/IFS%20External%20Evaluation%202001.pdf <i>Relevant IFS Impact Studies:</i> Report No. 4 (October, 2002) Strengthening Science Capacity in Tanzania - An Impact Analysis of IFS Support Report No. 5 (October, 2003)

		<p>Eritrea Ethiopia Gabon Gambia Ghana Guinea Guinea Bissau Guyana Kenya Lesotho Liberia Madagascar Malawi Mali Mauritania Mauritius Mozambique Namibia Niger Nigeria Rwanda São Tomé and Príncipe Senegal Sierra Leone Somalia South Africa Sudan Swaziland Tanzania Togo Uganda Zambia Zimbabwe</p>				<p>Chemical Analysis of Pesticides http://chem.udsm.ac.tz/home/</p> <p>NABSA Network for Analytical and Bio-assay Services in Africa http://www.ubw/news/conf/nabsa/index.htm</p> <p>NAPRECA Natural Products Research Network for Eastern and Central Africa http://chem.udsm.ac.tz/home/napreca/index.html</p> <p>NUSESA Network of Users of Scientific Equipment in Southern and Eastern Africa http://www.nusesa.org</p> <p>WANNPRES Western Africa Network of Natural</p>	<p>Scientific Research Capacity in Cameroon</p> <p>IFS annual reports can be found at: http://www.ifs.se/Publications/publications.asp?id=a3#annual</p>
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						Products Research Scientists	
Organisation	Sector	Country focus	Specific projects in Africa	Funding	Key partners	Key networks	Evaluations/ key documents
World Bank / World Bank Institute www.worldbank.org	WBI learning program themes: Business, Competitiveness and Development Community Empowerment and Social Inclusion Education Environment and Natural Resources Management Financial Sector Governance and Anti-Corruption Health and AIDS Investment Climate Knowledge for Development Poverty and Growth Public-Private Partnership in Infrastructure Rural Poverty and Development Social Protection and Risk Management Trade Urban and Local Government Water	Africa-wide There are forty-seven countries in Sub-Saharan Africa that are eligible for World Bank borrowing. <i>WBI focus countries 2007:</i> Burkina Faso Burundi Malawi Ghana Senegal Kenya South Africa Liberia Tanzania Mozambique Chad Madagascar Ethiopia Nigeria	See WB Approach to RCS table for examples of WB funded projects. The web link below provides information on active WB projects in Africa; http://web.worldbank.org/external/default/main?menuPK=258670&pagePK=146756&piPK=146825&theSitePK=258644	The portfolio of WB projects under implementation in Africa as of April 2007 amounts to US\$19.2 billion. In order to maximise the impact of assistance, the allocation of resources across countries has mirrored the quality of policies and institutions. Several countries – Burkina Faso, Ghana, Mali, Mozambique, Senegal, Tanzania, and Uganda – have, as a result, received increased assistance. Between 1995 and 2004 the World Bank has provided some US\$9 billion in lending	<i>WBI Partners in 2006:</i> Benin Centre for Training and Research on Population (CEFOP) Burkina Faso Centre de Formation Continue du Groupe EIER/ETSHER (CEFOC), Burkina Faso Landnet West Africa, Burkina Faso Cameroon University of Yaoundé II, Cameroon University of Cocody, Côte d'Ivoire Egypt American University of Cairo (AUC) Egyptian Center for Economic	Capacity Building in Africa: An IEG Evaluation of World Bank Support 2005 http://www.worldbank.org/oed/africa_capacity_building/ WBI evaluations http://web.worldbank.org/WBSITE/EXTERNAL/WBI/0,,contentMDK:20252874~menuPK:591798~pagePK:209023~piPK:335094~theSitePK:213799,00.html Capacity Enhancement through Knowledge Transfer: A Behavioral Framework for Reflection, Action and Results http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/AFRICAEXT/0,,contentMDK:20830944~menuPK:258666~pagePK:146736~piPK:226340~th	

				<p>and close to \$900 million in grants and administrative budget to support capacity building in Africa.</p> <p>ACBF– WB granted US\$158m over 1991–2004.</p>	<p>Studies (ECES) Ministry of Health and Population (MoHP) National Training Institute (NTI) Social Planning, Analysis and Administration Consultants - Human Empowerment Center (SPAAC/HEC) The Economic Research Forum (ERF) for the Arab Countries, Iran and Turkey The Egyptian Banking Institute</p> <p>Ethiopia USAID Essential Services for Health in Ethiopia (ESHE) Project</p> <p>Ghana May Day Rural Project (MDRP) University of Ghana</p> <p>Kenya African Economic Research Consortium (AERC) African Population Advisory Council</p>	<p>eSitePK:258644.00.html</p>
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					<p>Environmental Economics and Policy in Africa (CEEPA), University of Pretoria</p> <p>Tanzania Commonwealth Regional Health Community (CRHC), also known as the East, Central and Southern African (ECSA) Health Community Eastern and Southern African Management Institute (ESAMI)</p> <p>Togo Center for African Family Studies (CAFS)</p> <p>Uganda Makerere University</p> <p>Zimbabwe The African Regional Intellectual Property Organization (ARIPO)</p>		
Organisation	Sector	Country focus	Specific projects in Africa	Funding	Key partners	Key networks	Evaluations/ key documents
ISP	Science (physics and	Burkina Faso	See ISP website	For 2007 the	<i>IPPS partners:</i>	ESARSWG -	Evaluations of ISP

<p>http://www.isp.uu.se/</p>	<p>chemistry) and mathematical science</p> <p><i>International Programme in Physical Sciences, IPPS-</i> The main areas supported in 2007 are:</p> <ul style="list-style-type: none"> - Condensed matter physics and materials science, 9 projects - Biophysics and radiation physics, 1 project - Atmospheric physics and geophysics, 7 projects - Environmental Physics, 1 project - Applied laser physics, 3 projects - Instrument, 1 project <p><i>International Programme in Chemical Sciences, IPICS-</i> The main areas supported in 2007 are:</p> <ul style="list-style-type: none"> - Organic and inorganic environmental chemistry - Chemistry of natural resources (bioactive substances, clay) - Biochemistry, biotechnology and molecular biology - Food chemistry/nutrition - Ecological chemistry - Material science 	<p>Cameroon Ethiopia Ghana Kenya Malawi Mali Mauritania Nigeria Senegal Tanzania Uganda Zambia Zimbabwe</p>	<p>for detailed breakdown of specific projects in Africa. http://www.isp.uu.se/</p>	<p>Sida/SAREC allocation to ISP activities is US\$4m and Uppsala University has provided additional funding of US\$250k. In addition ISP administers a number of bilateral Sida/SAREC grants for special programmes amounting to c. US\$800k.</p>	<p>Ethiopia Addis Ababa Univ., Physics Department Addis Ababa Univ., Geophysics Observatory</p> <p>Ghana Univ. of Cape Coast, Dept of Physics</p> <p>Kenya, Univ. of Nairobi, Institute of Nuclear Science, & Dept of Physics Moi Univ., Eldoret, Dept of Physics</p> <p>Nigeria Ahmadu Bello Univ., Zaria, Dept of Physics</p> <p>Nigeria Obafemi Awolowo Univ., Ile-Ife, Dept of Electronic and Electrical Engineering</p> <p>Senegal Univ. Cheikh Anta Diop, Dept of Physics</p>	<p>Eastern and Southern African Regional Seismological Working Group, Network between Eritrea, Ethiopia, Kenya, Uganda, Tanzania, Malawi, Zambia, Zimbabwe and South Africa</p> <p>Applied Atomic and Molecular Physics, Network between Senegal, Ghana, Kenya, Sudan and Zimbabwe ALNAP - African Laboratory for Natural Products Ethiopia, Addis Ababa University, Dept of Chemistry</p> <p>ANCAP – African Network for the Chemical</p>	<p>have been in 1977, 1986, 1993 and 2000. Hard copies are available by contacting ISP through their website.</p>
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					<p>Tanzania Univ. of Dar es Salaam, Dept of Physics</p> <p>Uganda Makerere Univ., Kampala, Dept of Physics</p> <p>Zambia Univ. of Zambia, Lusaka, Dept of Physics</p> <p><i>IPICS Partners:</i></p> <p>Cameroon Univ of Buea, Dept of Life Sciences Univ. Of Dschang, Dept of Chemistry</p> <p>Ethiopia Addis Ababa University, Dept of Chemistry</p> <p>Malawi Univ of Malawi, Dept of Chem., Zomba Univ. of Malawi, Dept of Chem., Zomba</p> <p>Mali Univ. of Bamako, Bamako, Fac de Sciences et Techniques</p>	<p>Analysis of Pesticides</p> <p>FOSNNA - Food Science and Nutrition Network for Africa</p> <p>NABSA - Network for Analytical and Bioassay Services in Africa</p> <p>Botswana, Univ. of Botswana, Gaborone, Dept of Chemistry</p> <p>NAPRECA - Natural Products Research Network for Eastern and Central Africa</p> <p>SARBIO - Southern African Regional Co-operation in Biochemistry, Molecular Biology and Biotechnology</p> <p>SEANAC - Southern and Eastern Africa</p>	
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					<p>Tanzania Univ. of Dar es Salaam, Dept of Chemistry</p> <p>Uganda Makerere University, Kampala, Dept of Chemistry</p> <p>Zimbabwe Univ. of Zimbabwe, Harare, Biochemistry Department National Univ. of Science and Technology, Bulawayo, Dept of Environmental Science and Health</p> <p><i>IPMS Partners:</i></p> <p>Ghana National Centre for Mathematical Sciences, Accra</p> <p>Ethiopia Dept of Mathematics, Univ. of Addis Ababa</p>	<p>Network for Analytical Chemists Analysis, Geometry and Applications Université de Yaoundé I, Yaoundé, Cameroon (a common research programme for the universities of Yaoundé I, Buea, Douala, Dschang and Ngaoundéré - all in Cameroon)</p> <p>The Eastern African Universities Mathematics Programme (EAUMP) Tanzania, Univ. of Dar es Salaam, Dept of Mathematics Kenya, Univ. of Nairobi, Dept of Mathematics Uganda, Makerere Univ., Dept of Mathematics</p> <p>PDE, Modelling and Control Burkina Faso</p>	
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						Université de Ouagadougou Senegal Université de Saint Louis Mauritania Université de Nouakchott	
Organisation	Sector	Country focus	Specific projects in Africa	Funding	Key partners	Key networks	Evaluations/ key documents
ICSU http://www.icsu.org	Science		See http://www.icsu.org/1_icsuinscience/GRANTS_1.html#2005 for a list of 2002-2006 projects supported by the ICSU grants programme.	2005 income US\$4.5m.	<i>The following organisations, inter-governmental and nongovernmental are those, other than members of the ICSU family, with which ICSU most frequently interacts:</i> European Science Foundation (ESF) Interacademy Council (IAC) Interacademy Medical Panel (IAMP) Interacademy Panel (IAP) International Association of Universities (IAU) International Council for Engineering and Technology (ICET)		Priority Area Assessment on Capacity Building in Science http://www.icsu.org/Gestion/img/ICSU_DOC_DOWNLOAD/928_DD_FILE_ICSU_PAA_Cap_Building.pdf 2006 ISCU Annual Report http://www.icsu.org/2_resourcecentre/RESOURCE_list_base.php4?rub=11 Review of ICSU grants programme 2001-2006 http://www.icsu.org/2_resourcecentre/RESOURCE_list_base.php4?rub=6&PH_PSESSID=46fe96dc101e28a0afa5f9677794692c#reviewoftheicsugrantsprogramme.2001-2006

					International Council for Philosophy and Humanistic Studies (CIPSH) International Social Sciences Council (ISSC) International Union of Technical Associations and Organizations (UATI) Organization for Economic Co-operation and Development (OECD) The World conservation Union (IUCN) World Federation of Engineering Organizations (WFEO)		
Organisation	Sector	Country focus	Specific projects in Africa	Funding	Key partners	Key networks	Evaluations / key documents
EU / EC http://cordis.europa.eu/en/home.html	7th Research Framework Programme is focused on the following areas of research: Infectious Diseases Fundamental Genomics Biosociety Food, Agriculture and Fisheries, and Biotechnology Information and Communication Technologies	<i>List of International Co-operation Partner Countries (ICPC) 7th Research Framework Programme:</i> <input type="checkbox"/> Angola <input type="checkbox"/> Benin <input type="checkbox"/> Botswana <input type="checkbox"/> Burkina-Faso <input type="checkbox"/> Burundi <input type="checkbox"/> Cameroon		The total funding for the 7 th Research Framework Programme is nearly US\$4bn 2007–2013. Within this framework International cooperation funding is US\$260m.			For all documents relating to the 7 th Research Framework Programme see: http://cordis.europa.eu/fp7/find-doc_en.html

	Nanosciences. Nanotechnologies. Materials and new Production Technologies Energy Environment Transport Socio-economic Sciences and Humanities Security Space	<input type="checkbox"/> Cape Verde <input type="checkbox"/> Central African Republic <input type="checkbox"/> Chad <input type="checkbox"/> Comoros <input type="checkbox"/> Congo <input type="checkbox"/> Congo (Republic) <input type="checkbox"/> Congo (Democratic Rep. of) <input type="checkbox"/> Côte d'Ivoire <input type="checkbox"/> Djibouti <input type="checkbox"/> Equatorial Guinea <input type="checkbox"/> Eritrea <input type="checkbox"/> Ethiopia <input type="checkbox"/> Gabon <input type="checkbox"/> Gambia <input type="checkbox"/> Ghana <input type="checkbox"/> Guinea <input type="checkbox"/> Guinea-Bissau <input type="checkbox"/> Kenya <input type="checkbox"/> Lesotho <input type="checkbox"/> Liberia <input type="checkbox"/> Madagascar <input type="checkbox"/> Malawi <input type="checkbox"/> Mali <input type="checkbox"/> Mauritania <input type="checkbox"/> Mauritius <input type="checkbox"/> Mozambique <input type="checkbox"/> Namibia <input type="checkbox"/> Niger <input type="checkbox"/> Nigeria <input type="checkbox"/> Rwanda <input type="checkbox"/> Sao Tome and Principe <input type="checkbox"/> Senegal <input type="checkbox"/> Seychelles <input type="checkbox"/> Sierra Leone <input type="checkbox"/> Somalia <input type="checkbox"/> South Africa2 <input type="checkbox"/> Sudan <input type="checkbox"/> Swaziland					
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		<input type="checkbox"/> Tanzania <input type="checkbox"/> Togo <input type="checkbox"/> Uganda <input type="checkbox"/> Zambia <input type="checkbox"/> Zimbabwe <i>Up-to-date information on the status of co-operation partner countries available at: http://cordis.europa.eu/fp7/who_en.html#countries</i>					
Organisation	Sector	Country focus	Specific projects in Africa	Funding	Key partners	Key networks	Evaluations/ key documents
African Development Bank - AfDB http://www.afdb.org/portal/page?_pageid=473.1&_dad=portal&_schema=PORTAL African Development Bank Institute- AfDBI http://www.afdb.org/portal/page?_pageid=473.8852233&_dad=portal&_schema=PORTAL	Multi-Sectoral	Regional Members: ALGERIA ANGOLA BENIN BOTSWANA BURKINA FASO BURUNDI CAMEROON CAPE VERDE CENTRAL AFRICAN REPUBLIC CHAD COMOROS CONGO CONGO, DEMOCRATIC REPUBLIC OF COTE D'IVOIRE DJIBOUTI EGYPT EQUATORIAL GUINEA ERITREA ETHIOPIA GABON GAMBIA GHANA		<p>In 2006, AfDB approved a total of UA2.59 billion-comprising UA2.31 billion for operations financing and UA0.28 billion in debt relief, arrears clearance, and private sector loan guarantees.</p> <p>Between 1987 and 1998, the Bank provided a total of US\$36.561 million to research organisations covering a number of important sectors including:</p>	AfDBI partners include : <input type="checkbox"/> African Virtual University (AVU) <input type="checkbox"/> Joint Africa Institute (JAI) <input type="checkbox"/> World Bank Institute (WBI) <input type="checkbox"/> International Monetary Fund (IMF) <input type="checkbox"/> International Fund for Agricultural Development (IFAD) <input type="checkbox"/> Islamic Development Bank (IDB) <input type="checkbox"/> African Capacity Building Foundation (ACBF) <input type="checkbox"/> African Management Services		2006 Annual Report http://www.afdb.org/pls/portal/docs/PAGE/ADB_ADMIN_PAGE/DOCUMENTS/FINANCIALINFORMATION/ANNUAL%20REPORT%202006%20UK%20PRINTED%20APRIL%2015-07.PDF Evaluations of AfDB support to education projects can be found at: http://www.afdb.org/portal/page?_pageid=293,423532&_dad=portal&_schema=PORTAL&page_start=&search_length=&doc_page=EV ALUATIONREPORTS&doc_category=

		<p>GUINEA GUINEA BISSAU KENYA LESOTHO LIBERIA LIBYA MADAGASCAR MALAWI MALI MAURITANIA MAURITIUS MOROCCO MOZAMBIQUE NAMIBIA NIGER NIGERIA RWANDA SAO TOME & PRINCIPE SEYCHELLES SENEGAL SIERRA LEONE SOMALIA SOUTH AFRICA SUDAN SWAZILAND TANZANIA TOGO TUNISIA UGANDA ZAMBIA ZIMBABWE</p>		<p>agriculture, health, finance, education, gender, environment, and macro-economic development research.</p> <p>The ADFI resources was approved by the Bank for the furtherance of research and capacity building initiatives for the period rose from UA6.0 million 2002–2004 period to UA15 million under ADF-IX.</p> <p>In 2006 US\$97m was spent by the ADF on education.</p> <p>Co financiers of the bank in 2006 included: World Bank EU UK USA Nordic Countries</p>	<p>Company (AMSCO)\ <input type="checkbox"/> Organization for Economic Cooperation and Development (OECD) <input type="checkbox"/> World Trade Organization (WTO) <input type="checkbox"/> African Economic Research Consortium (AERC) <input type="checkbox"/> Association of African Development Finance Institution (AADFI) <input type="checkbox"/> International Labor Organization (ILO) <input type="checkbox"/> United Nations Economic Commission for Africa (UN-ECA)</p>	<p>&doc_country=&doc_sector=&doc_subsector=&doc_perspective=95017</p> <p>2007 AfDB Strategy for Higher Education, Science and Technology http://www.afdb.org/pls/portal/docs/PAGE/ADB_ADMIN_PAGE/DOCUMENTS/OPERATIONS/INFORMATION/STRATEGY%20FOR%20HIGHER%20EDUCATION%20SCIENCE%20AND%20TECHNOLOGY.PDF</p>
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Sources: Organisations' websites, annual reports and evaluations; interviews with staff members.

Foundations/trusts: Approaches to research capacity strengthening

(NB: Some projects/initiatives/programmes etc of organisations may cut across all three approaches (institutional, individual, environment) to research capacity strengthening but only appear in one of the approaches to research capacity strengthening columns)

Organisation		History
Rockefeller http://www.rockfound.org/		The foundation was established in 1913 and has been supporting research (in particular agricultural) and research capacity strengthening for the last 50 years. See http://www.rockfound.org/about_us/history/timeline.shtml for a more detailed history of the foundation.
Approach to research capacity strengthening		
Institutional	Individual	Environment/national research systems
<p>The foundation has recently moved away from a programmes-based approach and adopted an initiatives-based strategy. It is increasingly working with other funders to create larger initiatives that receive annual funding and are responsible for managing initiative programmes.</p> <p>Foundation-supported initiatives</p> <p><i>Alliance for a Green Revolution in Africa (AGRA)</i> http://www.agra-alliance.org/</p> <p>A joint initiative with the Gates Foundation, this initiative aims to create a green revolution in Africa. The initiative supports agricultural research capacity strengthening. See the AGRA profile below for more information.</p> <p><i>Partnership for Higher Education in Africa (PHEA)</i> http://www.foundation-partnership.org/</p> <p>The foundation was one of the founders (along with the Carnegie, Ford and Macarthur foundations) of this partnership in 2000. The partnership aims to coordinate seven key foundations' (Hewlett, Melon and Kresge Foundations joined after 2005) funding for higher education development in Africa. During 2000-2005 the founding partners contributed more than \$150 million to build core capacity and support special initiatives (including a bandwidth consortium) to further the development of higher education in six African countries: Ghana, Mozambique, Nigeria, South Africa, Tanzania, and Uganda. See the PHEA profile below for more information.</p> <p><i>Innovation for Development Initiative</i> http://www.rockfound.org/initiatives/innovation/innovation.shtml</p> <p>This initiative aims to spur the development of solutions to the challenges facing poor or vulnerable people around the world. The Rockefeller Innovation Initiative strives to:</p> <ul style="list-style-type: none"> • Fund access of researchers, innovators and 	<p>The foundation previously directly managed fellowship programmes but is now supporting individuals through initiative provided research capacity strengthening programmes, including masters and PhD training. A key requirement of these training programmes is that they take place in Africa, and students graduate from African universities. Many of the training programmes are (often initially) in collaboration with US and European universities and follow the US model for PhD study. Over the last few years the University of KwaZulu-Natal, South Africa has trained over forty PhD level seed breeders. This programme is now part of AGRA. Initially the project was backed by Cornell University, US, which provided support through distance learning, and university members are still on the project board. There are plans to start a similar project at the University of Ghana, and Cornell University will again provide support.</p>	<p><i>Research Management /Administration</i></p> <p>Project management is incorporated into foundation supported post-graduate training, with specific courses on proposal writing, managing projects, and disseminating information. The Foundation also supports shorter-term project management training to people already in research positions.</p>

<p>entrepreneurs worldwide working on development problems to proven innovation models and resources</p> <ul style="list-style-type: none"> Support development of, access to and distribution of innovations that promise to have a major positive impact on poor and vulnerable people. <p><i>Rockefeller-InnoCentive Partnership</i> http://www.rockfound.org/initiatives/innovation/innocentive.shtml The Rockefeller Foundation-InnoCentive partnership aims to provide a web-based platform to organisations, institutions and companies that are developing products and services for poor or vulnerable people so that they can access InnoCentive's network of more than 125,000 registered 'solvers' – the brightest minds in business, engineering, science, and technology – from 175 countries.</p> <p>Other Institutional Support The foundation also provides funding to individual universities and research institutes, as well as research projects and networks. The foundation provided Initial funding from foundation helped to establish RUFORUM http://www.ruforum.org/ The foundation is also working with the Makerere University, Uganda to forge south-south cooperation with the Earth University of Latin America, and is using the relative strength of South African universities and research institutes to promote research capacity strengthening in Africa.</p>		
<p>Organisation Hewlett Foundation www.hewlett.org</p>	<p>History The foundation was established in 1966.</p>	
<p>Approach to research capacity strengthening</p>		
<p>Institutional <i>Global Development Programme - Strengthening the Knowledge Base for Development</i> This programme is developing a new initiative to provide funding to research centres and think tanks in the developing world that focus on global development challenges. Hewlett Foundation/ IDRC support to Think Tanks and Policy Research Institutes IDRC and the Hewlett foundation have recently established an initiative to help support Southern social policy think tanks and institutes. The pilot project covers 3-4 countries in Western and Eastern Africa. If successful the initiative will be expanded to</p>	<p>Individual</p>	<p>Environment/national research systems <i>Open Education Resources</i> Since 2001, the Foundation has invested close to \$70 million in Open Educational Resources and today supports a \$33 million portfolio of over sixty-eight grants. In 2006 the foundation gave a grant of US\$4.5m to the Open University, UK to make selections of its higher education learning resources freely available on the Internet. See http://www.hewlett.org/Programs/Education/OER/openEdResources.htm for more details. In the same year the foundation also gave a grant of US\$1m to the African Virtual University, Nairobi, Kenya for support of a comprehensive Open Educational Resources Architecture to ensure the efficient and effective application of the open content movement in</p>

<p>Latin America and Asia. The initiative aims to provide core funding as well as research capacity strengthening activities. Targeted think tanks and institutes will have a focus on general social policy issues, with no sectoral bias. Funding for the initiative will be US\$100m over ten years.</p> <p>Partner in PHEA</p> <p>The Hewlett Foundation joined the partnership in 2005. See PHEA profile below for more information.</p>		<p>African higher education and training institutions and for support of Open Educational Resources awareness raising and networking activities in Africa and Europe.</p>
<p>Organisation</p>	<p>History</p>	
<p>Hewlett Foundation www.hewlett.org</p>	<p>The foundation was established in 1966.</p>	
<p>Approach to research capacity strengthening</p>		
<p>Institutional</p>	<p>Individual</p>	<p>Environment/national research systems</p>
<p>The foundation supports a number of research institutes in Africa through a range of its programmes. Grants go towards research, collaboration with Northern partners, and specific research capacity strengthening programmes.</p> <p>2007 Ford Foundation grants can be searched at: http://www.fordfound.org/grants_db/view_grant_detail1.cfm?expand1=Knowledge.+Creativity+and+Freedom&grant_year=2007</p> <p>Ford Foundation Initiatives</p> <p><i>Trust Africa</i> http://www.trustafrica.org TrustAfrica, first known as the Special Initiative for Africa, began in 2001 under the aegis of the Ford Foundation. The foundation still provides supports but the initiative is now independently run. Trust Africa seeks to strengthen African initiatives that address the most difficult challenges confronting the continent. They currently focus on three critical areas: Resolving conflicts and securing peace; Promoting inclusive policies on citizenship and identity; and Advancing economic integration.</p> <p>Trust Africa provides agenda-setting workshops, collaborative grants, and technical assistance, to African institutions to work together for a safe, free, and prosperous future.</p> <p>Funding Partnerships TrustAfrica's primary aim is to provide African organizations</p>	<p><i>International Fellowship Programme (IFP)</i> IFP provides opportunities for advanced study to exceptional individuals who will use this education to become leaders in their respective fields, furthering development in their own countries and greater economic and social justice worldwide. IFP actively seeks candidates from social groups and communities that lack systematic access to higher education.</p> <p>The International Fellowships Program provides support for up to three years of formal graduate-level study leading to a masters or doctoral degree. 30% of all fellowships are at doctoral level, the rest are at Masters level. Fellows are selected from countries in Asia, Africa, the Middle East, Latin America, and Russia, where the Ford Foundation maintains active overseas programs.</p> <p>IFP support also enables Fellows to undertake short-term language study and training in research and computer skills prior to graduate school enrollment. In addition, new Fellows attend orientation sessions, while current Fellows actively participate in learning and discussion activities designed to create information and exchange networks among</p>	

<p>with the resources they need to address the continent's most pressing challenges. Trust Africa invites African thinkers — from civil society, academia, governments, regional organizations, and the private sector — to shape its program agenda by recommending ways to address these issues. After weighing this advice, the trust requests funding proposals from key organizations already working on the issues at hand. Major grants for collaborative projects, which range from US\$25,000 to more than US\$500,000, typically combine multiple strategies (like research, advocacy, dialogue, or creativity) and connect institutions from different countries and regions.</p> <p><i>Strengthening Institutions</i> TrustAfrica also provides small grants for capacity building to help African organizations develop the institutional skills necessary to do their work effectively. Usually in the range of US\$5,000 to US\$10,000, this support is aimed at fostering sound management, transparent governance, fruitful collaboration, effective communication, and sustainable results. It may be used, for example, to pay for staff exchanges, consultant's fees, study tours, board training, the preparation of videos and other communications tools, and the establishment of specific management systems.</p> <p><i>Member of PHEA</i> The Ford Foundation was a key founder of PHEA in 2000. See the PHEA profile below for more information.</p>	<p>IFP Fellows worldwide. Finally, the program strongly encourages IFP alumni to maintain contact with the program after completing the fellowships to help them remain current in their respective fields through the expanding IFP network.</p> <p>Sub-Saharan Africa is a major focus for IFP. IFP Offices are located in: Johannesburg (for Southern Africa), Nairobi (for East Africa), Cairo (for the Middle East and North Africa) and Lagos (for West Africa).</p> <p>IFP- East Africa The Ford Foundation International Fellowships Program (IFP) was launched in East Africa in the year 2000, with a regional secretariat based at the Inter University Council of East Africa (IUCEA) offices, Kampala, Uganda. In order to serve the East African region effectively, the Program opened offices in Kenya and Tanzania in October 2003. The program will run up to the year 2012.</p> <p>Currently, the Program is hosted by the Forum for African Women Educationalists (FAWE) in Kenya, which is also the regional coordinating partner in East Africa. The Economic and Social Research Foundation (ESRF) is the International Partner in Tanzania while in Uganda the International Partner is the Association for the Advancement of Higher Education and Development (AHEAD). So far, the region has carried out three (3) successful selections. Eight Fellows from the first cohort have so far successfully completed their studies and are back in the region.</p> <p>So far, the region has carried out three successful rounds of selection. Eight Fellows from the first cohort have so far successfully completed their studies and are back in the region.</p>	
Organisation	History	

Andrew W. Mellon Foundation http://www.mellon.org/		
Approach to research capacity strengthening		
Institutional	Individual	Environment/national research systems
<p>The foundation's work in Africa is mainly focused on South Africa.</p> <p>Higher Education Programme in South Africa The main goal of the Foundation's higher education program in South Africa is to develop capacity in higher education by providing opportunities for individuals who were previously disadvantaged and individuals who have demonstrated a commitment to the previously disadvantaged. Over the last 18 years the South Africa program of the Foundation has made grants of over \$75 million dollars (additional grants were made through the Foundation's Population and Conservation and the Environment programs). The fellowships segment of the program has enabled over 600 scholars to attain higher degrees. Currently the foundation spends c. \$5m a year on this programme.</p> <p>Grants from the Foundation have support research projects and collaborative partnerships (including research in the humanities and social sciences by the Wits Institute for Social and Economic research- WISER and the Centre for Social Science Research- CSSR) and regional library collaborations of universities and technikons (now universities of technology). All 21 higher education institutions in South Africa and the National Library of South Africa have benefited from the foundations support of five regional consortia. The Foundation has also made grants to the South African Bibliographic Network (SABINET) to support library collaboration at the national level and to promote access to JSTOR, a scholarly journal archive (www.jstor.org) -see below for more information. In addition, the Foundation has worked to improve access to the Internet for all of South African higher education through the Tertiary Education Network (www.tenet.ac.za).</p>	<p>The Foundation supports fellowships for honours, Masters and PhD students, with particular support going to black South African and women students. The fellowships segment of the program has enabled over 600 scholars to attain higher degrees. The foundation has also underwritten academic posts for three years in order to increase faculty diversity and supports USHEPIA, a fellowships program to strengthen universities in sub-Saharan Africa http://web.uct.ac.za/misc/iapo/ushepia/bg.htm. The South Africa Programme is also currently exploring a mentoring program designed to develop research capacity that partners distinguished retired professors and faculties of the African Diaspora with existing faculties in Southern Africa.</p>	<p>Web-based Educational Resources</p> <p><i>JSTOR/ARTstor</i> The Foundation has provided grants to JSTOR since 1994 to provide free access to their web-based resources for African countries. See http://www.jstor.org/about/africa/index.html for information on the JSTOR African Access Initiative. The foundation has also provided similar support to ARTstor http://www.artstor.org. In addition, the foundation is supporting research into the use of technology in higher education, for instance through a grant to the Multimedia Education Group at the University of Cape Town - an initiative which seeks to utilize information technology to overcome gaps in university preparation - and supported digitization of historical materials and rock art through Digital Imaging South Africa (aboutdisa.ukzn.ac.za) and the South African Rock Art Digital Archives.</p> <p><i>Research in Information Technology</i> The Andrew W. Mellon Foundation program in Research in Information Technology (RIT) is dedicated to supporting the thoughtful application of information technology to a wide range of scholarly purposes. The Foundation is interested in promoting the study of uses of digital technologies that can be applied to research and online and distance learning and teaching. The Foundation also supports investigations of new technical approaches to the archiving of textual and multimedia materials that require improved search and storage techniques and improvements in user-interfaces. The impact of information technology (and especially digitization) on scholarship, scholarly communication, and libraries is indisputable.</p>
Organisation	History	
Carnegie Corporation of New York www.carnegie.org		
Approach to research capacity strengthening		
International Development Program -IDP		
The International Development Program (IDP) was established in 1999 for the express purpose of carrying out Carnegie Corporation activities in sub-Saharan Africa. The Corporation has a		

well established history in Africa where, since 1925, efforts have aimed to help developing countries identify and solve their problems using local resources and build capacity to make use of information and resources from the rest of the world.

Today IDP builds on the Corporation's previous work in Commonwealth Africa by focusing on training, access to knowledge and the exchange of information between Africa and the rest of the world, providing support in three main areas:

- Strengthening African Universities
- Enhancing Women's Opportunities in Higher Education
- Revitalizing Selected African Libraries

These initiatives are meant to: improve access to, and utilization of, information and communication technology; train institutional leaders and managers; and promote gender equity. IDP's support for universities and libraries, in particular, is flexible, priority-driven and long-term—about 10 years in duration.

STRENGTHENING AFRICAN UNIVERSITIES

Carnegie Corporation, with a decades-long history of supporting education, science and technology and institution building in Africa, seeks to strengthen leading universities and promote the pivotal role of knowledge in national development and international understanding. Toward that end, IDP support for universities and libraries is directed toward strategic renewal of missions and core activities, with the assumption that improvements in selected institutions will spur similar changes across the higher education sector as pioneering leaders learn from their peers.

The Corporation's aim in strengthening specific universities in Uganda, Tanzania, Ghana and Nigeria is to transform strong universities into even stronger, excellent institutions. IDP also promotes enhanced opportunities for women by funding undergraduate scholarships, programs to increase gender equity and enhance diversity management, and management training and networking opportunities. University partners include: Makerere University in Uganda; the University of Dar es Salaam in Tanzania; the University of Education, Winneba, in Ghana; and Ahmadu Bello University, the University of Jos, and Obafemi Awolowo University in Nigeria. The University of Ghana, Legon, and the University for Development Studies in Tamale, Ghana have also received Corporation support.

In South Africa, the Corporation has initially provided limited support for programs to address pressing national needs, such as university-based HIV/AIDS education and research initiatives, the training of schoolteachers in mathematics and science, and the improvement of school administration and performance. IDP has supported a national scholarship program for female students along with initiatives aimed at improving higher education policies and fostering industry/higher education partnerships, mergers of higher education institutions, and post-apartheid knowledge production.

The Corporation's current program in South Africa (begun in 2005) focuses on social, political and economic change. Funding is dedicated to the training and retention of primarily black and female South African academics and to the transformation of post-apartheid institutional culture at the Universities of Cape Town, KwaZulu Natal and Witwatersrand. The emphasis is on equipping graduates to contribute to their communities and their nation, and on nurturing the next generation of South African scholars.

PHEA

Since 2000, the Corporation's programs in Africa have been reinforced by the Partnership to Strengthen Higher Education in Africa.

ENHANCING WOMEN'S OPPORTUNITIES IN HIGHER EDUCATION

Women are underrepresented in most African universities, both as students and staff. In the mid-1990s, women averaged about 25 percent of the student population, and today may number closer to 30 percent—although data vary widely and are difficult to obtain. Female staff members are scarcer than female students; in countries where the Corporation works, women occupy fewer than one-quarter of the positions ranked senior lecturer and above, never attaining a significant presence in science and technology or in top university positions.

The importance of educating women, in terms of equity and benefits to society, has already been documented—making women's under-representation in universities an appropriate problem for the Corporation to confront. Efforts target improving the capacity of African universities to educate women by helping to remove financial barriers to their participation and, as a result, increasing the percentage of women in the student population. A three-part strategy, tailored for local circumstances, improves women's chances by: 1) providing scholarships, 2) addressing problems in retention, performance and career development, and 3) building knowledge and understanding through research, documentation and networking.

By the close of their 10-year relationship with universities, the Corporation expects gender relationships within each university to be transformed, with more women graduating due to scholarship programs, increased capacity for institutions to continue running women's programs and the incorporation of gender analysis into university policies and decision-making processes.

REVITALIZING SELECTED AFRICAN LIBRARIES

The library subprogram focuses on the development of national and public libraries in South Africa. The overall goal is to create models of excellence that have well-trained staff and that meet the quality and standards set by the International Federation of Library Associations. Increasing the libraries' Internet access is another supported effort. IDP will also be supporting academic libraries in partner universities and disseminating information about these projects in order to encourage replication of models. Future strategy includes providing support for one university library, or university library system, in South Africa and another in East or West Africa.

Organisation	History
The Wellcome Trust http://www.wellcome.ac.uk	The Wellcome Trust is an independent charity funding research to improve human and animal health. Established in 1936 and with an endowment of over £13 billion, it is the UK's largest non-governmental source of funds for biomedical research.

Approach to research capacity strengthening

SPECIFIC PROGRAMMES IN AFRICA

Research Capacity Strengthening in Africa Programme

This new programme aims to strength health research capacity in Africa through providing funding to support the creation of research consortia and networks in Africa; both between higher education institutes (HEIs) and research institutes located within Africa, and between these institutions and UK HEIs. Institutions outside the UK and Africa may also be members of consortia. The trust expects African partners to include a mix of institutions with well-established research activities, and promising institutions that are either developing or renewing their research potential. Although the Trust has a particular focus on health research, including biomedical research and public health, other scientific research areas may also be considered, where complementary to health research. Awards are for a ten-year period and will be awarded for five years in the first instance. A further five years' support is dependent on a satisfactory review in year five. Preliminary applications for support close in February 2008.

Objectives of the Programme:

- Create equitable and sustainable South-South and North-South partnerships and networks between institutions
- Build a critical mass of local research capacity and develop vibrant research environments geared to national priorities across Africa, including universities in the early stage of developing research potential
- Support the human resources and infrastructure necessary for the administrative, governance, financial and management functions needed for institutions to deliver research excellence
- Develop and build leadership at individual, institutional and national levels so countries can better initiate and lead research activities
- Support research leaders to act as beacons and role models to enthuse young scientists to develop research careers
- Strengthen research training and build career pathways for the best and brightest researchers in clinical tropical medicine and health research more generally, including public health research.

Kenyan Medical Research Institute (KEMRI)-Wellcome Trust Research Programme

This research programme is based at two sites in Kenya- Kilifi and Nairobi. Research studies in Kilifi focus on clinical, basic and epidemiological aspects of malaria and other diseases of childhood, while work in Nairobi targets the pharmacology and therapeutics of anti-malarial drugs, as well as malaria epidemiology, control and health policy. The Programme is a base for training clinical and basic scientists with a commitment to health research in Kenya and the East African region. The Programme has direct collaborative links with the [University of Oxford](#), the [Institute of Child Health](#) (London), [Liverpool University and School of Tropical Medicine](#) and [London School of Hygiene and Tropical Medicine](#). A number of Wellcome Trust funded fellows are based at the programme. See <http://www.wellcome.ac.uk/assets/wtx022250.pdf> for more information on the programme.

Malawi-Liverpool-Wellcome Trust Programme for Research in Tropical Medicine

The Malawi-Liverpool-Wellcome Trust (MLW) Research Programme is based in Blantyre, Malawi, at its Wellcome Trust-funded research laboratories. The Programme works in collaboration and partnership with the [University of Malawi College of Medicine](#). The partnership of over ten years has helped to strengthen the research capacity in Malawi and to improve diagnosis and treatment of serious diseases in the country. The Programme has direct collaborative links with the [University of Liverpool](#) and the [Liverpool School of Tropical Medicine](#). The

programme investigates health problems of local and regional significance such as malaria, HIV/AIDS, anaemia, tuberculosis and other bacterial and viral infections. The MLW Programme is currently supported by core funds to provide central facilities to support a number of fellowships and project grants,.

Africa Centre for health and Population Studies

The Africa Centre is embedded in the University of KwaZulu-Natal with academic and strategic support also provided by the South African Medical Research Council. The field base and the Africa Centre itself are in a rural area of KwaZulu-Natal, the Hlabisa District to the north of Durban. The Centre tackles the most pressing population and reproductive health issues in sub-Saharan Africa, particularly HIV/AIDS, to provide vital data to understand diseases in a rural population. Researchers have established a longitudinal demographic information system, an essential platform for studies to improve health. The Centre works with the full involvement of local communities. Researchers are investigating issues such as HIV/AIDS and migration, which directly affect local communities. It disseminates research results to contribute to evidence-based healthcare policy making.

DFID, IDRC and Wellcome Trust Health Research Capacity Strengthening Initiative- Kenya and Malawi

The aim of this initiative is to strengthen the capacity for the generation of new scientific knowledge within Kenya and Malawi, and improve its use in evidence-based decision making, policy formulation and implementation. The long-term vision is a framework through which the quality of interventions impacting the health of Kenyans and Malawians may be improved, through the generation and use of health research evidence. The HRCS initiative began with an agreement in 2004 between the Wellcome Trust and the Department for International Development (DFID) to seek closer working relationships in areas of common interest in global health research. The Wellcome Trust and DFID agreed to commit £10 million each towards a joint programme of health research capacity strengthening in Africa as part of the UK Government 2004 Spending Review. A Scoping and Design mission visited the targeted countries of Kenya and Malawi in October 2005 and produced a report outlining priority activities for the initiative. The International Development Research Centre, Canada (IDRC) also joined the initiative both as an implementing partner with experience in health research programmes in East Africa, and as a funder. The funders are working with two national Task Forces (one in Kenya and one in Malawi), to develop nationally led programmes of work for the next five years, which will support, specific capacity-strengthening and research activities within a framework derived from the scoping mission report. These programmes will contribute to strengthening health research through nationally owned strategies, as part of a longer-term vision for Malawi and Kenya.

RESEARCH GRANT SCHEMES SUPPORTING RESEARCHERS IN DEVELOPING COUNTRIES

Fellowships

[Senior Fellowships in Public Health and Tropical Medicine](#)

This fellowship aims to support outstanding researchers from developing countries to establish themselves as leading investigators at an academic institution in a developing country location. Research projects must be in the area of public health or tropical medicine. This fellowship is the most senior of a series of career awards aimed at building sustainable capacity in areas of research that have the potential for increasing health benefits for people and their livestock in developing countries.

[Training Fellowships in Public Health and Tropical Medicine](#)

This fellowship aims to support researchers from developing countries who are at an early stage in their research careers, to gain research experience and training relevant to health in developing countries.

Fellows must be based primarily in a developing country, but training may be undertaken at centres of excellence regionally or internationally. Links between developing countries are encouraged. Research projects must be in the area of public health or tropical medicine. This fellowship is part of a series of career awards aimed at building sustainable capacity in areas of research that have the potential for increasing health benefits for people and their livestock in developing countries.

[Master's Fellowships in Public Health and Tropical Medicine](#)

This fellowship aims to strengthen scientific research capacity in developing countries by providing support for postgraduate research and training relevant to health in developing countries. Fellows must be based at an eligible host institution in a developing country for their research project. Master's training maybe undertaken at a recognised centre of excellence in any location. Master's degrees by distance learning can be supported.

Research projects must be in the area of public health or tropical medicine. The trust is particularly interested in requests for research training support in the following areas: social

sciences, demography, health economics, medical statistics and vector biology.

International Senior Research Fellowship

This fellowship supports outstanding researchers, either medically qualified or science graduates, who wish to establish a research career in an Indian, South African, Czech, Estonian, Hungarian or Polish academic institution.

Other Research Grant schemes

Collaborative project and programme grants

These grants provide support for research to be conducted by applicants based at an eligible institution who wish to work in collaboration with researchers in the UK or Republic of Ireland. They are available in biomedical science and biomedical ethics. Researchers who have a track record of Wellcome Trust funding as a principal investigator, co-investigator or fellow may apply directly for programme and project grants without needing a UK-based collaborator.

Equipment grants

These grants are for multi-user items of equipment, including equipment required to create a central resource for a number of scientific programmes. The trust expects equipment applications to include a contribution from another source, proportional to the total request. Researchers who have a track record of Wellcome Trust funding as a principal investigator, co-investigator or fellow may apply for equipment grants. The maximum amount awarded is £1million. Applications for less than £75 000 will not normally be considered under this scheme. Small, project-dedicated items of equipment can, however, form part of a project, programme or fellowship application.

Strategic Awards

These provide flexible forms of support to facilitate research and/or training that is not possible under existing schemes. The aim of these awards is to add value to excellent research groups.

Biomedical ethics

A special initiative in biomedical ethics in developing countries aims to foster research in this important area.

International public engagement

The Wellcome Trust is developing a new programme of work to support international engagement with biomedical science and research, particularly in developing nations. This will include activities targeting policy makers, healthcare professionals, health and science communicators and journalists, and local communities participating in research studies in developing countries. New funding opportunities in this area will be announced soon.

http://www.wellcome.ac.uk/doc_wtx036603.html

WELLCOME TRUST CENTRES FOR RESEARCH IN CLINICAL TROPICAL MEDICINE

Wellcome Trust Centres for Research in Clinical Tropical Medicine encourage clinical research in tropical medicine, through providing opportunities for clinicians to pursue research and undertake clinical training of the highest quality both in the UK and outside the UK, particularly in disease-endemic countries. The Trust support four such centres, which can provide a UK base to support researchers engaged in projects outside the UK.

http://www.wellcome.ac.uk/doc_WTD003491.html

Organisation	History
Alliance for a Green Revolution in Africa - AGRA Gates Rockefeller http://www.agra-alliance.org/	The alliance was established in 2006.

Approach to research capacity strengthening		
Institutional	Individual	Environment/national research systems
<p>Established with funding from the Gates and Rockefeller Foundation, The Alliance for a Green Revolution in Africa (AGRA) is working to break the cycles of hunger and poverty in Africa through a comprehensive set of initiatives that will provide small-scale farmers with the tools and opportunities they need to boost their productivity, increase their incomes, and build better lives. AGRA envisions working in eight areas to address key aspects of a functional, sustainable food production system in Africa:</p> <ul style="list-style-type: none"> • Developing better and more appropriate seeds; • Fortifying depleted soils with responsible use of soil nutrients and better management practices; • Improving access to water and water-use efficiency; • Improving income opportunities through better agricultural input and output markets; • Developing local networks of agricultural education; • Understanding and sharing the wealth of African farmer knowledge; • Encouraging government policies that support small-scale farmers; and • Monitoring and evaluation to ensure that AGRA efforts improve the lives of small-scale farm households and help build a sustainable future for all Africans. <p>Educational for African Crop Improvement (EACI) Initiative</p> <p>Institutional AGRA provides grants to institutes to provide research into crop development. See http://www.agra-alliance.org/about/grants.html for a full detailed list of AGRA grants.</p> <p>WACCI- Ghana It has also this year provided USD \$5m in funding to the University of Ghana to establish a West Africa Centre for Crop Improvement (WACCI) based at the University of Ghana, Legon. Involved in this project is Cornell University in the United States who will receive funding to facilitate the start up and development of WACCI, and provide initial</p>	<p>As part of the EACI initiative AGRA is making an aggressive effort to invest in the education of a new generation of agricultural scientists across Africa, with the immediate goal of training 220 new African crop scientists at the M.Sc. and Ph.D. levels. The initiative is currently working with training programmes at educational institutions in Tanzania, Uganda, Ethiopia, Zambia, Mali, Burkina Faso, Kenya, Nigeria, and Ghana. In some cases, African students will study abroad if there is a need to gain expertise not currently available in Africa. The programme aims to only support African students who intend to work as career scientists in Africa specialising in a crop that is a high priority for small-scale farming in their home country. To keep the focus on Africa's small-scale farmers, these young scientists will conduct the field work portion of their training in their home country, usually at a research institution where they are or will be employed; thereby ensuring they work with local farmers after graduation. After completing their training, students will be eligible for grants to support their research on a continuing basis.</p>	

<p>training to scientists.</p> <p><i>University of KwaZulu-Natal, South Africa</i> AGRA has provided the university with a grant of USD \$8m to enable the university African Centre for Crop Improvement (ACCI) to continue training young scientists from eastern and southern Africa in crop improvement and to collaborate with other breeding programs in sub-Saharan Africa</p>		
<p>Organisation</p>	<p>History</p>	
<p>Partnership for Higher Education in Africa - PHEA http://www.foundation-partnership.org/</p> <p><i>Ford, Hewlett, Rockefeller, Carnegie, Andrew W Mellon, MacArthur and Kresge foundations</i></p>	<p>The partnership was established in 2000 by the Carnegie Corporation of New York, the Ford Foundation, the MacArthur Foundation and the Rockefeller Foundation. It was re-launched in 2005 with extra funding from two new foundation partners (Andrew W Mellon and William and Flora Hewitt Foundations) and an increase in partner countries. In 2007 the Kresge Foundation joined the partnership.</p>	
<p>Approach to research capacity strengthening</p>		
<p>Institutional</p>	<p>Individual</p>	<p>Environment/national research systems</p>
<p>PHEA is a partnership between seven leading foundations based in the USA. To work together to support Higher Education in Africa. The partnership aims to strength the two core missions of universities- teaching and research. To do this PHEA has adapted a four prong approach:</p> <ol style="list-style-type: none"> 1.Funding of research 2.Funding of Institutional research units 3.Funding of graduate training, which is research focused 4.Infrastructure support- specifically ICT, including connectivity and e-resources <p>PHEA grants are either individual or joint grants from the partnership foundations. See http://www.foundation-partnership.org/grants/index.php for a database of all PHEA grants made.</p> <p>Institutional</p> <p><i>Funding of Research</i> Current PHEA funded research is focused on the study of higher education institutional transformation, trends in higher education in Africa, higher education responses to HIV/Aids and the intersection of higher education with economic and social developments within a country. Funding is provided to institutes to provide research into these areas. Recipients</p>	<p>PHEA supports master's programmes in Africa and is in discussion with its partners to support more coherently post-graduate training for the next generation of African researchers. The Ford foundation has a very large international fellowship programme for graduate training, with a big investment in Sub-Saharan Africa and MENA. 30% of SSA/MENA support goes to doctoral research and the rest to support master's study. In addition, PHEA has also helped to leverage funding from NORAD for funding of an African masters programme – HEMA - http://www.chet.org.za/hema.jsp. Carnegie and Ford have also been supporting analysis of doctoral training in SA and research into the expected crisis in finding and creating new scientists in the future for Africa.</p>	<p><i>Research Administration</i> The Carnegie Foundation is currently supporting research administration development through the Association of Commonwealth Universities. And is also supporting research innovation management in South Africa.</p> <p>Other areas of complementary Partnership support are strategic planning, strengthening research administration and fundraising capacity to <i>Ahmadu Bello University</i> (Carnegie, MacArthur), <i>Kenyatta University</i> (Rockefeller), <i>University for Development Studies</i> (Carnegie, Rockefeller) and <i>Committee of Vice Chancellors of Nigeria</i> (Ford, MacArthur).</p>

<p>include <i>Association for the Advancement of Higher Education and Development (AHEAD)</i>, This research is then disseminated through case-studies. PHEA also supports the Centre for Higher Education Transformation (CHET) based in South Africa, www.chet.org.za.</p> <p><i>Funding of Institutional Research Units</i> PHEA supports regional networks that in turn support research capacity strengthening in African universities. AERC has received large amounts of funding from PHEA.</p> <p><i>Networks</i></p> <p><i>Regional Approaches to Institutional Capacity Building and Research</i> The Partnership is committed to regional networks that build economies of scale and critical mass in selected fields. Support to the African Economic Research Consortium (AERC), the Association of African Universities (AAU), the University Science, Humanities and Engineering Partnerships in Africa (USHEPiA) program, and the Council for the Development of Social Science Research in Africa (CODESRIA) fall within this category. In addition each of the Partnership foundations funds both regional and national networks. The Hewlett Foundation, for example, supports a number of population networks, such as the Union for African Population Studies and the African Population Health Research Centre.</p> <p>In 2005 the Partnership also commissioned a study to investigate how support for networks can strengthen those universities being assisted by Partnership members. In addition a database was developed of over 120 regional networks engaged in research and post-graduate education in Africa. The database can be found at: http://www.foundation-partnership.org/networks/</p> <p>Infrastructure</p> <p>ICT – Connectivity PHEA is heavily focused on ICT- in particular connectivity, building of ICT labs and developing access to digital resources. Most foundations provide support to their partner universities and institutes to help them build up their ICT</p>		
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<p>infrastructure i.e. computer labs, laying fibre cables etc. Jointly the foundations are also supporting connectivity in six African countries through a Bandwidth buying Consortium (est. 2005). This is supplying greater bandwidth to ten universities and 2 higher education institutes. PHEA subsidises institutes for the initial year (up to 33% of first year cost), then institutes must find their own funding. With increased connectivity it is hoped that institutes will have access to greater resources and this will in turn increase the standard of their own research. In the future PHEA plans to focus on what to do with this increased bandwidth, how to involve ICT in teaching and training.</p> <p>E-Resources The Mellon Foundation supports access to JSTOR and ARTstor for African universities. http://www.jstor.org/about/africa/index.html They have also supported training of university staff to use JSTOR and other e-resources. The foundation also plans to develop stores for health and agricultural journals and is supporting the digitalisation of African resources ranging from African plants, the liberation struggle of African nations, cultural heritage, and old library resources.</p> <p>Journal of Higher Education in Africa PHEA provided funding to start up this journal to help disseminate research results from research it funded. It was initially edited by CODESRIA and Boston College, USA, but is now solely run and funded independently by CODESRIA.</p>		
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Sources: Organisations' websites, annual reports and evaluations; interviews with staff members.

Foundations: Other key information (including: sector, country focus, specific projects in Africa, funding, key partners, key networks, evaluations and key documents)

Organisation	Sector	Country focus	Specific projects in Africa	Funding	Key partners	Key networks	Evaluations/key documents
Rockefeller http://www.rockfound.org/	The Foundation has traditionally focused on health, agriculture, economic development and	Africa-wide The foundation has an office in Nairobi.	AGRA The foundation is a key funder of the alliance along with the Gates Foundation. Establishment of seed	The foundation has spent nearly \$150m on establishing a green revolution in	African Centre of Crop Improvement-KwaZulu-Natal Uni.	RUFORUM http://www.ruforum.org/	Evaluations are not available to the public. 2006 annual report http://www.rockfound.org/

	<p>overall strengthening of universities. Within these themes gender and the environment act as cross cutting themes</p>		<p>breeders programme at Kwazulu Uni SA, aim to start similar programme at Uni of Ghana See entry below for more information</p> <p>PHEA – The foundation was a key founder of this partnership in 2000. see entry below for more information</p> <p><i>Below are examples of projects funded in 2005 related to Higher Education in Africa:</i></p> <p>African Virtual University, Nairobi, Kenya: US\$1,269,627 toward the costs of implementing a pilot bandwidth buying consortium to negotiate a volume discount for 12 higher-education institutions in Africa.</p> <p>Association of African Universities, Accra-North, Ghana: US\$15,000 toward the costs of a project to examine its role in enhancing bandwidth access for higher-education institutions in Africa.</p> <p>Foundation-administered project: US\$176,080 toward the costs of seminars,</p>	<p>Africa in the last seven years. The foundation in the last few years pledged US\$50m to AGRA (US\$150m from Gates Foundation). US\$139 million in grants, fellowships and programmatic investments was made in 2006.</p> <p>A rough estimate of what the foundation annually spends on research capacity strengthening is c. US\$30m; US\$25m of this is spent in Africa.</p>			<p>d.org/library/annual-reports/2000-2009/2006.pdf 2005 annual report http://www.rockfound.org/about_us/2005far.pdf</p>
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			<p>publications, public outreach and evaluations associated with the Partnership for Higher Education in Africa.</p> <p>Kenya Education Network Trust, Nairobi, Kenya: US\$105,000 in support of a project to acquire and provide effective management of faster and more affordable bandwidth to a consortium of public and private universities in Kenya.</p> <p>Makerere University, Kampala, Uganda: US\$2m toward the costs of its revitalisation as an institution that can nourish Uganda's social, economic and political transformation in the 21st century and address the human capacity and research needs of decentralisation.</p> <p>National Council for Higher Education, Kampala, Uganda: US\$25,540 in support of its activities to establish a protocol for cooperation among the higher-education regulatory agencies in Kenya, Tanzania and Uganda.</p> <p>Tertiary Education Network, Rondebosch, South Africa: US\$156,100 toward the costs of implementing a training program to</p>				
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			<p>improve bandwidth management capacities in selected African universities.</p> <p><i>Below are projects funded in 2005 for the Information for Development Programme:</i></p> <p>AfriAfya, Nairobi, Kenya: US\$250,000 toward the costs of strengthening health management information systems by ensuring linkages to community-based information to improve health care provision in Kenya.</p> <p>African Medical and Research Foundation, Nairobi, Kenya: US\$258,310 in support of a project to develop a functional model for an improved and sustainable community-based health management information system in the Kitui and Makueni districts of Kenya.</p> <p>African Population and Health Research Centre, Nairobi, Kenya: US\$479,600 in support of a project to assess the social, health and economic contexts of HIV/AIDS in two poor urban communities in Nairobi, Kenya, by strengthening the Nairobi</p>				
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			<p>Urban Demographic and Health Surveillance System.</p> <p>Aga Khan Foundation US, Washington, DC: US\$502,565 toward the costs of phase two of a project to replicate, in three districts of Coast Province, Kenya, a reliable, efficient and standardised health management information system— already in use in four districts of Coast Province – which will strengthen its potential of being adopted as a prototype for the entire country.</p> <p>Aga Khan Foundation US, Washington, DC: US\$60,300 toward the costs of a study to develop an understanding of the factors that contribute to the design and operation of a viable micro-finance model that has the potential to impact poverty in East Africa.</p> <p>INDEPTH Network, Accra, Ghana: US\$62,100 toward the costs of developing a generic resources kit for its demographic surveillance sites, which are set up in resource-constrained countries to gain a better understanding of population dynamics.</p> <p>INDEPTH Network,</p>				
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			<p>Accra, Ghana: US\$500,000 toward the costs of designing and implementing a process, through a multidimensional platform, to enhance the evaluation of its research on health interventions and to inform policymakers.</p> <p>International Livestock Research Institute, Nairobi, Kenya: US\$250,000 toward the costs of a project that will demonstrate the effective use of poverty maps in designing and targeting pro-poor interventions across different sectors in East Africa.</p> <p>International Livestock Research Institute, Nairobi, Kenya: US\$70,000 toward the costs of a project to develop training resources for effective teaching of biometry at universities in sub-Saharan Africa.</p> <p>Link Community Development, London, United Kingdom: US\$380,000 in support of its project to develop and implement a system of information management in education in Uganda.</p> <p>Makerere University, Kampala, Uganda: US\$300,000 for use by its Institute of Public Health toward the costs of</p>			
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			<p>building capacity for evidence-based planning and management at the district level to foster a better and more accurate understanding of a total population's health, thus allowing resources to be allocated where needs are greatest.</p> <p>Moi University, Eldoret, Kenya: US\$450,000 toward the costs of a joint project with Indiana University and the World Health Organization to implement the Academic Model for the Prevention and Treatment of HIV/AIDS electronic medical records system in six sites in Tanzania and Uganda to test its applicability as a critical tool for the scale-up of patient care and follow-up in the battle against HIV/AIDS in these countries.</p> <p>Tropical Institute of Community Health and Development in Africa, Kisumu, Kenya: US\$173,500 in support of a project to develop and test models for improved district health systems in Kenya.</p>				
Organisation	Sector	Country focus	Specific projects in Africa	Funding	Key partners	Key networks	Key documents/ evaluations
Hewlett Foundation www.hewlett.com	Global development; Education;		The foundation is a partner in the PHEA. It also supports the African	In 2006, The William and Flora Hewlett			2006 Annual Report http://annualreport.com

org	Environment.		Virtual University, and is a large funder of open access education resources. The foundation has recently with IDRC set up a project to support social policy think tanks and institutes in East and West Africa.	Foundation awarded US\$292,040,335 in grants and disbursed US\$211,762,058 in grant and gift payments. In 2006 the foundation invested US\$36.3m in its global development programme. Since 2001, the Foundation has invested close to US\$70 million in Open Educational Resources; today it supports a US\$33 million portfolio of over 68 grants.			hewlett.org/wfhf_ar06.pdf
Organisation	Sector	Country focus	Specific projects in Africa	Funding	Key partners	Key networks	Key documents/ evaluations
Ford Foundation http://www.fordfound.org	Asset Building and Community Development; Peace and Social Justice; Knowledge, Creativity and Freedom.	Africa wide. <i>IFP partner countries:</i> Uganda, Tanzania, South Africa, Senegal, Nigeria, Mozambique, Kenya, Ghana, Egypt IFP Offices are located in: Johannesburg (for	IFP in Africa supports TrustAfrica. 2007 Ford Foundation grants can be searched at: http://www.fordfound.org/grants_db/view_grant_detail1.cfm?expand1=Knowledge,+Creativity+and+Freedom&grant_year=2007	The foundation has committed up to US\$280m to IFP between 2000 and 2010. In 2005 the foundation invested over US\$500m in grants, fellowships			2006 Annual Report http://www.fordfound.org/publications/recent_articles/ar2006/ar2006.cfm

		Southern Africa), Nairobi (for East Africa), Cairo (for the Middle East and North Africa) and Lagos (for West Africa).		and programme support. In 2005 it spent US\$142,398,390 on the Asset Building and Community Development Programme, US\$92,978,846 on its human rights programme, US\$92,474,980 on its governance & civil society programme, US\$81,856,375 on its education, sexuality and religion programme, and US\$81,856,375 on its media and arts programme.			
Organisation	Sector	Country focus	Specific projects in Africa	Funding	Key partners	Key networks	Key documents/ evaluations
Andrew W. Mellon Foundation http://www.mellon.org/		The foundation's main focus is on South Africa but also supports networks that work in Southern Africa.	See http://www.mellon.org/grants_programs/programs/higher-education-and-scholarship/south-africa for current programmes in South Africa.	Over the last 18 years the South Africa program of the Foundation has made grants of over US\$75 million dollars (additional	USHEPiA JSTOR Wits Institute for Social and Economic research (WISER), South Africa The Centre for Social Science	Tertiary Education Network (TENET)	2006 Annual report http://www.mellon.org/news_publications/annual-reports-essays/annual-reports/

				grants were made through the Foundation's Population and Conservation and the Environment programs). Currently the foundation spends c. US\$5m annually in South Africa.	Research (CSSR), South Africa		
Organisation	Sector	Country focus	Specific projects in Africa	Funding	Key partners	Key networks	Key documents/ evaluations
Carnegie Corporation of New York www.carnegie.org	Higher Education Libraries	The corporation works in Uganda, Tanzania, Ghana and Nigeria to strengthen specific universities. And provides limited support to projects in South Africa, including support to libraries.	The corporation provides support in three areas: <ul style="list-style-type: none"> • Strengthening African Universities • Enhancing Women's Opportunities in Higher Education • Revitalizing Selected African Libraries Grants made to African institutions can be searched at: http://www.carnegie.org/cgi-bin/grantsearch/grantsearch.pl?term=africa+&type=all&Search=Search	International Development Programme – IDP- 2005-2006 Grants Budget: US\$15.8m.	University partners include: Makerere University in Uganda; the University of Dar es Salaam in Tanzania; the University of Education, Winneba, in Ghana; and Ahmadu Bello University, the University of Jos, and Obafemi Awolowo University in Nigeria. The University of Ghana, Legon, and the University for Development Studies in Tamale, Ghana		2006 Annual report http://www.carnegie.org/pdf/CCNY_2006_annual.pdf

Organisation	Sector	Country focus	Specific projects in Africa	Funding	Key partners	Key networks	Evaluations
<p>The Wellcome Trust http://www.wellcome.ac.uk</p>	Biomedical science including public health systems, tropical medicine, and bioethics.	<p>Angola Botswana Burkina Faso Burundi Cameroon Eritrea Ethiopia Gabon Gambia Ghana Ivory Coasts Kenya Lesotho Malawi Mali Mozambique Namibia Nigeria Rwanda Senegal South Africa Swaziland Tanzania Togo Uganda Zimbabwe Zambia</p>	<p>MAJOR OVERSEAS PROGRAMMES</p> <p>Kenyan Medical Research Institute (KEMRI)- Wellcome Trust Research Programme http://www.wellcome.ac.uk/assets/wtx022250.pdf</p> <p>Malawi-Liverpool- Wellcome Trust Programme for Research in Tropical Medicine http://www.wellcome.ac.uk/doc_WTD003486.html</p> <p>Africa Centre for Health and Population Studies (South Africa) http://www.wellcome.ac.uk/doc_WTD003229.html</p> <p>DFID, IDRC and Wellcome Trust Health Research Capacity Strengthening (HRCS) Initiative- Kenya and Malawi http://www.wellcome.ac.uk/assets/wtx035037.pdf</p> <p>Research Capacity Strengthening in Africa Programme http://www.wellcome.ac.uk/node2175.html</p>	<p>Annual expenditure in financial year 2005/06 was £484 million (US\$1bn). Total international spend was: £72.5m (US\$150m) – including direct grants to researchers overseas, and awards to researchers at UK locations for research overseas.</p>	<p>have also received Corporation support.</p> <p>For Major Overseas Programmes, key partners are: - Kenya Programme: Kenyan Medical Research Institute (KEMRI) and University of Oxford - Malawi programme: University of Malawi College of Medicine and University of Liverpool - Africa Centre: University of KwaZulu-Natal and the South African Medical Research Council</p> <p>DFID and IDRC are funding partners in HRCS initiative,</p> <p>Other examples of partnerships relevant to global health (both involving work in Africa) have</p>	<p>The Trust is a partner in the INDEPTH network of demographic surveillance sites http://www.indeph-network.org/</p>	<p>KEMRI-Wellcome Research Programme Brochure http://www.wellcome.ac.uk/assets/wtx022250.pdf</p> <p>Wellcome Trust 2006 Annual Report http://www.wellcome.ac.uk/node7810.html</p> <p>Wellcome Trust Strategic Plan 2005-2010: Making a Difference http://www.wellcome.ac.uk/node7830.html</p>

					<p>included:</p> <ul style="list-style-type: none"> - Bill and Melinda Gates Foundation - The Trust co-funded three awards supported via the Grand Challenges in Global Health initiative. See: http://www.wellcome.ac.uk/doc%5Fwtx025667.html - Burroughs Wellcome Fund (BWF) – through joint infectious disease initiative (awards were made in 1999 and 2000) http://www.wellcome.ac.uk/node4311.html <p>The Trust is a member of the UK Collaborative on Development Sciences and maintains active dialogue with other global health research funders.</p>		
Organisation	Sector	Country focus	Specific projects in Africa	Funding	Key partners	Key networks	Evaluations
Alliance for a Green Revolution in	Agriculture	The AGRA Education for African Crop	See http://www.agra-alliance.org/about/grants.html for full details of all	US\$150m has been provided from the Gates	See http://www.agra-alliance.org/abou		

<p>Africa - AGRA Gates Rockefeller http://www.agra-alliance.org/</p>		<p>Improvement Initiative (EACI) is currently working in:</p> <p>Tanzania, Uganda, Ethiopia, Zambia, Mali, Burkina Faso, Kenya, Nigeria, and Ghana.</p> <p>AGRA also has offices in: Nairobi, Kenya and Accra, Ghana.</p>	<p>AGRA grants.</p>	<p>foundation (US\$100m) and the Rockefeller Foundation (US\$50m).</p> <p>AGRA plans to spend US\$20m on the EACI initiative.</p>	<p>t/grants.html for a list of institutes and organisations AGRA works with.</p>		
Organisation	Sector	Country focus	Specific projects in Africa	Funding	Key partners	Key networks	Evaluations
<p>Partnership for Higher Education in Africa – PHEA</p> <p>Ford Hewlett Rockefeller Carnegie Andrew W Mellon Macarthur Kresge</p> <p>http://www.foundation-partnership.org/</p>	<p>Higher Education ICT</p> <p><i>Research topics on HE supported by PHEA include: Trends in African Universities, University intersections with society and the economy, financing of research, universities responses to HIV/Aids</i></p>	<p>PHEA has nine partnership countries: Ghana, Mozambique, Nigeria, South Africa, Egypt, Kenya, Madagascar Tanzania, and Uganda</p>	<p>Bandwidth Consortium http://www.foundation-partnership.org/pubs/pres/s/bandwidth.php</p> <p>See http://www.foundation-partnership.org/grants/index.php for a database of all PHEA project grants.</p>	<p>2000–2005 PHEA grants made: US\$173.5m. 2005–2006 – US\$61m. Between 2000 and 2006 PHEA grants including some attention to training or capacity building totalled US\$120,109,849, 53.85% of PHEA grants in this time period.</p> <p>For 2005–2010 the partnership foundations have pledged a minimum of</p>	<p>The 2007 members of the Bandwidth Consortium supported by the Partnership are:</p> <p>University of Dar es Salaam (Tanzania) Makerere University (Uganda) University of Ghana (Ghana) University of Education, Winneba (Ghana) University of Ibadan (Nigeria) Obafemi Awolowo University (Nigeria) Ahmadu Bello</p>	<p>African Economic Research Consortium (AERC), the Association of African Universities (AAU), the University Science, Humanities and Engineering Partnerships in Africa (USHEPiA) program, and the Council for the Development of Social Science Research in Africa (CODESRIA)</p>	<p>A planned review of PHEA is currently under way.</p>

				US\$200m.	<p>University (Nigeria) Bayero University (Nigeria) Port Harcourt University (Nigeria) University of Jos (Nigeria) Association of African Universities (Ghana) Kenya Education Network (Kenya)</p> <p><i>Top 22 Grant recipients 2000-2006</i></p> <p>University of Johannesburg (grant to the former RAU) Cairo University University of South Africa Eduardo Mondlane University Kenyatta University University of Port Harcourt University of Stellenbosch Obafemi Awolowo University University of Stellenbosch University</p>	<p>Networks supported 2000-2007</p> <p>See profile</p>	
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				<p>College of Education of Winneba Ahmadu Bello University Rhodes University of Pretoria University of Ghana University of Jos University of the Western Cape Bayero University, Kano University of Ibadan University of Dar es Salaam University of Kwa-Zulu-Natal (incl former Univ of Natal) University of Cape Town University of the Witwatersrand Makerere University</p> <p><i>List of Networks for Research and Post-Graduate Training Supported by Partnership Foundations, 2000-2007 (Support may not be current):</i></p> <p>African Academy</p>		
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					of Languages (ACALAN) Panafrican Master's and PhD Project in African languages and Applied Linguistics African Agricultural Economics Education Network (Collaborative MSc Programme in Agricultural and Applied Economics for Eastern and Southern Africa) Africa Gender Institute (AGI) African Census Analysis Project (ACAP) African Centre for Crop Improvement (ACCI) African Economic Research Consortium (AERC) African Institute for Mathematical Sciences (AIMS) African Mathematics Millennium Science Initiative (AMMSI) African		
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					Population and Health Research Centre (APHRC) African Technology Policy Studies Network (ATPS) Biosciences eastern and central Africa (BeCA) Cape Higher Education Consortium Centre for Higher Education Transformation (CHET) Centre for Human Rights, University of Pretoria (including LLM International Trade and Investment) CGIAR-Gender and Diversity Program African Agricultural Economics Education Network (Collaborative MSc Programme in Agricultural and Applied Economics for Eastern and Southern Africa) Council for the Development of		
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					Social Science Research in Africa (CODESRIA) Council of Higher Education, South Africa (CHE) Eastern Seaboard Association of Tertiary Institutions, South Africa (ESATI) Forum for African Women Educationalists (FAWE) Health Systems Trust (HST) INDEPTH Network Institute for Security Studies (ISS) International Food Policy Research Institute (IFPRI) KENET Mortenson Center for International Library Programs National Astrophysics and Space Science Programme (NASSP) Nigeria ICT Forum Regional Universities		
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					Forum for Capacity Building in Agriculture (RUFORUM) South African Structural Biology Initiative Tertiary Education Network (TENET) Third World Organisation for Women in Science (TWOWS) Union for African Population Studies (UAPS) University Science, Humanities and Engineering Partnerships in Africa (USHEPiA) World Agroforestry Centre/Internatio nal Center for Research in Agroforestry (ICRAF)		
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Sources: Organisations' websites, annual reports and evaluations; interviews with staff members.

Appendix 3: Intermediaries – organisations and networks in research capacity building in Africa

Organisation	Research capacity building activities	Sector	Geographical focus	Major donors	Key partners
African Economic Research Consortium (AERC) www.aercafrica.org	<ul style="list-style-type: none"> AERC's principal objective is to strengthen local capacity for conducting independent, rigorous inquiry into problems pertinent to the management of economies in sub-Saharan Africa Funding research is one key element of AERC's work. Research grants are provided for thematic and collaborative research projects supported by resource persons. Junior researchers are encouraged to apply. AERC provides a peer-review system, methodology workshops and literature for the projects it funds. A formal post-graduate training programme brings together 13 universities in SSA. The universities in the network offer post-grad courses, whereas the AERC's role is to: <ul style="list-style-type: none"> Develop a common curriculum for all post-grad courses to meet international standards Offer a 3-month intensive training course for all students Provide scholarships for student and staff movement Institutional capacity building 	Economics	Sub-Saharan Africa	Consortium 17 of donors, including multilaterals, bilaterals and private foundations	
African Academy of Sciences http://www.aasciences.org/index.htm	<ul style="list-style-type: none"> Training courses Improvement of research facilities in universities and research institutes Networking among African tertiary institutions Research grants Scholarships, mentoring and workshops to build capacity among women scientists <p>Capacity building projects in:</p> <ul style="list-style-type: none"> Forestry research and sustainable forest management; Soil and water management HIV/AIDS and other communicable diseases Sustainable energy; Emerging technologies Traditional knowledge, intellectual property rights 	Agricultural research; Forestry research; Health research; Science & technology	Sub-Saharan Africa		
African Capacity Building Foundation	<ul style="list-style-type: none"> Funding: Grants to research institutions, universities, the public sector, civil society and private organisations for 	Public sector Economic	Sub-Saharan Africa	Major sponsoring agencies:	

Organisation	Research capacity building activities	Sector	Geographical focus	Major donors	Key partners
http://www.acbf-pact.org/	<p>institutional capacity strengthening</p> <ul style="list-style-type: none"> • Individual support and training • Overall focus on public sector and policy, good governance, development management, economic policy and national statistics. • Programmes are customised to needs of individual countries based on national capacity assessments 	policy; Good governance		African Development Bank; World Bank, UNDP. Additional funding from: DFID, Sida, Norad, Danida, USAID	
African Forest Research Network www.afornet.org	<ul style="list-style-type: none"> • A network of African forest research scientists. • Central activity is to operate a research grants scheme for individual researchers through fellowships for junior and senior scientists 	Forest research	Africa	Sida/SAREC	AAS; KSLA; African Union; IUFRO; CIFOR; ETFREN; IFS; FAO; IPGRI; ISNAR ; Tropenbos; IFAD; UNECE; UNEP
Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA) www.asareca.org	<p>A regional organisation established in 1994 by the National Agricultural Research Institutes with the mission to strengthen agricultural research in the region. Capacity building activities include:</p> <ul style="list-style-type: none"> • A competitive grant system • Institutional strengthening of NARS • Networks • Research partnerships • Promotion of research uptake 	Agricultural research	Eastern and Central Africa	IDRC, DFID, EU, Sida, AfDB, USAID	National Agricultural Research Organisations; CGIAR; COMESA; AU; NEPAD; International and Regional organisations
Association of African Universities (AAU) http://www.aau.org/renu/index.htm	<ul style="list-style-type: none"> • Research: Study Programme on Higher Education Management in Africa to develop capacity to undertake research on issues of higher education policy and increase indigenous knowledge base for African HE policy-making • Funding: International Fellowship Programme; small grants for dissertations and theses; Mobilisation for Regional Capacity Initiative Challenge Fund • Staff exchange between African universities to foster inter-university cooperation, women are encouraged to participate • Roster of African Professionals to enhance international visibility of and access to African expertise • Networking, e.g. Working Group on Higher Education in Africa 	All disciplines/ sectors	Africa	Sida/SAREC; Netherlands MFA; DFID; IDRC; Ford Foundation	

Organisation	Research capacity building activities	Sector	Geographical focus	Major donors	Key partners
	<ul style="list-style-type: none"> Support for African universities in their response to HIV/AIDS 				
Biosciences Eastern and Central Africa (BECA) www.africabiosciences.org	<p>Member of NEPAD's continent-wide network of centres of excellence, builds research capacity by</p> <ul style="list-style-type: none"> Providing laboratory facilities Proving funding, such as fellowships for African scientists Training and educational activities that complement existing programmes, work with universities to train MSc and PhDs Acting as a central node of a regional network of research institutions 	Science & technology; Agricultural research	East Africa; Central Africa	CIDA	National Agricultural Research Systems; ASAREC; EAC; FARA; NEPAD.
Center for International Forestry Research (CIFOR)	<ul style="list-style-type: none"> Collaborative research with research institutes, NGOs, universities and governments. CIFOR provides most researchers with whom they collaborate with methodological tools, technical backstopping, training, co-publishing, access to international networks, reference materials and funds. Training activities include short courses and seminars, supervision of thesis research and in-service training. Sponsors international networks. 	Forestry research	SSA: Regional offices in Burkina Faso (West Africa), Zimbabwe (Southern and Eastern) and Cameroon (Central)	Major donors in Africa include EU, USAID and Sida. CIFOR supported by wide range of unilaterals, multilaterals and private donors.	
Council for the Development of Social Science research in Africa (CODESRIA) www.codesria.org	<ul style="list-style-type: none"> Funding: sponsorship for thesis writing to post-grad students; small grants programme, post-doc fellowship programme; collaborative research (national, international, South-South) Training: annual methodology workshops for post-grad students across the continent; annual thematic 4-6 week workshops; training built into each research programme; writing workshops Support with access to documentation to researchers Dissemination of new research through various journals, networks and the CODESRIA Documentation and Information Centre Support for peer mechanisms within universities, e.g. funding to set up post-grad student seminars 	Social sciences	Africa	23 donors with core funding from Sida/SAREC; Norad; Danish Foreign Ministry; ACBF and the Ford Foundation.	
Educational Research Network for West and Central Africa – ERNWACA / Réseau Ouest et Centre Africain de Recherche en Education (ROCARE)	<p>A regional network of 400 institutions in West and Central Africa, 70% of which universities, with a volunteer national coordinators. Capacity building efforts include:</p> <ul style="list-style-type: none"> Small grants programme provides funding for about 100 researchers who work in interdisciplinary teams Training: methodological workshops; writing workshops; 	Educational research	West Africa; Central Africa	Netherlands; Switzerland; IDRC	Ministries of Education; universities, teacher training institutes, and research

Organisation	Research capacity building activities	Sector	Geographical focus	Major donors	Key partners
www.rocare.org	<ul style="list-style-type: none"> mentoring and support for scientific publication by African researchers Institutional support for resource mobilisation for the network's national offices Facilitates collaboration among researchers and practitioners; training on advocacy for network members 				institutions; ADEA; ERNESA; West African Economic and Monetary Union
Forum for Agricultural Research in Africa - FARA http://www.fara-africa.org	<p>Strengthening Capacity for Agricultural Research in Africa (SCARDA)</p> <ul style="list-style-type: none"> Strengthening competencies and capacity in agricultural research management through the selection of a group of focal institutions Professional development of agricultural scientists and extension workers through MSc courses, short courses and mentoring Capacity building is provided by strong Africa universities <p>Building African Scientific and Institutional Capacity (BASIC)</p> <ul style="list-style-type: none"> Raise the quality and relevance of African tertiary agricultural education through partnership between African universities, European universities and FARA. Development of up-to-date and locally relevant training modules for African universities with input from European universities and research findings from African research stations. Training resources available in different topics for any university to use. 	Agricultural research	Africa	SCARDA is funded by DFID	African Union, NEPAD, ASARECA, CORAF/WECA RD, SADC/FANR, North Africa SRO, research institutions, civil society organisations, policymakers
Global Development Network-GDN http://www.gdnet.org/	<ul style="list-style-type: none"> <i>Regional Research Competitions (RRC)</i> GDN has disbursed more than \$19 million and awarded more than 800 grants through this program. Submitted research proposals are reviewed by panels of experts from both within and outside the region. After selection, researchers are supported at each stage through extensive feedback from project reviewers and advisors and several rounds of discussions at research workshops. The African Economic Research Consortium (AERC) is GDN's regional network partner for Sub-Saharan Africa. AERC aims to strengthen local capacity for economic policy research in Sub-Saharan Africa. The AERC's activities are managed by a Secretariat based in Nairobi, Kenya. <i>Global Research Projects</i> Global Research Projects seek to explain different elements of 	Multidisciplinary research in the social sciences	Africa-wide	WB DFID USAID Ford Foundation Norad AusAID	

Organisation	Research capacity building activities	Sector	Geographical focus	Major donors	Key partners
	<p>development through a comprehensive and comparative approach, harnessing the global nature of the network to conduct studies in many countries simultaneously. They balance GDN's twin goals of generating high-quality research and building research capacity with its developing country partners. Current global research projects include –'Promoting Innovative Programs from the Developing World: Towards Realizing the Health MDGs in Africa and Asia.' This \$ 5.9 million project funded by the Bill & Melinda Gates Foundation aims to evaluate innovative programs with the greatest potential of contributing to the achievement of the three MDGs directly related to health in Africa and Asia.</p> <p><i>Global Development Awards and Medals Competition</i> The Global Development Awards and Medals Competition is the largest international contest for research on development. Through this competition launched in 2000 with the support of the Government of Japan, GDN seeks to unearth new talent and support innovative ideas. Nearly 4,000 researchers representing more than 100 countries throughout the developing world have participated to date. More than US \$ 1.91 million has been distributed in prizes and travel to finalists and winners. In 2006 alone, the competition attracted more than 600 applications. In the past we have supported multi-disciplinary research on a range of issues including global health concerns and domestic responses; pro-poor market reform; changes in global trade; industrial development and long-term growth; governance and development, reforms, interest groups and civil society; conflict, human security and migration; and the role of institutions for development in the context of globalisation.</p> <p><i>GNet</i> GNet is a web-based program aiming to:</p> <ul style="list-style-type: none"> • Link institutes and researchers in developing countries into a global network to showcase their work • Give them access to resources to support their policy research work • Help build communications capacity in research institutes through training and professional support in knowledge management to enhance the policy impact of research. 				
International Food Policy	IFPRI's Learning and Capacity Strengthening Programme	Agricultural	International	Wide range of	

Organisation	Research capacity building activities	Sector	Geographical focus	Major donors	Key partners
Research Institute (IFPRI) www.ifpri.org	brings together IFPRI researchers to contribute to following capacity building efforts <ul style="list-style-type: none"> • Training workshops • Distance-education programmes: <ul style="list-style-type: none"> ○ Global Open Food and Agriculture University, led by CGIAR ○ Centre for Agricultural Research Management and Policy Learning for Eastern Africa ○ Virtual Learning Room • Publicly accessible learning modules • Facilitates networks that support higher education and research institutions 	research		multilaterals, bilaterals and private foundations	
International Institute for Tropical Agriculture (IITA) www.iita.org	<ul style="list-style-type: none"> • Professional Capacity Advancement Programme allows young researchers in NARS to take part in IITA research as Visiting Fellows for 6-18 months • Graduate Research Programme provides research experience to graduate students who complete their theses in topics covered by IITA. • Graduate scholarships • Short-term courses in response to needs identified by scientists • Partnerships 	Agricultural research	Sub-Saharan Africa	Number of bilaterals, multilaterals and private foundations	
International Livestock Research Institute (ILRI) www.ilri.org	<ul style="list-style-type: none"> • Capacity building is based on its own field of research and the new knowledge generated, and complements the work of educational institutions. • E.g. support for development of training materials for African universities on the basis of African scientific research • Training for individuals and institutions: different types of attachments and fellowships for students and young researchers; core courses and tailor-made project/network-specific courses for groups • Focus of research capacity building is shifting from individuals to institutions 	Agricultural research	International	47 different funding agencies including Canada, Denmark, Ireland, Sweden, Switzerland, World Bank and EU.	
International Network for the Availability of Scientific Publications- INASP www.inasp.info	<ul style="list-style-type: none"> • Facilitates sustainable access to international and national research publications • Strengthens the capacity of research institutions in developing and emerging countries to produce, manage and use knowledge derived from their own research 	Multi-disciplinary including:- Health research, agricultural	International	BMA; Bill & Melinda Gates Foundation; Carnegie Corporation; EU; FAO; French MFA; IDRC; ICSU; Norad;	

Organisation	Research capacity building activities	Sector	Geographical focus	Major donors	Key partners
	<ul style="list-style-type: none"> • Cascades training for and by researchers, editors, librarians and ICT professionals • Facilitates networking among researchers, publishers, editors, librarians and ICT professionals 	research; general science		Danish MFA; Sida; DFID; UNESCO; WHO	
International Rice Research Institute (IRRI) www.irri.org	<ul style="list-style-type: none"> • Training: short-courses, on the job training, or post-graduate scholars programme. Training is in disciplinary issues and methodological skills. • Research collaboration in networks of researchers, which allows individual researchers to be part of broader peer mechanisms. 	Agricultural research	International, Southern and Eastern Africa (Work in Africa recent)	DFID, European Commission, unilaterals, multilaterals, private foundations	
Organization for Social Science Research in Eastern and Southern Africa (OSSREA) http://www.ossrea.net/index.htm	<ul style="list-style-type: none"> • Research funding through annual grant competitions; small grant research competitions in social science and gender issues for young scholars; senior scholars research competitions. • Training for social science researchers: thematic, disciplined-focused, project related and methodology workshops • Documentation centre 	Social sciences	Eastern and Southern Africa	Ford, Sida, IDRC, Norad, Dutch MFA	
Regional Universities Forum for Capacity Building in Agriculture (RUFORUM) http://www.ruforum.org	A consortium of 12 universities to develop and strengthen human resource capacity through a grant programme to support research and training of graduate students in agricultural research.	Agricultural research	East and Southern Africa: Kenya, Malawi, Mozambique, Zimbabwe, Tanzania, Uganda, Zambia	Rockefeller Foundation	
University Science, Humanities and Engineering Partnerships in African Programme (USHEPiA) http://web.uct.ac.za/misc/iapo/ushepia/bg.htm	<ul style="list-style-type: none"> • Post-graduate fellowships in science, engineering and humanities at partner universities, with coordination and support from University of Cape Town. • Small grants scheme for USHEPiA graduates • South-South networking among partner universities 	Science; Engineering; Humanities	Botswana, Kenya, Tanzania, Uganda, South Africa, Zambia, Zimbabwe	Rockefeller Foundation; Carnegie Corporation; Coca Cola Foundation; Ridgfield Foundation; Andrew W. Mellon Foundation	

Sources: Organisations' websites; interviews with staff members; Chataway et al (2005); Blagescu and Young (2006); Young and Kannemeyer (2001).

Appendix 4: Geographical spread of research capacity strengthening support in Africa

Bilateral donor research capacity strengthening support in Africa

Bilateral donor	MENA	Western and Central Africa	East Africa	Southern Africa
CIRAD		Burkina Faso Cameroon Congo Côte d'Ivoire Ghana Guinea Mali Senegal	Ethiopia Kenya Uganda Réunion Mayotte	Madagascar South Africa Zimbabwe
IRD	Egypt Morocco Tunisia	Benin Burkina Faso Cameroon Cape Verde Congo Côte d'Ivoire Gambia Guinea Bissau Mali Mauritania Niger Senegal	Kenya	South Africa
Germany BMZ provide funding to: DAAD/DFG/Alexander Von Humbolt Foundation	<i>DAAD – African countries eligible for studentships / individual support:</i> Algeria Egypt Libya Morocco Tunisia	<i>BMZ partner countries:</i> Benin Burkina Faso Côte d'Ivoire Ghana Guinea Cameroon Chad Mali Mauritania Niger Nigeria Senegal	<i>BMZ partner countries:</i> Burundi Ethiopia Eritrea Kenya Madagascar Malawi Rwanda Tanzania Uganda <i>DAAD – African countries eligible for studentships / individual support:</i>	<i>BMZ partner countries:</i> Lesotho Mozambique Namibia South Africa Zambia <i>DAAD – African countries eligible for studentships / individual support:</i> Angola Botswana Lesotho

		<p>DAAD – African countries eligible for studentships / individual support:</p> <p>Benin Burkina Faso Cameroon Cape Verde Central African Republic Chad Congo, Democratic Republic of Congo, Republic (Brazzaville) Côte d'Ivoire Equatorial Guinea Gabon Gambia Ghana Guinea Guinea-Bissau Liberia Mali Mauritania Niger Nigeria São Tomé und Príncipe Senegal Sierra Leone Togo</p> <p><i>African Countries eligible for Alexander Von Humboldt fellowships:</i> Benin Burkina Faso Burundi Equatorial Guinea Cameroon Cape Verde Central African Republic</p>	<p>Burundi Comoros Djibouti Eritrea Ethiopia Kenya Madagascar Mauritius Réunion Rwanda Seychelles Somalia Sudan Uganda</p> <p><i>African Countries eligible for Alexander Von Humboldt fellowships:</i> Madagascar Eritrea Ethiopia Somalia Uganda Kenya Sudan</p>	<p>Malawi Mozambique Namibia South Africa Swaziland Tanzania Zambia Zimbabwe</p> <p><i>African Countries eligible for Alexander Von Humboldt fellowships:</i> Angola Botswana Namibia Lesotho Malawi Mozambique South Africa Swaziland Tanzania Zambia Zimbabwe</p>
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		<p>Chad Congo Côte d'Ivoire Guinea Guinea Bissau Gabon Ghana Gambia Liberia Mali Mauritania Niger Nigeria Sierra Leone Togo</p>		
Danida-ENRECA	<p><i>Danida Partner Countries:</i> Egypt</p> <p><i>Danida Fellowship Centre – 2006 Fellows from:</i> Egypt</p>	<p><i>Danida Partner Countries:</i> Benin Burkina Faso Ghana Mali Niger</p> <p><i>Danida Fellowship Centre – 2006 Fellows from:</i> Benin Burkina Faso Chad Ghana Guinea-Bissau Niger Nigeria Senegal Mali</p>	<p><i>Danida Partner Countries:</i> Kenya Uganda</p> <p><i>Danida Fellowship Centre – 2006 Fellows from:</i> Burundi Ethiopia Kenya Uganda</p>	<p><i>Danida Partner Countries:</i> Mozambique Tanzania Zambia</p> <p><i>Danida Fellowship Centre – 2006 Fellows from:</i> Botswana Malawi Mozambique South Africa Tanzania Zambia Zimbabwe</p>
IDRC	<p><i>IDRC In North Africa works in:</i> Egypt Morocco Tunisia</p>	<p><i>The IDRC Dakar Office covers 24 countries but current projects are in:</i> Benin Gambia,</p>	<p><i>The IDRC Nairobi office covers 25 countries but current projects are in:</i> Ethiopia Kenya</p>	<p><i>The IDRC Nairobi office covers 25 countries but current projects are in:</i> Tanzania</p>

	<i>CCAA first round research countries:</i> Morocco	Mali Nigeria Senegal Sierra Leone <i>CCAA first round research countries:</i> Benin Cameroon Ghana Mali Nigeria	Sudan Uganda <i>CCAA first round research countries:</i> Ethiopia Eritrea Kenya Madagascar Sudan Uganda	<i>CCAA first round research countries:</i> Mali Mozambique South Africa Tanzania Zimbabwe Zambia
JICA		<i>JICA partner countries in Africa:</i> Ghana Senegal	<i>JICA partner countries in Africa:</i> Ethiopia Kenya	<i>JICA partner countries in Africa:</i> Malawi South Africa Tanzania Zambia
Norad	<i>NUFU projects in Africa 2007–2011:</i>	<i>NUFU projects in Africa 2007–2011:</i> Ghana	<i>NUFU projects in Africa 2007–2011:</i> Ethiopia Madagascar Sudan Uganda	<i>NUFU projects in Africa 2007–2011:</i> Malawi Mozambique South Africa Tanzania Zimbabwe Zambia <i>NOMA</i> <i>The following countries are eligible for support by NOMA:</i> Malawi Mozambique Tanzania Uganda Zambia <i>Norad Programme in Arts and Cultural Education</i>

				<i>Eligible countries for support:</i> Malawi Mozambique Tanzania Uganda Zambia
DGIS/NUFFIC	<i>Eligible African countries for NFP:</i> Egypt <i>DGIS partner countries:</i> Egypt	<i>NPT countries:</i> Benin Ghana <i>Eligible African countries for NFP:</i> Burkina Faso Benin Cape Verde Guinea Bissau Ghana Ivory Coast Mali Nigeria Senegal <i>DGIS partner countries:</i> Benin Burkina Faso Cape Verde Ghana Mali Senegal	<i>NPT countries:</i> Eritrea Ethiopia Rwanda Uganda <i>Eligible African countries for NFP:</i> Eritrea Ethiopia Kenya Uganda <i>DGIS partner countries:</i> Eritrea Ethiopia Kenya Rwanda Uganda	<i>NPT countries:</i> Mozambique South Africa Tanzania Zambia <i>Eligible African countries for NFP:</i> Mozambique Namibia South Africa Tanzania Zimbabwe <i>DGIS partner countries:</i> South Africa Mozambique Tanzania Zambia
SD/NCCR North-South		<i>NCCR North-South works in the following African countries:</i> Burkina Faso Cameroon Chad Côte D'Ivoire Ghana Mali Mauritania Senegal	<i>NCCR North-South works in the following African countries:</i> Ethiopia Kenya Sudan	<i>NCCR North-South works in the following African countries:</i> Tanzania <i>2007 Echanges Universitaires Projects:</i> South Africa

		<i>2007 Echanges Universitaires Projects:</i> Benin Niger		
Sida/SAREC	:	Bi-lateral research cooperation with the following countries: Burkina Faso Rwanda	<i>Bi-lateral research cooperation with the following countries:</i> Ethiopia Uganda	<i>Bi-lateral research cooperation with the following countries:</i> Mozambique Tanzania
AusAID			<i>AusAID target countries in Africa include:</i> Kenya Uganda	<i>AusAID target countries in Africa include:</i> Malawi Mozambique Lesotho Swaziland South Africa Tanzania Zambia
CIDA	<i>Countries CIDA provides ODA to:</i> Algeria Egypt Morocco Tunisia	<i>Countries CIDA provides ODA to:</i> Benin Burkina Faso Cameroon Cape Verde Central African Republic Chad Comoros Congo Congo (D.R.) Côte d'Ivoire Djibouti Equatorial Guinea Gabon Gambia Guinea Guinea-Bissau Liberia Mali Mauritania Niger	<i>Countries that CIDA provides ODA to:</i> Burundi Eritrea Ethiopia Kenya Madagascar Rwanda Seychelles Somalia Sudan Uganda	<i>Countries that CIDA provides ODA to:</i> Angola Botswana Lesotho Malawi Mauritius Mozambique Namibia South Africa Swaziland Tanzania Zambia Zimbabwe

		Nigeria Sao Tome and Principe Senegal Sierra Leone Togo		
USAID		<i>HED partnership countries past/recent/ present:</i> Benin Congo Ghana Mali Nigeria Senegal <i>IEHA 2006 focus countries:</i> Ghana Mali	<i>HED partnership countries past/recent/ present:</i> Eritrea Ethiopia Kenya Rwanda <i>IEHA 2006 focus countries:</i> Kenya Uganda	<i>HED partnership countries past/recent/ present:</i> Angola Botswana Lesotho Namibia Malawi Mozambique Zambia Tanzania <i>IEHA 2006 focus countries:</i> Malawi Mozambique Zambia

Sources: organisations' websites, annual reports and evaluations; interviews with staff members.

Research capacity strengthening support to individual African countries from bilateral donors

Country	CIRAD	IRD	Germany ¹	Danida/UM ²	IDRC ³	JICA ⁴	Norad ⁵	DGIS/ NUFFIC ⁶	SDC/NCCR N-S ⁷	Sida ⁸	AusAID ⁹	CIDA ¹⁰	USAID ¹¹
Algeria			SCH										
Angola			PC/SCH										
Benin		RCS	PC/SCH	PC/SCH	RCS			RCS/SCH/PC	RCS				
Botswana			SCH	SCH									
Burkina Faso	RCS	RCS	PC/SCH	PC/SCH				SCH/PC	RCS	RCS			
Burundi			PC/SCH	SCH									
Cameroon	RCS	RCS	PC/SCH						RCS				
Cape Verde		RCS	SCH					SCH/PC					
Central African Republic			SCH										
Chad			PC/SCH	SCH					RCS				
Comoros			SCH										
Congo (Republic of)	RCS	RCS	SCH										
Congo (Democratic Republic)			SCH										
Côte D'Ivoire	RCS	RCS	PC/SCH					SCH	RCS				
Djibouti			SCH										
Egypt		RCS	SCH	PC/SCH	RCS			SCH/PC					
Equatorial Guinea			SCH										
Eritrea			PC/SCH		RCS			RCS/SCH/PC					
Ethiopia	RCS		PC/SCH	SCH	RCS	PC	RCS	RCS/SCH/PC	RCS	RCS			
Gabon			SCH										
Gambia		RCS	SCH		RCS								
Ghana	RCS		PC/SCH	PC/SCH		PC	RCS	RCS/SCH/PC	RCS				
Guinea	RCS		PC/SCH										
Guinea – Bissau		RCS	SCH	SCH				SCH					
Kenya	RCS	RCS	PC	PC/SCH	RCS	PC		SCH/PC	RCS		PC		
Lesotho			SCH								PC		
Liberia			SCH										
Libya			SCH										
Madagascar	RCS		PC				RCS						
Malawi			PC/SCH	SCH		PC	RCS/SCH		RCS		PC		
Mali	RCS	RCS	PC/SCH	PC/SCH	RCS			SCH/PC					

Zimbabwe	RCS		PC/SCH	SCH			RCS	RCS/SCH						
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Sources: Organisations' websites, annual reports and evaluations; interviews with staff members.

Key:

	Countries that receive little (single source support) or no research capacity support from donors.
	Countries highlighted that receive limited research support (2-3 different sources) from donors.
	Countries that receive research capacity support from multiple donor sources.

PC= Partner countries. Although a partner country, agencies may not support research capacity strengthening here.

RCS= Research Capacity Strengthening. Agencies are involved in research capacity strengthening in the country.

SCH= Scholarship. Scholarships/fellowships/studentships open to applicants from this country from agency supported scholarship/fellowship programmes.

Footnotes:

1. PC- refers to BMZ partner countries. SCH refers to DAAD and Alexander Von Humboldt scholarships, studentships and fellowships.
2. PC- refers to Danida partner countries which have long –term development cooperation. SCH- refers to fellowships offered by the Danida Fellowship Centre in 2006.
3. RCS- refers to current research programmes identified by the regional IDRC offices in Africa (Senegal, Kenya, Egypt).
4. PC- JICA partner countries.
5. RCS- refers to NUFU projects 2007-2011. SCH- refers to eligible countries for NOMA support.
6. RCS- refers to NUFFIC NPT countries. SCH- refers to countries eligible for NUFFIC NFP. PC- refers to DGIS partner countries.
7. RCS- refers to NCCR N-S research partners and three 2007 *Echanges Universitaires* projects in Benin, Niger and South Africa.
8. RCS- refers to Sida bi-lateral research cooperation partners.
9. PC- refers to AusAID target countries in Africa.
10. Although CIDA provides ODA to 47 African countries, it supports research capacity strengthening in Africa through multi-national and regional initiatives. See CIDA entry in the *Bi-Lateral Donor research capacity strengthening support in Africa* table for countries that received CIDA ODA.
11. USAID support to research capacity strengthening is spread over a number of different sectors and departments, making it difficult to clearly identify which countries in Africa receive direct research capacity strengthening support.

Appendix 5: Evaluations

Organisation	Type	Methods	Findings
<p>Danida Evaluation of Danida's Bilateral Programme for Enhancement of Research Capacity in Developing Countries (ENRECA) By: ITAD Ltd. In association with ODI Dec. 2000</p>	External and Internal	<p>Phase 1: Desk-based review of background papers and interviews with Danida staff and ENRECA partners based in Denmark.</p> <p>Phase 2: Field visits with interviews with Danish and host-country partners; case study of comparable programmes</p>	<p>Key achievements: Financially efficient. Has been effective in enhancing tangible and human capital. Projects with carefully identified target groups have been successful in influencing government policy. Distributing research has been successful in terms of publishing internationally, although not nationally. Opportunity to use more electronic means of distributing research. Good coverage of Poverty alleviation.</p> <p>Challenges: Room for improvement in terms of the three cross-cutting issues (environment, good governance and women in development) Good coverage of sectoral remit but need more on cross-country-fertilisation with SPS (except for Ghana) Individual projects reflect national priorities but at the aggregate level the Programme tends to reflect Northern researchers priorities. Research based projects have good prospects in terms of post-ENRECA, however this is not the case for the building capacity projects based on training and research as they are unlikely to attract future funding. ENRECA projects fail to enhance the host institutions poorly developed organisational capital. Although ENRECA projects have contributed to the social capital of host institutions more could be done to further increase social capital. Projects could do more to enhance sustainability prospects.</p>
<p>Danida Bridging Research and Development Assistance A Review of Danish Research Networks By: CMI 2006</p>	External	<p>Personal interviews with network representatives, Danish embassy staff, collaborating research institutions and representatives of relevant line ministries in partner countries in the South, as well as parallel reviews of NGO networks and the ICT-based networks based at DCCD/BFT</p>	<p>Key achievements: The Networks have been a success in so far as consolidating the Danish resource base Dissemination of research findings to Danida has been successful, in particular with regard to knowledge dissemination.</p> <p>Challenges: The networks have been unable to bring relevant knowledge to sector programmes, due to the new aid architecture as well as the unappreciated manner of embassy staff responsible for sector programmes The networks have performed below average with regard to the application of knowledge in aid programmes.</p>
<p>Danida Review of Danida supported health research in</p>	External	Quantitative Analysis	<p>Key achievements: Succeeded in building upon its existing research capacity. Although capacity in health systems research is still limited it is growing. Scientific impact: High quality, as well as an impressive quantity and vast diversity of science produced</p>

Organisation	Type	Methods	Findings
developing countries, Main report Health Research for Action vol. I, By: HERA Mar. 2007			and disseminated Capacity building impact: Individual capacity building has been a major output and this in turn has contributed to institutional strengthening. Excellent North-South partnerships, although more needs to be done in terms of South-South partnerships Challenges: Research is primarily supply-driven, needs to incorporate demand-driven aspects. A knowledge management strategy is needed in order to increase the impact of the programme Research priorities do not appear to clearly relate to a national health research agenda. Policy impact: Research into policy and action has received limited attention.
Danida Review of Danida-supported health research in developing countries, Main report Health Research for Action, HERA, vol. II By: HERA Mar. 2007	External	Review of research project, desk study and interviews with Donors and Danish Research groups	Key achievements: Research and capacity building in the North appreciate the cooperation with the Danida development partners Research capability strengthening has had positive results in the South, providing well trained, experienced health researchers Challenges: Cannot pin point the exact results of Danida's financial contribution Need to focus more on the national priorities set by the Southern governments Need to create tools for translating research into policy
Sida Sida Supported Master of Science Program by Distance Education in Mozambique, Vietnam, Cambodia and Namibia-Evaluation By: Department for Democracy and Social Development 2000	External	3-person evaluation team visited all four countries as well as the SOAS headquarters. Tracer study covering a sample of participants was carried out, as well as interviews and a review of all available project files.	Key achievements: Mozambique: 51% of students enrolled in Master Degree graduated as well as a number of diplomas at lower levels. Namibia's first cohort was unsuccessful, but due to changes in programme expect higher success from second cohort. Cambodia (96%) and Vietnam (88%) both had impressive results. Most students remain in government positions, thus improving the government's analytical capacity and finance economics (however level still remains low due to side jobs). Programs have contributed to improved economic policy making and performance in all four countries. Students involved in the project all reported personal gains from the Masters. The programme has indirectly benefited the environment, democratisation and women's position in development. Challenges: No scale economies to add more countries into the programme. Providing 'thesis packs' decreases the student's research capabilities and independent critical thinking. Distance education does not provide the students with the same quality of study as full time graduate

Organisation	Type	Methods	Findings
			<p>students. Programme needs changes in order to improve institution building as little has been achieved, although the results do vary in the four countries. Sida has had poor monitoring of the project with a lack of communication between donor and University. Sida has also had poor cost reporting (with the exception of Mozambique.)</p>
<p>Sida Sida Supported Environmental Research Projects in Tanzania-Evaluation By: Department for Research Cooperation, SAREC 2000</p>	<p>External</p>	<p>Logical Framework Analysis, LFA Method</p>	<p>Key achievements: Projects had good administrative organisation and relatively transparent. Noteworthy developments in research capacity, for example in the capacity to identify, plan and implement research projects.</p> <p>Challenges: Research objectives influenced by donor interests. Lack of research leadership Scientific quality not uniform Need to improve dissemination of research results Projects have little or no impact on policy making The topic of gender not covered sufficiently</p>
<p>Sida Sida/SAREC Bilateral Research Cooperation: Lessons learned-2006 Evaluation Department for Evaluation and Internal Audit 2006</p>	<p>External</p>	<p>Analysed relevant documentation, as well as individual and group interviews</p>	<p>Key achievements: Progress in terms of capacity building of individual staff members, although to a lesser extent in research management. Institutional relevance is clear, although not development relevance – indirect link only to poverty reduction. Programme is generally well managed with dedicated staff.</p> <p>Challenges: The results of Sida/SAREC research projects are rarely disseminated to the public or private sector. A more focused approach has been adopted but this has yet to result in improved collaboration between researchers. Need more university-industry cooperation For the projects to be sustainable they depend heavily on external funding. Monitoring of projects needs to be improved</p>
<p>Sida Two Dry lands Research Programmes in Eastern Africa: Main Report-2002 Evaluation of two dry land research projects supported</p>	<p>External</p>	<p>Participatory approach involving all main stakeholders</p>	<p>Key achievements: Research capacity has been enhanced due to research networking Methods and Programme models have been successful</p> <p>Challenges: Provided a substantial amount of relevant research, but failed to publish in journals. Scope for improvement in dissemination of research No financial sustainability Gender research absent High cost per student doing MSc courses</p>

Organisation	Type	Methods	Findings
by Sida/SAREC By: Department for Research Cooperation 2002			
Sida Sida-Supported Programme within the African Energy Policy Research Network, AFREPREN- 1999 evaluation By: Department for Research Cooperation, SAREC 1999	External	Evaluation is based on books and reports published by AFREPREN as well as a survey that was sent to the principal investigators	Key achievements: Research results disseminated, most importantly to policy makers at the national level Number of country and regional studies Programme has been essential in building up and strengthening capacity in energy policy research in the region
DGIS Evaluation of the Netherlands research policy 2005	External	6 case studies	Key achievements: Research capacity does benefit the quality of research work and in some cases has an influence on policy Challenges: Demand-driven approach and local ownership had mixed results – the demand-driven approach needs a closer examination The Ministry's internal organisation did not perform satisfactorily DGIS mainly excluded the Dutch academic sector Although capacity building has been successful, it requires a systematic solid approach Differentiation needs to be taken into account when developing policies as different types of research require different objectives, approaches and actors. Partnership between the North and the South has better results than local ownership as the two can benefit from each other
IDRC Capacity Building Strategic Evaluation - Summary of Findings of Phase 1 and 2 By: Consultant	External	Interviewing Staff members and management Examining funding practices Analysing a sample of IDRC supported projects	Key achievements: Multiplier effect – capacity building benefits individuals, which then benefits institutions IDRC has good flexibility in order to adjust to new ideas Regular and productive face-to-face contact with partners Short term tangible outputs: Trained researchers, new material, dissemination of research, development of databases Good long term outcomes in terms of changing skill-sets

Organisation	Type	Methods	Findings
Universalia April 2006			
IDRC Capacity Building at IDRC – Results and factors supporting results By: Consultant Universalia March 2007	External	Interviewing Staff members and management Examining funding practices Analysing a sample of IDRC supported projects	Key achievements: Outputs: Trained researchers, new material, dissemination of research, development of databases Capacity building led to a change in individual, group and institutional behaviour
World Bank Capacity Building in Africa: An IEG Evaluation of World Bank Support By: World Bank Operations Evaluation Department 2005	External	Aggregate-level reviews of country strategies and operations, as well as in-depth country studies.	<i>Concentrates more on policy capacity building rather than research capacity building</i> Challenges: Bank's support for capacity building in Africa remains less effective than it could be - The Bank does not apply the same rigorous business practices to its capacity building work that it applies in other areas. Capacity support remains fragmented 1.1.1 Sector-specific capacity building strategies need strengthening 1.1.2 Tools and instruments could be more effectively and fully utilised. Quality assurance is inadequate
SISERA Evaluation of the Secretariat for Institutional Support for Economic Research in Africa By: Bannock Consulting June 2004	External	Questionnaire and interviews	Key achievements: Institutional support well targeted and effective World Bank collaboration effective in providing researchers for poverty reduction Successful enhancement of managerial capacity of economic research centres – unique to SISERA Successfully fostering linkages between regional and global actors, such as the African Development Bank and the World Bank Institute. Impact on policy research has been mixed Challenges: Delay in appointing a permanent Executive Director has created serious obstacles Insufficient number of staff, which has lead to low and ineffective monitoring There has been a decrease in funding sources due to a gap in donor funding cycles and time lapse between negotiations and contracts. Inability of staff to adapt to changing work environments The programmes strategies must take into account SISERAs competitive advantages SISERA needs to strengthen its government structures.
ILRI International Livestock research	External	Observations from discussions on ILRI capacity strengthening	Key achievements: Organisations/individuals receive high levels of cooperation and guidance from scientists and work under very favourable ILRI research environments with first-rate laboratory and library facilities

Organisation	Type	Methods	Findings
Institute. Centre First Report Nov. 2004 Final Report Jan. 2005		activities with NARS scientists, graduate students and academic staff of partner universities as well as with ILRI and other CGIAR scientists.	Challenges: Very few of the training programmes are need-based or related to livelihood issues or poverty reduction, rather they are more of a technical nature Students and scientists do not have a great deal of opportunity to work on topics of their interest.
G-RAP Ghana Research and Advocacy Programme (G- RAP) By: ODI and CaRoRa Consultancy Jan. 2007	External and Internal	In-depth interviews	Key achievements: G-RAP is growing in progressive directions and the overall evaluation is positive, however further refinement and rationalisation of its aims would be beneficial Good existing program governance arrangement, although it could benefit from adapting better to future programs needs by establishing a more self-sufficient governance model Adopting a pooled funding arrangement has been beneficial, however there is still room for improvement Innovative approach to core funding Challenges: Possible repositioning in terms of funding would benefit G-RAP.

Appendix 6: Annotated bibliography

This section contains an annotated bibliography of key documents consulted for this study. It excludes project or programme specific evaluations conducted by donors or institutions involved in research capacity building, as these are reviewed elsewhere in the study (see Annex 3). This annotated bibliography builds on an earlier review of literature conducted by ODI (Young and Kannemeyer, 2001) and shows that a considerable amount of new contributions to this field have been produced in the last six years.

A majority of the documents reviewed below fall into four broad categories, although there is often some overlap:

- *General discussion* of capacity gaps in different sectors and disciplines and of the need for new modes of capacity building. Critiques of current research capacity building approaches contribute to debate and often draw on the authors' personal experiences in the sector.
- *Empirical studies* of individual research capacity building initiatives. In addition to organisational evaluations of existing programmes (see Appendix 1), there is a number of analyses published in academic journals or books. Such studies are mostly based on qualitative interviews or draw from personal experience of the authors.
- A small number of papers aim to development comprehensive *definitions and conceptual frameworks* for research capacity building.
- There are a growing number of reports that review and map organisations involved in research capacity building in the South, usually conducted by donors. *Donor literature* also includes reports of workshops and conferences to discuss different organisations' experiences in this sector.

It is noteworthy that most of the empirical analyses in this bibliography concern capacity building initiatives outside Africa. Although it may be possible to learn from best practices outside the continent, there is clearly scope for better documentation and critical analysis of experiences with research capacity building in Africa (beyond project and programme evaluations). Moreover, experiences of individual researchers and research teams are valuable information, but currently there is a dearth of more systematic and comparative analysis of this type of in-depth qualitative data.

Interestingly, the available literature focuses largely on experiences in the health and science, technology and innovation sectors, with few sources documenting research capacity building initiatives in the non-economic social sciences and humanities.

The increasing number of mapping studies and conference reports produced by donors may reflect increasing donor enthusiasm for research capacity building and a willingness to coordinate efforts with other organisations and learn from each other's experience.

Åkerblom, Malin (2007) *Study on Policies and Models for Research Funding*, Report prepared for Sida-SAREC.

The study was commissioned as an input into discussions about closer collaboration with other donors for research in low-income countries at the Swedish International Development Agency's (Sida) Department for Research Cooperation (SAREC). The report reviews major donors' approaches to research funding and research capacity building. Major findings include:

- All donors recognise the need for *long term commitments*, as it takes decades to build national research systems, but the scope for long-term support varies with the management structure. Sida/SAREC and the Carnegie Foundation are able to give long-term support to capacity building. The Netherlands and Norway have increased the duration of projects to 4-5 years, but long-term commitment is hindered by the transfer of responsibilities to embassies, where staff turnover is high and short-term activities are favoured. Results must be shown within a relatively short time period at the World Bank and DFID/CRD is just embarking on research capacity building activities.
- Donors put different degrees of emphasis on three main areas research funding and capacity building:
 1. *Research for development* is integrated with capacity building in collaborative projects, which is the main model for Sweden, Norway, Netherlands and the UK. DFID also has a major focus to tackle problems 'with best means available', which often means using Northern research centres and laboratories.
 2. *Research capacity building*: Comprehensive support to universities is mainly given by Sida-SAREC and the Carnegie Corporation. SAREC's emphasis is on governmental policies and university management. Support is concentrated to one university in each country.
 3. *Getting research into use (RIU)*: RIU involves scaling up existing knowledge, transforming it to suit local conditions and helping it find its way to users. It is the focus of the World Bank, DFID and the Netherlands and other donors are also giving increasing attention to RIU.
- Funding for research among donors is difficult to compare. Rough estimates of *annual research budgets*:
 - DFID/CRD 300 million EUR
 - SAREC 100 million EUR
 - Netherlands 75 million EUR
 - Norway 75 million EUR
 - Carnegie Corporation 12 million EUR
- The *role of Southern partners* varies among donors. Carnegie Corporation gives African partners a leading role whereas UK DFID traditionally has retained the lead. SAREC, Norway and the Netherlands promote a process of dialogue.
- Continuous *monitoring and evaluation* is emphasised by Carnegie Corporation, DFID and NUFFIC. Norad and SAREC perform external evaluations at intervals.
- All donors cooperate with other donors and are open to more cooperation, particularly at country level.

Ayuk, Elias T. and Basil Jones (2007) 'From myth to reality – building capacity for economic policy research in Africa, in Marouani, Mohammed Ali and Elias T. Ayuk (eds.) *Policy Paradox in Africa: Strengthening links between economic research and policymaking*, Africa World Press and the IDRC.

If Africa's own economic research institutions (ERI) are to play an effective role in the policy-making process, they will need to grow and increase their capacity. In this chapter, we describe how the Secretariat for Institutional Support for Economic Research in Africa (SISERA) has worked to develop research capacity and we also summarise the lessons learned in providing support to

the ERI. Drawing on seven years of continuous interaction with the centres, we show that ERI have a long way to go before taking their rightful place at the policy-making table and contributing their expertise to developing and applying sound economic policies in their respective countries and regions. More efforts are needed in the areas of institutional leadership, solidifying the resource base, staff retention, increasing the policy relevance of research, developing a communication strategy and developing good internal management practices. This chapter also suggests that recent developments on the continent provide numerous opportunities for economic research centres to play a more important role in both formulating and implementing economic policies — in, by and for Africa. [Original abstract]

Bautista, M., Velho, L. and Kaplan D. (2001) *Comparative Study of the Impacts of Donor-Initiated Programmes on Research Capacity in the South*. International Report to the DGIS, Ministry of Foreign Affairs, The Netherlands.

This report attempts to substantiate the concept of demand-driven research, to popularise a participatory approach to research, and to institutionalise the process of learning from populations. It rejects the concept of knowledge for its own sake and focuses much more on the end user of knowledge, particularly policy makers. In conclusion, it states that despite the fact that the Southern partners in the cooperation programmes enjoy academic and administrative autonomy, the foreign agencies usually end up taking most of the decisions that are crucial to the cooperation.

Blagescu, Monica and John Young (2006) 'Capacity Development for Policy Advocacy: Current thinking and approaches among agencies that support Civil Society Organisations', ODI Working Paper 260, London: ODI.

This paper provides an overview of definitions and types of capacity building; institutions involved in strengthening civil society organisations' (CSO) capacity to use research to influence policy; and an annotated bibliography of key sources.

There are various definitions of capacity building (CB), and a number of terms are used: capacity building, capacity enhancement, capacity development. Capacity building encompasses interventions at a number of levels:

1. *The individual*: Their skills and ability are strengthened to contribute to the achievement of development objectives
2. *The organisation*: focus is on organisational structures, processes, resources, and management and governance issues. Preferred entry point for bilateral donors.
3. *The sector/network*: importance of coherent policies, strategies and effective coordination within and across sectors.
4. *Enabling environment*: Broader environment within which the development process takes place, that can be either constraining or enabling.

In practice, there have been some efforts to build capacity among CSOs, mainly think tanks and research institutes, to influence policy, particularly in the fields of action research, budget tracking, impact assessment and outcome mapping.

Although there has been little evaluation of CB impact, an IDS study found that external interventions are not a critical determinant of successful research communication and advocacy. 'Rather, it is an organisation's internal governance and its specific relationship to the state which are the most decisive factors in achieving policy influence' (7).

Monitoring and evaluation: Until now, capacity building organisations have been weak in monitoring the impact of their interventions. Attempts to evaluate capacity building efforts and learn from past experiences have been constrained by two key factors:

- CB is often embedded in other programmes and thus hard to track down and monitor and evaluate specifically.

- Outcomes are long-term and not easily attributable to one intervention.

Two further points seem to cut across the literature:

- M&E need to be more than a donor accountability mechanism, they should encourage learning, participation and commitment.
- M&E is difficult without a theory of cause and effect.

The authors conclude that in order to ensure sustainability of results, capacity building efforts have to take the following principles into account:

- CB requires broad based participation
- CB should build on already existing local capacity
- CB organisations must be open to learning and adaptation
- CB is a long-term investment
- Activities must be integrated at all levels.

Chataway, Joanna, James Smith and David Wield (2005) 'Partnerships for Building Science and Technology Capacity in Africa: Canadian and UK Experience', Paper prepared for the Africa-Canada-UK Exploration: Building Science and Technology Capacity with African Partners, London: Canada House.

This paper reviews seven different approaches to building S&T capacity in Africa to inform Canadian and British research capacity building policy in the sector.

The authors argue that there are three key issues that have to be addressed to develop meaningful S&T capacity building programmes:

- Understanding the local context, how it shapes the ability of local scientists to find solutions, what the needs of the local people are and what local knowledge is available.
- Correct mix of long-, medium- and short-term interventions. 'Although short-term funding may produce some long-term capacities, it may not necessarily be cost-effective or appropriate. Long-term support for research centres alone does not guarantee that immediate development goals will be met' (2). An example of good practice is Sida/SAREC's support to African universities as hybrid research and learning institutions. This approach supports the best institution within a resource-poor setting and puts universities at the centre of efforts. Provides short term project support and also longer term infrastructural project support and technician training.
- Encouraging the development of systems for innovation: This involves long-term support to build management structures and linkages between practitioners through knowledge-sharing networks.

One challenge for donors is to construct funding mechanisms that effectively facilitate enhancing capacity. There is a risk that developing countries may not be involved in setting research priorities or that funds are not used to build Southern research institutions. The achievement of local control and local capacity building requires that these concerns are met.

Costello, Anthony and Alimuddin Zumla (2000) 'Moving to research partnerships in developing countries,' *British Medical Journal* 321: 827-9.

The authors argue that much foreign-led and funded research in developing countries remains semi-colonial in nature and Northern domination in setting research priorities and in the management of research projects may outweigh the potential benefits of research. The authors call for phasing out of 'annexed site' research led by expatriates and increasing the involvement of national academics and institutions. Existing research models present opportunity costs as expatriate researchers are expensive, independent foreign research sites operate by using inflated local salary scales and draw best local talent away from national research institutes. It is also 'ethically questionable that foreign investment funds should pour into 10 or so internationally-led

independent research centres in the poorest countries while national academic infrastructure withers on the vine' (827).

Research findings from research centres run by expatriates are less likely to be incorporated into policy and practice, as culture and nationalistic influences play an important role in the application of research findings. India, for example, has been wary of importing foreign research ideas and has forbidden 'annexed site' research.

Cooperative research partnerships, as recommended by the authors, rest on four principles:

- Mutual trust and shared decision making
- National ownership
- Emphasis on getting research findings into policy and practice
- Development of national research capacity

Harris, Eva (2004) 'Building scientific capacity in developing countries', *EMBO reports* 5(1): 7-11.

This essay 'explores the problems, complexity and excitement of international scientific collaborations to help developing countries establish their own research base' (7). Although difficult resource-constrained conditions are an important challenge to developing country research, research capacity building is more than just technology transfer. In the field of infectious diseases, for example, workshops include training on laboratory, epidemiology and proposal writing skills as well as financial and personnel management. Another overlooked area is manuscript writing, where scientists often need support, as publication in peer-reviewed journals increases the visibility and acceptability of research and improves funding opportunities.

To achieve long-lasting success, technology and knowledge transferred must go beyond workshops to research projects and long-term technical, scientific and material support. Components of good research partnerships include the encouragement of local inter- or intra-institutional collaboration and small grants to enable researchers to develop their skills. It is also important to take the project beyond publications to public health practice and implementation. True international partnerships require a huge investment of time from all participants and can be very rewarding in return. However, teaching, mentorship and collaborations are not part of the institutional reward system in developed countries. Institutional reward systems that encourage international partnerships must be established. Finally, building scientific capacity is a two-way street and Northern researchers can gain as much as they can contribute to North-South partnerships.

Helland, Johan (2000), *Research capacity building through partnership: the Tanzanian-Norwegian case*, Guest contribution to www.capacity.org, Issue 6

This paper explores the partnership between the Institute of Development Management (IDM) in Tanzania and Agder College in Norway. From its very beginning the relationship has been an equitable partnership, where the comparative strengths and weaknesses, advantages and disadvantages of the two institutions have complemented each other. The process of developing the relationship is also explained. The paper concludes with some important lessons that can be learnt from the IDM-Agder College collaboration.

Hrynkow, S. H., A. Primack and K. Bridbord (2003) 'Paradigms and progress in building research capacity in international environmental health', *International Journal of Hygiene and Environmental Health* 206(4-5): 413-422.

Populations in low- and middle-income nations bear significant risks for poor health due to air, land and water contamination; natural resource depletion; deterioration of ecosystems; contaminated food supplies and other conditions related to poverty, including poor housing, crowding and

inadequate nutrition and health care. To address environmental health conditions in a relevant manner in resource-poor settings, the training of scientists and health professionals from these settings is key to setting priorities and identifying cost-effective interventions. Training of professionals in a range of environmental health disciplines is a prerequisite for the establishment of effective national and international policies. Working to strengthen local expertise and scientific capacity is one of the most effective and lasting ways to affect positive policy change in environmental health. This paper describes four paradigms that support research training and research programs to meet the increasing and changing needs in this field. Factors influencing the development of the programs and their evolution are discussed as well as trends for the future. [Abstract adapted from original]

Intal, Ponciano S. (2001), 'Thanks to Smart Research Capacity Building, There is a Need for Smarter Research Capacity Building', IDRC Workshop on Trade Negotiations and Trade Policies in Developing Countries.

This short note presents the view that the previous investments in research capacity building in developing countries have been relatively successful and have borne fruit. However, because of the fast changing international environment and partly because of the relative success in research capacity building, the demands on the domestic research capacity in developing countries have become greater and more difficult. This calls for a smarter strategy on investments for research and institutional capacity building.

ISNAR (2000) 'Creating ownership of agricultural research through capacity building'. ISNAR Theme Essay.

The essay looks at agricultural research capacity building through the lens of ISNAR's work to strengthen national agricultural research systems (NARS) in developing countries. It focuses on two distinct levels of capacity building: at the level of individual research or research manager, and at the organisational level. Three guiding values underlie ISNAR's work to help developing countries build their agricultural capacity: participation, learning by doing, and respect for diversity.

Internal organisational features of a strong national agricultural research capacity are efficient organisation, good governance, clear priorities linked to resource use, high staff motivation, and fruitful interaction with farmers and other external stakeholders. This requires, at the individual level, specific skills in policy, organisation and management. Building these skills through training is one of the pillars of ISNAR's capacity-building work, and the essay puts considerable emphasis on this element of ISNAR's work. ISNAR has also spearheaded a long-term, intensive programme of agricultural research management training in sub-Saharan Africa. At the organisational level, ISNAR promotes the 'learning organisation' (an organisational style or culture that stimulates thinking, problem solving, and creativity among staff).

The essay provides an example of such work in the case study of the Latin American 'PM&E project' (planning, monitoring and evaluation) which has run for much of the last decade, and involves more than 25 agricultural research institutions and regional organisations.

The essay concludes that aid is wasteful when it attempts to 'transfer' technologies to beneficiaries in developing country without major efforts to build capacity in the country. To be sustainable, development assistance must focus on individual and organisational capacities, rather than on facilities and equipment. And finally, aid should create autonomy rather than dependence. Capacity building is creating autonomy.

KFPE (1998) 'Guidelines for Research Partnerships with Developing Countries: 11 Principles', Swiss Commission for Research Partnership with Developing Countries.

These guidelines comprise 11 principles for research in partnership between an industrialised country and developing countries:

- Decide on the objectives together
- Build up mutual trust
- Share information; develop networks
- Share responsibility
- Create transparency
- Monitor and evaluate the collaboration
- Disseminate the results
- Apply the results
- Share profits equitably
- Increase research capacity
- Build on the achievements

For each principle there is a description of the overall aim, practical suggestions as to how it can be achieved, and a checklist of questions for evaluating how far a specific proposal fulfils the aim.

According to the report, genuine partnerships require mutual respect, honesty and openness. The partners must be able to communicate effectively, and must be prepared to commit themselves to a long-term involvement. A basic requirement for the establishment of mutual trust is a continuing dialogue and the exchange of experience among all those involved, including the members of the local community.

Common problems should be tackled together in order to motivate all the partners to cooperate actively. The best possible division of tasks and responsibilities, based on the different strengths of the partners, offers the best chance that synergic effects will be produced and made use of, and that all those involved will really benefit from the research activities.

KFPE (2001), *Enhancing Research Capacity in Developing and Transition Countries: Experiences, discussions, strategies and tools for building research capacity and strengthening institutions in view of promoting research for sustainable development*, Berne: KFPE.

About 85% of all the resources devoted to research throughout the world are currently being invested in the high-income countries of the OECD. India, China and the new industrialised countries of East Asia account for a further 10%. This means that the rest of the world invests only about 4-5% in research. The overall efforts invested in research in developing and transition countries thus need to be considerably intensified. There is an urgent need to narrow the gaps between rich and poor countries, between research needs and realities and between research and its impact. It is especially important to explore and evaluate ways and means of enhancing research capacity in the South - above all at the institutional level.

This publication provides a variety of experiences, discussions, obstacles, strategies and tools to promote research capacity in developing and transition countries. It is divided into five sections:

1. The Challenge of Enhancing Research Capacity in Developing and Transition Countries
2. Lessons Learnt from Research Experiences in Different Contexts
3. Experience Gained with the 'Development and Environment' Module of the Swiss Priority Programme Environment - SPPE
4. Strategies and Tools Used by Funding Agencies to Strengthen Research Capacity in Developing and Transition Countries
5. Overview of Donor's Main Activities Related to Research for Development

It is based in part on presentations made at a workshop held in Berne on 21 and 22 September 2000. Information was supplied by organisation that fund research and development and by individuals who reported on their experience. It is also derived from a round-table discussion, meetings of working groups and recent literature.

Kharas, Homi (2005) 'Economics Education & Research in the East Asia Pacific Region', Unpublished manuscript, Washington, D.C.: The World Bank.

This paper presents a review of the status of higher-level economics education and economic research in the developing countries of the East Asia and Pacific Region, based on the experience and work of the World Bank in the region.

There is a tradition of consultation with and deeper involvement of (often foreign-trained) economists in the economic policy decision-making process in the region. The pool of economists, and particularly homegrown economists, remains small and there are constraints to developing context specific research and policy advice. Early 1990s saw a large expansion of higher education in economics in the region, and although increasing enrolments put a stress on quality, the latter has eventually improved due to improvements in higher education administration, recruitment and curricula, as well as better financial support from official and private sources, and the recruitment of foreign-trained nationals into local teaching institutions.

The author identifies a number of lessons learned from the World Bank's experience in the region in capacity building efforts for economics education and research:

- In East Asia, World Bank's experience with single-country investment lending for higher education and university reform projects has been satisfactory and the rate of return has been judged to be high, related to high rates of return to tertiary education in East Asia.
- Fixing national statistical efforts and harmonisation with international systems is laborious but has high payoffs. A coherent programme of international support for national statistical efforts is yet to develop.
- The contribution of research networks cannot be over-estimated.
- Recent attempts to establish regional centres of excellence have generally floundered, and national policy mechanisms tend to use expertise from non-East-Asian centres rather than any regional centre of excellence.
- The main transfer of technologies, methods and knowledge has taken place through project collaborations between high-quality experts and less-experiences local economists. The risk with such collaborations is that they draw best local talent away from core academic institutions, research institutes and government agencies.
- The time frame over which capacity building is successful is several times longer than the time horizon of the typical funding agency.
- Across the region, standard capacity building support from local and international institutions has been slow to react to the rise of non-traditional institutions operating in specialised niches. The importance of research networks, for example, relative to brick-and-mortar 'centres of excellence' is rising rapidly.

Killick, T. (2001), 'Donor funding of socio-economic research in Southern countries', Draft of a paper prepared for the *Workshop on Building Southern Socio-economic Research Capacity*, University of Natal South Africa, 12-13 June.

This paper describes how a new donor might go about deciding whether to devote some of its money to social and economic research, by answering three strategic questions:

1. Is funding of social and economic research on developing countries an appropriate use of public money? Yes, the potential returns to social and economic research are very large relative to the monetary costs, and the need is unlikely to be met from commercial sources because of the public

goods quality of much such work. Constraints on other sources of non-commercial support suggest that there are likely to remain financing gaps, particularly among the less favoured social sciences. It is also plausible to suggest that donors are constrained from achieving their own goals by insufficient knowledge and research capability at home, as well as of past social and economic research within developing countries.

2. How should the balance be struck between spending the money on research in the home country and in developing countries? On the one hand, perpetuation of a large North-South knowledge gap is undesirable and today's stress on the goal of poverty reduction serves to add to the importance of knowledge about the workings of society of a type which are most effectively generated locally. Against this, money allocated for research in the South is likely to compete with resources for development research within donor countries, and it is important also to maintain the donor countries' capabilities. More negatively, effective intervention is complex, risky, long-term, labour intensive and managerially demanding, hard to fit into a results-oriented style of operation. It is hard to gauge genuine demand and easy to do harm through an uncoordinated donor proliferation of interventions. A new donor therefore should plan carefully, building on the experiences of others, be selective in its approach and it should intervene on a scale, and with a time-horizon, appropriate to the cases selected.

3. To the extent that some of it is allocated to research in Southern countries, what model of relationship should be adopted? Since current donors use diverse approaches and there is little information on the comparative cost-effectiveness of these, is not possible to recommend any particular model. The choice depends on the specific characteristics of a donor, its operating environment and its objectives. A new donor would have to make decisions about: the initiation, ownership and subsequent control of the research; the connection, if any, there should be between a donor's support of research in the South and the development work of social scientists in the donor country; whether to spread it widely across many countries and/or projects or concentrate it on a few; whether to pool resources with other donors and, if so, what kind of arrangement might be best; the intended size of research support efforts and the appropriate management style.

The paper also:

- argues that the potentially huge benefits of economic and social research and its modest financial cost would support substantial investment;
- criticises an over-emphasis on 'policy relevance' in research, which distorts choices in favour of the 'problem-of-the-month' vs more fundamental subjects which may yield larger results in the long term.
- suggests that donor adoption of IDTs and promotion of PRSPs raises new questions about the nature and causes of poverty, and the capacity of recipient countries to undertake the research necessary to identify the solutions.
- stresses the importance, and difficulties, of ensuring that research is demand driven, and the risk of a donor-led proliferation and a consequential absence of local ownership.
- emphasises the risks of under-investment – capacity-building for social and economic research in developing countries achieves little below a 'critical mass'.
- encourages donors to form international consortia, to capitalise on economies of scale, economise on scarce managerial resources, reduce the risk of an unco-ordinated proliferation of donor interventions, promoting Southern ownership, and reduce the destabilising effects of unexpected changes in individual donor budgets and/or policies.

Lansang, Mary Ann and Rodolfo Dennis (2004) 'Building capacity in health research in the developing world', *Bulletin of the World Health Organisation* 82(10): 764-70.

Research capacity in the South remains an unmet challenge, particularly in SSA, where health research in most countries is allocated less than 0.5% of national health budgets, and health budgets are funded with less than 1% of gross domestic product.

'A combination of short-term and long-term strategies, directed at individual, institutional and country levels are necessary to develop a sustainable system of health research' (765). These approaches include:

- Academic training for individuals
- Hand-on/ learning by doing approaches, particularly for end users of research, seed grants, mentoring
- Research partnerships, through networks, coalitions or alliances, can allow increased access to new ideas and good practices, technical expertise and resources, wider impact of research benefits, increased sustainability (compared to approaches that target only individuals). Time and effort is however needed to build trust, create feeling of ownership and sustain indigenous research capacity.
- Centres of excellence, i.e. outstanding research groups at national or international levels. They offer greatest potential of sustainability and consistent quality in CB, but they are difficult to set up in the developing world. They require a 'buy in' from national decision-makers, long-term international funding and fertile ground for headhunting. They risk becoming ivory towers and field sites for developed country researchers.

Research environment

Bigger challenge than training individuals is to continuously ensure a conducive research environment for researchers and those who use research, e.g. competent institutional leadership, funds for research and salaries, career structure and infrastructure for research. Common problems cited in Africa (and elsewhere in developing world):

- Dependence on funds from donors and research institutes in developed countries.
- Differences in salaries between national and international entities
- Inadequate dissemination and uptake of research
- Inequitable access to scientific and technical information
- Dearth of active engagement with research communities.

Cross-institution and cross-country networks have a critical role in strengthening the research environment as individual entities tend to be very small and house a small number of researchers.

Initiatives to improve research environment have included:

- Building critical mass within academic and research centres (e.g. WHO TDR)
- Facilitate research and training operations at the level of regional networks (INCLIN trust)

Obtaining long term core support for supranational coordination has been difficult.

Demand side of health research has often been neglected in the enhancing of enabling environments. Researchers often lack the skills to engage with research users and to create demand.

Strengthening national health research systems

National health systems must be strengthened at the macro level to create sustainable research, so that even countries with relatively few resources can systematically determine their national priorities for health research and develop a national health plan (e.g. Tanzania). This requires:

- Competent leaders who are able to mobilise and energise the whole system and carry out situational analyses
- Leadership and management skills required: strategic planning, priority setting, KM, advocacy, demand creation, consensus building and negotiation, resource generation and allocation, partnership building, and ability to interact effectively with other sectors such as education, science, technology and finance.

Financing national capacity building

'For countries to assert national sovereignty and reduce colonialist tendencies in capacity building, it is necessary that they have the political will to redirect budget priorities toward health and health research' (768). This is of course easier said than done. In SSA, priorities for health research CB may be distorted by donor priorities. For most international agencies, funds devoted to building research capacity has been about 60% of funds allocated to health research.

The Lancet (2000) Enabling research in developing countries, *The Lancet* 356(9235), 23 September.

In preparation for the International Conference of Health Research for Development in Bangkok in October 2000, The Lancet devoted an entire issue to research in developing countries. The articles in the issue reflect on some of the difficulties and issues relating to work in a developing country setting.

The introduction to the special issue highlights a couple of the difficulties of medical research in developing countries. It states that research-capacity building is the logical and much-needed first step, combined with corresponding improvements in infrastructures, access to information, and positive feedback - in the form of publications, grant allocation, or policy changes. Otherwise capacity building is a futile exercise. The focus must be on small-scale progress and individual collaborations at the same time as striving for global institutional solutions to the challenge of health research for development.

Lusthaus, C., Andersen, G. and Murphy, E. (1995). 'Institutional Assessment. A Framework for Strengthening Organisational Capacity for IDRC's Research Partners', Ottawa: IDRC.

This IDRC publication answers to the need to address so-called the 'capacity gap' of its Southern partners. Noting the lack of tools for institutional development, the book provides a model to assist both internal (self-assessments) and external (funding agency) efforts for assessing and strengthening organisations.

It proposes a diagnostic framework based on four main dimensions:

- external environment; experience with research institutions world wide suggests that understanding the environmental context is fundamental to an analysis of how an organisation performs. The environment may present difficult constraints, yet the organisation may still be doing important and relevant work. Analysing key external forces leads to a fair determination of capacity and performance relative to the context.
- organisational motivation; motivation relates in many ways to the environment, but experience has shown that many successful organisations rise above contextual constraints. Leadership and collective vision are crucial aspects in organisations to find resources and produce quality research despite a non-supportive context.
- organisational capacity; because performance is relative to an organisation's basic capacity, the analysis of capacity sets the stage for understanding organisational performance. Capacity is presented as a concept including components of strategic leadership, human resources, core resources, programme management, process management and inter-institutional linkages.
- organisational performance; performance is seen as a function of motivation, capacity and external context, and needs to be assessed in both qualitative and quantitative terms. Performance is conceived as falling in three areas: effectiveness (to what extent is the organisation's mission realised), efficiency (use of resources) and sustainability (ongoing relevance).

This framework provides a comprehensive approach for diagnosing and documenting the strengths and weaknesses of the kinds of institutions IDRC works with, which undoubtedly can be of use and interest to organisations working in different contexts. The model takes the view that institutional

development is based on concepts related to institutional performance, but each organisation defines its performance in its own unique way. The approach is thus descriptive rather than prescriptive. The relative importance given to the various elements in the framework, and the way they are

assessed, depends on the particular contexts in which it is used.

Maclure, Richard (2006) 'No Longer Overlooked and Undervalued? The Evolving Dynamics of Endogenous Educational Research in Sub-Saharan Africa', *Harvard Educational Review* 76(1): 80-109.

Multilateral donors like the World Bank and bilateral agencies such as the United States Agency for International Development (USAID) and the British Department for International Development exert a great deal of influence in international educational development--particularly in sub-Saharan Africa--both in the programs they fund and the types of research they engage in. In this article, Richard Maclure investigates educational research in Africa and juxtaposes research done by large, exogenous, Western, results-oriented organisations with research performed by smaller, endogenous, local researchers aided by local research networks. Maclure argues convincingly that research that falls into the exogenous 'donor-control' paradigm far too often is irrelevant to the African educational policy context and does little to develop local research capacity. The cases of two African research networks--the Educational Research Network of West and Central Africa and the Association for the Development of Education in Africa--are presented as exemplars of organisations that promote an alternative type of research that is endogenous, relevant to policy and the process of policymaking, and controlled by Africans. Maclure concludes with a call for increased support for and development of these types of networks, and for the development of the long-term solution to educational research in Africa--the university. [Original abstract]

Marouani, Mohammed Ali and Elias T. Ayuk (2007) 'Introduction', in Marouani, Mohammed Ali and Elias T. Ayuk (eds.) *Policy Paradox in Africa: Strengthening links between economic research and policymaking*, Africa World Press and the IDRC.

The introduction to *Policy Paradox* introduces issues in bridging research and policy in the field of economics in Africa. The authors discuss four themes related to donors' role in improving evidence-based policymaking in Africa:

1. 'money aid' often with conditionalities
2. 'ideas aid', produced by donors' research policy units, commissioned by experts or think tanks in developed countries with the aim of influencing other donors and policy research institutions in developed and developing countries. Think tanks in Africa are often very dependent on donors for both money and ideas, 'and are thus a good channel for donors to strengthen their influence on policy-making and research agendas' (9).
3. Capacity building for African civil servants and policymakers, e.g. training and internships, which may sometimes eventually result in brain drain as donors employ the civil servants who have become highly trained.
4. Money and capacity building to build research capacity within Africa, e.g. ACBF, AERC and SISERA. This is the type of support that is most likely to promote national policy research if it contributes to independent and competent research capacity within Africa.

The authors then review three key capacity building organisations in the field of economic policy in Africa:

- *The African Economic Research consortium (AERC)* started as IDRC project in 1988. Its aim was to involve *individual* African researchers in the research-policy linkage through small grant programme, conferences, technical support via methodological workshops, publications series and joint Masters and PhD programmes.

- *The African Capacity Building Foundation (ACBF)* was created as a multi-donor initiative in 1991 to build institutional policy research capacity, which it has done through funding and helping to create new think tanks
- *The Secretariat for Institutional Support for Economic Research in Africa (SISERA)* was created in 1997 as an IDRC secretariat, and it has since become an independent institution. Its main objective is to provide institutional support for African economic research institutions.

Maselli D., Lys J-A. and Schmid, J. (2004) *Improving Impacts of Research Partnerships*, Berne: Swiss Commission for Research Partnerships (KFPE).

North-South research partnerships are considered a powerful tool for contributing both to knowledge generation and capacity building in the South as well as in the North. However, it appears that little is known about the impact of research partnerships, which stimulated the KFPE to launch this study. The aims of the study are to: (i) provide insights into how to achieve desired impacts and avoid drawbacks; (ii) stimulate discussion of impacts; and (iii) achieve better understanding of the functioning of research partnerships. Ultimately, the study aims to help improve the design and implementation of funding schemes that support research partnerships.

This publication is based on analysis of a number of case studies encompassing a wide variety of partnerships, discussions held during the various workshops of the Impact Assessment Working Group, and the conclusions derived. Thus, while it does not pretend to be comprehensive, it aims to stress the importance of impact planning, monitoring and assessment as elements in the design and evaluation of research projects or programmes. In addition, it is intended to help in moving from 'proving' to 'improving' impacts, thus stressing the need for ongoing mutual accountability between partners, as opposed to accountability for results.

McCarthy, Desmond F., William Bader and Boris Pleskovic (2003) 'Creating Partnerships for Capacity Building in Developing Countries, The Experience of the World Bank,' Policy Research Working Paper 3099, Washington D.C.: World Bank.

McCarthy, Bader, and Pleskovic discuss a variety of experiences in a number of transition and developing countries to build institutional capacity for economics education. A flexible approach met with some success. The approach uses partnerships that combine the often different needs of a number of private donors with the World Bank on the supply side. Much of the success was due to adopting each effort to the individual country situation. The authors also provide a brief summary of five academic institutions and four research networks in Europe, Africa, Asia, and Latin America. [Original abstract]

Nchinda T.C., (2002) 'Research capacity strengthening in the South', *Social Science and Medicine* 54(11): 1699-1711.

Active promotion of evidence-based decision-making at all levels of the health field is a necessary step in the direction of improving the health of the population. There is presently a mismatch between an increased disease burden and the technical and human capacity of developing countries to use existing knowledge and to generate new knowledge to combat these diseases and health problems. It is therefore necessary to assist developing countries to build indigenous research capability so they can undertake studies in their own national settings the results of which will lead to the development of appropriate control strategies in their countries. Eventually results of such studies will increase the global knowledge base about the particular health problems and contribute to finding appropriate solutions to them. The research will, finally, increase knowledge-based decision-making by their health leadership of the country. This paper has set out to describe some experiences in capacity strengthening over the last few decades and to propose from these, mechanisms for building these capacities in a sustainable manner. This paper has described the steps in capability strengthening with special emphasis on identification of trainees, their training and deployment on return. The paper has described mechanisms of research sustainability

including creation of suitable career structures, remuneration of researchers and the importance of building up suitable infrastructure for research. The role of partnerships and networking are stressed. Finally, the paper calls for greater involvement of policy makers in developing countries in the entire capacity building process. They should set highly focussed research priorities, identify competence not already existing and proceed to fill these gaps along the lines described. [Abstract adapted from original]

Newman, D and A de Haan (2001), Draft Report on the DFID-sponsored Workshop on Southern Socio-economic Research Capacity, held at the University of Natal, Durban, on 12-13 June 2001.

The workshop was organised to discuss the capacity for socio-economic research in the South, and the role that donors play and should play in supporting this. It brought together an international group of about 30 experts, researchers and representatives of funding agencies.

The workshop and background papers were organised around three sets of question:

- Why should socio-economic research be publicly funded?
- Where should funding go? What should be the balance between funding at home and in partner countries?
- What models of funding exists and have had most success?

Having explored questions of why, where and how to support research capacity, the following conclusions emerged.

- There is a general agreement that research that matters for policy making and public debate is central. Recent frameworks like PRSP have highlighted the need for such analysis. A step forward would be an inventory of the research capacity needs that PRSP processes have highlighted.
- A donor's contribution must display comparative advantage and distinct value added. This should be matched against an appropriate intervention for supporting research capacity building.
- Careful analysis, especially strong political analysis of the country-context, and receptivity by both the North and the South to new knowledge are important to processes of supporting research.
- Positive results are more likely to be achieved by support which is long-term, flexible, free of rigid hierarchical structures between the North and South and based on a philosophy of reasonable autonomy for the developing country.
- There are gaps between research capacity in the North and the South. But gaps are different in each context, and analysing country-specific research capacity is central before engaging in new forms of support. Future steps would include such specific analyses.
- Research capacity building should embrace the wider milieu within which research institution operates, the wider environment which produces knowledge, rather than a specific form of research.
- A central question for DFID is whether it is prepared to be a risk taker, to devolve more research responsibility to the South, and engage in long-term support. In the context of existing forms of support, DFID was challenged to indicate what its comparative advantage would be.

Nuyens, Yvo (2005) *No development without research - A challenge for research capacity development*, Global Forum for Health Research.

The author suggests a framework for addressing health research CS.

1. CS at different levels

- a. Individual: a critical mass of researchers competent in different aspects of medical science and related fields performing research of national relevance and scientific importance. E.g. graduate and post-grad training programmes; seed grants; partnerships; mentorship programmes. In the past CS at this level has focused almost exclusively on researchers. Only recently this has been extended to other stakeholders, such as decision-makers and managers, health workers, research managers and community members. Although technical competence is important, increasing emphasis is now put on other skills as well, e.g. leadership, communication, networking etc.
 - b. Institutional: In order to maintain the interest and commitment of researchers, the research environment has to be enhanced, e.g. committed scientific leadership, access to funding, infrastructure for research, ability to attract competent and dedicated scientists etc.
 - c. System level: e.g. transparency of funding process, encouragement of collaboration, remuneration, continuing education, access to information etc. Capacities to develop at this level include strategic planning, priority setting, knowledge management, demand creation, negotiation etc.
2. CS in various functions of the health research system (following from point c above) CS at this level should be targeted at policymakers and senior managers within ministries of health, science, education; and health research managers
- d. Stewardship, i.e. setting, implementing and monitoring the rules of the health research system.
 - e. Financing
 - f. Resource generation (human, institutional and infrastructural)
 - g. Production and utilisation of research
3. CS in various phases of the research process
- h. Managing the research agenda: setting priorities for research and aligning resources toward research priorities
 - i. Producing evidence: production of priority research and synthesis of existing research to produce a body of knowledge
 - j. Promoting the use of evidence: Traditionally, this has meant CS for producing scientific articles, e.g. through writing workshops. There is now a growing acceptance that research is a public good and should be applied or used and that there are multiple potential users of research evidence.
 - k. Utilising evidence in policy, practice and action

Oyelaran-Oyeyinka, Banji (2005) 'Partnerships for Building Science and Technology Capacity in Africa,' Paper prepared for the *Africa-Canada-UK Exploration: building Science and Technology Capacity with African Partners* 30 Jan – 1 Feb, Canada House, London.

This paper discusses North-South partnerships to build capacity for S&T in Southern countries. Its key findings are as follows.

- Partnerships are key but often narrowly conceptualised. Focus tends to be on North-South, South-South or public-private partnerships, but more attention should be paid to in-country partnerships as well as to the diversity of stakeholders that have to exchange ideas and information and generate and use knowledge in an innovation system.
- Getting the institutional context right for partnerships is demanding. Building a culture of innovation among all actors is a long, multi-faceted and context specific process, which requires soft skills such as team building, competing while cooperating, resolving competing priorities and mobilising resources.
- Partnerships that strengthen learning networks and that partner African and foreign specialists tend to make better contributions to development. Coordination is key.

- The strengthening of governance systems of local research institutions will allow organisations to redirect funders from 'cherry picking' of specific projects to providing 'basket funds,' which encourage stronger intra-linkages in programming.
- One of the most pressing needs in Africa is to build local systems that enhance the capacity to innovate, not just building stocks of infrastructure, trained scientists, or trained users.
- Stimulating demand is as important as generating the science and technology.

Rath, Amitav, Gunilla Bjorklund, Mary Ann Lansang, Oliver Saasa and Francisco Sagasti (2006) 'SAREC Support to International and Regional Thematic Research Programs, 2000-2005', Sida Evaluation 06/40:1, Stockholm: Sida.

This report is an output of a comprehensive assessment of research cooperation activities of SAREC. It reviews the experiences of SAREC in supporting international and regional research programmes which have been organised along thematic lines and consists of the following sections:

- humanities and social sciences in Africa;
- thematic research in health sciences;
- natural resources and environmental sciences;
- thematic research on natural sciences and technology; and
- programmes and institutions in Latin America and Asia.

RAWOO (2001) *North-South Research Partnerships: Issues and Challenges*, RAWOO Publication No. 22.

This report calls for transparency and accountability from all partners. It emphasises that partnerships only work if they are prepared in a systematic way through an intensive consultative process along structured lines, in which all stakeholders jointly reach a consensus about the research agenda. A clear management structure ensures that the programme is carried out as planned. Changes are acceptable only if they are made in consultation with all stakeholders. Without trust between the partners, partnerships do not work. Northern partners tend to worry about resources being used improperly; Southern partners worry about entering into agreements which turn out to be against their own or their country's interests.

A genuine willingness to exchange knowledge on an equal basis is indispensable for a good partnership. If solving development problems is one of the main reasons for the partnership, the Southern partner absolutely must play an autonomous role in shaping the partnership. The Southern partner's autonomy definitely has to include the right to decide which type of expertise it wants from the Northern partner, in which quantity, and at which level - junior or senior. Research to be conducted in the North on topics relevant to the subject of the research programme should not be excluded.

Roberts, Liam (2005) 'African Higher Education Development and the International Community,' Short Paper Series on African Higher Education Development, London: Association of Commonwealth Universities.

The paper outlines the African higher education (HE) development commitments and activities that have been initiated by major international donors between 2000 and 2004, with focus on G8, Scandinavian and Benelux countries. The paper finds that donors have largely developed uncoordinated strategies and domestically-driven policies toward HE development in Africa. It shows that certain development themes, such as Science & Technology and HIV/AIDS have received disproportionately little attention in the HE context, whereas other themes such as human resource development have received robust support from donors. Donors outside the G8, notably the Scandinavian partners, have developed some of the most significant initiatives in African HE

development. The paper calls for a common strategy for African HE development, increased collaboration among donors and communication regarding donor strategies.

Sawyerr, Akilagpa (2004) 'African Universities and the Challenge of Research Capacity Development', *Journal of Higher Education in Africa* 2(1): 213-242.

Critical for Africa's future is strengthening indigenous educational systems and institutions for generating and applying knowledge by assuring long-term public support with emphasis on research capacity. In addition to individual skills developed in research work, research capacity includes: quality of the research environment, funding, adequate infrastructure, research incentives, time available to the researcher, etc. In most African countries, conditions for research have been severely compromised as manifest by the generally poor remuneration, heavy teaching loads, inability to mentor young faculty, and inadequate infrastructure. While the adequacy of public funding is a crucial condition, there are a number of concrete programmatic initiatives that could be taken by the higher education and research institutions themselves. These include strengthening graduate study, improvements in the management of research, provision of a 'soft landing' for young faculty, identification and concentration on 'areas of strength,' and pooling resources with other institutions. Special initiatives aimed at individual research capacity development include the Study Programme for Higher Education Management of the Association of African Universities (AAU); the Working Groups and Institutes of the Council for the Development of Social Science Research in Africa (CODESRIA); and the work of the National Mathematics Centre of Nigeria. [Original abstract]

Spilsbury, M.J., G.S. Kowero, M.O. Mukolwe, A. Netzehti, W.W. Legesse, O. Nsengiyumva, P. Kiwuso, E. Sabas (2003) 'Forest-related research capacity in Eastern Africa: Burundi, Eritrea, Ethiopia, Kenya, Sudan, Tanzania and Uganda', Rome: FAO.

In 2001/02 a survey of forty-seven organisations conducting forest-related research in the Eastern African countries of Burundi, Eritrea, Ethiopia, Kenya, Sudan, Tanzania, and Uganda, was conducted. General trends relating to research capacity in the region are highlighted and include:

- insufficient collaborative research;
- poor linkages between research and intended users;
- inadequate flow of information and access to scientific literature;
- low levels of remuneration for researchers and a lack of continuity in research programme support.

Research is seldom geared to inform public policy, and whilst the 'informal' forestry sector is of great importance to local livelihoods in many African countries, related topics do not feature strongly in the national/regional research agendas. An issue of profound concern for future research capacity in Eastern Africa is the continued erosion of human technical capacity from HIV/AIDS. While there is still a considerable need to invest in the development of human resources and physical infrastructure at the organisational level, governments and development assistance agencies should attempt a multi-pronged strategic approach to improve the overall performance of research systems.

At a national level, research organisations need to be held to higher levels of accountability for the delivery of utilisable research products that generate public benefits. A key means of improving the efficiency and effectiveness of research systems at both national and regional levels will be investments that improve access to information, improved communications, and greater collaborative efforts. Support to national and regional research networks and their communications infrastructure will be key components in such investments. [Abstract adapted from original]

Stein, Josephine Anne and Allam Ahmed (2007) 'The European Union as a Model of International Co-operation in Science, Technology and Sustainable Development,' *The British Journal of Politics and International Relations* 9(4): 654-669.

This article presents European Union (EU) research policy as a stable, long-term form of organising international science and technology (S&T) co-operation, and evaluates the prospects for transposing this model to co-operation with non-European countries in the context of sustainable development (SD). The European approach combines scientific objectives with common political, social, economic and environmental aims through a form of partnership based on dynamism, collective decision-making and the distribution of research responsibility. It is argued that the prevailing character of co-operation between Europe and developing countries (DCs), which stresses the transfer of resources, does not adequately recognise the knowledge, capacity for innovation and valuable socio-cultural assets of partners within the developing world. The common objective of sustainable development in an increasingly interdependent world creates opportunities for extending aspects of the European model of S&T co-operation to wider partnerships to build scientific capacity, political stability, economic prosperity and environmental quality in a way that has been demonstrably successful within the European Union itself. [Original abstract]

Stillman, F., G. Yang, V. Figueiredo, M. Hernandez-Avila and J. Samet (2006) 'Building capacity for tobacco control research and policy', *Tobacco Control* 15(suppl 1): i18-i23.

The Fogarty International Center (FIC) initiative, 'International Tobacco and Health Research Capacity Building Program' represents an important step in US government funding for global tobacco control. Low- and middle-income countries of the world face a rising threat to public health from the rapidly escalating epidemic of tobacco use. Many are now parties to the Framework Convention on Tobacco Control (FCTC) and capacity development to meet FCTC provisions. One initial grant provided through the FIC was to the Institute for Global Tobacco Control (IGTC) at the Johns Hopkins Bloomberg School of Public Health (JHSPH) to support capacity building and research programmes in China, Brazil, and Mexico. The initiative's capacity building effort focused on: (1) building the evidence base for tobacco control, (2) expanding the infrastructure of each country to deliver tobacco control, and (3) developing the next generation of leaders as well as encouraging networking throughout the country and with neighbouring countries. This paper describes the approach taken and the research foci, as well some of the main outcomes and some identified challenges posed by the effort. Individual research papers are in progress to provide more in-depth reporting of study results. [Original abstract]

Szaro, Robert C, Thulstrup E. et al, Mechanisms for Forestry Research Capacity Building International Consultation on Research and Information Systems

The gap between developed and developing countries in forestry research capacity remains unacceptably wide. Much work is required to build research capacity in developing countries. Any effective research capacity building strategy much aim at building scientific, technological and managerial abilities and capacities at the individual, institutional and regional levels.

There are differing perspectives for capacity development - sustainable development (increasing emphasis on environmental and biodiversity issues), diversification and involvement of stakeholders, the role of transnational, private, and public investment in forestry research, emerging technologies, and meeting the needs of the poor.

The mechanisms for developing research capacity are also varied: building on existing expertise, building expertise through training, regional forestry research development and networking, facilitating and strengthening the information flow, establishment and strengthening of partnerships between developing and developed country institutions, institutional development, and research strategy and policy development.

The paper then considers how research capacity can be strengthened in developing countries, and concludes by calling for more support to foster better forestry research development and improving regional, national and international forestry research networks.

Taylor, Peter, Johanna Lindstrom, Kattie Lussier, Andy Sumner and Lawrence Haddad (2007) 'Capacity Development Definitions, Expenditures and Evaluations (Draft)', The Capacity Collective, Sussex: IDS.

This paper is prepared for the Capacity Collective workshop and aims to discuss different definitions of capacity development (CD), analyse donor spending and review empirical literature on CD with a focus on capacity to 'generate, share and use knowledge'.

Definitions and frameworks:

1. Frameworks used either for descriptive or evaluative purposes
2. Technical/rational input-output models vs. models that put more stress on relational nature of CD and put emphasis on learning.
3. CD takes place at different levels, some approaches focus on one level, others aim to integrate all three:
 - a. Individual
 - b. Organisational
 - c. Institutional/system
4. Extent to which context is recognised as critical element: ranges from decontextualised and apolitical to nuanced awareness of power, politics and context

It is rare to find literature that problematises power relations or engages with learning theory.

CD and donor expenditures

Data on CD spending is not systematically collected by donors. 25% of ODA is often cited, but the definition is unclear and the authors assume that this covers technical assistance.

Another approach would be to analyse major programmes that are self-declared CD. Major donor CD programmes tend to focus on Sub-Saharan Africa.

Empirical studies and evaluations

A review of 28 evaluations and empirical studies of capacity development initiatives reveals the following key insights:

- None of the empirical studies address knowledge CD at all levels in a holistic fashion.
- Training and technical assistance are the most widely used types of CD, but have little sustainability and limited impacts.
- Increased individual capacity does not necessarily translate into increased project or organisational capacity
- Scaling up interventions is difficult
- Close collaboration and joint work between those who develop their capacities and those who support them can be a good complement to more traditional forms of CD
- Evaluations are generally based on qualitative studies and focus on performance change. Only one evaluation report attempted to quantify impacts.

The paper provides summaries of information on donor definitions of CD; donor expenditures for CD; major CD programmes; empirical studies and evaluations; alternative frameworks for CD.

Vanderveest, Peter, Khamla Phanvilay, Yoyoi Fujita, Jefferson Fox, Philip Hirsch, Penny van Esterik, Chusak Withayapak and Stephen Tyler (2003) 'Flexible Networking in Research Capacity Building at the National University of Laos: Lessons for North-South Collaboration,' *Canadian Journal of Development Studies* 24(1): 119-135.

This paper describes a research-training project for building social science research capacity at the National University of Laos (NUOL), supported by IDRC (1998-2002). The central project activity was the coaching of eleven NUOL faculty members through a research project cycle, from writing proposals to disseminating research results, an approach that the authors believe can be much more effective than occasional training sessions. The project also supported a process of institutionalising research at NUOL. The project was facilitated by an international network of institutions and individuals from six countries, which allowed resource persons to be mobilised from across the world. A number of unanticipated obstacles were encountered during the project:

- Inter-faculty, inter-disciplinary 'connectivity' very difficult at NUOL, due to infrastructural problems as well as independent organisational nature of each faculty.
- Given the very low teaching salaries and constraints on time due to the tight teaching curriculum, economic incentives were required for teachers who spent extra hours on research work to cover the opportunity cost of this work. The project results also indicated that incentives beyond financial are required to motivate NUOL faculty to become actively involved in research activities, including academic incentives and access to sufficient research facilities.
- Lack of research experience and skills among participants meant that introductory training and mentoring was needed at every stage of the research process.
- Participants were reluctant to carry out literature reviews and engage with broader debates around resource management questions in Laos and SE Asia. This was due to shortage of reference materials in Lao, lack of English language skills and limited time allocated to research activities. Furthermore, the participants had had little exposure approaches that employ critical social science concepts.

These unanticipated problems contributed to the shift in project objectives away from external linkages towards addressing institutional weaknesses at NUOL first. Although institutional development objectives were not included in the project proposal, they turned out to be essential to the project's success. The project, for instance, offered important insights to feed into NUOL's ongoing work to institutionalise research as part of the regular activities of the faculty.

The authors argue that success of the project was due to its ability to respond flexibly to institutional needs of NUOL. The flexibility was a product of IDRC approach to funding as well as of the network structure. NUOL's experience with other projects suggests that a common outcome of inflexibility is that local researchers are turned into hired research assistants or subcontractors for externally-motivated research goals. Another important point is not to overwhelm an institution like NUOL with funding or externally-derived goals, such as publishable research. Finally, while international networking (including South-South) has important benefits, one should not neglect obstacles to local connectivity and networking.

Velho, Léa (2002) 'Research Capacity Building in Nicaragua: From Partnership with Sweden to Ownership and Social Accountability', *INTECH Discussion Paper Series No 2002-9*.

This paper analyses the Nicaragua-Sweden partnership to build research capacity in Nicaragua with support from the research division of the Swedish International Development Agency (SAREC). It looks at the history of this partnership and identifies the main outcomes and impacts, based on extensive quantitative and qualitative data collection from various sources.

In conclusion the paper challenges the assumption that a partnership between donor and recipient countries is inherently fair and beneficial for the latter. The findings point out that, while SAREC has ultimate control over the funds, where and how they are disbursed, the recipient's final recourse is the exit option. To create conditions for the recipient countries that would enable recipients to move more towards ownership and determine themselves what type of programmes, training and advice is more appropriate, the paper makes the following recommendations: put in place a board of local stakeholders to negotiate, monitor and evaluate the programme on a

systematic basis; be more concerned with social accountability and strengthen the voice of the recipient country in negotiating the programme; coordinate with programmes that support the national budgets of the recipient country.

Velho, Léa (2004) 'Research Capacity Building for Development: From Old to New Assumptions', *Science Technology & Society* 9(2): 171-207.

This article departs from the idea that modalities of support from the North to research capacity development in the South rest upon particular assumptions concerning knowledge production and utilisation. It argues that most existing schemes tend to rely on assumptions that seem to be in need of revision, what helps to explain the low impact of North-South research partnerships on development. It illustrates the argument with an analysis of the Nicaragua-Sweden partnership with support from SAREC. It suggests new assumptions to be taken into account when designing modalities of support to research capacity building as follows: (a) the notion of innovation as a non-linear process involving different stakeholders and forms of knowledge; (b) the need for social relevance and accountability; and (c) the idea of self-determination and local ownership. [Original abstract]

Velho, Léa (2004) 'Building social science research capacity in Bolivia: an institutional innovation', *International Social Science Journal* 56(180): 257-270.

This paper analyses an innovative form of North-South cooperation – specifically between the Ministry of Development Cooperation of the Netherlands and Bolivia – to strengthen research capacity in the social sciences for development. The most notable innovation is that the donor approached the recipient country with an open agenda, allowing the Bolivian partners total autonomy to plan, implement, and manage their own programme, thus ensuring local ownership of the process in the South. The initiative came from the Netherlands to develop a partnership programme that would tackle the usual domination of research partnerships by Northern researchers and promote complete Southern ownership as well as social relevance of the research. The resulting programme – the Strategic Research Programme of Bolivia (PIEB) – was devised so as to promote research around an agenda built with wide participation of stakeholders.

The PIEB programme consisted of four components:

1. *Research*: Research grants are allocated on a competitive basis, widely publicised, with clear guidelines and selection criteria. Research proposals are carried out by teams and have a strong component of training young researchers and involvement of research users. When the programme realised that young researchers were not being adequately training through their participation in the research projects, the PIEB decided to make a call for projects exclusively from junior researchers, who would then be supported by an 'academic advisor' hired by PIEB. PIEB also made regional calls for projects in under-represented regions of the country to support social science development in those areas. In the period 1995-2003 PIEB funded 92 research projects carried out by 341 researchers and spent more than 50% of its budget in funding research projects.
2. *Capacity building*: All approved research projects are required to have the participation of young researchers. In addition to experiencing research at first hand, all young researchers are offered three week-long methodological workshops at different stages of the project. All research projects also receive support from and are monitored by PIEB officials. PIEB has trained over 300 young researchers, 40% of whom are women. PIEB devoted about 21% of its budget to capacity building.
3. *Institutional strengthening* involves support for libraries and documentation centres as well as training for librarians and archivists.
4. *Dissemination and use of research results*: PIEB uses various dissemination channels to promote the use of its publications. It also requires all approved research projects to have built a dissemination plan into their project proposals. In general, three workshops

are conducted with potential research users at different stages of each project, which allows the users' concerns and knowledge to be incorporated into research questions, methodology and analysis of findings.

The achievements of the programme show the importance of the South retaining autonomy and ownership, provided the local leadership creates mechanisms for building trust and social accountability. They also demonstrate the importance of nurturing research excellence by creating quality control mechanisms. All elements taken together, PIEB may be seen as an example of institutional innovation in the Bolivian context. Notwithstanding the success and achievements presented above, building research capacity in the social sciences for development is an intensive, long-term, and continuous process. In the long run, foreign assistance can only supplement investments made by countries on their own.

Velho, Léa (2006) 'Building a critical mass of researchers in the least developed countries: new challenges', in Louk Box and Rutger Engelhard (eds.) *Science and Technology Policy for Development, Dialogues at the Interface*. London: Anthem Press.

This chapter asks how to create a critical mass of qualified researchers who are able to consistently and systematically contribute to and absorb a broad knowledge base relevant to the solution of problem of least developed countries. The author argues that LDCs are unlikely to be able to build such a critical mass simply by adopting the research training schemes developed in the advanced countries and offered by development cooperation agencies. This is particularly the case in the current research environment where the systems of knowledge production are changing and traditional PhD training can only provide part of the formation of young researchers.

The author presents the case study of cooperation between Swedish and Nicaraguan universities, which has covered a wide range of scientific fields since 1980. Sida-SAREC has focused on providing faculty in Nicaraguan universities with the chance to undertake graduate study in Swedish universities with periods of research work in their home institution. After 20 years, the partnership has produced 3 PhDs and 43 MSc graduates, and was supporting 14 MSc and 28 PhD candidates at the time of writing. The key weaknesses of an approach that focuses on post-graduate training as a central prong of research capacity strengthening identified by the study are:

- There is not necessarily a correlation between the number of MSc and PhDs trained and economic and social development. In the case of Brazil, for example, what is needed to cross the knowledge divide is to strengthen links to industry and translating research into commercially viable products.
- PhD is not the most effective way to stimulate team work. Nicaraguan graduate students in Sweden carry out their research back in their home institutions in Nicaragua where they are often the only ones working on the topic. This allows little opportunities to produce socially relevant research as a collective endeavour or to gain tacit knowledge.
- Not every research problem is an adequate topic for PhD research, but Nicaraguan faculty members are expected to select their research topics according to scientific criteria rather than social or economic relevance.
- While in the North people invest in a PhD in order to be able to pursue a career that would be unattainable otherwise, the title PhD has no functionality in Nicaragua as the candidates are already tenured university teachers. There may be some incentive to enter a PhD programme, but there little incentive to finish it.
- A large proportion of the programme budget is kept by the Swedish universities, as fees and expenses of the Nicaraguan students.
- Most of the problems can be attributed to the asymmetry in the relation between partners. On the Nicaraguan side, there were calls for more autonomy in the choice of areas of research, partners, tutors, and budget allocations.

The author concludes that the modality of research capacity building support used by Sida-SAREC offers a limited contribution to building a critical mass of qualified researchers and in order to have an impact on development, North-South partnerships should move towards forms of research training that create opportunities for interactions among researchers and with other social actors. Research problems would be identified in collaboration with research users and would be selected on the basis of their social relevance. To increase 'ownership' by the South, donors must take up the idea of supporting research capacity without necessarily involving their own country's experts and institutions. Finally, a key challenge for Southern countries is to have a widely agreed national innovation policy framework, which would spell out the role of universities and of international cooperation.

Wagner, Caroline S., Irene Brahmakulam, Brian Jackson, Anny Wong and Tatsuro Yoda (2001) *Science and Technology Collaboration: Building Capacity in Developing Countries*, Report produced for the World Bank, RAND Science and Technology.

This report presents research and analysis of existing data and literature to address three questions about science, technology, and development:

- The extent to which funds from the wealthiest science and technology (S&T) performing countries are supporting collaboration in or with the developing world
- The extent to which this funding is actually building S&T capacity in developing countries
- The trends in S&T collaboration between the developed and developing world and the implications of those activities for the S&T capacity of developing nations

The study differs from earlier literature in the sense that it focuses on funding that is granted by a 'bottom-up' peer-reviewed process, with funds granted to scientifically excellent research, regardless of the partnering arrangements made by national scientists. These types of collaborations differ from spending dedicated to foreign research-for-aid programs, which tend to be 'top-down' in their mission focus and allocation.

The paper attempts to quantify scientific capacity across countries and it discusses current patterns and linkages in international collaborations and makes recommendations for better capacity building through international scientific collaboration. Key observations include:

- Although collaboration can have positive effects, S&T capacity building does not automatically follow from such activities. Topics of joint research can depend on the priorities of the advanced country and developing country researchers may have incentives other than the development of local research capacity.
- Research that is most likely to build capacity arises out of complementary research interests of the participating scientists and requires both sides to contribute something (expertise, equipment, data bases, etc.) to the endeavour. Both sides should have control over or say in how the budget is allocated and spent.
- The presence of a few passionate leaders and/or champions can positively affect the success of international S&T collaboration. These individuals can play key roles in recruiting the necessary resources and expertise to launch and sustain projects.
- The scientific questions or nature of research experimentation will influence collaboration and should be considered during the planning of any joint efforts as well as in the assessment of their success.

West, Martin., Shackleton, L (1999). 'USHEPIA: Building a Research Capacity Network in Africa', ADEA Working Group on Higher Education, Washington, D.C.: World Bank.

A case study of the USHEPIA (University Science, Humanities and Engineering Partnerships in Africa) project is presented in an attempt to suggest ways of developing African research capacity using a network of institution. The USHEPIA experience demonstrates the effectiveness of a network based on a common needs assessment, the enthusiasm of all participants, and adequate

management capacity. This study examines the origins of the project, reviews its modus operandi and its achievements, and then attempts a critical analysis of its effectiveness to date and the lessons learned.

Young, John and Natalie Kannemeyer (2001) 'Building Capacity in Southern Research: A Study to Map Existing Initiatives', London: ODI.

This study presents a mapping of organisations and networks that work to building capacity for Southern research to inform DFID policy in this field. Its key recommendations are:

- DFID could learn from a more detailed analysis of the experiences of key donors involved in research capacity building, such as ENRECA, Sida/SAREC and IDRC.
- Many other European countries have established organisations to coordinate capacity building with existing government development research programmes. There may be opportunities for similar organisations in the UK.
- Although DFID spends more than any other bilateral donor on development research, it lags behind in evaluating the impact of its research and in strengthening Southern research capacity. Further research, such as evaluating the impact of DFID's research programmes on Southern research capacity, is needed to help DFID develop new approaches.

Appendix 7: Key informant interviews

(Conducted between September and October 2007)

Interviews with donors

1. Ig Bygbjerg, Danish International Health Research Network
2. Alioune Camara, Senior Programme Officer, IDRC Dakar Office
3. Suzanne Grant Lewis, Coordinator, Partnership for Higher Education in Africa
4. Eglal Hached, Regional Director, IDRC Cairo Office
5. Lee Kirkham, Regional Co-ordinator, IDRC Nairobi Office
6. Tomas Kjellqvist, Sida
7. Jeroen Rijniers, Dutch Ministry of Foreign Affairs
8. Peter Sun, Director, International Science Programme
9. Gary Toenniessen, Managing Director, Rockefeller Foundation
10. Steven Wayling, Manager of Research Training, Special Programme for Research and Training in Tropical Diseases (TDR), WHO

Interviews with recipients of donors support

1. Michael Jackson, Director for Programme Planning and Communications, International Rice Research Institute (IRRI)
2. Ralph Kaufmann, Interim Coordinator, Strengthening Capacity for Agricultural Research in Africa (SCARDA)
3. William Lyakurwa, Executive Director, African Economic Research Consortium (AERC)
4. Johann Mouton, Director, Centre for Research on Science and Technology, University of Stellenbach, South Africa
5. Susan Mutoni, Director of Planning and Development, National University of Rwanda
6. Ebrima Sall, Head, Department of Research, Council for the Development of Social Science Research in Africa (CODESRIA)
7. Bruce Scott, Director, Partnerships and Communication, International Livestock Research Institute (ILRI)
8. Daniel Tiveau, West Africa Regional Coordinator, Center for International Forestry Research (CIFOR)
9. Kathryn Touré, Regional Coordinator, Educational Research Network for West and Central Africa (ERNWACA)
10. Tassew Woldehanna, Department of Economics, Addis Ababa University, Ethiopia