

Sustainable Agriculture Research for International Development

Department for International Development Biotechnology and Biological Sciences Research Council

Contents

- [1. Strategic background to the scheme](#)
 - [2. Scope of the scheme](#)
 - [3. Size and duration of grants](#)
 - [4. Assessment criteria](#)
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1. Strategic background to the scheme

- 1.1. The Department for International Development (DFID) and the BBSRC have formed a strategic partnership to support a new joint funding scheme. This new scheme aims to enhance the quality and impact of research addressing the goals of sustainable agriculture, improved natural resource management and food security in both the developed and less developed world. The scheme is intended to foster high-quality research that will contribute to the achievement of the [Millennium Development Goals](#) (MDG). These goals form a blueprint agreed to by all of the world's countries and leading development institutions, and address issues such as the eradication of extreme poverty and hunger, combating HIV/AIDS, malaria and other diseases, ensuring environmental sustainability and developing global partnerships for development.
- 1.2. DFID and BBSRC recognise their common interests in the importance of the generation of new knowledge and the application of new scientific technologies in addressing the MDGs, particularly in the context of the Government's White Paper "*Eliminating World Poverty: A Challenge for the 21st Century*", and DFID's recent new Agriculture Policy Paper "*Growth and Poverty Reduction: the Role of Agriculture*".
- 1.3. BBSRC launched an initiative in crop science; "*Innovation in Crop Science – Exploitation of Genetics for Sustainability*" in response to a review of BBSRC-funded research relevant to crop science ([BBSRC crop science review](#)). One of the recommendations of this review was that UK crop science would benefit from an increase in international collaboration. There is a recognition that in a DFID-BBSRC interaction there will be an emphasis on mutual benefit for all partners in collaborative research.
- 1.4. BBSRC encourages its research community to engage internationally where appropriate to the enhancement of the BBSRC science base. It provides support for

initiating these collaborations in the form of networking grants and funding for partnerships and workshops. Currently there is no routinely available source of funding from the BBSRC for support of collaborative research projects with non-UK partners. However, BBSRC has recently initiated trans-national bilateral and multilateral collaborations within Europe, and recognises the value of extending this activity to address the international development agenda.

1.5. In the case of DFID, the International Development Act (2002) places poverty reduction at the core of its mission, encapsulated at the international level through the MDGs. Thus, all of DFID's efforts are directed towards achieving by 2015 the targets set by the world community in the MDGs. It is recognised that research has an important role to play in these efforts, although the long-term focus of research requires exploration of priorities and issues beyond 2015. The basic objective of DFID research is described as:

- “To promote the production and uptake of technologies and policies that will contribute to poverty reduction and the achievement of the Millennium Development Goals.” (*DFID Research Funding Framework 2005-2007*, page 9, paragraph 23).

In the same document DFID outlines its approach to long-term research which it characterises as:

- “research that contributes to a global pool of new knowledge and technologies for development” (page 3, paragraph 8). A wide variety of users in developing countries draw ideas from that global pool. DFID seeks to improve their access to research outputs with clear and plausible uptake pathways, and so increase the impact of the research that DFID funds.

1.6. Within these broad definitions, DFID recognises that there are long-term research questions and research capacity issues that need to be addressed through a broad suite of research funding and delivery mechanisms. DFID has its own research programmes that focus on specific thematic issues, often in partnership with other agencies. This new partnership will allow a wider range of underpinning biotechnology and biological science supported by BBSRC in the UK to be deployed in high-quality basic and strategic research with the potential to contribute to international development. The outputs of this research will underpin, and directly feed into, more downstream applied research and development initiatives, carried out by developing country-based organizations and specifically designed to have direct impact on achievement of the MDGs. The partnership between DFID and BBSRC will complement other elements of DFID's *Strategy for Research on Sustainable Agriculture* focused on research of a more applied and regionally-oriented nature.

1.7. This joint scheme has a budget of up to £6M over up to 4 years for underpinning crop science and sustainable agriculture research relevant to international development. The funding for individual projects is expected to be in the range of £100k to £700k over a period of up to four years, but smaller or larger scale projects might also be supported if appropriately justified. Exploratory discussions are taking place about the possibility of extending the scope of the scheme, in future, to other relevant areas of research, subject to the availability of additional funding for further joint calls.

2. Scope of the scheme

Research

- 2.1. The purpose of the joint funding scheme is to support relevant high-quality basic and strategic biological and biotechnological research in crop science and sustainable agriculture that has the potential to contribute to the achievement of the MDGs, and which will establish productive partnerships between scientists in the UK and developing countries. The emphasis of the scheme is on underpinning science, and it is not intended to support applied research that is directly oriented towards the development of specific products, processes or systems, and undertaken with a focus on its immediate practical application.

- 2.2. The research will be firmly rooted in the scientific priorities of developing countries and must have demonstrable relevance to the international development agenda for reducing poverty. It is recognized that the research community supported by BBSRC has the ability to make an important contribution in response to this agenda and that there are scientists in the BBSRC community whose research already addresses these issues. The DFID/BBSRC scheme will allow for more flexible funding mechanisms, with the aim of extending the opportunity for existing collaborations as well as encouraging new partnerships. **An essential part of the call will be close working collaborations between UK and non-UK countries to address issues of poverty reduction in Africa and South Asia (Afghanistan, Bangladesh, Bhutan, India, Nepal, Pakistan, Sri Lanka).**

- 2.3. International development research that addresses the shared aims of BBSRC and DFID will require an integrative approach to problem solving in agriculture in order to make high quality science relevant to development. Relevance to development, taking account of the scale, depth and geographic coverage of their potential impacts will be the principal criterion for assessing research proposals, alongside the quality of the science. Appropriate checks and balances drawing on developing country expert advice will be made during the assessment process and there will be monitoring for this throughout the lifetime of the project.

- 2.4. In order to address the strategic requirements of both DFID and BBSRC, proposals should address scientific topics that are most relevant to the needs of sustainable agriculture in developing countries.

- 2.5. The call will focus on generic research that creates new opportunities for rural livelihoods, food security, sustainable agriculture and integrated natural resource management with specific relevance to problems of developing countries. The research will be crop orientated, but as well as food, will include fodder and dual-purpose crops in recognition of the central importance of livestock in farming

communities and the burgeoning demand for livestock products by urban populations; non-food and cash crops, e.g. cocoa, coffee and cotton (but not tobacco), are also within the scope of the scheme. The soil environment will also be included, with a view to enhancing soil fertility, overcoming soil physical constraints and combating crop/soil safety issues. Application of innovative technologies will be welcomed, including use of biotechnology in crop improvement programmes. Broad themes can be envisaged, such as: efficiency of crop production – linked to sustainability of agriculture and the impact of climate change on resilience of farming systems; reduction of crop losses due to biotic and abiotic interactions, including above and below ground pathogens and soil contamination by toxins; exploitation of local diversity in the development of new crops and in new uses for existing crops; further development of multifunctional crop use and on-farm diversity to improve rural economies. Under these themes, research challenges that can be addressed include but are not limited to:

- Plant-pathogen interactions
- Plant-pest interactions
- Plant and crop responses to resource availability (including water and nutrients)
- Plant and crop responses to natural or artificial soil contamination (including increasing salinity)
- Crop post-harvest physiology related to storage, value added and improved access to markets
- Development and improvement of crops for livestock production

A core ambition of all research projects must be to harness cutting-edge science for application by regional and national developing country researchers with the ultimate objective of providing appropriate (doable) intervention mechanisms for use by resource poor farmers in Sub-Saharan Africa and South Asia.

- 2.6. An additional aim of the call will be capacity building in partner developing countries. However, this should be presented in the context of an intellectually-driven research proposal addressing a specific biological question or questions. Projects can include requests for funding of higher degree studentships for researchers from developing countries. **Students should be residents of developing countries, but there will be no restriction on the location of the institution offering the studentship. However, studentships must add value to the collaboration and link clearly to the topic of the research project in which they are embedded.** As with other BBSRC studentships the academic's student supervision time and associated indirect / estates costs are not an eligible cost. However, the stipend for the student and any University registration fees are an eligible directly incurred cost.

Project partners and management of projects

- 2.7. It is recognized that partners in different countries might have very different strengths, both in terms of academic expertise, and in terms of human and structural capacity and resource. Proposals should describe clearly the added value of the association for all partners. They should also show a clear understanding of potential difficulties in the operation and management of projects of this nature. The roles and responsibilities of the partners and collaborators should demonstrate true working collaboration.

- 2.8. It is expected that projects would include a UK institution and a developing country-based institution to be involved, as appropriate, as research partners. Developing country institutions may act as lead applicants in joint applications, or as partners in UK-led projects. BBSRC will fund eligible UK institutions but DFID funding will be open to all UK and non-UK participants.
- 2.9. In order to address issues described in paragraphs 2.2 to 2.5 there will be annual grant holders' workshops as part of the programme, combined with an annual report on each grant by the lead institution.

3. Size and duration of grants

- 3.1. As a general guide, funding for individual projects is expected to be in the range of £100k to £700k over a period of up to four years, although smaller or larger scale projects might also be supported if appropriately justified in the case for support. All costs should be fully and transparently justified.
- 3.2. The budget limits on grant applications from the UK under this scheme refer to the total cost of the project – known as **full economic costs (fEC)**. **UK applicants** will be applying to this scheme under **normal BBSRC terms and conditions** and will be eligible to receive the standard allocation of funds for their component of the project which is normally 80% of the fEC.
- 3.3. **For non-UK institutions** the scheme will support, in full, all direct costs of research, plus a variable overhead. For **applicants from developing countries** (as defined in the OECD DAC List: www.oecd.org/dataoecd/43/51/35832713.pdf) the default overhead will start at 50% of staff costs (directly allocated and directly incurred), but there will be scope for more to be claimed up to 100% of staff costs (directly allocated and directly incurred) if the institution can demonstrate clearly the cost basis for those overheads and assure BBSRC that there is no duplicate funding. For **applicants from developed countries**, the overhead will be fixed at a maximum 20% of staff costs (directly allocated and directly incurred). In both cases, BBSRC will ask for adequate evidence of the costing basis for all direct and indirect costs if an applicant is recommended for a grant and budgets may be reduced if considered excessive. International organisations will be classified as belonging to the country in which their head office/ headquarters/ secretariat is based. If applicants or their host organisations have any doubts about the costing basis of their applications they should contact the Scheme Secretariat.
- 3.4. Further details of fEC are available on the BBSRC website www.bbsrc.ac.uk and will also be accessible in the guidance notes for completing application forms. In addition, all applicants are advised to consult their institutional finance officers. Clear justification must be provided for all cost items. Applicants and their institutions should follow the latest advice and be very clear on the extent and purpose of each budget line. Further justification should be provided in the justification of resources

3.5. **CGIAR institutions** are eligible to participate as co-applicants (but not as lead applicants) in consortia with appropriate justification of the added value that such participation would bring over and above their core funded activities.

3.6. The duration of grants should range from a minimum of one year up to a maximum of four years.

4. Assessment criteria

4.1. As well as scientific quality, evaluation of the demonstration of development relevance will be a central part of the assessment process and will be rigorously examined by an expert panel. Applicants must show that they have considered how the findings of the proposed research could be translated into application in developing countries within an appropriate time frame, and will be expected to suggest plausible avenues for the achievement of this. This might include current or future funding initiatives and/or interaction with other stakeholders nationally or internationally. Specifically, the assessment criteria for the scheme will include;

- Innovative research within the scientific scope of the Initiative, with particular reference to clear identification of relevance to issues of international development
- Scientific merit and feasibility of project
- Transnational added value and complementarity of expertise
- Track record of applicants (within case for support and CVs)
- Evidence of true cooperation within the collaboration
- Economic, societal and environmental relevance
- Appropriateness of the resources requested.
- How the anticipated research outcomes will have potential for impact on the poverty reduction agenda
- The engagement strategy to be deployed for academic and non-academic stakeholders to maximize potential for impact on poverty
- Arrangements for the management of Intellectual Property and sharing of data arising from the proposed research