Ecosystem Services for Poverty Alleviation: Strengthening research capacity in developing countries

Announcement of Opportunity

(Date issued: 4 March 2008, closing date: 31 July 2008)

The Natural Environment Research Council invites proposals for activities to strengthen research capacity to tackle the complex problems associated with the sustainable management of ecosystems for poverty reduction.

Aims

This call provides an opportunity to build equitable and sustainable networks and partnerships between individuals and organisations in Southern and Northern locations in anticipation of a five year research programme into the sustainable management of ecosystem services to provide poverty alleviation outcomes. The research programme will be globally owned through developing the research agenda and undertaking the work in collaboration with institutions and individuals in the regions in the scope of the programme.

The specific objectives of this call are:

- To strengthen capacity to formulate research agendas, design and write successful proposals, manage research projects on the interdisciplinary challenges of sustainable ecosystem management, relevant to national priorities, and use the outputs;

- To develop the tools, datasets and networks needed to improve capacity to assess ecosystems services and their impacts on well-being; and,

- To create a demand for research and improved awareness of ecosystem issues in the wider community in the regions concerned.

1. Strategic Background

People have made unprecedented changes to ecosystems in recent decades to meet growing demands for food, fresh water, fibre and energy. These changes have helped to improve the lives of billions, but at the same time they weakened nature's ability to deliver other key services such as purification of air and water, protection from disasters, and the provision of medicines. Tension is now apparent between the objectives of human development and poverty reduction on the one hand, and environmental sustainability on the other. The Millennium Ecosystem Assessment (MA) has emphasised that the loss of services derived from ecosystems is a significant barrier to reducing poverty, hunger and disease.

The direct drivers of change that are causing a reduction in ecosystem services are: habitat change, climate change, invasive species, over exploitation and pollution (particularly accumulation of nitrogen and phosphorus). The major problems identified by the MA are:
- the intense vulnerability of the 2 billion people living in dry regions to the loss of ecosystem services, including water supply;
- the growing threat to ecosystems from climate change and nutrient pollution, and
- the dire state of many of the world's fish stocks.

Knowledge and technology can reduce considerably the human impact on ecosystems. However, the current rate of improvement from the perspective of environmental adequacy is too slow. The generation and deployment of solutions to allow the recovery of ecosystem services will only happen when such services cease to be perceived as free and limitless, and their full value is understood and taken into account.

Managing global challenges requires investment in science, technological advances and innovation. Developing country governments need access to the best international expertise. With the right networks, scientists in developing countries can encourage governments to use their skills to help the poorest people. Increasingly, international development agencies and other donors are working to promote collaborative research between Northern and Southern partners, to help to build these networks.

Three UK agencies, the Natural Environment Research Council (NERC), Economic and Social Research Council (ESRC) and Department for International Development (DFID), have agreed to join forces to explore the potential for a multi-disciplinary research programme that will address how to achieve sustainably managed ecosystems contributing to poverty reduction and wellbeing improvements in developing countries. The new programme is intended to have an initial duration of five years, starting in 2008 pending DFID Ministerial approval.

It is proposed that the programme addresses the major challenges to ecosystem services that will constrain poverty reduction measures in four regions: South Asia, China, semi-arid areas of Africa, and Amazonia. Key drivers of these regional challenges are population and economic growth associated with large-scale land-use changes and climate change.

'Situation Analyses' are underway in the four regions with the aim of identifying the key ecosystem services challenges in each region and making recommendations on how these challenges can best be addressed through research to provide poverty alleviation outcomes. The Situation Analyses will also make recommendations on knowledge management issues and research capacity limitations. Two thematic assessments have also been commissioned to consider specific problems related to the peri-urban and marine and coastal environments on a broader scale. Details of these projects may be found on the programme website: (www.nerc.ac.uk/research/programmes/espa).

2. Scope of the scheme

This call is intended to strengthen the capacity of individuals and institutions to do research, to use research, to identify and articulate research needs, to design and propose research programmes, and to manage research, in preparation for a five year research programme into the sustainable management of ecosystem services to provide poverty alleviation outcomes in four developing country regions. This will be achieved by mobilising capacity to build new interdisciplinary partnerships and networks and strengthen existing ones. A secondary aim is to strengthen the relationships between researchers in the UK and those in the regions.

The geographic scope of the scheme covers urban, rural and periurban regions of:

- Semiarid and arid zones of sub-Saharan Africa
- Amazonia (Amazon and Andean zones of Brazil, Colombia, Ecuador, Peru and Bolivia)
- China
- South Asia (India, Pakistan, Nepal, Bangladesh and Bhutan)
- Marine and coastal areas of South East Asia and the Western Indian Ocean

Awards will be made to bilateral institutional partnerships and more complex consortia. Consortia may include partners from outside the UK or the countries listed above, where it can be demonstrated that they would add significant value to the partnership.

The specific objectives of the call are intended to develop the experience, and innovative tools and techniques needed to deliver interdisciplinary research during a five-year programme, and in doing so, improve the supply of and demand for research into ecosystem issues. Networks should define their own research capacity needs, and consider the following requirements:

- The scientific scope of the call is limited to issues surrounding the understanding of and our ability to respond to the challenges to the full set of ecosystem services (including supporting, provisioning, regulating and cultural services, as defined in the Millennium Ecosystem Assessment) and their impact on human well-being (and vice versa). These issues should be considered in an interdisciplinary way, bringing together aspects of the natural and social sciences.

- Proposals should be for projects to develop approaches, methods and tools that will improve capacity to assess the links between ecosystem services and well-being (e.g. improved methods of valuation, GIS tools for mapping ecosystem services and aspects of poverty), and MUST also contain an element of learning or capacity building, for example, in agenda formation, partnership configuration, improved understanding of bidding processes or research management skills.

- Networks should seek to share experiences between different countries and regions and involve NGOs, civil groups and decision makers at local, national and regional scale to provide different perspectives and possibly create a demand for research. For example, this could be through helping local researchers in the region to understand the global relevance of their work.

- Proposals should promote opportunities to gain interdisciplinary experiences and learning, for both established and early career stage researchers.

The proposals will clearly define the elements of capacity to be strengthened and how this will be achieved and evaluated. The outputs of each project will differ depending on the specific objectives but generic outputs of the awards will include:

- A publication, for example, a paper in a peer reviewed international journal, or a popular article, or other means of communication
- An evaluation of the tool/approach/technique developed and the benefits emerging for the ESPA programme
- Information about the partnerships and networks formed, and the benefits emerging for the ESPA programme
- An evaluation of the improvement in capacity and remaining challenges

Awards will have a duration of between 6 months to a year, depending on the complexity of the proposed project, and the cost of the award will typically be up to £150,000 (the Full Economic Cost). Proposals should show equality in partnership between Southern and Northern institutions.

This call will not support proposals that are seeking to strengthen the institutional infrastructure to develop governance, financial and management functions needed to deliver research excellence.

Due to the short timeframes involved, this call will not provide support for new stand-alone doctoral students. However, a role for existing doctoral students may be included in applications from established and qualified research teams.

Funding mechanisms are flexible and innovative approaches are particularly welcomed. Examples of possible mechanisms include, but are not limited to, visitor exchange, discipline hopping, or networked working groups. If you would like to discuss your ideas for potential delivery mechanisms, please contact Dominique Butt at espa@nerc.ac.uk or +44 (0)1793 411751.

3. Timing

Proposals may be submitted at any time until 16.00 UK time on **Thursday 31 July 2008**. Full proposals will be assessed on a rolling basis approximately every two months from the date the call opens, until the closing date. This rolling assessment is intended to provide flexibility to allow some projects to deliver their outputs early in the available timeframe, whilst providing time for new groups to form and manage the possibly unfamiliar administrative procedures involved in submitting proposals.

The available funds will be distributed across the assessment periods to ensure that groups applying later in the available timeframe are not disadvantaged.

Projects for novel tools, approaches or methods, with the short-term training goals of agenda formation, partnership configuration, improved understanding of bidding processes or similar, are particularly encouraged to submit proposals in the first instance. Proposals with the training goals of improving management of research projects are encouraged to submit later in the available timeframe.

4. **Institutional requirements**

This scheme is open to UK research institutions normally eligible for NERC, ESRC or DFID funding, and to non-UK researchers, based in recognised higher education institutions, research organisations or organisations with a credible research capacity. This includes researchers at institutions based in developing countries.

Each project will have one Principal Investigator; this is the person to whom overall responsibility for the research project is assigned. The Principal Investigator will be expected to fulfil the following roles:

- Co-ordinating and monitoring the performance of the various activities of the project, taking action to strengthen any weak elements of the work and reinforce any strong ones;
- Liaising between different components of the project, particularly about strategic and directional issues, and trouble-shooting when required;
- Reporting to NERC;
- Providing intellectual leadership to enhance the quality and direction of the project.

Each project will have a number of Co-Investigators. Co-Investigators assist the Principal Investigator in the management and leadership of a project. There will be at least one Co-Investigator at each institution who is responsible for leading the work at that institution. Other research staff may be also be named in the application.

Awards will be made to the institution hosting Investigators, and those institutions will be subject to normal NERC terms and conditions. Investigators must have a contract of employment at the lead institution that extends beyond the period of the proposed research grant.

Applicants may submit no more than one application to this call, either as the Principal or Co-Investigator.

5. Financial Information

Funds available to support projects under this call are in the region of £1.4M.

The cost of individual awards will typically be up to £150,000 (GBP), depending on the duration and complexity of the project.

Applications should be made in GBP.

The proposal should include the cost of delivering the programme of activities as identified and specified in the written application.

NERC awards research grants on a full economic cost basis (FEC). This means that organisations are required to identify all direct and indirect costs for each research project. Further details of direct and indirect costs can be found in Annex A

UK Universities and Research Council Institutes have an ‘Approved Transparent Approach to Costing (TRAC)’ methodology (or equivalent) for calculating the FEC, which should be used. Other research organisations should specify the direct costs of the research and calculate their own overhead rates, comprising Estates and Indirect Costs. The research organisations must clearly demonstrate the cost basis for these overheads in the justification of resources section and ensure no duplicate funding.

NERC's contribution to the programme will be 80% of the FEC for UK Universities and Research Council Institutes. NERC's contribution to the programme will be 100% for other research organisations.

6. Application process

The application process has two stages, the first stage being the submission of **Outline Proposals**.

There is no application form for Outline Proposals, which should be submitted as Word documents limited to a maximum of two pages of A4 completed in single-spaced typescript of minimum font size 12 point (Times New Roman or Arial font) with margins of at least 1.5cm. Outlines should include:

- Title and duration of the proposed project
- Contact details for the Principal Investigator (email address, telephone number and full postal address) and names, institutions and departments of Co-Investigators
- The specific objectives of the project and their relevance to this call
- Expected outputs

Outline proposals may be sent by email to espa@nerc.ac.uk at any time until 16.00 UK time on **Friday 30 May 2008**. Outlines will be checked to ensure that proposed projects are within the scope of the call. Outlines that are in the scope of the call will be invited to submit a full proposal.

The second stage in the process is the submission of **Full Proposals**. Full Proposals may be submitted at any time until 16.00 UK time **Thursday 31 July 2008.** Full Proposals will be assessed on a rolling basis from the date the call opens, until the closing date.

Full Proposals must be submitted in English and made using the Research Councils' Joint Electronic Submission (Je-S) system, accessed via www.nerc.ac.uk. The Je-S system will be used to receive and process all applications under this call so it is vital that all applicants and co-applicants **AND** their host institutions are registered on the system.

Guidelines for registering with Je-S can be found in Annex B. **NOTE – this is not a simple process and the guidelines should be read carefully by applicants invited to submit full proposals.**

The full proposal has two elements: an online proforma comprising a number of structured boxes for key information and a free text section called 'Case for Support', to be completed as a word document and uploaded as an attachment. The online proforma includes generic guidance on the completion of the structured boxes sections of the form. The guidance for completion of the free text section follows below.

The Case for Support should be written in English, completed in single-spaced typescript of minimum font size 12 point (Times New Roman or Arial font) with margins of at least 1.5cm. References may be presented in a smaller font size, providing it is sufficiently clear to ensure good quality reproductions. Applicants referring to websites should note that assessors may choose not to use them. Applicants should avoid the use of colour graphs or pictures, which NERC cannot guarantee will be reproduced in colour for assessors. Any proposal that does not comply with these specifications will be rejected.

The following format should be used:

- **Case for Support Part 1 - previous track record** (of no more than two sides of A4) outlining the nature of the consortium with details of experience, key publications and details of external funding held for the key individuals and their organisations.

- **Case for Support Part 2 - description of the proposed project** (of no more than two sides of A4, including references and appendices) detailing:

    - Strengths and developmental needs of the Southern institutions, indicating specifically those institutions that are developing their research potential.
    - Strengths that the UK and, where appropriate, international institutions will bring to the project.
    - Strategic importance of the project and how it will make a difference.
    - Specific objectives of the project, including the potential relevance to the objectives of this call and the wider ESPA programme, and anticipated achievements and outputs.
    - Methodology and approach.
    - Programme and/or plan of research.
    - An element of how the project will be evaluated.
    - Management of both project and resources, identifying the training and career development opportunities for personnel working on the project.
    - Long-term stewardship of any resulting datasets for potential re-use by other scientists.
    - Proposals for wider dissemination of outputs including those relating to the wider public understanding of science and user communities.

- **Part 3 - Justification of Resources** (no more than one side of A4). This should outline the estimated cost of the project and explain why the requested resources are needed. Note that it is not sufficient merely to list what is required. Resources should be broken down into the summary fund headings as detailed in Annex A.

NB – the Case for Support Parts 1 and 2 should be one document. Part 3 – Justification of Resources should be a separate document.

Within a consortium, each organisation wishing to directly receive funds under this call should submit an online proforma with a Case for Support and Justification of Resources that is common to the consortium. Guidance for completing and submitting the Je-S form can be found in Annex B.

Once the proposal is submitted, an electronic acknowledgement will be sent to the Principal Investigator. Please note that once the Principal Investigator has submitted the proposal, it will be sent to the dispatcher facility at the host institution for approval before it reaches NERC. Applicants are advised to secure confirmation from their relevant administrator that the proposal has been submitted successfully to NERC.

All elements of the form must be properly completed and the Case for Support should address the issues raised in section 2 of this announcement. Care should be taken with the Full Economic Costing (FEC) regime, which will be the basis for any grant given to successful applications. Guidance on FEC can be found in Annex A.

7. Assessment Process

Full proposals will be received by the Secretariat and checked in detail before commencement of the formal assessment process. Projects failing the checking procedure may be rejected at that stage.

Proposals will be assessed by members of the academic and user communities. Assessors will be asked to consider applications against the following criteria:

- Potential scale, type and range of benefits arising from the project

- Whether the project will result in improvements in capacity building, training and research in the subject area
- How the research outcomes will have potential for impact on the poverty reduction agenda
- Whether the research is Innovative, within the scientific scope of the initiative
- Whether the research has economic, societal and environmental relevance

- The extent to which this interaction may lead to new links between institutions
- The benefit to project delivery and achievements through stakeholder involvement
- Evidence of true cooperation within the collaboration

- The scientific merit and feasibility of the project
- Clarity and coherence between research questions, research methods and anticipated intellectual outcomes
- Appropriateness of the work-plan; whether the work proposed can be achieved within the time-frame, and with the resources requested
- Appropriateness of the management plan; whether planning, coordination, risks, reporting and synthesis are dealt with adequately
- Track record
- Appropriateness of resources requested

Applicants will be notified of the outcome shortly after funding decisions are made. Details of successful projects will be published on the NERC website.

Annex A: Guidance on FEC

Introduction

All Research Council (RC) research grant applications are awarded on a full economic cost (FEC) basis. This is because the Government has reformed the Dual Support system of support to universities, in order to increase investment in research infrastructure and hence improve the sustainability of the research base in the UK.

Universities are required to calculate the FEC using the "TRAC" (Transparent Approach to Costing) methodology. Other research organisations (ROs) use an equivalent methodology, which has been validated by the RCs.

For more information, please go to the RCs' Dual Support Reform web pages, which include guidance notes and FAQs for peer reviewers (http://www.pparc.ac.uk/jes/DualSupport.asp).

The Ecosystem Services and Poverty Alleviation programme capacity building grants will be awarded to organisations that may not normally be eligible to apply for RC funding and may not have an appropriate costing methodology. In this case, all organisations are invited to submit their full costs with explanations as to how indirect and estates costs have been calculated. Institutions may choose to leave these headings blank and instead include an overhead based on staff costs under the 'Other Directly Allocated' fund heading, or build them into the day-rate of staff.

Applicants will notice that two different rates are applied. UK Universities and Research Council Institutes will be supported at 80% of the FEC, because they are also supported by other means. Other organisations may apply for 100% of the FEC.

The fund headings

Resources are summarised under the following fund headings:

- **Directly Incurred Costs** – costs that are specific to the project, will be charged as the amount actually spent and can be supported by an audit record. These include:
    - Staff costs dedicated to project
    - Travel and subsistence

- Equipment (capital costs plus maintenance and related costs that are not included as part of estates)
- Consumables specific to project
- Books specifically purchased for project
- Survey fees
- Purchase/ hire of vehicles if necessary for project
- Publication costs

• **Directly Allocated Costs**– costs of resources that are shared by other activities and will be charged on the basis of estimates rather than actual costs, including:

- Investigators' costs (unless DI or non-chargeable)
- Costs of pooled staff effort
- Estates costs (building and premises costs, basic services and utilities, lease/rent/rates, insurance, cleaning/portering/security/safety, staff facilities, any clerical staff and equipment maintenance not separately included as DI or DA)
- Usage costs of major research facilities, such as animal and glass houses)
- Central and distributed computing (if not possible to identify as separate cost may form part of estates or indirect costs)
- Charge out rates for shared equipment

• **Indirect Costs** – a share of common resources that cannot be attributed to individual projects, including:

- General office and basic laboratory consumables
- Library services / learning resources
- Typing/Secretarial
- Finance, personnel, public relations and departmental services
- Central and distributed computing if not DA
- Cost of capital employed (includes redundancy costs)
- Proposal preparation and peer review

• **Exceptions** – Directly Incurred costs that NERC will fund at 100% FEC (equipment over £50k) or items outside FEC (e.g. project students).

Annex B: Guidance on registering and submitting with Je-S

Consortia invited to submit full proposals should do so using the Research Councils' Joint Electronic Submission (Je-S) system. Application forms will be available on the Je-S system, accessed via the NERC website, with effect from Monday 3 March 2008.

In order to use the Je-S system, all applicants AND their host institution need to be registered on the system. There are several stages to achieve this.

INDIVIDUAL registration:

1. The institutional addresses that are provided in the outline bid will be passed to Je-S and used to LIST your organisation on the system. This means the institution will be available for selection from a drop-down box. This is not the same as registration.

2. Applicants wishing to be a PI or a Co-I should then apply to create an account through the Je-S log-in page (https://je-s.rcuk.ac.uk). Applicants should ensure that they request a fully registered account by ticking a box that says they need the ability to create and submit grant proposals. This should be done even if that organisation is not submitting the proposal. Je-S will then validate the account application by checking whether that researcher was listed in the outline bid and is considered to be a bona fide researcher.

3. Staff employed on the grant, such as research assistants, only need a basic level account because the PI will enter information about them. This should be done as above, but the

fully registered tickbox can remain unchecked and the validation process will not take place.

INSTITUTIONAL registration:

Institutions that wish to submit proposals to NERC need a further level of registration. This is different to having a listed organisation and can take several months. It requires full validation of the academic status of the institution and involves having a finance office contact. Only individuals at registered (not listed) organisations can successfully submit a pro-forma via Je-S.

Consortia may nominate one organisation to submit the proposal, and they will be responsible for distributing the funds to the organisations of the Co-Is through subcontracts. If this route is chosen, care should be taken to explicitly detail in the 'justification for support' section of the proposal which institutions and resources the requested funds are for. This is to allow the programme to monitor the proportion of funds spent in developing and developed countries. UK Universities and Research Council Institutes should note that subcontracts to other research organisations are considered to be Directly Incurred costs and the pro-forma will automatically adjust these costs to 80% of the FEC. The submitting institution should adjust the cost of the subcontract to ensure that the 80% NERC contribution is the true cost of any subcontract to other research organisations (i.e. those other than UK Universities and Research Council Institutes).

An alternative route is for the consortium to submit a joint proposal. This is where the institution of the PI and each Co-I makes a separate submission that is linked through the system. This will require ALL submitting institutions to be fully Je-S registered. Applicants should note that the pro-forma will detail costs at 100% FEC and 80% NERC contribution. We cannot change the pro-forma but will pay successful projects the proportions as detailed in section 5.

Institutional registration may be achieved by contacting the Je-S helpdesk (Je-SHelp@rcuk.ac.uk or telephone +44 (0)1793 444164 – staffed Monday to Friday 09.00-17.00 UK time, excluding public and other holidays) and quoting the ESPA programme. Applicants will need to provide full details of their institution together with contact details (name, telephone number and email address) of a senior person within their organisation who will be responsible for authorising the formal submission of the application, such as a Vice Chancellor, Director of Resources, Finance Director, or Head of Department. Je-S will then validate the account application by checking whether that institution was listed in the outline bid and is considered to be a bona fide research institution.

Institutions and individuals who achieve registration specifically for this scheme are NOT automatically eligible to apply for other Research Council funding.