



DARWIN INITIATIVE



APPLICATION FOR GRANT FOR ROUND 12 COMPETITION: STAGE 2

Please read the Guidance Notes before completing this form. Give a full answer to each section; applications will be considered on the basis of information submitted on this form. Please do not cross-refer to information in separate documents except where invited on the form. The space provided indicates the level of detail required but you may provide additional information on a separate A4 sheet if necessary. Do not reduce the font size below 12pt or alter the paragraph spacing.

Submit by 19 January 2004

Ref (*Defra only*): 13-007 revision 9 Aug 2004

1. Name and address of organisation

Royal Botanic Garden Edinburgh

2. Project title (not exceeding 10 words)

Taxonomic training for a neglected biodiversity hotspot within Lao PDR

3. Principals in project. Please provide a one page CV for each of these named individuals.

| Details | Project leader | Other UK personnel (if working more than 50% of their time on project) | Main project partner or co-ordinator in host country |
|--|---------------------------|--|--|
| Surname | Newman | Thomas | Ketphanh |
| Forename(s) | Dr Mark | Philip | Mr Sounthone |
| Post held | Senior Scientific Officer | Higher Scientific Officer | Vice Director |
| Institution (if different to above) | | | Forest Research Centre |
| Department | Systematics & Evolution | Biodiversity Conservation | |
| Telephone | | | |
| Fax | | | |
| Email | | | |

4. Describe briefly the aims, activities and achievements of your organisation. (Large institutions please note that this should describe your unit or department)

Aims RBGE's mission is to explore and explain the world of plants through programmes of scientific research, horticulture, conservation and education.

Activities RBGE carries out an international programme of research in plant taxonomy, systematics and conservation in more than forty countries and maintains and develops living and preserved plant collections.

Achievements The project team has extensive expertise in Southeast Asian botany and taxonomic capacity building. They have contributed to CBD initiatives such as Global Taxonomy Initiative and Global Strategy for Plant Conservation and are committed to the implementation of the CBD.

5. Has your organisation received funding under the Initiative before? If so, please give details.

10 previous projects - Nepal, Bhutan, Vietnam, Chile (x2), Peru, China, Mauritius, Yemen and Ukraine.

6. Please list the overseas partners that will be involved in the project and explain their role and responsibilities in the project. The extent of their involvement at all stages in the project should be detailed, including in project development. Please provide written evidence of this partnership.

Forest Research Centre (FRC), part of National Agriculture and Forestry Research Institute (NAFRI) and the main research organisation involved in biodiversity management :- as principal collaborator, the director has been closely involved in project design and will be jointly responsible for monitoring and implementing the project. His staff will form a key trainee group. FRC will be responsible for the National Species Database and threatened plant list after the project. National University of Lao PDR (NUOL); they will assist with training venues and materials; lecturers and students will be involved in training and fieldwork as trainees and as assistant trainers. IUCN Lao: key staff have been involved in the design of the project. During implementation, they will provide logistical support and help with dissemination activities. Evidence of the existing partnerships is reflected in the enclosed copy of the MoU and the letters of support.

7. What steps have been taken to (a) engage at all appropriate levels within the host country partner organisations to ensure full support for the project and its outcomes; and (b) ensure the benefits of the project continue despite staff changes in these organisations?

The UK project leader has established a strong network of contacts in a range of organisations during previous visits. He has also funded English training for a Lao botanist with a view to accepting him into the RBGE MSc course. The involvement of Mr Manivong, Director of FRC has ensured approval for the project at a senior level. Senior members of NAFRI including staff responsible for National Biodiversity Conservation Areas (NBCAs) have also been involved in the planning and have given their support. Outcomes and outputs reflect key elements of the draft National Biodiversity Strategy and Action Plan. The benefits of the project will continue as these will be embedded in national, government-funded departments.

8. What other consultation or co-operation will take place or has taken place already with other stakeholders such as local communities. Please include any contact with the government of the host country not already provided.

Local communities will be involved during the field work and will subsequently benefit from the project's national impact. Dr T. Whitten, Senior Biodiversity Specialist in the East Asia and the Pacific Region of the World Bank (WB), which is at an advanced stage in considering support for the Nam Theun hydropower project immediately south of Nakai Nam Theun (the NBCA targetted in this project), supports this project and sees ways in which it and related WB initiatives can exploit synergies. Other institutions such as the Medicinal Plants Center and representatives of appropriate NGO projects will be invited to training sessions and seminar events in Lao PDR

PROJECT DETAILS

9. Define the purpose of the project in line with the logical framework.

To provide practical and theoretical training in tropical plant taxonomy to the major institutions associated with biodiversity documentation, protection and utilisation; to enable them to train others in the future; to promote collaboration between the key biodiversity research institute and agencies responsible for protection and management of NBCAs; to enhance capacity of key research institutes; assist in implementing the objectives of the National Biodiversity Strategy and Action Plan (NBSAP) and meet the obligations of the CBD; produce a foundation for both the first national species and threatened plant database. The project will also contribute to international initiatives such as the Global Taxonomy Initiative, the Global Strategy for Plant Conservation and long-running regional biodiversity initiatives such as the Flore du Cambodge, du Lao et du Vietnam

10. Is this a new initiative or a development of existing work (funded through any source)?

This is a new initiative that has developed from exploratory training workshops and from contacts with members of the only previous Darwin project in Lao PDR (Rattan Diversity and Sustainable Management)

11. How will the project assist the host country in its implementation of the Convention on Biological Diversity? Please make reference to the relevant article(s) of the CBD, thematic programmes and/or cross-cutting themes (see Annex C for list and worked example) and rank the relevance of the project to these by indicating percentages. Is any liaison proposed with the CBD national focal point in the host country? Further information about the CBD can be found on the Darwin website or CBD website.

Lao PDR has produced a draft National Biodiversity Strategy and Action Plan based on a State of the Environment Report (SER) and a draft Biodiversity Country Report (BCR) as part of its response to the CBD - these documents highlight many aspects of the CBD. This project addresses areas of the SER and BCR involving the following CBD articles and cross-cutting themes: Articles 12 (Training, 30%); 8 (In-situ conservation, 15%), 6 (Conservation & sustainable use, 10%), 18 (technical scientific cooperation, 10%), 7 (Identification and Monitoring, 10%), 16 (Access and transfer of technology, 10%). It will also assist in the implementation of Articles 5 Co-operation, 17 Information exchange, 15 Access to Genetic Resources (5% each). Cross-cutting themes that the project is orientated towards include: Global Taxonomy Initiative (30%), Global Strategy for Plant Conservation (15%), Protected Areas (15%), Forest and Mountain Biodiversity (20%), Biodiversity Indicators (10%) and Access and Benefit Sharing (10%). The Lao PDR CBD office in Vientiane will be consulted during the project.

12. How does the work meet a clearly identifiable biodiversity need or priority within the host country? Please indicate how this work will fit in with National Biodiversity Strategies or Environmental Action Plans if applicable.

The draft National Biodiversity Strategy and Action Plan (NBSAP Section 14.4) identifies the following areas as part of its overall strategy: training and knowledge transfer from international experts in key areas such as taxonomy; the creation of a national species database; the compilation of a National Red Data Book that uses a system compatible with both the IUCN and national categories. Multilingual dictionaries that facilitate use of previously inaccessible literature, Laotian language field guides, technical manuals and other training materials aimed at all levels of the education system are also seen as key tools for the implementation of the strategy. The NBSAP also recommends focussing limited resources on priority Protected Areas such as Nakai Nam Theun and enhancing integration between the departments and institutions involved in biodiversity work of all kinds within Lao PDR. All of these aspects are reflected in the outcomes and outputs of this proposal.

13. If relevant, please explain how the work will contribute to sustainable livelihoods in the host country

In Lao PDR, more than 75% of the population depend on the sustainable use of biodiversity. Sustainable management and the longer term protection of people's livelihoods depend on accurate identification and documentation of that biodiversity. Training and institutional capacity building at a national level are essential if this is to be achieved - this project will make a significant contribution to that objective.

14. What will be the impact of the work, and how will this be achieved? Please include details of how the project outputs will be disseminated and put into effect to achieve this impact.

The major impact will be an enhancement of Lao PDR's long-term capability to implement its CBD obligations and related specific BAP objectives. Many of these relate to the capability to identify and classify floristic biodiversity. This will be done by providing computers, databases and the training to use and maintain them in 2 key institutions, training key staff in botanical taxonomy and providing the technical support for the creation and continued development of the first National Species Database and Threatened Plant List. The project will also repatriate data held in foreign herbaria. Outputs will be disseminated nationally via Lao language publications, seminars. Internationally they will be disseminated via scientific papers and through the addition of the Threatened Plants List to the IUCN databases.

15. How will the work leave a lasting legacy in the host country or region?

The project will create the foundations for the first National Species database and a Red Data Book, create a pool of well-trained taxonomists capable of training others, promote collaboration between the principal research centre and those responsible for NBCAs. Trainees who do not gain direct employment in either area will have the skills necessary to lead and participate in other biodiversity inventory projects that will be required as the Lao PDR develops its natural resources. Multilingual information and publications generated by this project will be available in Lao PDR as well as internationally, promoting the importance of this area within the region and internationally. This project will act as a catalyst for further biodiversity conservation projects (see Question 30).

16. What steps have been taken to identify and address potential problems in achieving impact or legacy?

There has been a long lead-in period designing the project - a MoU has already been established and the project fits with the Lao PDR Government's stated aims and objectives. Good relations between the project leaders, combined with the UK team's linguistic skills, previous experience in taxonomic training and their project management and field-work experience in Lao PDR and surrounding countries will ensure that any problems that do arise will be dealt with.

17. How will the project be advertised as a Darwin project and in what ways would the Darwin name and logo be used?

All trainees will be known as Darwin scholars/trainees. In-country training materials and all publications will bear the Darwin logo; all publicity will credit the Darwin Initiative for its support. Internationally, the project and its Darwin logo will feature in reports to organisations such as the World Bank as well as on the websites of the IUCN and WWF and the RBGE's website project page.

18. Are you aware of any other individuals/organisations carrying out similar work? Are there completed or existing Darwin Initiative projects which are relevant to your work? Please give details, explaining the similarities and differences and how your work will be distinctive and innovative. Show how the outputs and outcomes of this work will be additional to any similar work, and what attempts have been/will be made to co-operate with such work for mutual benefits.

The only previous Darwin Project in Lao PDR focussed on a single group of plants (Rattans 1997-2001) rather than targeting the capacity to identify and document all types of plants. The favourable national and regional impression the Darwin Initiative created will benefit this new proposal. There are no other botanical projects in Lao PDR involving long-lasting, nationally-based work. Projects dealing with sustainable use of resources and undertaking EIAs have all identified lack of taxonomic training and the absence of a centralised national species and threatened plant database as a major impediment to their current and future work. The project will also benefit from the RBGE's previous experience in delivering Darwin Projects focussing on taxonomic training and capacity building in other parts of the world.

19. Will the project include training and development? Please indicate who the trainees will be and criteria for selection. How many will be involved, and from which countries? How will you measure the effectiveness of the training and will those trained then be able to train others? Where appropriate give the length and dates (if known) of any training course. How will trainee outcomes be monitored after the end of the training?

Up to 30 Laotian graduate and postgraduate students nominated by the Laotian institutions will be trained over the course of annual 2-month visits by UK staff. Trainees will include staff from the FRC, Nakai Nam Theun and other NBCAs, botany teachers and students from NUOL. A select group from the first year will act as training assistants in the 2nd and 3rd year. The effectiveness of the training will be monitored by examining the trainee's ability to identify specimens in the field and herbarium as well as via the trainees feedback during each visit by the UK staff. Training methods will be adjusted in response. At the end of the project, trainees will have the skills and personal contacts with the FRC and NBCA organisations to be in a position to effectively participate or lead future biodiversity surveys. Post-project monitoring will be undertaken by FRC and NBCA staff through their existing management structures.

20. How are the benefits and/or work of the project expected to continue after the end of grant period? Please provide a clear exit strategy.

By the end of the project both the technical (e.g. databases, herbarium specimens, botanical references and multi-lingual dictionary, training manuals) and human (e.g. trained taxonomists working within major state funded research and teaching organisations, increased collaboration between protected area and research staff) resources will be in place so that the work initiated by the project will continue independently. Trainees who are not employed either by the FRC, NBCA or NUOL will be in a position to participate in other biodiversity related projects initiated within Lao PDR or in collaboration with foreign organisations. It is highly likely that biodiversity work will increase for the foreseeable future – this project will provide a firm foundation to facilitate that work.
(See Question 30 for further information)

21. Provide a project implementation timetable that shows the key milestones in project activities.

| Project implementation timetable | | |
|----------------------------------|---|--|
| Date | Financial year: Apr-Mar 2004/5 Apr-Mar 2005/6 Apr-Mar 2006/7 | Key milestones |
| Apr 2004 | Apr-Mar 2004/5 | Project commences; collation of data from sources outside of Lao PDR for National species database starts (continues throughout year) |
| Jun-July 04 | | First 2 month training visit to Lao PDR; first seminar; database installation |
| Aug-Dec 04 | | collation of in-country sources for Nat. Species and Threatened Plants List |
| Jan-Mar 05 | | UK visit by Lao staff; continuation of database and specimen work for National Species and Threatened Plants List (NSTPL); UK seminar |
| Apr-Jul 05 | Apr-Mar 2005/6 | continuation of database and specimen work for NSTPL; preparation of multilingual dictionary |
| Aug-Dec 05 | | continuation of database and specimen work for NSTPL; preparation of multilingual dictionary; 2 nd 2 month training visit by UK staff |
| Jan-Mar 06 | | Collation of species data from external sources for NSTPL completed. Continuation of specimen work; publication of multilingual dictionary |
| Apr-Jul 06 | Apr-Mar 2006/7 | Preparation of first listings from NSTPL for publication and scientific papers |
| Aug-Dec 06 | | Preparation of first listings from NSTPL for publication and scientific papers |
| Jan-Mar 07 | | Final visit by UK staff; publication of first listings from NSTPL publication/submission of scientific papers UK and Lao PDR seminars for presentation of final outputs seminar; Final Report for DEFRA by June 2007 |

22. How will the most significant outputs contribute towards achieving the purpose of the project? (This should be summarised in the Log Frame as Indicators at Purpose level)

The purpose of the project is to assist Lao PDR to implement its CBD obligations and BAP objectives. The major outputs from this project are directly derived from documents published by the Lao PDR e.g. the National Species Database and Threatened Plant List is specifically identified in the Lao PDR's draft BAP. All outputs have been designed within this framework.

23. Set out the project's measurable outputs using the separate list of output measures

| PROJECT OUTPUTS | | | |
|--------------------------------|--|---|---|
| Year/Month (starting April) | Standard Output Number (see standard output list) | Description (include numbers of people involved, publications produced, days/weeks etc) | |
| 2004/2005 | 4C + 4D | 10 post-graduate trainees for total of 35 wks (5 x 4 + 5 x 3) | |
| | 6A | 5 NBCA/local staff trained; 2 senior staff to UK | |
| | 6B | 15 + 6 wks ; 5 NBCA staff for 3 wks, 2 senior staff for 3 wks | |
| | 7 | 1-2 Training materials e.g. data forms for Nat. Species Database | |
| | 8 | 24 weeks; 3 UK staff for 8 wks each | |
| | 12A, | 2; 1 National Species Database, 1 Threatened Plants Database | |
| | 13B | 3 herbarium collections enhanced at FRC, NUOL, RBGE | |
| | 14A | 2 seminars; 1 in Lao PDR, 1 in UK | |
| | 15A, C, D and XX | 3 publicity articles & 3 articles on websites (RBGE, IUCN, WWF) | |
| | 20 | database/computers, herbarium/collecting materials, references salaries (ca £43 000), | |
| 2005/2006 | 4C + 4D | 10 post-graduate trainees for total of 35 wks (5 x 4 + 5 x 3) | |
| | 6A + 6B | 5 NBCA/local staff; 3 wks field training 15 wks | |
| | 7 | 1-2 Training materials; plants of Nakai Nam Theun | |
| | 8 | 24 weeks; 3 UK staff for 8 wks each | |
| | 10 | 1 multilingual botanical dictionary | |
| | 13B | 3 herbarium collections enhanced at FRC, NUOL, RBGE | |
| | XX | 3 updates on websites (RBGE, IUCN, WWF) | |
| | 20 | herbarium/collecting materials, references salaries (ca £33000) | |
| | 2006/2007 | 4C + 4D | 10 post-graduate trainees for total of 35 wks (5 x 4 + 5 x 3) |
| | | 6A + 6B | 5 NBCA/local staff trained in field work for 15 wks |
| 7 | | 1-2 Training materials | |
| 8 | | 24 weeks; 3 UK staff for 8 wks each | |
| 9 | | 4 reports on conifer forest/ NBCA vegetation | |
| 10 | | 4; NSD species list, threatened plants list, NNT list; | |
| 11B | | 3 joint papers submitted | |
| 12B | | National Species Database | |
| 13B | | 3 herbarium collections enhanced at FRC, NUOL, RBGE | |
| 14A | | 2 seminars; 1 in Lao PDR, 1 in UK | |
| 15A, C, D and XX | 3 publicity articles & 3 articles on websites (RBGE, IUCN, WWF) | | |
| 20 | herbarium/collecting materials, references, salaries (ca £32000) | | |

MONITORING AND EVALUATION

24. Describe how the progress of the project, including towards delivery of outputs, will be monitored and evaluated in terms of achieving its overall purpose. This should be both during the lifetime of the project and at its conclusion. Please make reference to the indicators described in the Logical Framework.

Forward workplans will incorporate the activity milestones that should lead to the delivery of outputs designed to achieve the project's purpose. These workplans and overall project progress will be reviewed during project meetings involving all participants held during visits by UK staff. Progress will also be reviewed through the compilation, submission of half year and annual reports as well in response to reviewer's comments. During this process, progress towards meeting the indicators (e.g. numbers of people trained, their ability to identify specimens, the number of specimens collected, the consequent number of records entered into databases to form the foundations for the National Species Database and the Threatened Plant List) will be monitored. If necessary, the Logical framework will be adjusted and any major changes to the project schedule agreed with the Darwin Secretariat or monitors. At the conclusion of the project a final seminar will provide a forum to present the major outputs; this final seminar will act as a cut-off date for the completion of outputs and the achievement of the indicators.

25. How will host country partners be involved in monitoring and evaluation of the project?

Our counterparts will be closely involved in all aspects of the monitoring and evaluation of the project. Draft reports will be sent to Laotian counterparts for comments prior to submission. During each visit by the UK experts, a minuted review meeting involving all project members will be held. Each meeting will evaluate overall progress towards achieving the indicators and outputs, thereby allowing the project leaders to adjust work programmes when necessary. The meetings will also provide a forum to discuss and respond to reviewers comments and make any necessary adjustments to the logframe

26. How will you ensure that the project achieves value for money?

The project will achieve value for money through tight financial management at the RBGE, constantly seeking the best available prices for all items of expenditure. The software used for the national species and threatened plants database will be based on an effective, simple, widely compatible and low maintenance database that has been developed in-house at the RBGE. The aim is to ensure that our partners will not be burdened with expensive IT commitments in the future. Our Laotian counterparts will not be in a position to offer direct financial support but will contribute substantial in-kind resources (microscopes, training venues administrative support) which help to minimise the overall cost of the project.

27. Reporting Requirements. All projects must submit six monthly reports (by 31 October each year) and annual reports (by 30 April each year). Please check the box for all reports that you will be submitting, dependent on the term of your project. You must ensure that you cover the full term of your project.

| Report type | Period covered | Due date | REQUIRED? |
|---------------------|----------------------------------|-----------------------------------|-----------|
| Six month report | 1 April 2004 – 30 September 2004 | 31 October 2004 | Yes |
| Annual report | 1 April 2004 – 31 March 2005 | 30 April 2005 | Yes |
| Six month report | 1 April 2005 – 30 September 2005 | 31 October 2005 | Yes |
| Annual report | 1 April 2005 – 31 March 2006 | 30 April 2006 | Yes |
| Six month report | 1 April 2006 – 30 September 2006 | 31 October 2006 | Yes |
| Annual report | 1 April 2006– 31 March 2007 | 30 April 2007 | Yes |
| Six month report | 1 April 2007 – 30 September 2007 | 31 October 2007 | No |
| Final report | 1 April 2004 – project end date | 3 months after project completion | Yes |

LOGICAL FRAMEWORK

Please enter the details of your project onto the matrix using the note at Annex B of the Guidance Note. This should not have substantially changed from the Logical Framework submitted with your Stage 1 application. Please highlight any changes.

| Project summary | Measurable indicators | Means of verification | Important assumptions |
|--|---|---|---|
| <p>Goal:</p> <p>To draw on expertise relevant to biodiversity from within the United Kingdom to work with local partners in countries rich in biodiversity but poor in resources to achieve</p> <ul style="list-style-type: none"> the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of the benefits arising out of the utilisation of genetic resources | | | |
| <p>Purpose</p> <p>To assist Lao PDR to implement CBD obligations and BAP objectives by providing training in tropical botanical taxonomy to staff in key institutes. To establish the foundation for National Species Database and Threatened Plant List</p> | <p>Up to 30 Laotians from FRC, NBCAs, NUOL trained in tropical botanical taxonomy</p> <p>Collection of 3-4000 identified specimens</p> <p>National Species List and Threatened Plant List published</p> | <p>Assessment and evaluation records of trainees at end of each training period</p> <p>Specimens in herbaria</p> <p>Databases established within 2 institutes; printouts available after Yr 1</p> | <p>That key areas in the draft NBSAP will form part of the final plan.</p> <p>That all specimens will be identified; Lao PDR flora is poorly known so new species may be found that may take longer to describe</p> |
| <p>Outputs</p> <p>Multilingual botanical dictionary Nat. Species Database Threatened Plant List NBCA Plant checklist Incorporation of collections into herbaria</p> <p>Report to GTI 3 Scientific papers</p> | <p>Publication of dictionary by end of Yr2 Printouts from database</p> <p>checklist available Representation of Lao PDR flora in herbaria increased by 25% by Yr 3 Report submitted Papers written</p> | <p>Publication completed; copies available National Species List and Threatened Species List widely available Specimens in herbaria</p> <p>Report acknowledged Papers published</p> | <p>Linguistic expertise available within the project team</p> |
| <p>Activities</p> <p>3 x 4 week field training sessions in NBCA Identification of specimens 3 x 4 week taxonomy training sessions Collation of data ex-Lao PDR; Collation of data within Lao PDR Seminars in Lao PDR and UK</p> | <p>Activity Milestones (Summary of Project Implementation Timetable)</p> <p><u>Year 1:</u> Collation of data from published Flore du Cambodge du Laos et du Viet Nam completed; first 2 month training visit to Lao PDR (field and herbaria, database installation; project planning meeting); collation of Lao PDR data commenced; visit to UK by Laotian counterparts (training, liaison)</p> <p><u>Year 2:</u> Collation of other data ex Lao PDR completed; 2nd 2 month training visit to Lao (field and herbaria project progress meeting); collation of data in Lao PDR continues; publication of botanical dictionary in Laotian</p> <p><u>Year 3:</u> Final 2 month visit (field and herbaria training); National Species and Threatened Plant List published; scientific papers written and submitted</p> | | |