



12-001

Defra Ref: 2 ✓

DEFRA

Department for
Environment,
Food & Rural Affairs

DARWIN INITIATIVE

APPLICATION FOR GRANT FOR ROUND 11 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 10pt or the paragraph spacing.

Submit by 13 January 2003

1. Name and address of organisation

**Seed Conservation Department
Royal Botanic Gardens, Kew**

2. Project title (not exceeding 10 words)

Darwin Initiative Research Exercise on Community Tree Seeds (DIRECTS)

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	Dr Pritchard	Dr Sacande	Dr Dulloo
Forename(s)	Hugh Wynford	Moctar	Mohammad Eshan
Post held	Head of Research	Visiting Research Fellow	Germplasm Conservation Scientist
Institution (if different to above)			
Department			
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

The Royal Botanic Gardens, Kew aims "to enable better management of the Earth's environment by increasing knowledge and understanding of the plant and fungal kingdoms, the basis of life on earth". The Seed Conservation Department seeks to maintain both the UK flora and, under agreement, up to 10% of the World's flowering plants as seeds conserved ex situ.

Activities

Research into the science of plants and related subjects and dissemination of the results, advice, instruction and education on botany in which Kew is involved, caring for plant collections and providing other plant-related services, including quarantine. The UK Government ensures that Kew is resourced to fulfil its statutory obligations.

Achievements

Kew has an international reputation in plant taxonomy and conservation. The SCD manages the Millennium Seed Bank Project involving 12 countries worldwide via CBD-compliant agreements. The Research Section has experience of advising agencies and managing international projects, supervising PhDs, MScs and visiting scientists, and has published > 60 articles ('96-'02).

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

Twelve projects have received Darwin funding, e.g. " Conservation of plant diversity in West Cameroon". Kew has been a partner in two other projects.

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.

(1) Six lead partner institutes: the CNSF, Burkina Faso; FRC, Ethiopia; KFRI, Kenya; SNGF, Madagascar; PNSF, Senegal and NTSP, Tanzania will each have 3 scientists trained in Africa and the UK to carry out research in seed conservation and practice it. They will interact with government departments, conservation agencies and communities. Burkina and Ethiopia will stage the first two training workshops and Kenya the final one. (2) Thirteen further African institutes: the INRA, Benin; NTSC, Botswana; DE, Cape Verde; CNRA, Cote d'Ivoire; FD, Gambia; FORI, Ghana; NTSC, Malawi; IER/CRRA, Mali; DNE/CSF, Niger; TSC, Sudan; CS/Davie, Togo; NTSC, Uganda and NTSCN, Zambia, will each have also 1-3 scientists trained in research and conservation. The numbers will depend on staffing and activity levels per institute. All these institutes will also interact with their respective government departments, conservation agencies and communities. (3) IPGRI will co-organise the workshops and facilitate production of the web site. They will make 4 scientists available to support research and training activities, to lead information exchange between Centres, and to support the production of training material and methodology. (4) The MSB at RBG Kew will host the project. It will lead, manage and co-ordinate project activities, develop training programmes for African scientists, and harness existing expertise for in-depth collaborative research and replication of local findings. It will be accountable for all reports and articles issued by the project.

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?

(a) The project was developed with the managers of the partner institutes via email / fax and, for four countries, by face-to-face meetings. Dr Oscar Eyog-Matig, the IPGRI co-ordinator for SAFORGEN programmes has written to SAFORGEN member countries endorsing DIRECTS and inviting their support and contributions. All have enthusiastically supported the aims of DIRECTS (see Appendix 1). (b) Partner countries have ratified the CBD and partner institutes are involved in developing national policies related to the environment. They thus have a long-term commitment to work on indigenous biological material, and Kew has long-term ABSAs with three partner countries (and four more under discussion). In addition, a sustainable critical mass of scientific expertise will be obtained by training more than one scientist from each of the participating institutions.

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.

- (1) All 62 species on the SAFORGEN priority list were chosen for their medicinal, economic or subsistence value to African communities. The list was drawn up by 27 countries from sub-Saharan Africa. Within each of these, the relevant forestry agency will have consulted with various stakeholders about the cultural, etc., importance of the species.
- (2) Many of the tree seed / biodiversity institutes regularly involve the local community in harvesting seeds and provide wider support by running nursery techniques trainings.
- (3) IPGRI are represented in Nairobi and Cotonou and have agreement, in principle, to implement the SAFORGEN programmes. National SAFORGEN co-ordinators have been in place in most of the participating countries since 2000, but lack resources.

PROJECT DETAILS

9. Define the purpose (main objective) of the project in line with the logical framework.

DIRECTS' purpose is to enhance the capacity of sub-Saharan African tree seed and biodiversity institutes to conserve and sustainably manage native species of local importance, through research, training and information exchange.

(a) In the last decade, the Seed Conservation Department (SCD, including the MSB Project), and others, have accumulated cutting-edge knowledge and expertise in seed science and technology, including on African tree species. DIRECTS will ensure the transfer of the benefits of this knowledge. African scientists will be trained in topics including seed physiology, desiccation tolerance mechanisms, storage potential and germination methods. They will then apply this knowledge to the SAFORGEN priority list of African tree species in need of conservation (refs 1,2; see Appendix 2). (b) Working with SCD and IPGRI, and independantly, they will generate further knowledge concerning these indigenous species and develop better protocols for seed conservation and use. The scientists will thus become better able to sustainably conserve African genetic biodiversity. Furthermore, the resultant body of linked and confident African seed scientists will be well placed to advocate for, and enhance national biodiversity policies.

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

New initiative.

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. 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.

All the participating sub-Saharan African countries have ratified the Biodiversity convention (ref.3) and are setting up activities for national conservation programmes. DIRECTS will assist in the implementation of complementary ex-situ conservation programmes under the CBD / COP6 and 7. Seed research will contribute to assessments of the species' potential for conservation and sustainability (e.g. number and regularity of production and the efficiency of the regeneration process, via germination, and storability). Generating and sharing information on seeds will enhance the conservation and uses of the species and contribute to the respective countries' obligations to the CBD and Agenda 21 by: identifying and monitoring (Article 7) wild populations of target taxa; preserving seed samples in regional seed bank facilities (Article 9); formulating protocols for sustainable seed handling (Article 10); researching and training on seed biology, conservation and use (Articles 12, 16); supporting links between the institutes and local people (Article 13); establishing a functional information exchange network on tree seeds (Article 17) involving the appropriate national and international institutions (Article 18); modest financing in support of country programmes (Article 20). Overall, this will allow the possibility of the long-term conservation of genetically interesting species and species of particular socio-economic importance that are still under-used. Copies of the project reports will be sent to the CBD focal points in the countries to encourage their involvement in DIRECTS, and invitations to workshops extended to them.

12. How does the work meet a clearly identifiable biodiversity need or priority within the host country?

(a) Loss of forest biodiversity: Forests, especially the multipurpose trees contained therein, support the daily life of millions of people in sub-Saharan Africa. Nonetheless, they are disappearing at a rate of 1% a year (ref.4), meaning that species extinction is a real threat. The identified, priority SAFORGEN tree species (refs 1,2), which occur mostly in vulnerable areas of dryland Africa (the buffer zone between the Sahara desert and the tropical rain forests), are not only of known use, but 34 % are red-listed by IUCN (ref. 5). The need for the conservation and sustainable use of these seeds is thus clear. However, appropriate protocols for handling seeds of these species are far from optimal. Improvements in handling will mean higher quality seeds of indigenous species are more available, thereby reducing the reliance on imported, non-native species in reforestation programmes.

(b) Enhanced capacity to conserve local species: The recent 4th Workshop for African Tree Seed and Biodiversity Centres (Burkina Faso, March 2001), highlighted the need to strengthen the limited expertise of, and experience in, seed conservation techniques in institutes across Africa (ref. 6). Research, capacity building and networking on seed provision, storage and use will contribute to this urgent need. Much of the skills gained are transferable to non-tree species, ultimately supporting wider needs.

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

The c.62 SAFORGEN priority species were selected from over 300 trees of high socio-economic importance and multiple uses in the regional community (refs 1, 2). These are over-exploited because they either (i) produce edible fruits for people, (ii) provide forage for domestic animals, (iii) are used as timber and for amenities, or (iv) for handcrafts and as other non-wood by-products (see Appendix 3), but little is done to replace them after felling. Seeds are the (main) starting point for reforestation and sustainable use programmes. Improved methods for seed handling will enhance the provision of an adequate quantity of quality seeds throughout the whole forest biodiversity sector (regional, national and local). The project will thus have an economic benefit for tree product users, as well as for scientists and foresters.

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.

African scientists across many countries will develop and share new knowledge about the conservation of local species, resulting in a better understanding of the physiology of seeds and improved storage protocols. This will lead, ultimately, to increased use of local species in plantations for the benefit of local communities and for better management of genetic resources.

To achieve this, (1) DIRECTS will train and network with African scientists via workshops and collaborative research, will produce collaborative publications, technical reports and guides, and will develop the network web site, (making information accessible to a wider group of professionals and scientists). (2) DIRECTS will ensure that the information generated reaches the appropriate users within countries, as well as in conservation agencies, e.g. by providing reports for the IUCN / FFI Global Trees Campaign. Such reports are regularly used in the development of biodiversity action plans for individual countries (ref. 7). DIRECTS will also encourage trained staff to take a greater interest in, and get more involved in, policy advice on species conservation within their national programmes. This will raise awareness of the importance of these African institutes for national CBD-related activities.

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

(a) The main legacy of the work will be a better functioning network of tree seed-related institutes across the African continent. As a consequence the prospects for effective, efficient and sustainable use of tree seeds for conservation, and environmental protection will improve in accordance with the CBD and other international agreements and programmes (e.g. Desertification). Because DIRECTS is regional, it will have a greater impact on the conservation of the 34 % of the SAFORGEN species which are listed as threatened by IUCN and / or considered recently in relation to CITES criteria (refs 5, 7) than if the work was approached on a country by country basis.

(b) With more confident and able staff, the partners will be able to: apply their seed handling knowledge beyond the SAFORGEN list of species; ensure safe storage of bankable seeds for medium term sustainable use; work more effectively in both national and international arenas in support of tree conservation.

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

To ensure impact, back-up, in-depth investigation will be carried out at SCD Kew if local research is unable to resolve problems related to a particular species. Research trainees will be carefully selected, on the basis of some prior lab experience and graduate education so that the impact of training is maximised. Threat of staff turn-over will be ameliorated by training more than one staff member per institute. The threat to legacy through shortage of funding (staff and other resources) at the institutes over the longer-term may be counterbalanced by SCD Kew's complementary working relationships with seven of the institutes identified, and by continued interaction with IPGRI. The inception workshop in the UK will clarify the financial and workplan arrangements.

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

DIRECTS is the first project to begin to systematically address the need for African capacity development in indigenous seed conservation and research. It is also the first to methodically apply promising new knowledge on the physiology and conservation mechanisms of seeds to dryland African species of socio-economic and genetic importance, which encompasses 7 ecosystems. It embodies the spirit of the Darwin Initiative in that it invests in both people and science to conserve bio-diversity.

The project will use the name Darwin Initiative and the logo on all general communications, on the web-site, at workshops. Each participating country will develop a media plan to raise awareness of the importance of the conservation of tree species employing the Darwin name and logo beside that of the host institute. In addition, seed science and technology publications will include an acknowledgement for the source of funding for the work reported.

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. 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.

To our knowledge, this project is unique. The current DI seed project with Vietnam is not network based. IPGRI/DFSC have recently concluded (final workshop Sept 2002) a screening project on recalcitrant and intermediate (potentially difficult to store) tree seeds with 7 institutes in Africa (plus 18 others in South America, Australasia and Europe) and worked on c. 10 African species. SCD was a key advisor to this 6-year project. The project did not consider the conservation status of the species, and the work was mainly university-based. The proposed DI project matches a specific conservation research focus (SAFORGEN priority species, from collection to use) with the most appropriate African Tree Seed and Biodiversity institutes for the delivery of sustainable use. DIRECTS aims to enhance tree seed research capacity in Africa on a much broader scale than attempted before.

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?

1- June 03 - Inception meeting and informal training in the UK (SCD) in seed handling and data processing, lab techniques. Discussing species targets / data, working through protocols / workplans and some theory. 16 key staff (seed unit or institutional managers) from all participating countries for 1 week. The detail of the financial arrangements will be discussed.

2- August 03 - Regional formal training in seed conservation techniques, in Ouagadougou (Burkina). Working through protocols, mainly practical. 7-day course (in French) for 16 participants from Benin, Burkina, Cape Verde, Cote d'Ivoire, The Gambia, Ghana, Madagascar, Mali, Niger, Senegal and Togo (Chad, Cameroon, Nigeria, may also attend).

3- September 03 - Regional formal training in tree seed conservation techniques, in Addis Abeba (Ethiopia). Working through protocols, mainly practical. 7-day course (in English) for 16 participants from Botswana, Ethiopia, Kenya, Malawi, Sudan, Tanzania, Uganda and Zambia.

4- December 05 - Technical workshop as a final meeting of the project participants, in Nairobi. Share experience, discuss future plans (funding applications / opportunities). Project participants and international organisations / policy makers including IUCN, IPGRI, FAO (3 day meeting for c. 50 delegates)

NB: The training workshops will aim wider impact and long term sustainability. Trainees for all workshops will be accepted members of the seed lab and preferably have a degree and / or a year's seed lab experience. CVs of candidates put forward by the Centres will be scrutinised by the Project Management Team to identify who should participate in the workshops. The trainees will complete needs questionnaire and evaluation forms. This will help to identify existing gaps in knowledge and skills and will enable to better plan training to meet partner's priorities and needs in relation to their agreed contributions to the project.

Feedback/evaluation from participants will be sought after all training activities and attempts will also be made to evaluate the long-term impact of training in terms of knowledge and skills acquired and their application in the field of seed conservation, by: 1) reviewing the quality of the data generated throughout; 2) assessing the quality and timeliness of the reports prepared by partners throughout; 3) monitoring partner capability to produce science papers.

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.

The development of a cadre of tree seed specialists across the region should ensure continuing formal and informal network exchange of technical information with and through IPGRI and SCD (especially through the MSB Project contributors).

In addition, the opportunities for institutes to find further funding in the tree seed research and development area will be significantly enhanced as a result of the experience and training gained during DIRECTS, and funding opportunities will be a key item on the final workshop agenda.

This project will increase the number of quality seed collections stored in tree seed banks / facilities, which can be used to benefit future ex-situ and in-situ CBD-related conservation activities.

The methods and technologies learned can be applied to other tree species and to non-tree species, leading to a wider, long-term impact within country conservation programmes.

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

Project implementation timetable	
Date	Key milestones
April 03	Set up Management Committee (SCD, IPGRI, partners).
May 03	Prepare for the UK workshop. Complete design of work protocols (record sheets, etc) for handling seeds. Identify staff from Tree Seed and Biodiversity institutes most appropriate for training.
June 03	Hold the UK-based training / planning for 16 W and E-S Africa partners. Establish network participants priority species and replicating research partner, plus match workplan / activity level to facility set-up (variable). Compile baseline data for species and draft review. Start the research programme on about 15 species
July 03	Prepare for the West Africa training course. Distribute schedule and the paperwork / protocols agreed at the UK workshop.
August 03	Hold West Africa formal training in Burkina Faso.
September 03	Hold East-Southern Africa training in Ethiopia, and introduce DIRECTS at conservation session of the AETFAT conference in Ethiopia
March 04	Complete annual report for DI and complete 15 species' research and conservation reports. Aim for web facility to go live
May 2004 (2004-05)	Present preliminary work at the International Seed Testing Association's meeting in Hungary (NB. ISTA have a small programme of work on forest tree and shrub seed testing). (Research seed science and technology of c. 30 species)
December 04	Submit 3 papers for publication
March 05	Complete 30 species' research and conservation reports
July 05	Present main findings of the work so far at the 8th International Workshop on Seeds (Brisbane, Australia)
August 05 (2005-06)	Start planning the final workshop for Dec05, and encourage international agencies (FAO, IUCN, IPGRI, etc) to attend (Research seed science and technology of c. 15 species)
October 05	Prepare for the final workshop. Identify speakers from the partners. Consolidate the schedule. Distribute the instructions to authors for manuscripts in the proceedings
December 05	Complete 15 species' research and conservation reports, submit 3 papers for publication, Hold final project workshop in Kenya (to be confirmed). Conserve bankable species in regional seedbanks as seed as long-term investment.
January - March 06	Complete editing the conference proceedings, and send to press
April - June 06	Prepare and submit final report

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 project will produce protocols and information on handling, and conservation in duplicate of bankable seeds, of about 60 priority tree species' seeds. Much of this species information will be new, and be offered to IUCN databases, and improved availability of seeds will support national conservation efforts.

Training of c. 48 scientists from the 16 African seed institutes in seed conservation techniques (of which 32 will have improved knowledge of experimental design, analysis and presentation of data and science writing) will underpin the establishment and functioning of widespread African tree seed research network that can have greater confidence in making inputs to national conservation activities.

23. Set out the project's measurable outputs using the attached 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)
May 03	7	Protocols for seed handling produced and a guide for development studies
May or Oct03	15C	National Press Release in Kew Scientist Magazine
May 03	15B	Press release in c. 16 participating countries announcing start of project.
June 03	4C, D, 8, 15A	16 people trained in the UK for one week (Wand E-S Africa). 1 person weeks.
June 03	11B	Submit one review (baseline data on species' seed conservation potential)
August 03	4C, 4D, 8, 15A	16 people trained in Burkina (W Africa partners) for one week. National press release
Sept 03	4C, 4D, 8, 15A	16 people trained in Ethiopia (E-S africa partners) for one week. National press release
Sept 03	14B	DIRECTS presentation at AETFAT meeting in Ethiopia
March 04	17A	Completed web facility live for African Tree Seed and Biodiversity Institutes.
March 04	10	Produce 15 species' research and conservation reports (for IUCN recording)
May 04	14B	Presentation at International Seed Testing Association's meeting in Hungary
December 04	11B	submit 3 papers for publication
March 05	10	Produce 30 species research and conservation reports (for IUCN recording)
July05	14B	Presentation at 8th International Workshop on Seeds in Brisbane , Australia
December 05	10, 11B, 11A, 14A, 14B, 13A, 13B	Produce 15 species' reports, publish 3 papers, submit 3 papers Hold final workshop in Kenya (location to be confirmed). Conserve bankable species in regional seedbank as seed as log term investment
March 06		Complete editing the conference proceedings, and send to press
June 06		Final project report

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 Logistical Framework.

Monitoring and evaluation:

Four 6-monthly progress reports of the partners (Sept. 2003; March 04; Sept 04; March 05; final technical report Dec 05) AND 3 yearly reports and a final project report from the coordination team (April 04; 05; 06 and June 06) will be produced. Their timeliness will be noted. One proceedings volume for the final workshop (March 06).

Three evaluations (questionnaires) of the training benefits in 2004 for c. 48 personnel (in the UK, in Burkina Faso and in Ethiopia). Appropriate application of techniques will be judged by consulting / monitoring reports throughout. Data quality in reports will be reviewed regularly by experienced members of the Management Team, and ultimately assessed by journal referees on submission of manuscripts. Constant face-to-face contact with all partners over the three years will not be possible, and email / fax exchanges will be integral to the monitoring process regarding technical issues and more general matters.

Dissemination of results and networking will be monitored by: 1) counting the number of species reports (up to 60) written and integrated into IUCN data bases; 2) noting the number of papers submitted for publication (6); 3) internet Website establishment and use.

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

The partners will play a critical role in the successful implementation of agreed protocols within country and will be responsible for preparing a six-monthly report on their work. As all such reports will be available to all partners, they will be able to compare and contrast their activity with the others, and to make the changes to their sub-projects as appropriate. Partners will be invited to comment on the overall achievements of the project at the end of each year, making suggestions for improvement in the management of the project and / or details of the science. The Management Team will also review the quality of the data generated. IPGRI will play a semi-independent role in monitoring outcomes, especially over the longer-term via continuing CGIAR activity. SCD-partner collaborations after the conclusion of this project will enable further co-evaluation to take place.

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

The gift-in-kind (covered by RBG Kew, IPGRI and the participating countries) will provide an additional c. 60% to the requested budget. In addition, time of about two further staff from Kew and IPGRI will be provided free of charge during the UK- and Africa-based training. The accommodation and lab facilities at Wakehurst Place can be used at modest costs. All travels will be at the lowest economical fares available. Three of the institutes are already partners in the MSB Project, which is managed by the Seed Conservation Department of RBG Kew. The collaborative collecting and conservation activity at various stages and budgets have been agreed for field work, so that teams funded in the field by the MSB project will be able to include some of the tree species in this project (a saving of c. £6400 over three years). Training African technicians in seed conservation techniques is good long-term value for money, as it enhances the local capability and efficiency of tree seed production and conservation. The value of these seeds for forest biodiversity programmes is incalculable.

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 2003 – 30 September 2003	30 October 2003	Yes
Annual report	1 April 2003 – 31 March 2004	30 April 2004	Yes
Six month report	1 April 2004 – 30 September 2004	30 October 2004	Yes
Annual report	1 April 2004 – 31 March 200 ⁵ ₂	30 April 2005	Yes
Six month report	1 April 2005 – 30 September 2005	30 October 2005	Yes
Annual report	1 April 200 ⁵ ₂ – 31 March 200 ⁶ ₂	30 April 2006	Yes
Six month report	1 April 2006 – 30 September 2006	30 October 2006	No
Final report	1 April 200 ³ ₂ – project end date	3 months after project completion	Yes

LOGICAL FRAMEWORK

28. 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 enhance the role and capacity of institutes in the conservation and sustainable use of native tree seeds of community value</p>	<p>New knowledge on seed biology and conservation methods for up to 60 species generated and shared.</p> <p>Staff conduct collaborative research within the network but also show evidence of independent work</p> <p>Increased and effective inputs to national conservation policies and conservation agencies.</p>	<p>Methods protocols on seed harvest, treatment, etc. in circulation and use</p> <p>Information incorporated into tree BAPs, and institutional role acknowledged by government / State in official documents</p> <p>Seed holdings at institutes expanded to include many of the species.</p> <p>Annual reports and staff publication lists.</p>	<p>Seed conservation protocols are accepted by all the SAFORGEN and SADC partners as a valuable component of CBD-related conservation action.</p> <p>Researchers use increased knowledge to guide future programmes.</p> <p>Institutes commit to find resources to ensure elevated levels of activity.</p>
<p>Outputs</p> <p>Increased research base for listed species.</p> <p>Increased capability of institutes' staff to undertake and promote / disseminate seed research</p> <p>Increased dialogue between institutes on all aspects relating to tree seeds and conservation targets.</p>	<p>Species' seed conservation reports for c. 60 sp (incl. species distribution information).</p> <p>Number of species and research reports (literature) produced per institute increased, and c. 6 collaborative papers produced.</p> <p>48 staff across 16 institutes effectively trained (primarily in country) on seed handling, etc.</p> <p>Functioning web-based system in place</p>	<p>List of the published papers, conference reports, and the annual reports of the institutes involved</p> <p>Compare training evaluation questionnaires (pre- and post-event)</p> <p>Management meetings reports</p> <p>Review traffic, number of hits on web site. Track enquiries, correspondence, etc.</p>	<p>Trained staff, competent in conducting the appropriate research and cascade training, are not assigned to other duties.</p> <p>Institutes encourage staff to commit adequate time to writing up the species reports / papers.</p> <p>In country resources promised are made available / committed and DI resources appropriately used.</p>
<p>Activities</p> <p>Training/planning workshop in the UK - Two regional workshops in Africa and final workshop.</p> <p>In-country research investigation on tree seed conservation techniques</p> <p>Conduct back-up research and data management (UK)</p> <p>Web-site and publications</p>	<p>Activity Milestones (Summary of Project Implementation Timetable)</p> <p>Yr 1: (June 03) UK-based inception workshop to discuss research/training protocols, participants' specific species of interest, administration issues, etc. (August 03) W-Africa training in Burkina Faso (in French). (Sept 03) - Training of E-S African partners in Ethiopia (in English). Yr 3: Final workshop in Kenya (timing to be decided, probably Dec05)</p> <p>Yr 1: Research on 15 species, data collection, analysis, write species reports. Yr 2: Research 30 species, write reports and 3 multi-authored papers. Yr 3: as Yr 1, plus commit seed to long-term storage as an investment for the future</p> <p>Yr 1: Compile current baseline data and draft review paper. Yrs 1 -3: Replicate experimental work when necessary and provide advice, i.e. back stop. Yr 3: Help edit proceedings</p> <p>Yr 1: Plan, design web in consultation with DEFRA, IPGRI and partners. Yr 2: Fully functional web network. Yr 3: Maintenance and continuing use for information flow</p>		

Table C. Total costs. Please separate Darwin funding from other funding sources for every budget line.

	2003/2004	2004/2005	2005/2006	TOTAL
Rents, rates, heating, lighting, cleaning, overheads				
• Darwin funding				
• other funding				
Office costs e.g. postage, telephone, stationery				
• Darwin funding				
• other funding				
Travel and subsistence				
• Darwin funding				
• other funding				
Printing				
• Darwin funding				
• other funding				
Conferences, seminars etc				
• Darwin funding				
• other funding				
Capital items/equipment (please break down)				
• Darwin funding				
• other funding				
Other costs (please specify and break down)				
• Darwin funding Consumables (fieldwork/collecting and lab. research) Consumables (setting up workshop practicals) Setting up and maintaining web facility				
• other funding Consumables (SCD-MSBP merged activity)				
Salaries (from previous table)				
• Darwin funding				
• other funding				
TOTAL PROJECT COSTS				
TOTAL DARWIN COSTS				
TOTAL COSTS FUNDED FROM OTHER SOURCES				

30. How is your organisation currently funded?

The Royal Botanic Gardens Kew is a non-departmental public body with exempt charitable status. During the year 2001/2002 the Board of Trustees received Grant-in-aid of £19.7 million from DEFRA (formerly MAFF). Total incoming resources were £32.9 m, which includes RBG Kew Enterprises and projects. Total resources expended were £29.3m (see Annual Report and Accounts for the year ended 31 March 2002).

31. Provide details of all other funding sources identified in Question 29 that will be put towards the costs of the project, including any income from other public bodies, private sponsorship, donations, trusts, fees or trading activity. Please include any additional funding the project will lever in to carry out additional work during or beyond the project lifetime. Indicate those funding sources which are confirmed.

The matching funding total is estimated to be £, of which RBG Kew will cover and IPGRI

Kew costs include: the Project Leader (Dr H. W. Pritchard; £), merged activity consumables two visits to Africa in Year 2 and to the ISTA meeting in Europe (). Overheads will also be covered (£). Additional support will be provided by two other Kew staff members during the one-week training workshop in the UK (estimate of time commitment per person is not yet determined).

IPGRI will cover the staff costs of Dr E. Dulloo, Dr Eyog-Matig and Mr Mukema (in support of local management,

training and information exchange. This support will be primarily through Rome, Nairobi and Cotonu. Other support will come from the opportunity to merge the DI project development discussions with general SAFORGEN-related meetings in the region. These are not set and Kew has set aside money (see above) on the assumption that such a meeting will take place in Year 2 of the project.

32. Please give details of any further resources sought from the host country partner institution(s) or others for this project that are not already detailed in Questions 29 and 31. This will include donations in kind and un-costed support e.g. accommodation.

All Centres/Institutes that have replied have agreed to participate in the project, i.e. 17 out of 19 (see comments in the Appendix 1 for Benin, Botswana, Burkina, Cote d'Ivoire, Ethiopia, Gambia, Ghana, Kenya, Madagascar Malawi, Mali, Niger, Tanzania, Togo, Senegal, Uganda and Zambia). Although, some of these have not specified the type of support but have nevertheless stressed the great opportunity to enhance technical and scientific knowledge, all other respondents have offered the use of laboratory facilities and motivated staff. It is not possible to estimate the cost of this support.

Access to the labs and accommodation at Wakehurst Place for the UK training course will be at modest cost compared to commercial rates, leading to an estimated saving of about £

33. Please separately indicate in Table D the amounts of grant requested under the Darwin Initiative and any confirmed funding/income from elsewhere (where these may be costed). Add together to show total project costs.

Table D Darwin funding request

	2003/2004	2004/2005	2005/2006
Amount of Darwin Initiative funding requested			
+ Funding/Income from other sources			
= Total project cost			

34. FCO NOTIFICATION

Please check the box if you think that there are sensitivities that the Foreign and Commonwealth Office will need to be aware of should they want to publicise the project's success in the Darwin competition in the host country

CERTIFICATION 2003/04

On behalf of the trustees/~~company~~ (delete as appropriate) _____

I apply for a grant of **£ 77 400** in respect of expenditure to be incurred in the financial year ending 31 March 2004 on the activities specified in paragraphs 21 and 23.

I certify that, to the best of our knowledge and belief, the statements made by us in this application are true and the information provided is correct. I am aware that this application form will form the basis of the project schedule should this application be successful.

I enclose a copy of the organisation's most recent audited accounts and annual report, CVs for project principals and letters of support.

Name (block capitals)	PROF. PETER R CRANE, FRS
Position in the organisation	DIRECTOR

Signed

Date:

10/1/03

Please return completed form to Defra by 13 January 2003 by e-mail to darwin@defra.gsi.gov.uk or in paper form to Zone 4/A2 Ashdown House, 123 Victoria Street, London SW1E 6DE.