



Submit by 13 January 2006

DARWIN INITIATIVE APPLICATION FOR GRANT ROUND 14 COMPETITION:STAGE 2

Please read the Guidance Notes before completing this form. Applications will be considered on the basis of information submitted on this form and you should give a full answer to each question. Please do not cross-refer to information in separate documents except where invited on this form. The space provided indicates the level of detail required. Please do not reduce the font size below 11pt or alter the paragraph spacing. Keep within word limits.

1. Name and address of organisation

Name: Centre for Agri-Environmental Research (CAER)	Address: School of Agriculture, Policy and Development, University of Reading, Reading, RG66AR
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2. Project title (not exceeding 10 words)

Strengthening the National Biodiversity Strategy in Congo Brazzaville.

3. Project dates, duration and total Darwin Initiative Grant requested

Proposed start date:		Duration of project:		End date:	
Darwin funding requested	Total £ 72,028	2006/07 £ 49,627	2007/08 £ 44,881	2008/09 £ 22,794	2009/2010 £ 189,330

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

To work with Congolese nationals to strengthen the National Biodiversity Strategy by:

1. Re-establishing the National Herbarium as a working biodiversity resource,
2. Establishing a National Entomological collection,
3. Developing basic research and training facilities to provide long-term in country expertise,
4. Undertaking an integrated assessment of the biodiversity status of the Mayombe Mountains region,
5. Developing a sustainable framework for assessing biodiversity in previously unexplored areas of Congo using national resources.

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

Details	Project Leader	Other UK personnel (working more than 50% of their time on project)	Main project partner or co-ordinator in host country
Surname	Potts	Becker	Yoka
Forename (s)	Simon Geoffrey	Ralf	Paul
Post held	Senior Research Fellow	Associate Researcher	Director
Institution	University of Reading	University of Reading	University Marien Ngouabi Brazzaville
Department	CAER	CAER	Institute for Rural Development

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

Yes. The University of Reading has been involved in a range of Darwin projects in Morocco (10/028, 8/066), Vietnam (10,029), Mauritius (8, 064), India (9/018, 14-039), St Helena (7/115) and Mexico (14-059).

7. IF YOU ANSWERED NO TO QUESTION 6 describe briefly the aims, activities and achievements of your organisation. (Large institutions please note that this should describe your unit or department)

Aims (50 words)

Activities (50 words)

Achievements (50 words)

8. Please list the UK (where there are partners in addition to the applicant organisation) and host country partners that will be involved in their project and explain their roles and responsibilities in the project. Describe the extent of their involvement at all stages, including project development. What steps have been taken to ensure the benefits of the project will continue despite any staff changes in these organisations? Please provide written evidence of partnerships.

Several UK, Congolese and European organisations were centrally involved in the initiation and development of the project. The same organisations will operate in a complementary capacity to implement the project through a clearly defined set of management, research, training, dissemination and communication activities. The Project Management Group (PMG) will draw members from the lead organisations and meet in person, or remotely (conference call or email discussion), regularly throughout the project. Minutes of PMG meetings will be circulated to all sponsors and partners and made available via the project webpage. The Research Group will comprise all partners involved in research activities and meet as required, and report directly to the PMG.

Royal Botanical Gardens, Kew (Kew) is recognised as one of the world's leading institutions in the area of tropical plant biodiversity and has lead, or participated, in many projects similar to the one proposed here. Kew have provided continual advise and support during the pre-proposal and Stage 1 applications. Kew were centrally involved in assessing the current status of the herbarium collection in Congo Brazzaville and identifying taxa and localities under-represented. The head of the Wet Tropics, Africa Team, Dr Martin Cheek and colleagues, will advise on the botanical surveys and project management, training and dissemination activities. Kew houses one of the best reference collections for West Africa flora which will be an invaluable resource for the taxonomic work of the project.

Natural History Museum, London (NHML) is a partner institution of the University of Reading with multiple ongoing collaborations, including several with the Project Leader of this proposal. NHML holds one of the most extensive entomological collections in the world, with bee and butterfly material from West Africa including Congo, and material from pollinator surveys will be identified with reference to the NHML collections.

Oxford University Museum of Natural History (Oxford) has a significant collection of pollinator specimens (Hope Entomological Collections) from the region and will provide additional taxonomic support. The Project Leader has had several successful projects assessing plant-pollinator biodiversity in collaboration with Oxford.

The two lead organisations in Congo are the University of Marien Ngouabi, Brazzaville (UMN) and the National Herbarium, Brazzaville (NHB) which is part of C.EV.R.E. (Centre d'études sur les Ressources Vegetales). Both signed a **Memorandum of Understanding** outlining their roles in project development and implementation (copies attached at the end of the application).

University of Marien Ngouabi, Brazzaville (UMN) will act as the lead project partner in Congo. UMN staff were involved in extensive discussions during the pre-proposal visit and were central in identifying key requirements for the project (e.g. establishment of a national entomological collection), developing the programme of field work and training workshops. Staff were also key in identifying and facilitating discussions with several government ministers. UMN will provide full time field staff to participate in the

proposed 9 months of surveys and house and curate the National Entomology collection once established. In addition, the University will host all the project workshops, meetings and seminars.

National Herbarium, Brazzaville (NHB) will be the second major partner in Congo. NHB currently host the only Herbarium in Congo Brazzaville, which was significantly degraded prior to the pre-proposal visit, though has now been protected against any further short-term damage through activities during, and resulting from, the visit and now functions at a base level. NHB staff were involved continuously throughout the project development phase and were instrumental in engaging government officials. NHB staff will have a central role in the floral survey work through the provision of staff, participate in the parataxonomic activities using collected material and continue to curate and database new material from the project. Staff will also be responsible for fieldwork logistics, permits and communication with local people.

Ministry of Economy, Forestry and Environment (MEFE), Congo assisted in defining project objectives, especially the need to develop the countries National Biodiversity Strategy. The CBD national focal point, Jean Colin Namedoum, will act as a coordinator between the project and the government, and will be involved continuously in the implementation of the project and uptake of outputs. MEFE involvement will ensure project activities are in line with current policy and that project outputs will meet development needs, specifically the need for an integrated field survey to build a framework for future assessments and monitoring. The Department of Protected Areas will provide the necessary GIS datasets to underpin the design of the field programme.

Senior staff at UMN and NHB are full time employees at these institutions and not reliant on Darwin funding; research staff involved in surveys and taxonomic work would be fully supported by the project. The close involvement of MEFE will mean that project objectives will remain in place even if individual staff members leave.

In addition to UK and Congolese partners, it has been necessary to recruit several additional partners; these will be responsible for small, clearly defined and essential parts of the overall project. All were involved in the proposal development.

African Pollinator Initiative (API) was established in response to CBD International Pollinator Initiative and has successfully established projects in several African countries. API has undertaken a series of National workshops throughout Africa to train national researchers in pollinator surveying and identification. Their experience in training, dissemination and communication will be a key part of the project and they have advised on the development of the proposal. Dr Connal Eardley (Chairman of API) will provide wide-ranging bee taxonomic expertise to the project.

Royal Belgium Institute of Natural Sciences, through Alain Pauly, will provide expertise in bee identifications and assistance in preparing a national reference collection. Alain Pauly has worked extensively in West Africa and was responsible for the publication of the first bee list for Gabon.

University of Muenster, Germany, will provide specialised taxonomic support for an important group of bees (Colletidae) through Dr Michael Kuhlmann who has considerable experience in working with African bees.

US Department of Agriculture (USDA) is supporting a worldwide phylogenetic study of a key bee family (Megachilidae) and Dr Terry Griswold will assist in identifications and preparation of a national reference collection.

National Herbarium of Belgium, has a very most extensive plant collection from Central Africa, and Prof E. Robbrecht and his colleagues will provide specialist taxonomic support for the project.

Wageningen Herbarium, Netherlands, holds a large collection of plant material from the Gabonese side of the Mayombe Mountains and Prof Marc Sosef will make this available to assist in the identification of new material collected.

Hamburg Herbarium, Germany. Dr T. Feuerer is a leading lichenologist and will use traditional and

molecular taxonomic methods to identify the lichens from the field surveys.

Munich Herbarium, Germany, host a large collection of plants from West Africa and will provide specialist taxonomic support for plant identifications through Dr Hans-Joachim Esser and his team.

Koblenz Herbarium, Germany. Prof Fischer and colleagues will identify the bryophytes using their existing collections.

Copies of letters of support and participation are attached at the end of the application.

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

A major theme of the proposal is to develop full participation of Congolese nationals at all stages of the project. Engagement with existing skilled and currently unskilled scientists has been undertaken prior to the pre-proposal visit to Congo, during the visit, and subsequently during all stages of proposal development. Several meetings allowed presentation of the proposed project to lead scientists at NHB and UMN and also to key MEFE officials. Resulting discussions covered the Darwin mission aims, identification of research and policy needs in Congo, formulation of project activities to meet needs, clarification of the expected role of Congo partners, contributions from UK and other partners, mode of funding, timeline and expected outputs.

During the pre-proposal visit Ralf Becker also attended the 2nd Central Africa Heads of State Summit on Conservation and Sustainable Development of Forests. Discussions with the CBD focal point highlighted the clear need for high quality research outputs to be made directly available to MEFE as a contribution to further developing the National Biodiversity Strategy.

PROJECT DETAILS

10. Is this a new initiative or a development of existing work (funded through any source)? Are you aware of any other individuals/organisations carrying out similar work, or of any completed or existing Darwin Initiative projects relevant to your work? If so, please give details explaining similarities and differences and showing how results of your work will be additional to any similar work and what attempts have/will be made to co-operate with and learn lessons from such work for mutual benefits.

This is an entirely new initiative aiming to build capacity for the monitoring and assessment of biodiversity in Congo Brazzaville. Previous work by the University of Reading team has elevated the highly degraded National Herbarium collection to a base level of functioning and we propose to develop this resource much further and also to establish a National Entomological collection. As far as we are aware, this project is the first to attempt to undertake an integrated inventory of plant and pollinator biodiversity using a landscape approach in Congo. The Mayombe Mountains have seen a few small-scale unstructured surveys collecting plant material (pre 1962); currently a team from Wageningen Herbarium are working on the Gabonese side of the Mountains and we have agreed to fully collaborate for mutual benefits. We are unaware of any collection of insect material from the Mayombe Mountains. We have working collaborations with Kew and the herbariums in Wageningen, Hamburg, Munich, Koblenz and the National Herbarium of Belgium which house collections of material from Congo (and other West African countries). West African insect specimens at NHML, Oxford, Royal Belgium Institute of Natural Sciences, University of Muenster and USDA will be invaluable in identifying new material.

We are aware of another Darwin application from the Edinburgh Botanical Gardens in association with WCS (Wildlife Conservation Society) to carry out survey work in the north of Congo Brazzaville. However, the scope of our project is far wider, and more ambitious, and recognises the need of Congolese nationals to be engaged fully in all activities. We expect the results of our project to provide sufficient national capacity and a sustainable framework for assessing biodiversity in other regions of Congo. This will potentially be available for the development of new co-operative projects open to national and international organisations. Our involvement with NHB, UMN and MEFE revealed that many individuals believe that NGO's currently operating in Congo are not cooperating with the government, failing to engage local scientists, and not building national capacity, despite substantial funding. Our pre-proposal visit identified a clear need for the

project to exclusively include national partners; we will however, invite representatives of NGO's to project output meetings with the aim of facilitating future collaboration.

WWF and WCS are involved in several other conservation-based projects in the area but these are primarily focussing on high profile mammals (e.g. gorillas) and bush meat.

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.

Through the integrated programme of research, training and dissemination the project will support the Government's implementation of several CBD articles:

- Article 5 (10%) Throughout the project our stated aims focus on establishing, developing and maintaining co-operative links.
- Article 6 (5%) The integrated biodiversity assessment of the Mayombe Mountains and provision of a generic framework will have widespread implications for conservation in Congo.
- Article 7 (35%) Extensive collection, identification and databasing of plant and insect material will establish the NHB and UMN as functional biodiversity resources for the country. Identification of indicator species and establishment of a monitoring framework.
- Article 8 (5%) Working with local partners to develop a process whereby regions can be assessed for *in-situ* conservation priorities.
- Article 12 (15%) Training of local scientists in a range of skills is a core part of the project and will provide a legacy of trained researchers to work on future projects.
- Article 13 (10%) The use of public seminars, TV broadcasts, press releases, popular articles, and an exhibition will bring research outputs to the public.
- Article 17 (10%) All project staff will benefit from participating in the integrated project and working as part of a multi-disciplinary team. The project aims to ensure the efficient exchange of new and existing information over the long-term.
- Article 18 (10%) The joint activities involving world class researchers from a diverse range of disciplines and local scientists will facilitate scientific co-operation.

The project includes the key elements of the International Pollinator Initiative for the Conservation and Sustainable Use of Pollinators, namely contributing to the assessment of the status of pollinators, building capacity to survey and identify pollinators, and mainstreaming pollinators to be included in conservation priorities.

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

The project team, MEFE and the CBD national focal point all recognise that Congo has some of the highest biodiversity in Central Africa, yet infrastructure to assess and conserve this resource is poor and most of the country remains unexplored. In 2001, the Congolese government launched a programme for the management of national biological diversity as part of their National Biodiversity Strategy. Following discussions with MEFE, and the CBD national focal point, several major barriers to implementing this programme were identified, and included: (1) lack of national capacity to assess biodiversity i.e. poorly functioning National Herbarium and no National Insect collection; (2) lack of skilled personnel to undertake research; (3) absence of a structured framework to inventory new areas; and, (4) deficit of useable data with which make informed decisions relating to conservation priorities. This project will meet all four of these needs by building capacity, training staff, developing a mechanism to allow future assessments to be undertaken, and in particular delivering data of the type needed to underpin policy decisions. The focus of this project is to meet the known data requirements the policy developers but not to develop policy initiatives *per se*.

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

The survey work conducted in the Mayombe Mountain area will include the gathering of information on the use of biodiversity by locals (e.g. medicinal plants). While this is not a primary objective of the current project, this additional information will be made available to the Government and NGO's to provide baseline data for future work aiming to encourage local communities to manage areas of land for conservation benefits.

The end of the project will include activities designed to bring in new funds to build upon the existing proposed project and to initiate novel and complementary projects.

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

A major impact of the work will be the ongoing co-operation, in a range of activities, between the Congolese government, local scientists and overseas scientists. All groups will be actively involved throughout the project, and together will deliver an integrated assessment and monitoring programme for the biodiversity of the Mayombe Mountains. This will act as a template of activities necessary to assess and monitor other regions of Congo as part of a developing National Biodiversity Strategy. As part of this process, the project will establish the first National biodiversity database; while this will initially include a specific set of taxa from a restricted area, but ongoing and future programmes will be able to expand this to cover many more taxa throughout the country. Local scientists will have real ownership of the project as they will be involved in the design, implementation and outputs of the surveys and will ultimately deliver this, with assistance of the project team, to the Government in a form defined by the end-users. The MEFE will benefit by setting research priorities in a realistic manner to assist local scientists in achieving future assessment and monitoring goals.

This will be achieved by: (1) providing the country with the a basic but working infrastructure and skilled staff to conduct surveys; (2) establishing and strengthening links with key overseas institutions and individuals to provide specialist input; (3) generating a robust case study to guide future assessment work; (4) Delivering high quality data to the CBD focal point which will feed directly into strengthening the National Biodiversity Strategy.

Project outputs will be disseminated as widely as possible to scientific, political and popular audiences, including the stakeholders and sponsors. Specifically we will produce a manual for assessment and monitoring to provide the basic tools to conduct future work. We will use workshops, popular articles, scientific papers, press releases and TV to target audiences in such a way as to support future assessment and monitoring activities.

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

A major legacy will be the establishment of a well trained and organised team of local scientists with the capacity to conduct ongoing monitoring and assessment work. UMN will be responsible for the continued maintenance of the National Entomology collection and post-project training in faunal surveys, insect taxonomy and databasing. Similarly UMN will continue to build the herbarium collection and give botanical training. Both UMN and NHB will have established much improved communication channels between themselves, the Government and overseas institutions. The CBD national focal point will be able to guide future research towards generating data for priority areas and thus continue to strengthen the implementation of the National Biodiversity Strategy. Involvement of API and other overseas institutions will facilitate the local partners in securing funds for new projects. In addition the project will increase the knowledge of local partners with regards to CBD and a range of initiatives for biodiversity conservation, and provide an understanding of future opportunities for continued work.

16. Please give details of a clear exit strategy and state what steps have been taken to identify and address potential problems in achieving impact and legacy.

A well-defined exit strategy has been developed. The project is built upon collaboration with all, rather than a few, relevant Government Departments, academic institutions and individuals in Congo Brazzaville. This

will provide continuity both within the lifetime of the project and beyond to ensure it will cross short-term appointments. Current relations with MEFE are good and we will seek to continually strengthen these during the project, so that the long-term benefits from ongoing collaborations to both the government and UMN and NHB are clearly recognised. Specifically we will encourage the Government to fund further biodiversity research programmes involving NHM and UMN. The availability of NHB and UMN reference collections and databases, in conjunction with written project outputs, will provide infrastructure for further assessment and monitoring work. Our training programme aims to provide skills which will be useful beyond the end of the project and applicable to a wide range of biodiversity issues. During the project we will also introduce local partners to the International funding environment and identify future funding opportunities to continue development of the National Biodiversity Strategy. We plan to jointly seek new sponsorship for follow-on work and will support future applications (as project participants or as advisors) made by local partners. Finally we will foster better links between project partners and other organisations such as FAO, WWF and EU.

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

Throughout the project, every appropriate opportunity will be taken to highlight the Darwin Initiative. All outputs, including presentations, publications, press releases and popular media coverage, will acknowledge Darwin funding. The Darwin name and logo will be used on all correspondence, field vehicles and dissemination material and the Website. Plant and insect collections will be labelled as supported by the Darwin Initiative and the proposed exhibition at Kew gardens will make prominent use of the name and logo.

18. Will the project include training and development? Please indicate who the trainees will be and criteria for selection and that the level and content of training will be. 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?

Training is a core part of the project and will include both general and specific training elements. General training will be achieved through a series of workshops and seminars, and the trainees will be selected from UMN, NHB and MEFE by the heads of the Departments/Institutes in consultation with UK project staff. We aim to train a total of 45 staff across all workshops, though any individual workshop will have fewer attendees. Basic skills workshops will include c.20 trainees, and those showing most promise will be invited to attend later more advanced skill training sessions.

Planned training sessions:

- Project start-up: all partners and stakeholders will be invited to review project plans and agree on detailed timetable of activities and responsibilities (1 day, Sept 2006).
- Basic skills: Introduction to collection management, Brahms database, GIS and sampling protocols (3 days, Sept 2006).
- Intermediate skills: Advanced collection management and databasing, introduction to CITES protocols, overview of key CBD articles (3 days, May 2007).
- Species assessment: Introduction to IUCN protocols, rapid biodiversity assessment methods and teaching methods (3 days, Sept 2007).
- Advanced GIS and basic data interpretation using field material (3 days, Sept 2007).
- Advanced data analysis and use of Brahms (3 days, May 2008).
- Generating outputs: Checklists, maps and reports (3 days, June 2008).
- National Biodiversity Strategy framework workshop (1 day, Aug 2009).

Workshop leaders will include a practical and/or written test at the end of each workshop to assess the progress of the trainees. Monitoring of research quality will be undertaken by NHB and UMN heads as part of their usual working practice, with the option to invite overseas experts to assess new trainees' performance on-the-job where appropriate. It is anticipated that those trained will be able to train others and will be provided with the training course materials (presentations, workbooks and supporting materials). Those individuals showing the most aptitude will be invited to attend individual sessions on writing publications and proposals.

Specific *in situ* training will be integral to the fieldwork programme and include detailed hands on training in field site selection, sampling and specimen preservation methodologies. Prior to the main survey period, a brief local field survey will be conducted to run through all the field techniques. This will be followed by work at NHM and UMN to process the material, so that field workers are aware of the full survey process.

In addition, we plan to apply for at least one Darwin Scholarship for the most promising student and/or young scientist.

LOGICAL FRAMEWORK

19. 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
Goal: 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 <ul style="list-style-type: none"> the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of benefits arising out of the utilisation of genetic resources 			
Purpose To work with Congolese nationals to strengthen the National Biodiversity Strategy (NBS).	1) NHB established as a biodiversity resource; UMN entomological collection set up. 2) Developing basic research and training facilities for long-term in country expertise. 3) Integrated biodiversity assessment of Mayombe Mountains region (MM). 4) Generic framework of activities needed to assess and monitor biodiversity.	1) Reports on the research facilities and working database. 2) Participation of Congolese in training programme. 3) Reports and publications on plant and pollinator biodiversity of MM, and monitoring plan. 4) Report and workshop for CBD focal point and government ministries.	Effective collaboration between NHB, UMN, MEFE and ex-Congo experts. Continued political stability in Congo Brazzaville. Incorporation of new knowledge into MEFE activities.
Outputs 1) Well maintained and databased plant and insect collections. 2) Partners able to collect and curate plant and insect material. 3) Environmental stratification of MM completed identifying survey sites. 4) Inventory and biodiversity assessment for MM complete. 5) Monitoring framework for MM	1) Existing NHB material curated; UMN entomological collection housed. Material databased. 2) 45 NHB & UMN staff trained variously in survey, database, GIS and identification methods. 3) Vegetation mapping, analysis and monitoring report drafted. 4) 9 months field work, identification and databasing. 5) Biodiversity	1) Receipts for equipment donated. Report on facilities. 2) Reports on training; workshop attendance records and skill assessment by experts. 3) Report peer-reviewed. 4) Report on vegetation maps, checklists and databases of plants and pollinators. 5) Report and monitoring timetable. 6) Manual assessment by expert panel. 50	1) Commitment from NHB and UMN staff. 2) Local support for workshops available. 3) None. Technique used by UoR. 4) Extreme weather and health issues. 5) Expert input available. 6) None. 7) Continued cooperation with MEFE maintained.

<p>established. 6) Assessment and monitoring manual published and circulated. 7) NBS framework workshop. 8) Publications and presentations.</p>	<p>monitoring plan drafted. 6) Manual drafted, reviewed and publication date set. 7) Workshop planned and conducted. 8) Three public seminars, press releases, popular articles and papers. Two TV broadcasts and an exhibition.</p>	<p>copies circulated; two copies sent to Darwin Initiative. 7) Direct involvement of Ministries and CBD focal point. 8) Copies of publications sent to Darwin Initiative.</p>	
<p>Activities</p> <p>1) Training.</p> <p>2) Field research programme.</p> <p>3) Dissemination.</p>	<p>Activity milestones (summary of project implementation timetable)</p> <p>1) Training workshops including assessment of attendees progress: a) Collection management, introduction to Brahms database, basic GIS, and sampling protocols (Sept 2006); b) Advanced collection management and databasing, CITES protocols, overview of key CBD articles (May 2007); c) Species assessment (IUCN protocols), rapid biodiversity assessment methods, teaching methods (Sept 2007); d) Advanced GIS and basic data interpretation using field material (Sept 2007); e) Advanced data analysis and use of Brahms (May 2008); f) Generating outputs (checklists, maps, reports) (June 2008); g) NBS framework workshop (Aug 2009).</p> <p>2) Initial satellite imagery analysis and year 1 survey sites defined (Sept 2006); Ongoing analysis for further sites (Jan-Dec 2007). Field surveys (Oct 2006-Mar 2007; Oct 2007-Jan 2008; Mar-Apr 2008; 3 months in 2008/9). Identification of material initially in Congo then by ex-Congo experts (after field surveys).</p> <p>3) Reports: Site selection (Oct 2006/7); NHB and UMN facilities (Dec 2007); workshop reports (2 months post workshop); MM biodiversity assessment (Aug 2008 and June 2009); monitoring report (July 2009). Manual of assessment protocols (Aug 2009). Two TV broadcasts (TVC) in Congo (2007 & 2008); each year, one local public seminar, press release (UoR), paper and popular science article; Botanical exhibition, Kew (2009).</p>	<p>Assumptions</p> <p>1) Timing of rainy season (flowering time) and dry season (fruiting time) typical. Exceptional changes may modify timetable of workshops but not number or content. Continued support of UK experts.</p> <p>2) Timing of seasons, though generally predictable, will define time windows for survey work.</p> <p>3) Continued commitment of TV broadcasters and local partners.</p>	

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

Project implementation timetable		
Date	Financial year	Key milestones
	Apr-Mar 2006/7	
	Apr-Mar 2007/8	

	Apr-Mar 2008/9 Apr-Mar 2009/2010	
Sept 2006	Apr-Mar 2006/7	<p>Research Programme</p> <p>Initial satellite imagery analysis and 1st year sites defined 1st set of field surveys complete NHB plant database upgraded UMN National Entomology Collection established Completion of analysis to identify additional sites Pre-sorting of material from 1st survey complete UMN pollinator database established Assessment of NHB and UMN facilities complete 2nd set of field surveys complete Pre-sorting of material from 2nd survey complete 3rd set of field surveys complete (if needed) Identification of plant material complete Identification of insect material complete</p> <p>Training Activities</p> <p>Project start-up seminar Basic skills workshop Intermediate skills workshop Species assessment workshop Advanced GIS and data interpretation workshop Data analysis workshop Outputs workshop National Biodiversity Strategy framework workshop Project output seminar</p> <p>Dissemination and Communication Activities</p> <p>Workshop reports (2 months post workshop) Site selection final report Facilities report for NHB and UMN TV broadcasts complete Mayombe Mountains biodiversity assessment final report Draft of manual complete Mayombe Mountains biodiversity monitoring report Seminars and press releases complete Manual complete and circulated Articles and papers submitted for publication Botanical exhibition, Kew</p>
Mar 2007	Apr-Mar 2006/7	
June 2007	Apr-Mar 2007/8	
July 2007	Apr-Mar 2007/8	
Aug 2007	Apr-Mar 2007/8	
Sept 2007	Apr-Mar 2007/8	
Oct 2007	Apr-Mar 2007/8	
Dec 2007	Apr-Mar 2007/8	
Apr 2008	Apr-Mar 2008/9	
Sept 2008	Apr-Mar 2008/9	
Mar 2009	Apr-Mar 2008/9	
June 2009	Apr-Mar 2009/2010	
July 2009	Apr-Mar 2009/2010	
Sept 2006	Apr-Mar 2006/7	
Sept 2006	Apr-Mar 2006/7	
May 2007	Apr-Mar 2007/8	
Sept 2007	Apr-Mar 2007/8	
Sept 2007	Apr-Mar 2007/8	
May 2008	Apr-Mar 2008/9	
June 2008	Apr-Mar 2008/9	
Aug 2009	Apr-Mar 2009/2010	
Aug 2009	Apr-Mar 2009/2010	
Nov 06-Aug 09	Apr-Mar 2006/7/8/9/10	
Oct 2007	Apr-Mar 2007/8	
Dec 2007	Apr-Mar 2007/8	
Dec 2008	Apr-Mar 2008/9	
June 2009	Apr-Mar 2009/2010	
June 2009	Apr-Mar 2009/2010	
July 2009	Apr-Mar 2009/2010	
July 2009	Apr-Mar 2009/2010	
Aug 2009	Apr-Mar 2009/2010	
Aug 2009	Apr-Mar 2009/2010	
Summer 2009	Apr-Mar 2009/2010	

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

PROJECT OUTPUTS		
Year/Month	Standard output number (see standard output list)	Description (include numbers of people involved, publications produced, days/weeks etc.)

2006 – 2009	5	4 research assistants working on field surveys and collection management and databasing
2006 – 2009	6A and 6B	c45 UMN, NHB, MEFE staff to attend project workshops; 6 three day workshops and 2 one day workshops.
Aug 2009	7	Assessment and monitoring manual
2006 – 2009	8	31 months total
2006 – 2009	11A	1 peer-reviewed paper published
2006 – 2009	11B	3 peer-reviewed papers submitted
Oct 2007	12A	1 – UMN pollinator database established
June 2007	12B	1 – NHB plant database upgraded
July 2007	13A	1 – National Entomology Collection established at UMN
2006 – 2009	13B	1 – NHB plant reference collection enhanced
Sept 2006 and Aug 2009	14A	2 – project planning and project output workshops
2006 – 2009	14B	5 (3 local seminars & 2 (inter-)national) conferences
2006 – 2009	15A	2 linked to project start-up and completion
2006 – 2009	15C	2 linked to project start-up and completion
2006 – 2009	16A	2 linked to project start-up and completion
2006 – 2009	16B	c300 to UMN, NHB, MEFE, and NGOs in Congo Brazzaville
July 2009	17A	1 involving UMN, NHB, MEFE and UK partners based around the project website
2006 – 2009	18A	2 – TV Congo news items
2006 – 2009	22	All survey sites will be georeferenced and the outputs of the analysis will determine the number (c6) to be used for future monitoring purposes
2006 – 2009	23	£230,449 has been raised in-kind; contributions are mostly salary and field equipment.

PROJECT BASED MONITORING AND EVALUATION

22. Describe, referring to the Indicators in the Logical Framework, how the progress of the project will be monitored and evaluated, including towards delivery of its outputs and in terms of achieving its overall purpose. This should be during the lifetime of the project and at its conclusion. Please include information on how host country partners will be included in the monitoring and evaluation.

Overall monitoring and evaluation of the project will be the responsibility of the Project Management Group (PMG), which will meet at least four times and will include senior representatives from University of Reading, Kew, UMN, NHB, MEFE, and the CBD Focal Point. Project staff and at least one representative from the Research Group will present the current status of research, training and dissemination activities. The PMG will assess progress against Indicators in the Logical Framework in open discussion and minutes of the PMG circulated to all project partners and sponsors. Between meetings, the PMG will be regularly updated on developments by project staff by email. In addition to the key outputs listed in the Logical Framework the PMG will define a set of secondary targets which will be monitored to ensure sufficient progress towards major outputs, and to act as an early warning of potential difficulties. All research activities will be designed, implemented and evaluated by the Research Group which will comprise representatives of all research partners. Working groups will be established to cover key research areas such as: insect taxonomy, GIS analysis and site selection etc.

Host country partners will be directly involved in the monitoring and evaluation through membership of the PMG and Research Groups. Local partners collaborated on the formulation of the logical framework and will be centrally involved in development of specific work packages for research, training and dissemination activities. The joint development of detailed workplans will give local partners responsibilities for the deadlines leading to project milestones, indicators and outputs in accordance with the Logical Framework. UMN and NHB staff will be encouraged increasingly to participate the production of reports and management activities as the project progresses. This will facilitate a shift in responsibilities as the project matures and contribute to a successful exit strategy.