Submit by 5 January 2007

DARWIN INITIATIVE APPLICATION FOR GRANT ROUND 15 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 (NB: Notification of results will be by post)

Name: The Royal Society for the Protection of Birds (RSPB)	**Address:** The Lodge, Sandy, Bedfordshire, SG19 2DL

2. Project title (not exceeding 10 words)

Biodiversity inventory and monitoring for conservation of threatened Sumatran forest

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

Proposed start date: July 2007 (but this is flexible)	**Duration of project:** 3 years	**End date:** June 2010			
Darwin funding requested	**2007/08** £79,420	**2008/09** £77,830	**2009/10** £78,830	**2010/11** £23,115	**Total** £259,195

4. Define the purpose of the project (extracted from logframe)

The purpose of this project is to undertake a biodiversity inventory and establish a sustainable monitoring system for the Harapan Rainforest initiative, which will guide the conservation management of one of the last remaining lowland forests in Sumatra.

The consortium partners identified below were successful in winning, at open auction, the management rights to the concession area. The management objectives for the initiative consist of habitat restoration and rehabilitation as well as conservation. These three core components will require an integrated biological monitoring system consisting of baseline taxonomic and habitat condition information and a detailed monitoring plan. The means to sustain and develop this work will be in the form of a permanent research and training facility located in the forest, an ongoing training programme and training materials. The presence of such a facility will also be of great benefit to researchers and conservationists throughout the region.

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 and co-ordinator in host country/ies
Surname	Lindsell		Lusli
Forename (s)	Jeremy		Sukianto
Post held	Research Biologist		Executive Director
Institution	RSPB		Burung Indonesia
Department	Conservation Science		N/A

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

Reference No	Project Leader	Title
4/159	Mr Martin Davies	Directory of sites of ornithological importance in Tanzania
8/220	Mr Aidan Lonergan	Management planning for conservation of fen mire biodiversity in Belarus
10/019	Dr Dieter Hoffman	Action plans for conservation of globally threatened birds in Africa
11/003	Dr Paul Buckley	Kenyan Important Biodiversity Areas: improving monitoring, management and conservation action
12/010	Ms Sarah Sanders	Empowering the people of Tristan da Cunha to implement the CBD
12/027	Mr Richard Cuthbert	Prediction and management of declines in *Gyps* species vultures
12/031	Mr Aidan Lonergan	Implementing urgent conservation actions in mesotrophic fen mires in Belarus
13/030	Dr Paul Donald	Gurney's pitta research and conservation in Thailand and Myanmar
13/031	Mr Alex Hipkiss	Pioneering an innovative conservation approach in Sierra Leone's Gola Forest
14/027	Ms Sarah Sanders	Enabling the people of Montserrat to conserve the Centre Hills
14/041	Mr Stephen Parr	Strengthening the Indian Bird Conservation Network to safeguard key sites
14/049	Mr Alex Hipkiss	Participatory management of priority biodiversity sites in Taraba State, Nigeria
14/061	Dr Michael Brombacher	Important Bird Area conservation and capacity building in Central Asia
15/012	Mr Paul Buckley	Protecting key South African biodiversity sites through community-based conservation
15/032	Dr Paul Donald	Conserving a flagship steppe species: the critically endangered sociable lapwing
10/019 (post-project)	Mr Paul Buckley	Enabling implementation of threatened bird Species Action Plans in Africa
EIDP07	Mr Paul Buckley	Ensuring legacy and conservation impact within Kenya's biodiversity monitoring network

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)
N/A

Activities (50 words)
N/A

Achievements (50 words)
N/A

8.   Please list the UK/collaborative (where there are partners <u>in addition</u> to the applicant organisation) and host country partners that will be involved, and explain their roles and

responsibilities in the project. Describe the extent of their involvement at all stages, including project development. This section should illustrate the capacity of host country partners to be involved in the project. Please provide written evidence of partnerships.

The Meranti and Kapas Forest Blocks will be managed by a consortium of RSPB, Burung Indonesia and BirdLife International by means of a foundation – Yayasan Konservasi Ekosistem Hutan Indonesia – set up specifically for this purpose under Indonesian law. One of the directors of this foundation will be responsible for the management of the research and training centre whilst another, who will have overall responsibility for the forest estate, will work closely with the director of the centre, the lead research scientist and the survey and monitoring team in order to feed their findings into the management process. It is through the foundation that RSPB will deliver the management control of this Darwin project.

There are many individuals within each of the key organisations involved in this project in various ways and participation in this project by each organisation is high on their respective agendas. Success or otherwise does not therefore depend on the role of any one or two individuals and so is much less vulnerable to staff turnover.

Information about Burung Indonesia, BirdLife International and other key organisations is provided below.

Partner	Details (including roles and responsibilities and capacity to engage with the project):
Burung Indonesia	Burung Indonesia is one of the leading conservation organisations in Indonesia. It was instrumental in identifying the opportunity to acquire the management rights for this forest (see below) and will remain a central player. It will have a key role in the establishment of the research and training centre, particularly in recruiting and staffing, administrative support, survey experience and local organisation.

Partner	Details (including roles and responsibilities and capacity to engage with the project):
BirdLife International	BirdLife International is an international organisation of which Burung Indonesia and RSPB are full national Partners. BirdLife has been closely involved in the assessment of the site and progress towards acquisition of the concession and will remain involved during the course of this proposed work ensuring a high profile for the project and undertaking crucial advocacy work.

Partner	Details (including roles and responsibilities and capacity to engage with the project):
Bogor Agricultural Institute (IPB)	IPB will provide expertise in forestry and biodiversity research to help develop the training programme and undertake the forest survey. IPB is the leading institution in Indonesia for natural sciences so is the natural academic partner for the Harapan Rainforest initiative. We fully expect further partnerships to develop in due course with other universities (such as in Jambi) as the research programme and centre become established.
Forest Research Institute of Chiang Mai, Thailand	Forest Research Institute will be providing expertise in forest restoration and will also contribute to the development of the monitoring plan.
Royal Botanic Gardens, Kew	The Southeast Asia team at the RBG Kew will collaborate in a number of areas including identification of plant material from the biodiversity survey, provision of training and participation in data collection under their expeditionary programme (see letters of support).

9a. Have you consulted stakeholders not already mentioned above? ☒ **Yes** ☐ **No**
If yes, please give details:

The consortium has been in close contact with the Government of Indonesia, in particular the Ministry of Forestry through the Director General for Production Forests, the Director General for Conservation and the Director of Forestry. As a direct result of the Harapan Rainforest initiative, the Indonesian Government brought about a change in the law to allow logging concessions to be managed for ecosystem restoration and established a new concession class allowing forest restoration and conservation in production forests (see Annex).

The consortium applied for a 55-year concession for the forest, including the rights for conservation management, the restoration of more degraded areas of the concession and the exploitation of non-timber products. It was successful in winning the concession in open auction in early 2006. Furthermore, the forestry law relating to ecosystem restoration (PP34) is currently under review and, if approved in its currently proposed form, will extend the lifetime of ecosystem restoration licences to 100 years. It is anticipated that this revision will be completed in the first 6 months of 2007.

Although the Government of Indonesia is not a formal partner as such in this project, it is nonetheless fully engaged, primarily through its role in granting the concession. This has already involved significant advocacy by the project partners on the amendments to national forest laws to allow the concession to be awarded for ecosystem restoration purposes. A close relationship has developed with the Indonesian Ministry of Forestry's Forest Research and Development Agency (FORDA) as a result of this. Formal support for the project has also been given by the governors of South Sumatra and Jambi provinces and the administrators of the districts in which the concession lies. As project activities develop, government agencies will be engaged and involved in activities such as forest security and selected research activities, as appropriate.

Over the past 3 years, during the development phase of the Harapan Rainforest initiative, RSPB and Burung Indonesia have been in close contact with the British Embassy in Jakarta, Indonesia. In particular, the Ambassador, H.E. Charles Humphrey and the Deputy Head of Mission, Matthew Rous, have been very supportive. They are well informed of the consortium's progress with acquiring the concession for the forest.

Local communities in surrounding villages have been engaged in the Harapan Rainforest initiative through Participatory Rural Appraisals investigating use of forestry products, logging and encroachment in the concession area. The partnership is working with local communities through WARSI (Community Conservation of Indonesia), a local community NGO.

Some local people who were employed by the logging concession have been retained by the consortium. The consortium is committed to ensure that local communities participate in the management planning process and the definition of the use of non-timber forest products. Furthermore, the consortium is also committed in supporting these communities to find alternative income.

Extensive discussions have also been had with surrounding land users regarding access to the concession land and the ways in which they may be able to promote the success of this new approach. The neighbouring oil palm plantation has already indicated financial and in-kind support for Harapan Rainforest.

9b. Do you intend to consult other stakeholders? ☐ **Yes** ☒ **No**
If yes, please give details:

9c. Have you had any (other) contact with the government not already stated? ☒ **Yes** ☐ **No**
If yes, please give details:
The consortium maintains close contact with all levels of Indonesian government. As part of the administrative obligations of winning the concession auction it has gained formal letters of support for the initiative from the relevant provincial governors and district officials. It also has invested heavily in developing relationships within the central Ministry of Forestry in Jakarta. On December 1st 2006 an evening reception was hosted jointly by the Minister of Forestry and Burung Indonesia to signal this first ecosystem restoration concession.

PROJECT DETAILS
10. Please provide a Concept note (Max 800 words) (repeat from Stage 1, with changes highlighted)
This Darwin project will focus on establishing an essential baseline biodiversity inventory and developing

the capacity for a sustained monitoring and research programme in one of the last remaining lowland Sundaic forests in Sumatra, Indonesia. Under this project, the Darwin Initiative will play a central role in one of the most innovative and exciting site-based conservation and restoration initiatives in SE Asia, with repercussions for the conservation and restoration of tropical forest throughout the region.

The ancient lowland rainforests of Sumatra are among the most biologically diverse yet most critically threatened habitats on earth. So it is of great significance that the RSPB, Birdlife International and Burung Indonesia have won the concession to manage one of the largest tracts of unprotected forest remaining – some 1,000 km^2. This opportunity (known as the 'Harapan [=hope] Rainforest') has come about following extensive high-level lobbying, as a result of which the Government of Indonesia has recently introduced a new type of forestry concession allowing for restoration, rehabilitation and conservation in production forests. The forest in question is the first, and presently the only, site that has been given this special status, and is therefore a significant showcase for a new approach to forestry management in Indonesia and globally. The forest is part of the former Asialog and Inhutani concessions in the Meranti and Kapas Forest Blocks on the southern border of Jambi Province, SE Sumatra.

Limited surveys in the Meranti watershed forests have already indicated the presence of several of Indonesia's many globally threatened birds and other animals, but population sizes and status are unknown and it can safely be assumed that many more species remain to be discovered. Of the birds, Storm's Stork *Ciconia stormi* is classified as globally Endangered, and Crestless Fireback *Lophura erythrophthalma,* Short-toed Coucal *Centropus rectunguis,* Large Green-Pigeon *Treron capellei,* Wallace's Hawk Eagle *Spizaetus nanus,* and Large-billed Blue Flycatcher *Cyornis caerulatus* are all globally Vulnerable. A further 62 near-threatened bird species have also already been recorded in the forest. In addition to birds, the forest is known to host numbers of the Critically Endangered Sumatran Tiger *Panthera tigris sumatrae* and the Endangered Asian Elephant *Elephas maximus*, as well as many other large mammals.

Despite this knowledge, a detailed biological assessment across a range of taxa is lacking and current capacity in Indonesia to undertake such research is low. This project will therefore:

1. undertake an in-depth inventory of a wide range of taxa, establishing a baseline for future monitoring for many taxonomic groups across the variety of habitats in the forest
2. establish a centre of excellence in the forest, providing training for staff and other regional participants in forest monitoring methods to ensure local sustainability, and developing ecological research central to the management of the forest
3. produce a detailed biological monitoring plan and monitoring manual for tracking progress in those parts of the forest undergoing restoration and rehabilitation as well as conservation.

This biological work needs to be seen in the context of the wider work of the Harapan Rainforest, which includes habitat restoration and rehabilitation and various conservation activities engaging with forest-dwelling and forest-edge communities.

Burung Indonesia (the Birdlife partner in Indonesia) will be responsible for recruiting the core staff for the inventory and monitoring team and implementing activities on the ground such as acquisition of materials and rehabilitation of buildings for the research and training centre. The **RSPB** will provide expertise in forest inventory and monitoring and assist in recruiting the key staff required to lead the work on the ground, in particular the lead scientist who will be responsible for organising the inventory work, developing the monitoring plan and establishing the training programme. This person will be an established scientist with substantial practical experience in managing tropical forest ecological research. **BirdLife International** will maintain its role as a partner in the management of Harapan Rainforest. The **Bogor Agricultural Institute (IPB)** will provide expertise in forestry and biodiversity research to help develop the training programme and undertake the forest survey. The **Forest Research Institute** of Chiang Mai, Thailand, which will be providing expertise in forest restoration, will also contribute to the development of the monitoring plan. The **Royal Botanic Gardens, Kew SE Asia Team** will collaborate in identification of plant material from the biodiversity survey, the provision of training and participation in data collection under their expeditionary programme.

The auction of the licence has been won by the applicants and some staff are already on the ground. In addition, a high proportion of the trust fund to sustain Harapan Rainforest has already been secured. We seek funds from the Darwin Initiative to enable us to commence these crucial activities on the ground.

11a. Is this a new initiative or a development of existing work (funded through any source)?

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Please give details:

Not only is this a new initiative, it is truly groundbreaking in its ambition and means of delivery. No other work is being undertaken to safeguard either this forest or the few others like it remaining in Sumatra. To date it has been under a logging concession owned by local logging companies. Now that the concession has been won by the conservation consortium, a large conservation and restoration project is underway of which this Darwin project is an integral part.

11b. Are you aware of any other individuals/organisations/Darwin Initiative projects carrying out similar work? ☒ **Yes** ☐ **No**
If yes, please give details explaining similarities and differences, and explaining how your work will be additional to this work and what attempts have/will been made to co-operate with and learn lessons from such work for mutual benefits:

The Zoological Society of London has undertaken research on tiger ecology on adjacent land and we will be building on any experience gained there. There are currently no forest-based research and training centres in Sumatra that are able to provide the kind of resources required for the conservation management of such a large tract of forest. However, a considerable amount of relevant research has been undertaken in lowland forest in other areas of SE Asia, particularly through the Royal Society-funded South East Asia Rainforest Research Programme (SEARRP) at the Danum Valley Field Centre in Borneo; and through the work of the Centre for International Forestry Research (CIFOR). This work will be taken on board in the setting of research priorities and the design of the survey and monitoring work and, it is anticipated, lead to new collaborations. We have very close contacts with CIFOR's global headquarters in Bogor and they are fully informed of, and interested in, the progress of the Harapan Rainforest initiative. At present, it is not proposed that CIFOR becomes actively engaged in the project partnership for biological survey, monitoring and training, but we will continue to liaise with them regarding the wider Harapan Initiative.
Besides Danum Valley, a number of forest research stations have been established in countries around the world, and lessons will be drawn from their experiences. The research station proposed here will join this network and make a unique and valuable contribution in the tropical forest research and conservation community, such as the IUCN's forest ecosystem restoration working group.

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 lowland Sundaic forests of Sumatra are some of the most critically threatened habitats in the world. In recent years, they have suffered a massive decline in area as timber is extracted for the wood and pulp industry but, perhaps more significantly, as land is cleared for oil palm. Indonesia is committed to expand its oil palm industry on a large scale and so the pressure on the remaining forests is only increasing. Nonetheless, Indonesia is also committed to the conservation of its forests and initiatives such as the Harapan Rainforest have been well received by the government as a novel means to achieve that end.

Burung Indonesia undertook an assessment of all large areas of lowland forest in Sumatra that remained outside of protected areas. Each area was ranked according to both its current biological significance and the potential tractability of a conservation programme. This identified some five key areas, the leading contender for which was the Asialog/Inhutani concessions in the Meranti watershed on the southern border of Jambi Province, which is now the focus of this project.

With 118 threatened species, Indonesia has more threatened birds than any other country in the world, primarily because of the ongoing reduction in lowland forest area. Limited surveys in the Meranti watershed forests have already indicated the presence of several globally threatened birds and animals (though populations sizes and status are unknown) and it can safely be assumed that many more remain to be discovered. Of the birds, Storm's Stork *Ciconia stormi* is classified as globally Endangered and Crestless Fireback *Lophura erythrophthalma,* Short-toed Coucal *Centropus rectunguis,* Large Green-Pigeon *Treron capellei,* Wallace's Hawk Eagle *Spizaetus nanus* and Large-billed Blue Flycatcher *Cyornis caerulatus* are all globally Vulnerable species. A further 62 Near-Threatened bird species have already been recorded in the forest. Of the mammals, the most important species present is the Endangered Sumatran Tiger *Panthera*

tigris sumatrae of which there appears to be a healthy population. The Endangered Asian Elephant *Elephas maximus* has also been recorded in the forest.

The conservation and restoration of this forest will contribute directly to the conservation of all these species and the habitats they occupy. The survey work proposed by this Darwin project will enable assessment of population sizes and status for these species thus informing assessments of their wider conservation status and plans for their effective management to improve this. Such is the nature and global importance of the habitats involved, the survey work is also expected to reveal many more species of conservation concern occurring in the area.

13a. How will the project assist the host country in its implementation of the Convention on Biological Diversity? Please rank the relevance of the project to the relevant article(s) of the CBD thematic programmes and/or cross-cutting themes by indicating percentages.

Articles	% Relevance	Themes	% Relevance
5. Co-operation	5	Access and Benefit Sharing	
6. General measures for Conservation and Sustainable Use		Agricultural Biodiversity	
7. Identification and Monitoring	35	Alien Species	
8. *In-situ* Conservation	15	Biodiversity and Tourism	
8h. Alien Species		Biosafety	
8j. Traditional Knowledge		Climate Change and Biodiversity	
9. *Ex-situ* Conservation		Economics, Trade and Incentives	
10. Sustainable use of components of Biological Diversity		Ecosystems approach	
11. Incentive measures		Forest Biodiversity	45
12. Research and Training	25	Global Strategy for Plant Conservation	
13. Public education and awareness		Global Taxonomy Initiative	
14. Impact assessment and minimizing adverse impacts	5	Impact Assessment, Liability and Redress	10
15. Access to genetic resources		Indicators	
16. Access to and transfer of technology	5	Inland Waters Biodiversity	
17. Exchange of information	5	Marine and Coastal Biodiversity	
18. Technical and scientific co-operation	5	Mountain Biodiversity	
19. Handling of biotechnology and distribution of its benefits		Protected Areas	45
20. Financial resources		Public Education and Awareness	
21. Financial mechanism		Sustainable Use and Biodiversity	
22. Relationship with other international conventions		Traditional Knowledge, Innovations and Practices	
23. Conference of the Parties			
24. Secretariat			
25. Subsidiary Body on Scientific, Technical and Technological advice			
26. Reports			

**13b. Is any liaison proposed with the CBD national focal point in the host country?   ☒ Yes ☐ No
If yes, please give details:**
Burung Indonesia was involved in the development of the Indonesia Biodiversity Strategy and Action Plan and is thereby in close contact with the CBD national focal point, Dr. Masnellyarti Hilman, at the Ministry of Environment, who will be kept informed of progress of the Harapan Iniative.

14. If relevant, please explain how the work will contribute to sustainable livelihoods in the host country. (Max 200 words)

This project will contribute directly to sustainable livelihoods by providing local employment in the research, survey and monitoring work and the research and training centre. We are committed to employing and training good staff from the local communities. The training centre and training programme will be valuable

in staff development, contributing to their own livelihoods by increasing their skills. Research at the station will produce results that will inform sustainable forest use more widely. Many people live around the forest and depend on it for natural resources. A complementary component of the wider initiative has been awarded a grant from the EC to include work in partnership with the Overeas Development Institute and WARSI, primarily to address issues of community development and poverty alleviation around the Harapan Rainforest. The consortium will work with local communities to identify and support alternative income generating mechanisms. Assessment of forest resources will allow a more sustainable approach to be developed thus ensuring indigenous ways of life. Reliable assessment of key non-timber forest products in the survey will enable the development of new markets The Harapan Rainforest is a long-term investment that is developing mechanisms for funding the forest's conservation in perpetuity with resultant security of livelihoods.

15. 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. (max 200 words)

Taking a logging concession and managing it for conservation and restoration is a totally novel concept in Indonesia and a highly significant step to find a new way to halt deforestation in Indonesia. Until recently, forests classified as production forests were either logged or converted to plantation forests. Harapan Rainforest is the first ever project in Indonesia to find a way of conserving and restoring production forests and thereby conserving and enhancing the important biodiversity in production forests. The research and training centre will be at the heart of Harapan Rainforest initiative. Given that many concessions in production forest in Indonesia will be expiring in the near future and will therefore become available for tender, the potential for more such restoration projects in Indonesia is great, with the Harapan Project acting as a role model.

Local and international collaborations will disseminate experience from this project to those who are involved in tropical forest conservation elsewhere in the region. This will be done through the hosting and training of researchers and forest managers from other countries, publication of results in peer-reviewed journals and project reports, press releases, through the websites of the partner organisations, and through international conferences.

16. How will the work leave a lasting legacy in the host country or region? (max 200 words)

The establishment of a centre of excellence in training and research will allow the ongoing development of a valuable human resource base within Indonesia and the region, that can continue to be drawn on, not only for the conservation of this forest but also for other areas. The successful assessment and monitoring of the forest leading to the development of a successful management plan will ensure that the forest itself remains as a lasting legacy for the nation and the international community. Harapan Rainforest is built around an initial 55-year time frame (equivalent to the duration of the new licence), which ensures the medium term future for the achievements of this Darwin project. If Forestry Law PP34 is successfully amended the concession licence will be for 100 years, ensuring the long-term future for the achievements of the project.

17. 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. For example, what steps have been taken to ensure the benefits of the project will continue despite any staff changes in these organisations? (max 200 words)

The establishment of the training and research centre is intended to provide the means by which sustainability in tropical forest research, monitoring and conservation can be attained at this particular site and in Indonesia more generally. Although funding from Darwin is sought for the initial 3 years phase, which includes setting up the centre, it is intended that the ongoing presence of the centre will be central to the management of the forest for many years to come. The centre will provide a focus for visitors to access interpretative materials about the forest, a base from which local and international researchers can work in the forest and the base for training and managing the key staff required in the ongoing management of the forest as a conservation area. At the cessation of Darwin funding, the Harapan Rainforest trust fund will take over, ensuring that the work is sustained thereafter. It is anticipated that additional resources will be obtained through visiting researchers and ecotourists, and long-term collaborations will be established in key research areas. By the end of the three years, the centre will be, at least partly self-funding.

18. How will the project be advertised as a Darwin project and in what ways will the Darwin name and logo be used? (max 100 words)

Darwin name and logo will be clearly associated with all signboards, buildings and vehicles that are part of the inventory work and training centre. Key communications and publicity regarding the project will acknowledge Darwin funding, including full reference on the Harapan Rainforest website. This project will be high profile in the UK at its launch and within Indonesia. It is expected that the centre will become a globally recognised centre of excellence in forest research and conservation, and that the role of the Darwin Initiative in helping establish it will be recognised long after the end of the project.

19. If your project includes training and development, please indicate a) who the trainees will be, b) the criteria for selection, c) what the level and content of training will be, d) how many people will be involved, e) which countries will they be from, f) how will you measure the effectiveness of the training, g) will those trained then be able to train others and h) how will trainee outcomes be monitored after the end of the training? (max 300 words)

Training of Harapan staff and forest conservators and researchers from the region forms a major component of this proposal. Most data collection for the Harapan Project will be undertaken by trainees under this proposal. The survey team will be trained by existing Burung Indonesia and RSPB staff to undertake an inventory of the forest. A training programme will then be designed for both staff and outsiders from other institutions to develop skills in tropical forest conservation research. Courses will run for 1 to 3 months on a periodic basis during the second and third years of this proposal. Further training will happen on an *ad hoc* basis according to the presence of visiting experts.

a) Indonesians employed by Harapan; national institutions and NGOs; representatives from regional bodies.
b) Priority given to Harapan staff to equip them for their duties in the concession.
c) Practical training in biological survey methods including identification, survey methods, survey design, data analysis and reporting. Specialist training in certain taxa.
d) Initial survey team of 10 people, then a regular intake of similar numbers for the ongoing courses.
e) Indonesia to start with. Regional participants will be considered in due course.
f) Individual assessments made by the trainers during the course. Harapan staff will also be monitored as they perform their duties thereafter.
g) All trainees will learn skills that are easily transferred to others and will be expected to do so during the course of their work.
h) The proportion of survey data that is effectively collected by newly trained staff is expected to increase over the course of the three years; the quality of the data will be assessed against equivalent data collected by experts. The lead scientist will have overall responsibility for quality control in all these areas.

LOGICAL FRAMEWORK
20. Please enter the details of your project onto the matrix using the note at Annex C 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 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 Biodiversity inventory undertaken and monitoring methods and capacity developed for management of one of the last remaining lowland forests in Sumatra	-Management plan is informed by and incorporates biodiversity inventory and monitoring strategy	-Interim management plan for "the forest"	Political changes in Indonesia do not impede management of "the forest" by the conservation consortium
Outputs 1. Baseline biodiversity inventory completed	-Species lists compiled for birds, mammals, trees, herptiles, Lepidoptera, herbaceous plants -Accumulation curves approach asymptote, even geographical coverage achieved, abundance estimated for some groups and habitat structure and condition measured - Specimens and photographic records collected for some groups	Field data sheets and computerised database of records. Biodiversity survey reports. Specimen and photographic collections (including herbarium).	Political conditions or natural disasters do not prevent fieldwork
2. Understanding of relationship between forest condition and species response yields practical outcomes	-Models of influence of forest condition predict distributions in other parts of the forest with statistical significance -Management prescriptions developed -Key outstanding research needs identified	Report on predictive modelling Research reports and papers	
3. Plan for monitoring key taxonomic groups established	-Monitoring protocols conform with published best practise and agreed by independent relevant taxa experts -Field manual test data statistically indistinguishable from baseline data.	-Accreditation from relevant experts -Field manual comparison report	
4. Capacity of local staff to undertake monitoring established and secured	-Majority of monitoring data collected by project-trained staff in accordance with protocols	-Training assessment reports, field data sheets	Sufficient numbers of trained staff are retained by the project
5. Research and training centre established	-Regular collaboration with visiting researchers by year 3 -Regular training courses being held by year 3 -International recognition achieved	-Visitors book -Training course enrolment records -Coverage in independent media	

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Activities	Activity Milestones	Assumptions
1. Baseline inventory	-All survey equipment purchased by end of yr 1. -Training workshop for survey staff with input from UK expertise in first four months of yr 1. -Completed datasheets from surveys in multiple plots across forest by end yr 1 and 2. -Herbarium storage facility constructed yr 2. Samples added yrs 2-3. -Computer facilities and storage space for data repositories established yr 2. -Field data collection 80% completed yr 2. Data computerised for analysis yr 2. Baseline survey report published yr 3.	
2. Improvement of understanding of forest condition–species response link	-Historic data on forest condition and logging sourced yr 1. Data accessible and computerised yr 2. -Predictive models developed yr 3. Models tested yr 3. -Report published yr 3. Research papers in review and submissions for publication acknowledged yr 3.	
3. Planning of monitoring	-Initial consultation of literature and taxa experts made in yr 1. Detailed discussion in yr 2. Review in yr 3. -Draft monitoring manual in review yr 1. Final draft produced yr 2. -Trainee surveyors test protocols in field in yr 2. Adjustments made to manual yr 3.	
4. Capacity-building	-Local staff trained for baseline surveys yr 1. Monitoring training programme for project staff yrs 2 and 3. Comparison of trainee data with baseline data yrs 2 and 3.	
5. Centre establishment	-Lead scientist appointed early in yr 1. Remainder of staff during yr 1. -Initial training provided in yr 1. Rolling programme developed by yr 2. -Initiation of international research collaborations yr 3.	

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

Project implementation timetable		
Date	**Financial year**	**Key milestones**
	Apr-Mar 2007/8 Apr-Mar 2008/9 Apr-Mar 2009/10 Apr-Mar 2010/11	
October 2007	2007/8	Lead scientist recruited
October 2007	2007/8	Equipment purchased
November 2007	2007/8	Staff recruited
January 2008	2007/8	Consultation completed
January 2008	2007/8	Survey training
February 2008	2007/8	Design agreed
March 2008	2007/8	Year1 training
March 2008	2007/8	Protocols tested
April 2008	2008/9	Trainees qualified
May 2008	2008/9	Survey laid out
August 2008	2008/9	Historic data sourced
August 2008	2008/9	Draft manual
September 2008	2008/9	Office refurbished
November 2008	2008/9	Year1 data collected
January 2009	2008/9	Year1 entered
February 2009	2008/9	Storage facility
February 2009	2008/9	Manual testing
February 2009	2008/9	Historic data entered

April 2009	2009/10	Year1 analysed
May 2009	2009/10	Official opening
May 2009	2009/10	Year2 training
May 2009	2009/10	Predictive models produced
September 2009	2009/10	Data comparison
October 2009	2009/10	Year2 data collected
November 2009	2009/10	Year 2 entered
February 2010	2009/10	Year3 training
February 2010	2009/10	Models tested
February 2010	2009/10	Data analysed
May 2010	2010/11	Survey published
June 2010	2010/11	Papers drafted

22. 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.)**
July 2007-June 2010	5	10 Indonesian staff trained in survey techniques to conduct field data collection for baseline survey and monitoring over three years.
July 2007-June 2010	6A	30 people trained during course of 3 training programmes (one per year) of 4 weeks duration. Covering design, basic survey techniques, and analysis. 12 weeks in total
July 2007-June 2010	6B	12 weeks in total
July 2007-June 2010	7	5 training manuals produced to cover survey design, survey techniques for birds, mammals and trees, data analysis
July 2007-June 2010	8	18 weeks in total for J Lindsell and others
July 2007-June 2010	9	Data supplied for the management plan for forest
July 2007-June 2010	10	1 field manual covering elements of monitoring protocol for the forest
July 2007-June 2010	11A	1 paper published with initial observations from survey work
July 2007-June 2010	11B	3 papers submitted to journals covering forest inventory, wildlife-habitat relationships and human impacts
July 2007-June 2010	12A	4 databases developed covering wildlife, habitat, human impacts (including logging history) and geographic information
July 2007-June 2010	13A	3 collections established covering essential trees and shrubs, invertebrates and herptiles
July 2007-June 2010	13B	3 national collections enhanced (herbaria, invertebrates and herptiles)
July 2007-June 2010	14B	3 conferences attended
July 2007-June 2010	15A	6 national press releases, one in each year
July 2007-June 2010	15B	6 local press releases, two per year
July 2007-June 2010	15C	6 UK national press releases, one at the beginning and one in year two
July 2007-June 2010	17A	1 research station website to be established
July 2007-June 2010	18A	1 in each year
July 2007-June 2010	18B	1
July 2007-June 2010	19A	1 in each year

July 2007-June 2010	19B	1
July 2007-June 2010	20	£46,205
July 2007-June 2010	21	1 research and training centre established in the forest
July 2007-June 2010	22	Up to 1,000 habitat and wildlife monitoring plots (0.2 ha in size) established throughout the forest
July 2007-June 2010	23	£208,400 raised from other sources

PROJECT BASED MONITORING AND EVALUATION
23. 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.

There are many outputs during the course of the project that provide clear indication of the progress towards the overall purpose.
The inventory of forest biodiversity will be evidenced by the completed dataset assembled as a computer database, and the analysis of the dataset.
The development of a monitoring scheme for the forest will be evident in the production of a monitoring field manual.
The success of the training programme will be assessed both by course attendance and assessment as well as the immediate outcome in successful data collection of the inventory and monitoring work.
The establishment of the research and training centre will be evident from the rehabilitated buildings, the ongoing programme of training courses, the attendance of international researcher and the output of research work.