Darwin Initiative Main and Post Project Annual Report

To be completed with reference to the "Writing a Darwin Report" guidance: (http://www.darwininitiative.org.uk/resources-for-projects/reporting-forms). It is expected that this report will be a **maximum** of 20 pages in length, excluding annexes)

Submission Deadline: 30th April 2019

Darwin Project Information

Project reference	25-023
Project title	Conserving Rosewood genetic diversity for resilient livelihoods in the Mekong
Host country/ies	Cambodia, Lao PDR, Thailand, Vietnam
Lead organisation	University of Oxford
Partner institution(s)	Bioversity International (Malaysia) Institute of Forest & Wildlife Research & Development, Cambodia Forest Science Research Center, National Agriculture & Forestry Research Inst., Lao PDR Forest Genetics & Conservation Dept, Center for Biodiversity & Biosafety, Vietnam Academy of Agricultural Sciences Expert Office, Forest and Plant Conservation Research Office, Department of National Parks, Wildlife & Plant Conservation, Thailand University of Copenhagen, Denmark
Darwin grant value	GBP 409,897
Start/end dates of project	1/7/2018-31/3/2019
Reporting period (e.g., Apr 2018 – Mar 2019) and number (e.g., Annual Report 1, 2, 3)	July 2018 – March 2019 Annual Report 1
Project Leader name	Prof. John MacKay
Project website/blog/Twitter	www.apforgen.org/activities/conserving-dalbergia/ temporary webpage – website under construction
Report author(s) and date	John MacKay, David Boshier, Riina Jalonen, with input from partners Dr So Thea, Mr Syneath Sreng (Cambodia), Mr Bansa Thammavong, Mr Chaloun Bounithiphonh (Lao PDR), Dr Tran Thi Hoa (Vietnam) and support from Sarah Blackstrand 30/4/2019

1. Project rationale

Rosewood (*Dalbergia* spp.) is an extremely valuable timber. Over-exploitation has significantly reduced most species in their natural range, with rapid depletion of Siamese (*Dalbergia cochinchinensis*) and Burmese (*D. oliveri*) rosewoods in Cambodia, Laos, Myanmar, Thailand and Vietnam. Trees are largely restricted to protected areas, but illegal harvesting, even of roots, continues. Associated forest degradation compromises rural livelihoods (60-80% of population, except Thailand). Problems related to rosewoods were identified by national organizations (forestry, conservation, police). CITES CoP17 placed the *Dalbergia* genus on Appendix 2, imposing restrictions on international trade. IUCN identified a need to better define and understand conservation status through research on population size, distribution and trends. Across the Greater Mekong Subregion, country-identified limits to conservation efforts include: 1) limited capacity to generate livelihood benefits for and by local communities from forest restoration, 2) lack of information about remaining populations and their conservation value; 3) limited capacity and lack of cross-country collaboration to establish a network of conservation units that effectively conserves genetic diversity; 4) acute lack of *Dalbergia* planting material.

Community nurseries are popular in restoration, but livelihood benefits for women and men are constrained by lack of attention to seed sources, germplasm quality and market linkages. Research shows community nurseries and restoration of endangered species are particularly susceptible to genetic bottlenecks through poor collection practices. Low genetic diversity can lead to low seed production, reduced survival and growth, compromising both current and future use, conservation and adaptation.

Our (gender-equitable) approach is complementary to legal structures (national/international), to ensure *Dalbergia* genetic resources are conserved for the future while available and used by the region's communities. Illegal logging is associated with violence against government officials and local people and cannot be addressed for security reasons, though cross-country action on species conservation may facilitate greater collaboration to combat illegal trade in rosewoods.

Strengthening community participation in biodiversity conservation is a stated policy goal of each country partner, however, limited progress has been made on this front, partly because of a lack of tangible incentives for local forest-dependent communities. The project is implemented within the framework of National Forest Policies and National Biodiversity Strategies and Action plans, to support existing efforts and targets in the project countries.

The project is active through country partners and local communities within the natural distribution of three *Dalbergia* rosewood species (*Dalbergia cochinchinensis, D. cultrata, D. oliveri*) in four Greater Mekong Subregion countries (Cambodia, Lao PDR, Thailand, Vietnam – see figures 1-3 in Annex 4.6 for maps).

2. Project partnerships

The project arises from and contributes to the activities of an existing regional network APFORGEN (the Asia Pacific Forest Genetics Resources Program). National Coordinators of the member countries selected species conservation and seed production strategies as objectives in the network's new 5-year strategy (see www.apforgen.org). They selected *Dalbergia* as one of three priority genera to develop collaborative research and conservation strategies, identify synergies and address gaps for more effective conservation outcomes and use of threatened resources. The project was jointly developed by all partner institutions, with the University of Oxford and Bioversity International facilitating the process. All partners participated in the inception workshop and were fully involved in shaping the detail of planned activities (see workshop report Annex 4.4). Partners have identified and chosen the communities and areas to work in, as well as sites for collection and trial establishment.

Establishing formal project partnerships and financial payments between the main contractor (University of Oxford) and project partners were severely delayed in Year 1 due to administrative issues (an overly cautious and slow application of due diligence measures). Bioversity International was able to carry out most of its planned Y1 activities without advance payments. However, activities that required field work from partners (Indicators 0.2, 1.4, 3.2-3.4) could not be initiated due to the country partners' funding situation, except in Cambodia. Partners from the other project countries did not have the financial flexibility to move funds from other sources

which led to delays in starting some activities. Alternative solutions were sought to the administrative issues to overcome the delays in setting up the project, including a change in project leadership (change request form submitted; Prof John MacKay replacing David Boshier) to allow better leverage with the University administration. The University announced in December 2018 that advance payments could be made for two quarters at a time, at the beginning and half way through each year, pending submission of invoices for past quarters.

By the end of the year funding letters of had been signed by 5 of 6 partners (Cambodia, Lao PDR, Vietnam, Bioversity International, University of Copenhagen) to enable the transfer of funds. Negotiation of a funding letter has not yet been successful with the Thailand partner owing to restrictive national policies and long agreement processing times resulting in very slow movement. We continue to work to resolve these issues in order to get the funds to the Thailand partner for years 2 and 3 of the project. The project collaborative agreement has not yet been agreed but comments have now been received from the partners.

Other administrative problems have slowed the transfer of monies but are now being resolved. As of the end of Y1 on 31 March 2019, fund transfers had been requested by the project leader for 4 of 5 partners but only 2 had received funds from Oxford. As Y2 begins, it will be crucial to the project's success for advance payments to project partners to proceed without any further delay. Amongst the administrative issues was a failure to finalise a contract during Y1 for a Senior Consultant to support the development of tools for socio-economic data collection with Bioversity as originally planned (indicators 0.2, 3.2-3.4). The Consultant's tasks were successfully absorbed by Bioversity in an attempt to keep to the agreed project timelines and approved adjustments to respective budgets made to reflect this input (see also section 14).

3. Project progress

Main narrative report on project progress, and should be a flowing paragraphed presentation written in a formal style. Sub-sections reflect progress against the project's logic. Please ensure that you clearly refer to evidence to support the narrative. Annex 1 requires a condensed version of narrative against logframe

3.1 Progress in carrying out project Activities

Due to the sensitive nature of information relating to the location of* Dalbergia *trees, some links are time limited and the report should not be made publically available on the Darwin website before that date (30th June 2019).

Output 1: Regional assessment of the conservation status of *Dalbergia cochinchinensis, D. oliveri* and *D. cultrata*

Activity 1.1: Develop agreements on data sharing, database management and updating to ensure continuity and confidentiality where relevant (FPIC in communities) (Y1 Q1)
Bioversity guided partners in the protocol for obtaining Free, Prior and Informed Consent (FPIC) from project participants and informants in project communities. A template was developed and discussed with project partners for inclusion in household surveys (Annex 4.1, p.2). However, with the exception of Cambodia, partners were not able to start field work, and hence obtain FPICs, due to project funds access. In Vietnam email and phone communications were used to manage and update information on the three *Dalbergia* species of interest and to draft agreements between both local partners and local seed companies.

Activity 1.2: Collect georeferenced data on species occurrence, seed zones, forest cover, climate predictions, existing in situ *reserves and* ex situ *collections, strengths and weaknesses of past conservation initiatives, technical and institutional capacities (review, key informant interviews, incl. community actors, gender representation) (Y1 Q2-Q4)*
Bioversity leads this activity, and the work was completed (see Activity 1.3 below), except for reviewing the strengths and weaknesses of past conservation initiatives, technical and institutional capacities which was partly completed due to administrative problems (see section 2). Occurrence data on the target species was collected, as shown in Table 1.

- Data on existing *in situ* reserves and *ex situ* collections was collated and is provided in*Annex 4.2 (link expires on 30 June 2019)
- A literature review of strengths and weaknesses of past conservation approaches was carried out and is available in Annex 4.3

- An analysis of Strengths, Weaknesses, Opportunities and Threats (SWOT) related to conservation and restoration of *Dalbergia* species was carried out with project partners at the Inception Workshop (Vientiane, Lao, September 2018) (see Workshop Report, Annex 4.4, Tables 3-5, pp. 10-12). Results were used to refine questionnaires and interview guides for stakeholders.
- Questions on strengths and weaknesses of conservation initiatives were included in Interview guides for Village Heads (Tool 2A/2B, Q14-19) and Members of Village Forest Committees (Tool 3A/3B, Q9-10, 14-16). All data collection tools are available in Annex 4.5.

Table 1. Species Occurrence Data by Country

	Cambodia	China	Laos	Myanmar	Thailand	Vietnam
Dalbergia cochinchinensis	94	N/a	56	N/a	82	9
Dalbergia cultrata	1	34	8	10	50	2
Dalbergia oliveri	24	N/a	30	1	60	19

N/a: species is not naturally distributed in the country

Cambodia

- Georeferenced data was collected on species occurrence, seed zones, forest cover, climate predictions, existing *in situ* reserves and *ex situ* collections, strengths and weaknesses of past conservation initiatives, technical and institutional capacities (see *Annex 4.2, Table 1).

Lao PDR

- The conservation status of *Dalbergia* rosewood species was assessed through interviews and collection of secondary data with relevant organizations in Lao PDR (Ms Thatsaphone Phasaysombath, Researcher, taxonomist (pthatsaphone@hotmail.com) Mr Soulivanh Larnorsavanh, Lecturer (biokklano@yahoo.com) Bio-technology and Ecological Institute, Dr Viengsamone Thammavong, Lecturer (nuad_mei@hotmail.com) Department of Biology (Faculty of Natural Science), Faculty of Forestry, Dept. of Forestry, and Forest Research Center), as well as the local agriculture and forestry agency (Mr Lavae Luangkikeo, technical staff, District Agricultural and Forest Office (DAFO), Nong District; laviar.3839@gmail.com,+8562099586444).
- To start project activities on the ground, a baseline data survey was planned and proposed for implementation in 3 communities, 2 districts and 1 province (Dongnasanh, Savue & Sadi villages in Nong district and Xekue village, Thapangthong district). However, these are candidate communities and will be confirmed by local authority agencies. Local authorities in project sites were contacted and all necessary & required information taken into account such as: selecting target communities to implement the activities of enhancing the rural communities to participate the genetic resource conservation and further implementation of capacity building on the utilization of genetic resource, seeds and seedling for local people (Mr Phouthai, technical staff, DAFO, Thapangthong District, mobile: +8562099198979).
- One MSc level Forest Research Center staff was trained and related organizations visited from 10-15 October 2018 at the Regional Forest Genetic Resources Training Centre in China on "*Spatial approaches for assessing the status and trends of native tree species"*, an opportunity identified as important in building capacity in the Lao PDR to implement the project (Annex 4.11).

Vietnam

- Georeferenced data was reviewed and collected, with a focus on seed zones, as data on seed zones has been limited in past initiatives. Data is incorporated into the species distribution modelling (activity 1.3)

Activity 1.3: Prepare distribution and threat maps using database & ecological niche modelling (Y1 Q4)

This activity was completed, based on a dataset of 480 occurrence data points for the three target species – see separate report with the distribution and threat maps in Annex 4.6 (link expires on 30 June 2019)

Activity 1.4: Validate maps and models through expert consultation (Y2 Q1)
Although this activity was originally planned for Y2, it was largely conducted ahead of time in Y1 Q4 (Feb-March 2019). An initial online consultation was organised to collect feedback on the maps in February 2019, and an expert workshop for further feedback and synthesis was organised in March 2019 in collaboration with a related project. Project partners from each project country, University of Copenhagen and Chinese Academy of Forestry, and five other experts from project countries, Myanmar, and BGCI provided feedback on the maps (Annex 4.7; link expires on 30 June 2019), as well as a total of 137 additional occurrence points to complement the identified gaps (data not shown). During April 2019, a synthesis of the feedback will be finalised and additional occurrence data cleaned, after which the ecological niche model will be refined and final maps prepared by the end of June 2019 (Y2 Q1).

Activity 1.5: Develop database structure (Y1 Q3-4)

In Y1 Bioversity developed a database structure for the georeferenced data, available in Annex 4.8.

Activity 1.6: Populate database with collected data
Reporting not required for Y1.

Activity 1.7: Identify conservation priorities through comparison of distribution, threat, and socioeconomic data, existing collections, strengths of past initiatives
Reporting not required for Y1.

Output 2: Filling gaps to conserve *Dalbergia* genetic resources through *in situ*, *ex situ* programmes and provenance testing

Activity 2.1: Identify locations for conservation units in collaboration with stakeholders & between countries, to ensure sustainability & complementarity
Cambodia

- Locations for conservation units were identified in collaboration with stakeholders and between countries

Lao PDR

- A 2-hectare candidate site for the *ex situ* conservation area of *Dalbergia* rosewood species was surveyed and demarcated at the Forest Research Center's demonstration area, 49 kilometres away from the capital of Vientiane.
- One new *ex situ* conservation site and 2 new *in situ* conservation sites in Savannakhet province are being considered by local authorities and FRC, with a plan for these sites to be established by mid 2019.
- Local authorities at project sites were contacted and all necessary information considered, such as:
  - Which communities to target for participation in the genetic resource conservation and capacity building on the utilization of genetic resources
  - Which sites to target for *in situ* and *ex situ* conservation for *Dalbergia* rosewood species.

Vietnam

- Sites for *In situ* (Chumomray NP) and *ex situ* (Chuyansis National Park office) *Dalbergia* conservation units were identified, with surveys (species numbers, measurements; seedlings counts) in Yordon and Chuyansis National Parks (Figure1 and *Annex 4.2).

Activity 2.2: Develop institutional arrangements and management guidelines, including material transfer agreements for regional trials
A project collaborative draft agreement has been circulated with comments now received from the partners.

Activity 2.3: Develop and translate training materials, based on assessment of capacities (1.2) and new conservation strategies (2.2)
Reporting not required for Y1

Figure 1 Field survey (*D. oliveri* data collection) in Chuyansin National Park. Credit: Dr Tran Thi Hoa

Activity 2.4: Organise and run trainings
Reporting not required for Y1.

Activity 2.5: Design and conduct seed collections among country partners

IFWRD (Cambodia) purchased 2.5 kg of *Dalbergia cochinchinensis* seed from collectors in Pursat, Kampong Thom and Siem Reap provinces. These seeds were kept separately by provenance source.

Activity 2.6: Design and conduct seed collections among country partners
Reporting not required for Y1.

Activity 2.7: Evaluate progress and changes in knowledge and practices and communicate lessons learned
Reporting not required for Y1.

Output 3: Multiplication to support use, income generation and reduced pressure on natural populations (propagation strategies, community nurseries etc)

Activity 3.1: Develop D. cochinchinensis *vegetative propagation method (Cambodia)*

- With assistance from a national consultant, a series of tests were conducted on vegetative propagation at the Institute of Forest and Wildlife Research and Development's (IRD) nursery. It is too early to draw any lessons learnt at this stage, but the team will review the conditions in the nursery and cutting age.
- Collaborated with a private company's nursery, Grandis Timber, in the province of Kampong Speu, to conduct a new test on vegetative propagation using the company's facility (link to report Annex 4.19). The result of the test will be seen in early May 2019.
- After May 2019, two tests will be conducted at IRD based on lessons learnt from the company using; 1) similar facilities, and 2) simple facilities applicable to a community nursery.
- Provided training to the O Soam community forest on vegetative propagation (26-28 October 2018; link to detailed report Annex 4.21). Seven participants from O Soam attended the training. Five of the participants were from the IRD, including a local consultant as trainers and or trainees. This followed a verbal request by nursery senior committee members in discussion with the project team during the field visit of Dr David Boshier in September 2018 Annex 4.17, as they believe that vegetative propagation techniques potential use with fruit trees and ornamental trees/plants to provide income. This request fits with the project goal of increasing income for the local communities.

Activity 3.2: Test D. cochinchinensis *vegetative propagation method in other countries and* Dalbergia spp.
Reporting not required for Y1.

Activity 3.3: Develop guidelines for appropriate use to multiply genetically diverse planting material
Reporting not required for Y1.

Activity 3.4: Analyse current practices for seed & seedling sourcing in ≥3 state-owned & ≥3 private sector nurseries, knowledge of seed quality & genetic diversity among programme staff, & their attitudes to community-based seed supply (Y1 Q3-4)

Cambodia
A survey to assess current practices was developed by Bioversity, with inputs from IFWRD and Oxford (questionnaire available in Annex 4.9). The survey was administered by IFWRD in conjunction with the workshop on "*Tree seed supply and forest restoration demonstration*" held in the town of Siem Reap (7-8 November 2018). The purpose of the survey was to collect information about: 1) the market for *Dalbergia* seed and seedlings; 2) the different ways *Dalbergia* seed and seedlings are collected and produced; and 3) how the availability and quality of seed and seedlings could be improved. Participants in the survey were local communities (representing seed suppliers), private and public nursery managers, reforestation practitioners (the Forestry Administration and NGOs), and academics. 32 questionnaires were completed with the results entered into a spread sheet for analysis (see Annex 4.20).

Lao PDR
Two representatives of government departments / government-led projects were interviewed on current seed sourcing practices during a data collection training in December 2018 (Annex 4.11)

Activity 3.5: Identify strengths & weaknesses in communities' current seed collection practices, seed exchange networks, market linkages, tree planting, community-level institutions & capacities (7 communities in 3 countries), including income generated from seed & seedling sales (Y1 Q3-4)
The field activities are implemented in the project countries and led by each National Coordinator in conjunction with Bioversity. Tasks were completed as follows although data collection by partners was delayed due to the issues of project funds highlighted earlier:

- Interview guides and Facilitator's guides were developed for collecting data. Data on income from seed and seedling sales is collected as part of the project's baseline household survey. All data collection tools are available in Annex 4.5
- Project staff of IFWRD (Cambodia) and FRC (Lao PDR) were trained in using the tools (training reports available in Annexes 4.10 and 4.11
- Data collection training in Vietnam was scheduled for 7-12 January 2019, but had to be cancelled due to severe illness (Malaria) in key project staff, who was subsequently on medical leave until March 2019. The training will take place in Kon Tum, Vietnam, in June 2019.

Cambodia

- Selected the second project site; two adjacent community forests (CF), Kampeng and O Srav, in Phnom Kravanh District, Pursat province (Annex 4.22).
- The two CFs and their buffer areas are natural habitats of *Dalbergia cochinchinensis* and *D. oliveri*. Although big trees in the CFs have been illegally cut in the past five years, there remain some good stands of *D. cochinchinensis* in the areas immediately adjacent to the CFs which become a main seed source of the species. The two CFs do not have a tree nursery, but a community member owns a private nursery supplying about 20,000 seedlings of *D. cochinchinensis* to buyers across the country.
- Completed training on socio-economic data collection in Kampong Thom, from 29 January to 1 February 2019. Facilitated by Dr Riina Jalonen of Bioversity International. Six staff members from IRD attended the training.
- After training the team conducted a survey in the O Soam CF. The data has not been processed yet.

- Collected socio-economic data in Pursat province (second site), including the visit to Mr Sut Sok Em's nursery and Kampeng community forest from 25–30 March 2019 (Annex 4.23). The summary of the survey results from the two project sites is shown below:

Table 2. Summary of Socio-Economic Data collected in Pursat

Questionnaire Topic	Number of interviewees or focus groups
HH survey	39
Village head	2
Village forest committee members	2
Timeline and force field	4 focus groups
Resource map	4 focus groups
Vision and action plan	4 focus groups
Small scale nursery	6
Seed supply chain	4
Forest restoration program	3

- Started building a relationship with the local Forestry Administration and local communities. These are very useful for the Cambodia project team for planning the next activities at the Pursat province project site.

Activity 3.6 In collaboration with stakeholders, formulate strategies for overcoming identified barriers, with recommendations & training materials for their implementation (Y1 Q4, Y2 Q1-2)
Bioversity leads this activity. The activity could not be started in Y1Q4 because due to the lack of funds, partners had not been able to collect the related data (Indicators 3.4 and 3.5) as a basis for analysis.

Lao PDR

- Made and kept contact with local authorities and villagers (Dongnasanh, Savue & Sadi villages in Nong district, Xekue village, Thapangthong district) regarding plans to organize training on seed collection, seed germination technique, and maintenance of seed sources, as well as how to establish & manage community nursery, seedling propagation and maintenance, and marketing of seeds and seedlings.

Activity 3.7: Conduct 2 trainings on improving germplasm quality & community-based seed sourcing approaches for government and private sector nurseries
Reporting not required for Y1.

Activity 3.8: Train and mentor community members in good seed collection practices, propagation (including vegetative propagation), tree nursery management, developing business plans and pursuing market linkages (7 communities in 3 countries)
Reporting not required for Y1.

Other activities

Inception workshop: update logframe, clarify measurement and report methodology and its implementation; team building

The inception workshop was held in Vientiane, Lao PDR, 10-14 September 2018, with the following objectives:

- Discuss and agree plans to carry out activities to ensure project outputs
- Develop a detailed work plan for the first year of the project
- Developing trust and working relationship between partners

- Explore/clarify collaborations with other *Dalbergia* genetic resources projects and more broadly conservation/ management/restoration projects and programmes in the countries, to link and contribute to other ongoing initiatives to ensure complementarity and mutual benefits
- Clarify accounting/reporting procedures and timelines according to Darwin requirements

The workshop results are detailed in the workshop report (Annex 4.4). Participants evaluated the workshop positively: 55% of them said that the workshop met their expectations well, and another 36% said it exceeded their expectations (Workshop evaluation, Annex 4.4, p.30-32)

The project logframe was updated at the inception workshop, with minor changes to the wording of the indicators. The changes are shown in the project's monitoring and evaluation (M&E) plan (Annex 4.12, p.3).

3.2 Progress towards project Outputs

Full details on measurement of Output indicators are given in the M&E plan (see Annex 4.12)

Output 1: Regional assessment of the conservation status of *Dalbergia cochinchinensis, D. oliveri* and *D. cultrata*

Indicator 1.1 Subregion distribution & threat maps for 3 Dalbergia *spp. overlaid with existing seed zones, forest cover, climate predictions, threats, etc.*

The indicator has been achieved in Y1. See detailed report including the maps in Annex 4.6 (link expires on 30 June 2019).

Indicator 1.2 Subregion database of existing in situ *reserves and* ex situ *collections for 3 Dalbergia spp. species (incl. seed sources, molecular data, environmental data, threats) (end Q1, yr 2)*

The structure for the database was developed Annex 4.8

Indicator 1.3 Identified population genetics gaps in seed collections and existing materials (end Q1, yr 2)
Initial work on identifying gaps in seed collections and prioritizing areas for new collections was done at the inception workshop Annex 4.4

Output 2: Filling gaps to conserve *Dalbergia* genetic resources through *in situ*, *ex situ* programmes and provenance testing

Indicator 2.1 At least 25 new in situ/ex situ conservation units for 3 Dalbergia spp across 4 countries (units may overlap between species) ***(end Q3, yr 3)***
The baseline information was collated and some new potential sites for conservation units identified (see Activity 2.1, section 3.1). The indicator was revised based on discussion at the inception workshop (Annex 4.4 and section 9 this report)

Indicator 2.3 At least 15 new, coordinated seed collections for 3 Dalbergia spp. across 4 countries ***(end Q3, yr 3)***
Three collections secured in Cambodia (activity 2.5, section 3.1)

Indicator 2.4 Regional/national provenance trials established to study adaptation of D. cochinchinensis *(4 sites, 8 provenances across 4 countries)* ***(end Q3, yr 3)***

Trial site identified and secured in Cambodia (see photo in Annex 4.17)

Output 3: Multiplication to support use, income generation and reduced pressure on natural populations (propagation strategies, community nurseries etc)

Indicator 3.2. Policy paper on recommendations; records of surveys, interviews, focus group discussions with programme staff and community members (sex-disaggregated data)

Progress towards indicator achievement was made in Y1 through the activities 3.4 and 3.5 (for details see section 3.1 on activities, and Annex 4.13 for data records). However, the output could not be fully achieved in Y1 due to the lack of funding for project partners for field data collection.

3.3 Progress towards the project Outcome

Overall, the project Outcome has been validated at the project inception workshop in September 2018 (Annex 4.4) and specific progress has been made on identifying conservation units, while household surveys have begun in support of the poverty alleviation indicator. As indicated, some of the work was delayed in Year 1 but the project partners are now set to intensify activities in Year 2.

By outcome indicator

Indicator 0.1: At least 50% increase in number of designated in situ/ex situ Dalbergia *conservation units across 4 countries (new for some countries or species)*

The baseline was established, see M&E plan, Annex 4.12, p.11. The Outcome indicator was determined to be adequate at the inception workshop and the project is likely to achieve it. Also, see "Lessons learnt" for the related Output indicator (2.1), which is being revised.

Indicator 0.2: At least 20% increase in forest-related income of 175 rural households in 3 countries (end year 3), through Dalbergia *seed/seedling production and planting*

A household survey to collect income information was designed and tested in Lao and Cambodia during data collection trainings In December 2018 and January 2019. Data collection was initiated in Cambodia, but could not be initiated in Lao due to the lack of funds, and in Vietnam due to severe medical issues affecting key project staff.

Indicator 0.3: Methods and training materials for conservation, multiplication and value chain development exist and >100 professionals and 175 rural households trained to use and adapt them to enable scaling out.

The Outcome indicator is to be completed in Year 3; it is assessed as still adequate and likely to be achieved. Plans for its delivery will be reviewed at the Year 2 annual meeting (planned for September 2019, Vietnam).

3.4 Monitoring of assumptions

Assumptions for Output 1: (i) Access to existing information and records; (ii) Available information relates to actual status on the ground, or status can be estimated based on available data and trends; (iii) Participants in past initiatives willing to share experiences, including areas for improvement**;** (iv) DNA methodology developed for *D. cochinchinensis/D. oliveri* transferable to *D. cultrata*.

Comments:

(i-iii) Assumptions on accessibility of reliable information have held well. We were able to access occurrence data for the species well beyond what is available in global open access datasets such as the Global Biodiversity Information Facility (GBIF, www.gbif.org) (Assumption 1.1). Initial validation results suggest that the available information corresponds well with the situation on the ground (1.2; Annex 4.7). Data gathering is facilitated via coordination with the APFORGIS project lead by Bioversity International (Annex 4.6, Annex 4.7) and the involvement of the Copenhagen partner in sharing materials and field data.

(iv) Existing DNA markers have not yet been tested; however, a PhD student at Oxford has completed sequencing work that will be help this validate the assumption or make adjustments.

Assumptions for Output 2: (2.1) Willingness to set up *in situ* units; (2.3-2.4) Sufficient seed production and availability of sites.

Comments:

(2.1) There is a general willingness to set up *in situ* conservation units in each of the partner countries (often in already protected areas), as reported by country partenrs for activity 2.1 in Section 3.1.

(2.3-2.4) It is too early to assess seed availability as seed collections are planned for the Autumn 2019; plans were drawn at the inception workshop (Annex 4.4) and the object of continued discussion and planning for validation at the Year 2 project meeting.

Assumptions for Output 3: (3.1) Availability of seed/plants to develop vegetative propagation; (3.2) Interest and active collaboration from programme staff and community members; (3.3-3.6) community interest and uptake; participation of households; tenure stability.

Comments: Work to date with the Cambodian partner indicates Assumption 3.1 holds true (see progress on Activity 3.1). It is too early to assess properly the other assumptions for output 3, but initial experiences suggest that stakeholders at government and non-governmental organisations and the project communities are generally interested in collaboration, as evidenced by participation in workshops and surveys.

3.5 Impact: achievement of positive impact on biodiversity and poverty alleviation

Although in its initial stages, the project's focus on combining conservation measures for CITES priority species with legal income generating uses for local communities from these species demonstrates the possibilities for alternatives to a strict, no access approach to conservation of endangered tree species. Achieving higher impact for both areas (biodiversity conservation and poverty alleviation) will depend on the ability to demonstrate success in this approach during the project's lifetime (see also sections 5 and 6).

To our knowledge, this project provides the first detailed assessment of the conservation status of three threatened *Dalbergia* species across their entire distribution range in the Greater Mekong subregion. In addition to the current conservation status at population level, the project will also provide information about genetic variation and conservation status at an intra-specific level through eco-geographic analysis, and on future threats related to climate change. Commitment of partners and interest by stakeholders shows that the information generated by the project will make an important contribution to conservation planning for these *Dalbergia* species (see section 3.1 on Output 1 for evidence) as well as to setting up new and conserving existing conservation units (see section 3.1, Output 2 for evidence).

Dalbergia seed is highly valued at >200 US$ kg throughout the region. An additional focus on the establishment of seed orchards will provide income alternatives for rural communities, but also help develop seed supply for the species whose populations have severely declined, and as a pre-condition for successful long-term nursery business. Seed orchards make seed collection considerably easier, safer and less costly than in natural forest, while at the same time ensuring the maintenance of genetic diversity in community and restoration planting.

4. Contribution to the Global Goals for Sustainable Development (SDGs)

The project's actions directly contribute to three SDGs

SDG 15 *Life on Land - Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss* and specifically its target *Take urgent and significant action to …, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species*. The project's *in situ* and *ex situ* activities will conserve threatened *Dalbergia* species and their genetic diversity, ensuring adaptability to climate change and human use. Increased capacity of local communities will also contribute to conservation of other native species through seed collection, nurseries and community planting across diverse land-use systems.

SDG 8 *Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.* Research and training activities under output 3 will provide the basis for improving business models of community based seed collection and nurseries, allowing for increased income and wider benefit-sharing within communities. Project outputs are expected to result in 20% increases in the communities' forest related income, while wider uptake will spread these benefits to larger numbers of communities (project outcome). This links to ***SDG 1*** target of ensuring *all men and women, in particular the poor and vulnerable, have equal rights to economic resources*

SDG 4 *Quality Education* - Specifically its target *By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development,* A range of capacity building

activities during the project will provide learning opportunities for rural households, government officials, students (outputs 2&3).
During 2018-19 the main contribution of the project has been to *SDG4* through capacity building activities (see sections 3 and Annex 3 Standard Measures).

5. Project support to the Conventions, Treaties or Agreements

The project proposal shows the project's expected contribution to the CBD and CITES. Our *in situ/ex situ*, research and community-based activities (section 13), directly support CBD objectives at inter- and intra-species levels (CBD article 1): *conservation of biological diversity; the sustainable use of its components;* and (also Nagoya) *fair and equitable sharing of benefits arising out of the utilization of genetic resources,* through access to relevant technologies and funding. It follows CBD/COPs guidance: ... *make use of native site-adapted species, giving attention to genetic variation within and among native species*…" (Decision XIII/5, Appendix I). Planting material choice is commonly driven by cost and availability, resulting in genetically limited germplasm, low native species diversity, and restored populations of compromised viability that neither contribute to species conservation nor genetic diversity. Consequently, forecast returns on restoration investments are often unrealised. The project implements guidance through practical solutions for diversity in endangered tree species community planting (Aichi targets 1,12,13,15,19). Project contributions are in line with partner country latest CBD National Biodiversity Strategy and Action Plans (NBSAP) as follows.

Cambodia: protect and recover threatened species (including tree genetic diversity) through *in situ and ex situ conservation*, needing to *identify and collect plant species … requiring protection, reproduction and propagation* (our outputs 1&2) with the status *of all threatened fauna and flora improved significantly by 2020*. Actions for Aichi Targets include community-based sustainable forest management *for biodiversity conservation, environmental protection, … more employment and supporting incomes of local communities* (our output 3).

Lao PDR: *implement priority protection measures for seed sources of indigenous tree species*, with the *extinction of at least 5 priority species effectively prevented through better law enforcement and in situ/ex situ conservation* (our outputs 1&2).

Vietnam: *improve the quality and populations of endangered, rare and precious species* (our outputs 1&2), promoting *use of native species for forest enrichment and restoration within REDD+*, developing *long-term investment plans in protected area buffer zones* and implementing *a sustainable economic development model for households* (our output 3). Priorities include *enhancing the rights and capacity of local communities so that they actively participate in biodiversity conservation*.

Thailand: *sustainable conservation and restoration of natural resources focuses on promoting communities' participation in reducing threats to biodiversity, encouraging in situ and ex situ species conservation, research and database development, … promoting activities relevant to restoration and utilization of biodiversity.*

CITES has no stated objective, but recognizes "*peoples and States are and should be the best protectors of their own wild fauna and flora; … that international co-operation is essential for the protection of certain species of wild fauna and flora against over-exploitation ...*" So the project complements enforcement of *Dalbergia* CITES restrictions. Target species are naturally distributed across the region and project activities will benefit from: collaboration between countries, local community involvement in conserving the resources, researchers' experience from elsewhere in the world. Promotion of international cooperation in conservation and sustainable use of biodiversity are identified as solutions for implementation of NBSAPs and ASEAN's regional action plan on CITES (2011-15).

During development of the proposal we contacted CBD and CITES focal points in the four main partner countries, shared the proposal with them, and invited comment and to support the proposal (included a letter of support from the Lao PDR CITES focal point). We have also developed an on-going dialogue with the British Embassy in Hanoi and Vietnam CITES Management Authority with respect to their proposal *Establishment of Southeast Asia Regional CITES Implementing Management Team* under the Illegal Wildlife Trade Challenge Fund 2017 Round 4. This programme is designed by the British Embassies in concert with CITES Authorities in the four countries. We incorporated their suggestions, particularly for scaling-up impact from

our project. In addition we received letters of support from the British Embassy in Lao PDR and Global Trees Campaign (Fauna and Flora International) stressing the importance of our approach as a complement to National and International priorities and actions.

Liaisons are being pursued when possible with CBD and CITES focal points. The CITES Management Authority for Lao PDR, Mr. Sousath Sayakoummane (Director General of Department of Forestry, Ministry of Agriculture and Forestry) chaired the Stakeholder Forum and officially closed the Inception workshop (see section 12 and Annex 4.4). Thai CBD representative Mr Voradol Chamchumroon (Forest Official of the Herbarium Office, Department of National Parks, Wildlife and Plants, Ministry of Natural Resources and Environment) was also a participant in the inception workshop.

6. Project support to poverty alleviation

Community nurseries are popular in restoration, but livelihood benefits for women and men are constrained by lack of attention to seed sources, germplasm quality and market linkages. The project will develop novel, and strengthen existing, capacity for seed collection, seed source and nursery management, and associated market chains. The project will build rural communities' capacity to generate livelihood benefits from long-term use of these resources. Research and training activities under output 3 will provide the basis for improving business models of community based seed collection and nurseries, allowing for increased income and wider benefit-sharing within communities. Project outputs are expected to result in 20% increases in the communities' forest related income, while wider uptake will spread these benefits to larger numbers of communities (project outcome). This links to ***SDG 1*** target of ensuring *all men and women, in particular the poor and vulnerable, have equal rights to economic resources.*

Section 14 (Change Expected) of the project proposal identified a series of direct short term and long term benefits that are expected as a result of the project's implementation. In terms of poverty alleviation these are expected directly for the women and men in the 175 households across 7 target local communities in Cambodia, Lao PDR and Vietnam. For example, in Cambodia, it is expected that active seed and seedling sales will contribute to poverty alleviation among the local communities at the second project site in the province of Pursat. In the Nong and Thapangthong districts in Savannakhet province in central Lao PDR the population consist of diverse ethnic groups belonging to the Mon-Khmer-speaking Bru, Katnag, Souay, Mankhong, So and Trii groups. Both districts include National Biodiversity Conservation Areas (e.g. Dong Phou Vieng and Xebangnouan). Unexploded ordnance from the Indochina war remains, limiting local peoples' ability to develop their livelihoods and communities. The two districts are mountainous with unsustainable agriculture as the main activity (e.g. slash & burn, monospecific plantations of exotic species Eucalyptus and Acacia sp.). Additionally, forests house the main income generation and food resources for local people. *Dalbergia* trees are the main income source and are used for household construction. Furthermore, some local people supported by a previous project know how to collect tree seeds and produce seedlings for planting and selling as secondary income. So this is a great opportunity for these communities to learn and benefit from the Dalbergia Darwin project contributing to poverty alleviation.

There were no notable achievements with respect to poverty alleviation in this 1st year of the project as the emphasis has been on identifying the target communities and the collection of baseline data.

7. Project support to gender equality issues

The project's (gender-equitable) approach is complementary to legal structures (national/international), ensuring *Dalbergia* genetic resources are conserved for the future while available and used by the region's communities. In Y1 the focus was on developing and sharing gender-responsive methods and good practices for data collection. National project coordinators have been advised to include both men and women in the field teams to make it easier and culturally more acceptable to conduct interviews and to help female respondents to feel comfortable and share information. Gender roles in forest product collection and sales and in participation in community organisations are asked about in the household survey.

The concept of 'female head of household' was introduced to national partners during the data collection trainings (Annex 4.10, Annex 4.11), and was new to field staff. The concept recognises that men and women have differentiated but complementary roles and a shared responsibility in managing their household. The household survey asks questions to generate background information about both male and female heads of households (ethnic background, migration status, primary occupation etc) to help characterise households and assess gendered impacts (Annex 4.1). Importantly, project teams have been instructed to interview female heads of household in half of the households during the household survey, to help ensure that both men's and women's perspectives are understood and balanced in the data.

The participatory exercises (Resource Map, Timeline, and Vision and Action Plan) will be carried out in gender-segregated groups, with the groups reporting results to each other, to foster sharing of knowledge and ideas between the gender groups (Annex 4.5, Fig. 2)

Figure 2. Participatory research tools being applied in gender-segregated focus groups, Kampong Thom, Cambodia, January 2019. Credit: IFWRD (left), R.Jalonen/Bioversity International (right).

8. Monitoring and evaluation

A detailed Monitoring and Evaluation Plan was developed (Annex 4.12). The plan includes information on how and when the achievement of each indicator will be assessed, including the quality of the work (e.g. scientific rigour, ethical considerations, gender equity and social justice, sustainability). Terms of Reference for a M&E Advisory group were developed and discussed at the inception workshop (Annex 4.14). The following members were appointed to the group in Y1:

- Dr Elisabetta Gotor, Impact Assessment Specialist, Bioversity International
- Dr Christopher Kettle, Senior Scientist, University of Oxford / Bioversity International

Responses are awaited from

- Cambodia: Chann Sophal (APFORGEN coordinator)
- Lao PDR: Chahnsamone Phongoudome, DDG NAFRI (former APFORGEN coordinator; attended the stakeholder day in Sept 2018)

The group is scheduled to meet twice yearly, ahead of the reporting timelines in April and October. However, the group did not meet in Y1 due to delays in the establishment of project agreements and fund transfers that were necessary for initiating field work. The group is scheduled to have its first meeting in June 2019 to coincide with the availability of this annual report and associated feedback from the Darwin Initiative.

Structures for monitoring were agreed between the project leader and project partners, including informal biweekly activity reports shared among all partners, and monthly teleconferencing meetings between project leaders and each partner. However, these were not implemented systematically in Y1. A shared drive has been established to support the sharing of project documents (Fig. 3)

Figure 3. Shared workspace of the project

9. Lessons learnt

One aspect of the project that went well was that the amount of data on species occurrences that could be gathered exceeded our expectations, given the sensitive nature of the information and the very limited amount of data that is available in the public domain. This indicates high relevance of the expected outputs for the project partners. Timely and successful completion of the output 1 activities in Y1 provides a solid foundation for conservation priority setting and implementation planning.

One aspect that didn't work well was the initial approach for transfer of funds for partners in developing countries. As anticipated based on past experience, without advance payments, it is very difficult for national partners to implement project activities. Allowing such payments is crucial, especially for projects such as this where the carrying forward of funds is not guaranteed or allowed. Moving forward to Y2, it will be important to revisit the agreed monitoring structures and implement them systematically, to allow for a catching up with the timelines. If this had to be redone, a due diligence process would need to be implemented at the University of Oxford before the project start, involving research administration, financial services, and the Department(s) involved. Project leader time was set at 20% in the budget but the actual time spent is above 50% given that there are partners in 4 developing countries and 2 others.

Indicators:

2.1 At least 25 new in situ/ex situ conservation units for 3 Dalbergia spp across 4 countries (units may overlap between species)

During the inception workshop, reviewing the status of species distributions and existing conservation units it was recognised that the number of new units was unrealistic and rather the number should be changed to reflect the short term 'Change expected' given in section 14 of the original proposal. Namely "50% increase in designated *Dalbergia* conservation units across project countries; new for some species and/or countries" This is reflected in a revised standard measure (code 22, Annex 3). The project leader will submit a request to revise the logframe accordingly.

2.3 At least 15 new, coordinated seed collections for 3 Dalbergia spp. across 4 countries.

The degree of regional coordination that is possible with threatened species such as rosewoods is influenced by national policies, e.g. Thailand does not permit transfer of materials outside of the country. We took this into account when we developed the project and log frame, such that some provenance trials (indicator 2.4) will be regional in scope and others will be of national scope. This type of restriction narrows the scope of information outputs over the longer term (beyond the life time of the project) and influences the research that is being developed by the Oxford Ph.D. student linked to the project, limiting their ability to analyse materials from Thailand.

Future projects may opt to develop methods or plans to overcome or avoid restrictions on material transfer.

3.5 175 households involved in community-based seed collection business (7 communities) and operating community nurseries (4 communities, capacity 10,000 seedlings per year from year 3 onwards)

Discussions with partners and stakeholders have revealed that establishing community-managed seed orchards may be a more feasible option than establishing community nurseries. Seed orchards will help develop seed supply for the species whose populations have severely declined, and can therefore be a pre-condition for successful long-term nursery business. Seed orchards will also make seed collection considerably easier than in natural forest as trees can be pruned to stay short. *Dalbergia* seed is highly valued at >200 US$ kg. The project leader will submit a request to revise the logframe accordingly, without changing the level of ambition (175 households involved in 7 operating community nurseries or seed orchards).

10. Actions taken in response to previous reviews (if applicable)

Detailed responses to reviewers' comments on the stage 2 application were provided with the half yearly report (see Annex 4.15).

11. Other comments on progress not covered elsewhere

The project design has been enhanced in a few different ways. First, minor changes were made in response to the review comments. For example, in response to queries concerning numbers of and linkages with community based organisations, additional community-based organisations (e.g. women's self-help groups), will be identified through the baseline data collection where relevant, to better build on existing social capital and involve marginalised groups. Second, we are now placing a greater emphasis on seed orchard development for plant production and community engagement as partners reported that there were fewer community nurseries than anticipated (see lessons learnt). Third, there is a more substantial involvement of Copenhagen University through its financial involvement in the project (Oxford consultancy budget). Most importantly, they are contributing crucial socio-economic expertise in activities 3.4 to 3.6 on the linkages community-based, seed collection, markets and traditional knowledge to aid with training in support of Output 3. They are also contributing to Output 1, helping to identify gaps in seed collections and existing materials based on their long-standing involvement with rosewoods in the region (activity 1.3), and to Output 2 by carrying out and planning new section collections (activity 2.3).

We have also worked to overcome difficulties in facilitating the flow of funds to project partners by setting up funding letters whilst negotiating the project collaboration agreement. This was a successful approach with all of the project partners except Thailand. Therefore, Oxford has not transferred or paid any of the funds allocated to the Thailand partner in Year 1. We continue to work to resolve these issues in order to get the funds to the Thai partner for years 2 and 3 of the project. Prof MacKay recently travelled to S-E Asia to meet with the contact person Dr S Chantragoon (Thailand Department of National Parks, Wildlife & Plant Conservation) to work on overcoming these hurdles. We have identified solutions and are now waiting feedback from their administration.

Owing to the delays in negotiating funding with the Thai partner, they will receive somewhat reduced funding and, assuming the hurdles are overcome, will commence their work with a delay. However, the delay may not be very large because the field activities planned for Thailand also were planned in Year 2 for all partners. The Thai partner has engaged with the project (participating in activities of Output 1) and discussions with them lead us to believe that they will be able to carry out the key activities of Outcome 2 in Year 2, including identification of conservation units for protection, seed collections, and establishment of national provenance trials. They are not involved in the vegetative propagation work and other activities of Output 3.

The other risk is related to the Collaboration Agreement not being finalized yet, as we are still negotiating terms with one partner that has raised unresolved concerns (Thailand). Because it is

only one of six partners, we do not feel that the project has a significant risk of being comprised. The worst case scenario is that negotiation with the Thai Partner will fail and they will withdraw.

12. Sustainability and legacy

To promote the work, actions were taken to publicize the project surrounding the inception workshop in September 2018 (see Annex 4.4). See also Section 13 "Darwin Identity" on the publicity and the development of the project website, which will help to develop project visibility and promote the work.

Interest in the project is indicated by participation in the stakeholder forum that was organised in Vientiane on 14 September 2018, at the end of the inception workshop. Attendees from WWF, RECOFT, FLEGT adviser to Protection and Sustainable Use of Forest Ecosystems and Biodiversity (ProFEB programme), Ministry of Science and Technology (Biotechnology and Ecology Institute). The objective was to inform interested parties early on about the project's objectives and implementation plans, so that they could follow the project's progress through the years and provide inputs for making the outputs more relevant for them. Description of the forum can be found at the Workshop report of the inception workshop (Annex 4.4). Project implementing partners from the other countries have been encouraged to organise similar events for stakeholders.

The project's legacy and exit strategy are secured through the involvement of APFORGEN in the genesis of the project. The past and on-going engagement of project partners in this network shows their commitment to the work and its sustainability post Darwin funding. As such the planned exit strategy is still valid.

Specific actions to ensure a sustained project legacy were undertaken by Bioversity, which engaged with researchers from the Forest Research Institute in Myanmar (part of the native range of the project's target species), who provided feedback on the reliability of the draft habitat suitability maps in Myanmar, helping to improve the quality of the maps and laying a foundation for further collaboration (Indicator 1.1). The results of the species' threat assessment and conservation priority setting will be communicated to the Forest Research Institute in Y2 and the Forest Research Institute will be invited to contribute to the regional database (Indicator 1.2).

Contact with the Global Tree Assessment project of the Botanical Gardens Conservation International (BGCI) was also established by Bioversity, which obtained information about the species and ongoing conservation assessments (Indicator 1.1). BGCI showed interest in the future project results: *The* Dalbergia *project sounds very interesting and much needed. It would be great to collaborate. Any information would be very valuable, we are still struggling to get species specific data for many CITES listed species so this would be a great opportunity to make some very good assessments for these trees.* – E-mail from staff of BGCI, 15/3/2019.

13. Darwin identity

The project website is being developed and its launch is anticipated for Y2 Q1. A temporary project webpage was created on the website of the Asia-Pacific Forest Genetic Resources Programme APFORGEN): www.apforgen.org/activities/conserving-dalbergia/ with a link to the Darwin Initiative website. A brochure about the project was developed and is available at the webpage. The Darwin and UKAID logo are available to project partners and feature on a number of reports on project activities (e.g. report on Activity 3.5.1). As mentioned in section 12, the genesis of the project was through APFORGEN, but at the same time the Darwin project is seen as a distinct entity.

The project's inception workshop in Vientiane which was preceded by a Project Launch ceremony presided over by the and addressed by the British Ambassador to the Lao PDR (Mr Hugh Evans) in which he highlighted the problem of the Illegal Wildlife Trade (IWT) and the UK government's commitment and initiatives to support efforts to combat this (see Fig 4 and Annex 4.16 for his address). The launch featured the Darwin logo and had coverage in the local press (see Annex 4.18). Mr Evans hosted a dinner at the residence for the project's partners with discussions focussing around further opportunities to highlight the project and link with their initiatives with the Lao government on IWT. He confessed that only through his reading related to the project had he become aware of the far higher monetary value of *Dalbergia* species in IWT

compared to the more charismatic megafauna. Publicity was furthered in October 2018 during the visit of Princess Beatrice to Lao PDR. In the words of Dr Nils Koenig, Public Diplomacy and Policy Officer at the British Embassy in Vientiane "*We actually thought that we could use Princess Beatrice's visit in October to also highlight the need for protection and the work that your project is doing, by planting a tree in the embassy garden. … I can then turn this into a tree planting activity at the embassy, when she is holding a reception at the residence.*"

The Darwin initiative is well known in Cambodia among government agencies (Forestry Administration), universities (e.g. Royal University of Phnom Penh) and international organisations working in conservation (e.g. FFI, WCS, WWF, IUCN). DI has funded 21 projects in Cambodia since 1994 (www.darwininitiative.org.uk/project/location/country/cambodia/) this being the third project awarded to the Forestry Administration of Cambodia. A meeting was held with the deputy chef de mission (Cashel Gleeson) at the British Embassy to provide a briefing on the nature of the project and explore possibilities for mutual support (17/9/18).

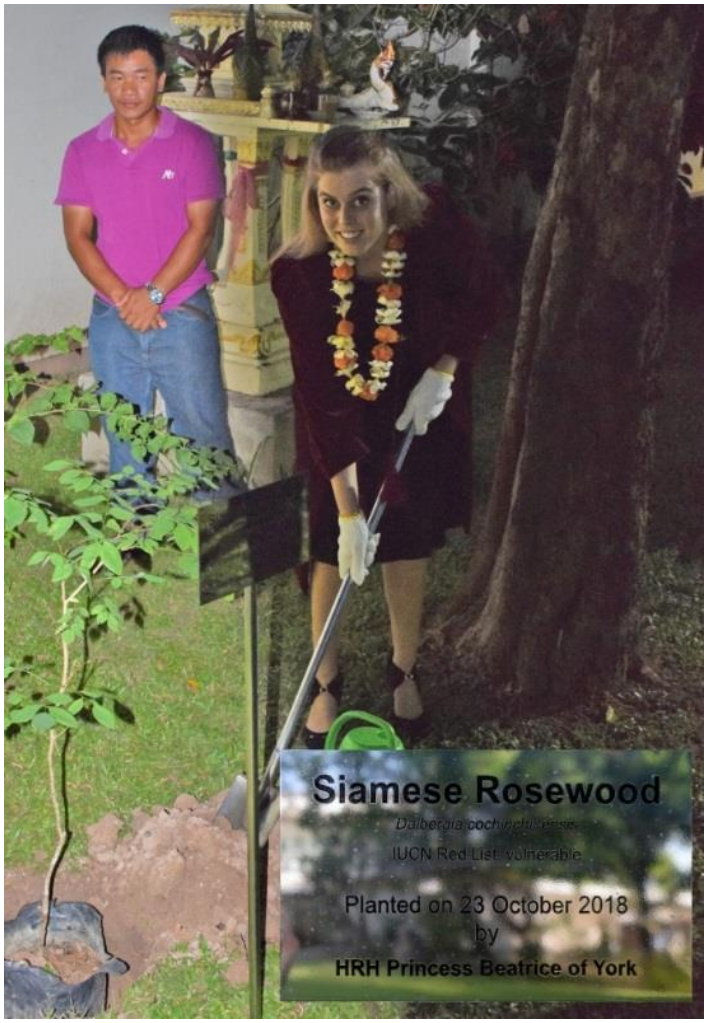

Figure 4 (left) Princess Beatrice plants a *Dalbergia cochinchinensis* sapling in the grounds of the British Embassy in Vientiane, Lao PDR. (right) HE Ambassador Hugh Evans at the launch of the Darwin project.

14. Project expenditure

The project as a whole has expenditures that are nearly identical to the approved budget. All of the project partners have had expenditures in-line with the approved budget, expect for the Thailand partner (no funds were transferred, see also section 11. Other comments). Details of changes are explained below Table 1.

Table 1: Project expenditure <u>during the reporting period</u> (1 April 2018 – 31 March 2019)

Project spend (indicative) since last annual report	**2018/19 Grant (£)**	**2018/19 Total Darwin Costs (£)**	**Variance %**	**Comments (please explain significant variances)**
Staff costs (see below)				
Consultancy costs				
Overhead Costs				
Travel and subsistence				
Operating Costs				
Capital items (see below)				
Monitoring & Evaluation (M&E)				
Others (see below)				
TOTAL				

Annex 1: Report of progress and achievements against Logical Framework for Financial Year 2018-2019

Project summary	Measurable Indicators	Progress and Achievements April 2018 - March 2019	Actions required/planned for next period
Impact Enhanced conservation and sustainable use of Rosewood genetic resources, for improved livelihoods and ecosystem services for thousands of rural people across ≥5 Mha of forest landscapes in the Mekong Subregion		Successes in data collection on species occurrence, training and activities with partners and engagement with stakeholders validate the pathway to impact and exit strategy for enhancing Rosewood genetic resources.	
Outcome Forest authorities in four countries collaborate to conserve genetic resources of endangered *Dalbergia* species *in situ* and *ex situ*, while rural households increase their capacities to generate livelihood benefits from these resources	0.1 At least 50% increase in number of designated *in situ/ex situ Dalbergia* conservation units across 4 countries (new for some countries or species) 0.2 At least 20% increase in forest-related income of 175 rural households in 3 countries (end year 3), through *Dalbergia* seed/seedling production and planting 0.3 Methods and training materials for conservation, multiplication and value chain development exist and >100 professionals and 175 rural households trained to use and adapt them to enable scaling out	0.1 Baseline was established, see M&E plan, Annex 4.12, p.11 0.2 Household survey designed (Annex 4.1) and field tested (Annex 4.10, Annex 4.11); data collected in Cambodia 0.3 Tests to develop vegetative propagation have been started in Cambodia	0.1 Maps will be developed and database populated, conservation units will be identified in 4 countries. 0.2 Seeds will be collected in 3 Dalbergia species to set up provenance trials in 4 countries, and support the development of seed orchards in 4 countries; household surveys will be completed. 0.3 Tests on multiplication methods will be completed and outcomes used for training, value chains will be assessed and business plans developed.
Output 1. Regional assessment of the conservation status of *Dalbergia cochinchinensis, D. oliveri* and *D. cultrata*	1.1 Subregion distribution & threat maps for 3 *Dalbergia* spp. overlaid with existing seed zones, forest cover, climate predictions, threats, etc **(end Q1, yr 2)**. 1.2 Subregion database of existing *in situ* reserves and *ex situ* collections for 3 *Dalbergia* spp. species (incl. seed sources, molecular data, environmental data, threats) **(end Q1, yr 2)** 1.3 Identified population genetics gaps in seed collections and existing materials **(end Q1, yr 2)**	1.1 Achieved in Y1; see section 3.2 and Annex 4.6 (link expires on 30 June 2019). 1.2 Structure for database developed Annex 4.8 1.3 Initial work on gaps at inception workshop Annex 4.4	

	1.4 Identified *in situ/ex situ* conservation priorities for 3 *Dalbergia* spp. at national and Subregion levels across 4 countries. **(end Q3, yr 2)**		
Activity 1.1 Develop agreements on data sharing, database management and updating to ensure continuity and confidentiality where relevant (FPIC in communities)		Guidance for FPIC developed (Annex 4.1, p.2)	FPICs obtained by country partners
1.2 Collect georeferenced data on species occurrence, seed zones, forest cover, climate predictions, existing *in situ* reserves and *ex situ* collections, strengths and weaknesses of past conservation initiatives, technical and institutional capacities (review, key informant interviews, incl. community actors, gender representation)		Completed, except for the strengths and weaknesses of past conservation initiatives, technical and institutional capacities which has been partly completed (Section 3.1 and Annexes 4.2, 4.3, 4.4, 4.5).	Analysis of strengths and weaknesses of past conservation initiatives, technical and institutional capacities finalised by Y2 Q2
1.3 Prepare distribution and threat maps using database and ecological niche modelling		Completed, see section 3.1 and Annex 4.6 (link expires 30 June 2019).	N/A
1.4 Validate maps and models through expert consultation		Almost completed, although only panned for Y2. See section 3.1 and Annex 4.7 (link expires 30 June 2019)	Validation finalised by Y2Q2
1.5 Develop database structure		Structure completed (Annex 4.8)	N/A
1.6 Populate database with collected data		No activity planned in Y1	Populate database during Y2, adding information about seed collections and new conservation sites as it becomes available
1.7 Identify conservation priorities through comparison of distribution, threat & socio-economic data, existing collections, strengths of past initiatives		No activity planned in Y1	Identify priorities by Y2 Q3, and use as a basis for planning Output 2 activities
Output 2. Filling gaps to conserve *Dalbergia* genetic resources through *in situ*, *ex situ* programmes and provenance testing	2.1 At least 25 new *in situ/ex situ* conservation units for 3 *Dalbergia* spp across 4 countries (units may overlap between species) **(end Q3, yr 3)** 2.2 60 forestry and conservation officers across 4 countries trained in *in situ/ex situ* conservation strategies for *Dalbergia* **(end Q4, yr 2)** 2.3 At least 15 new, coordinated seed collections for 3 *Dalbergia* spp. across 4 countries **(end Q3, yr 3)** 2.4 Regional/national provenance trials established to study adaptation of *D. cochinchinensis* (4 sites, 8	2.1 Indicator revised to reflect the short term 'Change expected' given in section 14 of original proposal. Namely "50% increase in designated *Dalbergia* conservation units across project countries; new for some species and/or countries" (See section 9 this report). Reflected in a revised standard measure (code 22, Annex 3). 2.3 New seed collections accessed in Cambodia (see activity 2.5, section 3.1) 2.4 Site selected and secured for trial in Cambodia	

	provenances across 4 countries) **(end Q3, yr 3)**		
Activity 2.1 Identify locations for conservation units in collaboration with stakeholders and between countries, to ensure sustainability and complementarity		2.1 Baseline established, see M&E plan, Annex 4.12, p.11. Some new sites identified (see section 3.1, activity 2.1	Complete identification of new sites
2.2. Develop institutional arrangements and management guidelines, including material transfer agreements for regional trials		Project collaborative draft agreement circulated with comments received from partners	Signing of the project collaborative agreement by all partners
2.3 Develop and translate training materials, based on assessment of capacities (1.2) and new conservation strategies (2.2)		No activity planned in Y1	Complete in Y2
2.4 Organise and run trainings		No activity planned in Y1	Organise and run trainings in 2 of 4 partner countries
2.5 Design and conduct seed collections among country partners		Initial identification of possible collection sites (see Annex 4.4)	Design and conduct seed collections among country partners
2.6 Establish provenance trials		No activity planned in Y1	No activity planned in Y2
2.7 Evaluate progress and changes in knowledge and practices and communicate lessons learned		No activity planned in Y1	Ongoing evaluation and assessment during Y2
Output 3. Multiplication to support use, income generation and reduced pressure on natural populations (propagation strategies, community nurseries etc)	3.1 *D. cochinchinensis* vegetative propagation method available & successfully used in government-owned and community nurseries **(end Q3, yr 3)** 3.2 Recommendations for overcoming the barriers to community-based seed and seedling supply for government-driven and private sector tree planting programmes, based on a review of at least 3 programmes in each sector (total for Lao and Cambodia) **(end Q2, yr 2)** 3.3 50 staff of government-driven and private sector tree planting programmes trained on the importance of good quality diverse germplasm, and options to source germplasm from community-based enterprises (25 Lao, 25 Cambodia) **(end Q3, yr 2)** 3.4 175 households in 7 communities (2 Cambodia, 3 Lao, 2 Vietnam) trained in good practices in seed collection, seed	3.1 Research started. General vegetative propagation training in 1 community Annex 4.21 3.2 Data collection tools designed and partners trained in using them; data collection started in Lao and Cambodia but could not be finished due to project funds issues. Owing to delay recommendations not now expected till **end Q3, yr 2**. See section 3.1 on activities 3.5 New emphasis on establishment of seed orchards as alternative income source (see sections 3.5 and 9)	

	source management and/or propagation methods, incorporating documenting & sharing of traditional knowledge (at least 30% women) **(end Q3, yr 3)** 3.5 175 households involved in community-based seed collection business (7 communities) and operating community nurseries (4 communities, capacity 10,000 seedlings per year from year 3 onwards) **(end Q4, yr 3)** 3.6 Number of households planting *Dalbergia* on their farmland increased by 30% in 4 communities by year 3 **(end Q4, yr 3)** (*indicator may be reviewed after baseline is established; lack of up-to-date data*)		
Activity 3.1 Develop *D. cochinchinensis* vegetative propagation method (Cambodia)		Research on methodology (Annex 4.19)	Continue research, testing at partners headquarters and with communities
3.2 Test *D. cochinchinensis* vegetative propagation method in other countries and *Dalbergia* spp.		No activity planned in Y1	Testing in other countries if activity 3.1 successfully completed
3.3 Develop guidelines for appropriate use to multiply genetically diverse planting material		No activity planned in Y1	No activity planned in Y2
3.4 Analyse current practices for seed and seedling sourcing in ≥3 state-owned and ≥3 private sector nurseries, knowledge of seed quality and genetic diversity among programme staff, and their attitudes to community-based seed supply		Data collection tools designed (Annex 4.5) and partners trained in using them (Annex 4.10 and Annex 4.11); data collection started in Lao and Cambodia (Annex 4.13) but not completed due to non-availability of project funds, hence recommendations not formulated in Y1	Finalise data collection by Y2 Q2
3.5 Identify strengths and weaknesses in communities' current seed collection practices, seed exchange networks, market linkages, tree planting, community-level institutions, capacities and traditional knowledge (7 communities in 3 countries), including income generated from seed and seedling sales		As above for 3.4. Data collection training in Vietnam could not be carried out in Y1 due to severe illness of key project staff	Conduct data collection training in Vietnam in Y2 Q1. Finalise data collection by Y2 Q2.
3.6 In collaboration with stakeholders, formulate strategies for overcoming identified barriers, with recommendations and training materials for their implementation		Could not be initiated in Y1 due to inaccessibility to project funds for field work (Section 3.1 on activities).	Project and stakeholder meetings in Y2 Q2-Q3 to formulate joint strategies – in time for new Dalbergia fruiting season in Y2 Q3-Q4

3.7 Conduct 2 trainings on improving germplasm quality and community-based seed sourcing approaches for government and private sector nurseries	No activity planned in Y1	Develop training materials based on activity 3.4-3.6 results and conduct trainings by Y2 Q3.
3.8 Train and mentor community members in good seed collection practices, propagation (including vegetative propagation), tree nursery management, developing business plans and pursuing market linkages (7 communities in 3 countries)	No activity planned in Y1	Develop training materials based on activity 3.4-3.6 results and conduct trainings by Y2 Q3.
3.9 Evaluate changes in seed production and value chains between communities and government and private sector nurseries, communicating lessons learned	No activity planned in Y1	Ongoing reflection and assessment during and following Dalbergia fruiting season in Y2 Q3-Q4.

Annex 2: Project's full current logframe as presented in the application form (unless changes have been agreed)

Project summary	Measurable Indicators	Means of verification	Important Assumptions
Impact: Enhanced conservation and sustainable use of Rosewood genetic resources, for improved livelihoods and ecosystem services for thousands of rural people across ≥5 Mha of forest landscapes in the Mekong Subregion			
Outcome: Forest authorities in four countries collaborate to conserve genetic resources of endangered *Dalbergia* species *in situ* and *ex situ*, while rural households increase their capacities to generate livelihood benefits from these resources	0.1 At least 50% increase in number of designated *in situ/ex situ Dalbergia* conservation units across 4 countries (new for some countries or species) 0.2 At least 20% increase in forest-related income of 175 rural households in 3 countries (end year 3), through *Dalbergia* seed/seedling production and planting 0.3 Methods and training materials for conservation, multiplication and value chain development exist and >100 professionals and 175 rural households trained to use and adapt them to enable scaling out	0.1 *In situ/ex situ* conservation records and site visits 0.2 Project baseline and external impact assessment end year 3 (by country, years; sex-disaggregated) 0.3 Availability of methods and training materials; training reports; evaluation of changes in technical and institutional capacities (external impact assessment end year 3)	• Records, baselines and surveys available and accurate • Forestry authorities implement the recommendations they co-developed through the project • No major socio-economic changes (policy, tenure, outmigration rates etc) or natural catastrophes in project sites that would limit community-based conservation activities • Regular fruiting of *Dalbergia* in target communities during project period • More trained people and enhanced collective action will help safeguard threatened *Dalbergia* spp. long-term • More comprehensive conservation leads to wider use and improved rural/forest-related livelihoods
Output 1 Regional assessment of the conservation status of *Dalbergia cochinchinensis, D. oliveri* and *D. cultrata*	1.1 Subregion distribution & threat maps for 3 *Dalbergia* spp. overlaid with existing seed zones, forest cover, climate predictions, threats, etc **(end Q1, yr 2)**. 1.2 Subregion database of existing *in situ* reserves and *ex situ* collections for 3 *Dalbergia* spp. species (incl. seed sources, molecular data, environmental data, threats) **(end Q1, yr 2)** 1.3 Identified population genetics gaps in seed collections and existing materials **(end Q1, yr 2)** 1.4 Identified *in situ/ex situ* conservation priorities for 3 *Dalbergia* spp. at national and Subregion levels across 4 countries. **(end Q3, yr 2)**	1.1 Availability of maps 1.2 Availability of database 1.3/1.4 Policy paper, 1 research paper	• Access to existing information, records • Available information relates to actual status on the ground, or status can be estimated based on available data and trends • Participants in past initiatives willing to share experiences, including areas for improvement • DNA methodology developed for *D. cochinchinensis/D. oliveri* transferable to *D. cultrata*
Output 2. Filling gaps to conserve *Dalbergia* genetic resources through *in*	2.1 At least 25 new *in situ/ex situ* conservation units for 3 *Dalbergia* spp	2.1 Records of units designated, site visits	2.1 Willingness of authorities to designate *in situ* conservation units

situ, *ex situ* programmes and provenance testing	across 4 countries (units may overlap between species) **(end Q3, yr 3)** 2.2 60 forestry and conservation officers across 4 countries trained in *in situ/ex situ* conservation strategies for *Dalbergia* **(end Q4, yr 2)** 2.3 At least 15 new, coordinated seed collections for 3 *Dalbergia* spp. across 4 countries **(end Q3, yr 3)** 2.4 Regional/national provenance trials established to study adaptation of *D. cochinchinensis* (4 sites, 8 provenances across 4 countries) **(end Q3, yr 3)**	2.2 Training reports/participant feedback (sex-disaggregated data) 2.3 Seed collections made and stored, report on populations/collections genetic diversity (1 publication) 2.4 Provenance trials, (design, plants grown in nurseries, sites prepared, actual establishment near or after project end)	2.3 Sufficient trees produce enough seed for representative viable samples. Collecting permits granted by forest and other land owners. 2.4 Sites available for trials. Regional or national depending on seed exchange possibilities. Sites well managed and representative of conditions/contexts All: Gaps can be filled
Output 3. Multiplication to support use, income generation and reduced pressure on natural populations (propagation strategies, community nurseries etc)	3.1 *D. cochinchinensis* vegetative propagation method available & successfully used in government-owned and community nurseries **(end Q3, yr 3)** 3.2 Recommendations for overcoming the barriers to community-based seed and seedling supply for government-driven and private sector tree planting programmes, based on a review of at least 3 programmes in each sector (total for Lao and Cambodia) **(end Q2, yr 2)** 3.3 50 staff of government-driven and private sector tree planting programmes trained on the importance of good quality diverse germplasm, and options to source germplasm from community-based enterprises (25 Lao, 25 Cambodia) **(end Q3, yr 2)** 3.4 175 households in 7 communities (2 Cambodia, 3 Lao, 2 Vietnam) trained in good practices in seed collection, seed source management and/or propagation methods, incorporating documenting & sharing of traditional knowledge (at least 30% women) **(end Q3, yr 3)** 3.5 175 households involved in community-based seed collection business (7 communities) and operating community nurseries (4 communities,	3.1 availability of protocol; successful propagation of diverse genotypes 3.2. Policy paper on recommendations; records of surveys, interviews, focus group discussions with programme staff and community members (sex-disaggregated data) 3.3 Availability of survey results and training materials; reports of trainings; post-training survey/evaluation. 3.4 Records of surveys of current practices; availability of training materials and training reports (sex-disaggregated data); M&E report 3.5 Institutions in place; results of participatory assessments (sex-disaggregated data); training records (sex-disaggregated data); nursery reports; visits to facilities; availability of business plans; partnership or sales agreements; evidence of FPIC process 3.6 Survey reports (sex-disaggregated data at intra-household level); documentation of networks; strategies available	3.1 Availability of seed/plants to develop vegetative propagation 3.2 Interest and active collaboration from programme staff (to be facilitated by project partners) and community members 3.3 Training participants from programmes are able to influence seed sourcing practices in their organisations; & are willing to try community-based seed sourcing approaches as long as any concerns they have are addressed 3.4 Community members show interest toward the training topics. Male household members persuaded to allow women participate in trainings 3.5 Interest and active collaboration of community-members; some prior experience in collective action to facilitate implementation of field activities; women are allowed to participate in the activities and willing to do so as long as they fit in their daily routines and workload stays manageable. Availability of seed 3.6 Tenure is secure and socio-economic and environmental conditions are relatively stable to enable investments in planting

	capacity 10,000 seedlings per year from year 3 onwards) **(end Q4, yr 3)** 3.6 Number of households planting *Dalbergia* on their farmland increased by 30% in 4 communities by year 3 **(end Q4, yr 3)** (*indicator may be reviewed after baseline is established; lack of up-to-date data*)		

Activities (each activity is numbered according to the output that it will contribute towards, for example 1.1, 1.2 and 1.3 are contributing to Output 1)

Activities (each activity is numbered according to the Output that it will contribute towards, for example 1.1, 1.2 and 1.3 are contributing to Output 1)

1.1 Develop agreements on data sharing, database management and updating to ensure continuity and confidentiality where relevant (FPIC in communities)

1.2 Collect georeferenced data on species occurrence, seed zones, forest cover, climate predictions, existing *in situ* reserves and *ex situ* collections, strengths and weaknesses of past conservation initiatives, technical and institutional capacities (review, key informant interviews, incl. community actors, gender representation)

1.3 Prepare distribution and threat maps using database and ecological niche modelling

1.4 Validate maps and models through expert consultation

1.5 Develop database structure

1.6 Populate database with collected data

1.7 Identify conservation priorities through comparison of distribution, threat & socio-economic data, existing collections, strengths of past initiatives

2.1 Identify locations for conservation units in collaboration with stakeholders and between countries, to ensure sustainability and complementarity

2.2 Develop institutional arrangements and management guidelines, including material transfer agreements for regional trials

2.3 Develop and translate training materials, based on assessment of capacities (1.2) and new conservation strategies (2.2)

2.4 Organise and run trainings

2.5 Design and conduct seed collections among country partners

2.6 Establish provenance trials

2.7 Evaluate progress and changes in knowledge and practices and communicate lessons learned

3.1 Develop *D. cochinchinensis* vegetative propagation method (Cambodia)

3.2 Test *D. cochinchinensis* vegetative propagation method in other countries and *Dalbergia* spp.

3.3 Develop guidelines for appropriate use to multiply genetically diverse planting material

3.4 Analyse current practices for seed and seedling sourcing in ≥3 state-owned and ≥3 private sector nurseries, knowledge of seed quality and genetic diversity among programme staff, and their attitudes to community-based seed supply

3.5 Identify strengths and weaknesses in communities' current seed collection practices, seed exchange networks, market linkages, tree planting, community-level institutions, capacities and traditional knowledge (7 communities in 3 countries), including income generated from seed and seedling sales

3.6 In collaboration with stakeholders, formulate strategies for overcoming identified barriers, with recommendations and training materials for their implementation

3.7 Conduct 2 trainings on improving germplasm quality and community-based seed sourcing approaches for government and private sector nurseries

3.8 Train and mentor community members in good seed collection practices, propagation (including vegetative propagation), tree nursery management, developing business plans and pursuing market linkages (7 communities in 3 countries)

3.9 Evaluate changes in seed production and value chains between communities and government and private sector nurseries, communicating lessons learned

The following activities are linked to the overall project outcome, covering all outputs

M & E 1 Inception workshop: update logframe, clarify measurement and report methodology and its implementation; team building

2 M&E Steering Committee meetings

3 Final workshop

Exit 4 Outreach and translation workshops in partner countries

Annex 3: Standard Measures

Table 1 Project Standard Output Measures

Code No.	Description	Gender of people (if relevant)	Nationality of people (if relevant)	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
6A	Socio-economic data collection training for national project partners	9M, 3F	Cambodia, Lao	12				16
6B	As above	9M, 3F	Cambodia, Lao	2				3
6A	Spatial approaches for assessing the status and trends of native tree species	1M	Lao	1				
6A	As above	1M	Lao	1				
13A	Occurrence data for 3 species across their entire range			1				1
23	Staff time co-funding from Bioversity International	1F	Swiss-Thai					
1A	DPhil	1M, 1F	Hong Kong Swiss-Thai					2
6A	Forestry & conservation officers trained *in situ/ex situ* conservation strategies for *Dalbergia*		Cambodia, Lao, Thailand, Vietnam					60 (Ind. 2.2)
	As above		As above					2
6A	No. of households trained in seed collection and propagation techniques		Cambodia, Lao, Vietnam					175 (Ind. 3.4)
6B	No. of trainings for households in seed collection & propagation techniques		Cambodia, Lao, Vietnam					7 (Ind. 3.4)
7	Training material for *in/ex situ* conservation strategies for *Dalbergia* & germplasm quality		Cambodia, Lao, Thailand, Vietnam					6
9	Number of species/habitat management plans to be produced for Governments, public authorities, or other implementing agencies in host countries		Cambodia, Lao, Thailand, Vietnam					4

12A	Number of computer based databases to be established and handed over to the host country							1
14A	Number of conferences/seminars/ workshops to be organised to present/disseminate findings							4
14B	Number of conferences/seminars/ workshops **attended** at which findings from Darwin project work will be presented/ disseminated							3
22	Number of permanent field plots and sites to be established during project & continued after Darwin funding has ceased (6 *in situ* 8 *ex situ* +4 provenance trials)							18
23	Value of resources raised from other sources (i.e., in addition to Darwin funding) for project work							

Table 2 Publications

Title	**Type** (e.g. journals, manual, CDs)	**Detail** (authors, year)	**Gender of Lead Author**	**Nationality of Lead Author**	**Publishers** (name, city)	**Available from** (e.g. weblink or publisher if not available online)
*Conserving Rosewood Genetic Resources for Resilient Livelihoods in Greater Mekong	Info sheet	Bioversity International and University of Oxford, 2019	F	Finland	Bioversity International, Serdang, Malaysia	
*Conserving Rosewood genetic resources for resilient livelihoods in the Mekong	Workshop report, inception workshop	Bioversity International and University of Oxford, 2019	F	Finland	Bioversity International, Serdang, Malaysia	

Checklist for submission

	Check
Is the report less than 10MB? If so, please email to Darwin-Projects@ltsi.co.uk putting the project number in the Subject line.	Yes (1.3MB)
Is your report more than 10MB? If so, please discuss with Darwin-Projects@ltsi.co.uk about the best way to deliver the report, putting the project number in the Subject line.	No
Have you included means of verification? You need not submit every project document, but the main outputs and a selection of the others would strengthen the report.	Yes
Do you have hard copies of material you want to submit with the report? If so, please make this clear in the covering email and ensure all material is marked with the project number. However, we would expect that most material will now be electronic.	No
Have you involved your partners in preparation of the report and named the main contributors	Yes
Have you completed the Project Expenditure table fully?	Yes
Do not include claim forms or other communications with this report.	