

DARWIN INITIATIVE

APPLICATION FOR GRANT FOR ROUND 11 COMPETITION: STAGE 2

Please read the Guidance Notes before completing this form. Give a full answer to each section; applications will be considered on the basis of information submitted on this form. Please do not cross-refer to information in separate documents except where invited on the form. The space provided indicates the level of detail required but you may provide additional information on a separate A4 sheet if necessary. Do not reduce the font size below 10pt or the paragraph spacing.

DEFRA
Department for
Environment,
Food & Rural Affairs



162/12/024

1. Name and address of organisation

**Royal Botanic Garden Edinburgh. Royal Botanic Garden, 20A Inverleith Row,
EDINBURGH EH3 5LR**

2. Project title (not exceeding 10 words)

Institutional Capacity Building & Training, Royal Botanic Garden, Serbitang, Bhutan

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

Details	Project leader	Other UK personnel (if working more than 50% of their time on project)	Main project partner or co-ordinator in host country
Surname	Rae		Dema
Forename(s)	David		Sangay
Post held	Director of Horticulture		Curator of Botanic Garden
Institution (if different to above)	Royal Botanic Garden, Edinburgh (RBGE)		Royal Botanic Garden, Serbitang, Bhutan
Department	Horticulture		
Telephone			
Fax			
Email			

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

Aims

The mission of RBGE is to explore and explain the world of plants. It does this through research, education, conservation and horticulture. My Department (Division) is Horticulture. Its aims are: 1. to curate & cultivate the living collections, 2. maintain the landscape of four gardens to the highest standards, 3. run and develop the HND course in Hort. & 4. display plants for education.

Activities

The Horticulture Division cultivates the second largest species collection of plants in the world, currently about 16,000 species, spread over four botanic gardens, including extensive glasshouses. It also maintains the landscapes of the four gardens through traditional horticultural techniques, eg arboriculture, turf care etc. Staff from the Div. lecture on the HND in Horticulture.

Achievements

1. Cultivating 16,000 species. 2. Successfully maintaining four botanic gardens. 3. Attracting about 700,000 visitors per year. 4. Producing 15-20 HND students each year. 5. Taking part in plant collecting expeditions each year. 6. Developing a field station and botanic garden in Lijiang, Yunnan. 7. Successfully designing and building the British Garden at the Kunming International

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

The Senda Darwin Forest Conservation and Training Project in Chile (1996-1998), Lobarion lichens as indicators of primeval forests in Carpathians, Ukraine (1997-2000), Biodiversity Inventory of the Socotra Archipelago (1997-2000), Mauritius Rare Fern Project (1996-1997), The conservation of Rhododendrons in SW China (1994-1997),

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

The main overseas partner is the Royal Botanic Garden, Serbitang, Bhutan. The Garden at Serbitang is part of the National Biodiversity Centre which also comprises the National Herbarium and the National Genebank. It will be fully involved throughout the duration (and after) of the project because the project is based there. The primary purpose of the project is to develop the Garden at Serbitang and raise standards of knowledge and ability so that the Garden and its staff have the ability to fully engage with the demands of their CBD. The project has been discussed fully with Sangay Dema the Head of the Garden and also with her direct line manager Dr Ugyen Tshewang, Director of the National Biodiversity Centre. The project also has direct support from Lympo Dr Kinzang Dorji, Bhutan's Minister of Agriculture who visited RBGE in January 2002. The Ministry of Agriculture funds and supports the National Biodiversity Centre.

Sangay Dema will be involved at all times and in all stages of the project. I have visited her in Bhutan and she will be visiting RBGE in February. She has helped develop this proposal and understands each of its components. In delivering this proposal, she has the direct support and encouragement of Dr Ugyen Tshewang and in turn he has the direct support of the Ministry of Agriculture. Written evidence supporting the partnership is appended.

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

(a) Within the National Biodiversity Centre discussions have been held with Tandin Wangdi, Head of the Herbarium and support, help and encouragement will be given by him and his staff. Discussions have also been held with Tobgay Namgyal, Director of the Bhutan Trust Fund for Environmental Conservation and Sangay Thinley, Secretary to the Ministry of Agriculture who both support the aims of the project.

(b) While I very much hope that Sangay Dema will not leave during the duration of the project, or even soon after, the project is about far more than just one person. It is about raising standards and knowledge throughout all levels of the organisation and in this way I have every anticipation that the benefits of the project will live on many years after the three year funding has ceased.

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

RBGE has been actively involved in collaborative work in Bhutan for more than 30 years and has established a network of individuals and institutions where it maintains active links. Many of these represent stakeholders or potential stakeholders in the project. In addition new links will be established for example with teachers and principals of educational establishments and NGOs who are involved in conservation education in Bhutan. Educational activities have been programmed to start in Year 2 to allow time for such discussion first.

Government contact is very positive and has been described in Box 6.

PROJECT DETAILS

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

The ultimate purpose of the project is to raise standards in the RBG Serbitang to realise its full potential so that it can contribute to sustainable development and the objectives of the CBD, particularly to environmental education, conservation and research. Before it can do that a number of fundamental activities need to take place that can best be described as institutional capacity building and training. They are as follows: 1. To enable staff to propagate and cultivate plants. This will be achieved by helping to develop a nursery, arranging staff exchanges and holding propagation workshops. 2. To give the staff an understanding of collection curation through plant records, collections policies and collections management. 3. To help develop the interpretative potential of the Garden, including plant labelling, a map/leaflet and interpretative information. 4. To equip staff with the ability to use the Garden and its resources for educational activities, for school teachers, school children, students and the public in general, including tourists.

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

The Botanic Garden at Serbitang is 3 years old and is funded by Bhutan's Ministry of Agriculture. It is therefore not a new initiative. However, it has not received any other grants and desparately needs help to raise standards so that it can contribute effectively to biodiversity conservation and the aims of the CBD.

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

The project will assist Bhutan in achieving a number of CBD articles. In the short term the most obvious ones are Article 9 (ex situ conservation) because the Botanic Garden will be growing its native flora and Article 13 (public education and awareness) because the Garden will be showcasing and explaining the value of its plants. However, if that was the sum total of activities aimed at the CBD then it would valuable, but not that significant. I believe though, and so do the staff at the NBC and at the Botanic Garden in Serbitang, that once the Garden and its staff can raise their standards, training, education, record keeping, infrastructure and quality of maintenance then they can contribute very effectively to a lot more Articles. In the medium term the Garden can certainly contribute to Articles 8 (in situ conservation), 12 (research and training), 16 (access to and transfer of technology), 17 (exchange of information) and 18 (technical and scientific cooperation).

It is worth noting too that the Garden can contribute directly to a number of Targets within the Global Strategy for Plant Conservation which has been derived directly from the CBD. Examples include Targets 1-3 in the section 'Understanding & documenting plant diversity', 7 & 8 in 'Conserving plant diversity', 14 in 'Promoting education & awareness' & 15 & 16 in 'Capacity Building.'

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

Bhutan is a small country but has an exceptional biodiversity, including more than 5,600 species of vascular plant. The diverse range of altitudes, and consequently climates, relatively low population density and the widespread continuation of traditional lifestyles has resulted in a large variety of natural and semi-natural habitats. Much of Bhutan remains forested, however, as in many parts of the developing world there are also significant threats facing parts of the country and the Government of Bhutan is acutely aware of the pressing need to conserve its unique range of natural resources and as a result has recently established a National Biodiversity Centre (NBC). NBC includes also, the National Gene Bank and National Herbarium. While the Herbarium and Gene Bank have a clear focus the Botanic Garden seems to be experiencing more difficulties. However, with some help it could become a national asset and, along with the other institutions within the NBC, it could contribute very effectively to the objectives of the CBD. Bhutan needs this project because it will empower NBC to contribute effectively to sustainable development, the objectives of the CBD and therefore the biodiversity needs of Bhutan. Without it there will be little focus for environmental education, plant conservation or research and the full potential of the other two institutions will not be maximised. It should be noted also that this is the first and only botanic garden in Bhutan and that throughout the entire Himalayan region there are very few botanic gardens.

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

Once fully developed the Botanic Garden will be employing at least 15-20 staff. As the Garden is at least 95% organic and uses organic matter and mulches extensively there is no doubt that it will contribute to sustainable livelihoods. The project, through training workshops and example, will increase the general level of horticultural skills in the country and act as a focus and model for sustainable methods of plant cultivation. There will also be a strong emphasis on the value and importance of indigenous plants and there will be practical demonstrations of how these can be incorporated into planting schemes alongside traditionally-grown cultivars and crop plants.

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

The main impact will be a botanic garden that not only looks better but is more able to make an effective contribution to the aims of the CBD. An attractive garden is more likely to draw a much larger audience and consequently offers a far greater opportunity for informal learning education programmes and interpretation. The aim will be to attract thousands of visitors each year to a vibrant, interesting and well maintained garden creating a unique environment to showcase Bhutan's biodiversity and tell visitors and residents the value of plants and the importance of conserving them. Well trained and informed staff will also have the ability to contribute effectively to research, conservation and education which in turn can help to fulfill the aims of the CBD. These aims will be achieved by staff exchanges, workshops, training and direct help, for example by helping to build a small plant propagation and nursery unit. Project outputs will be disseminated by effective communication during the exchanges, workshops and during the training. Wherever possible handouts and information packs will be distributed and during staff exchanges staff from RGBE will work shoulder to shoulder with staff from RBG Serbitang. The project will be monitored at all times to ensure that the outputs are being effectively disseminated. If they are not new approaches will be devised to try and remedy this.

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

It will leave a legacy by creating a better maintained and more vibrant botanic garden that is able to make a real impact on conservation and sustainability within Bhutan. It will also leave an infrastructure that is able to support the needs of a modern botanic garden and a team of trained specialist staff that will remain at the end of this initial phase of the project. A Darwin project such as the one proposed really can make a big difference and can give a small and new institution just the sort of help they need to get up and running so that they are in a better position to help themselves in the longer term. Additionally, RBGE has been working in Bhutan for almost 30 years and we all hope this will continue. Once the 3 year Darwin project has finished I very much hope that work will continue and I am certainly prepared for staff from the Horticulture Division to continue to exchange with staff from RBG Serbitang. In this way I hope that both RBGE and the Darwin Initiative can leave a lasting legacy to the people, plants and vegetation of Bhutan.

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

The project will avoid the common mistake of trying to impose a system developed outside on the budding Bhutanese garden by involving local staff and members of collaborating institutes in the planning stages of the various horticultural, education and interpretation elements. In addition there will be a strong emphasis on using locally sourced materials and appropriate technology to create a sustainable system of working that can operate independently of outside aid. Problems are bound to occur during the project but by careful monitoring and supervision it is hoped that any problems can be rectified as soon as they occur. I believe that the thought and careful planning that has gone into the project proposal will ensure that the project does have a lasting impact.

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

The project is certainly distinctive and innovative in Bhutan as no other project of its type exists. The Botanic Garden is very new and no other botanic garden exists within the country and indeed there are only a handful of botanic gardens in the whole Himalayan region. Consequently there is no opportunity for the RBG Serbitang to develop capacity without input from a foreign partner. I believe that it is distinctive because by building the capacity of an institution the project is investing in the long term. If the project was simply about going in to Bhutan and doing some conservation work the impact could be short lasting. This way the Darwin Initiative is investing in the long term viability and knowledge base of an institution which, in due course, will be able to make a direct contribution to research, conservation and education on plants in Bhutan. I believe this is distinctive and will work. The project will use the Darwin logo on all its handouts and information. It will also acknowledge the Darwin Initiative in all press releases and articles. It may also be possible to use the Darwin Logo within the Botanic Garden. The Government and King of Bhutan will be informed that the Darwin Initiative is helping the Botanic Garden.

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

To my knowledge there are no other Darwin Initiative projects in Bhutan. There are certainly no other individuals or organisations carrying out similar work in the Botanic Garden.

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

Yes, a large component of the project is about training and development. The trainees will all come from the Botanic Garden and will include all levels of staff, from the Curator of the Botanic Garden, through the supervisors to the actual Garden staff. Criteria for selection will include need (for instance it is imperative that someone receives propagation training), aptitude and ability to benefit from the training and willingness to attend. No staff will be barred through age, sex or status. Up to 10 staff in Bhutan will be involved. While it is not a stated objective of the project I also recognise the value in training terms that it will give to my staff from Edinburgh. The effectiveness of the training can really only be measured in the long term but in the short term, during the project period, trainees will be subjected to work-based assessments and those who successfully complete the training will be given a certificate of successful completion from the RBGE (which will also include the Darwin logo). Yes, it is very much intended that those who have received training will also train others. Training in Bhutan will last for 3 weeks each year and for 5 weeks each year in Edinburgh. Please see the implementation timetable for dates. Trainees will be monitored through assessment and mentoring. It will, for instance, be possible to assess those who received training in the first year during years 2 & 3 of the project. If they are not progressing well then they can be given refresher training.

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

RBGE hopes to work collaboratively with Bhutan for many years into the future. This project is part of an ongoing fruitful relationship between the RBGE and the Government and people of Bhutan and we intend to continue to work collaboratively. Himalayan botany remains a priority area for RBGE and scientists and horticulturists are expected to use Serbitang as a base for future work in the region and to continue to strengthen and develop the relationship between the two institutes for the foreseeable future. In this respect therefore, there is no exit strategy, this project is just one new development in a continuing climate of cooperation and collaboration. To be more specific however, I intend to be able to continue to visit Bhutan and will be happy to offer advice and assistance wherever possible. Staff from RBGE also travel widely and undertake exchanges in many gardens throughout the world. It will be possible therefore, for Garden staff from Edinburgh to work for short periods in Serbitang and I am also more than happy for staff from Serbitang to come to Edinburgh for refresher training. These sorts of staff exchanges are a very effective way of continuing the project after the grant period and will provide a useful exit strategy.

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

Project implementation timetable	
Date	Key milestones
Aug 2003	David Rae to Bhutan for 1 week to finalise programme & set work programme for RBGE staff.
Sept/Oct 2003	2 staff from RBGE spend 3 weeks at RBG Serbitang improving quality of maintenance by direct work and by training staff. Specific objectives include turf care, plantsmanship, landscape maintenance, arboriculture, curation and nursery work.
Aug/Sept 2003	2 staff from Bhutan visit RBGE for horticultural training. This will be achieved by on-the-job training with direct supervision and mentoring. Specific training demonstrations will also be given once the standard of the staff has been assessed. Staff who complete the training programme successfully will be given a certificate of completion from RBGE.
Aug/Sept 2003	Staff from RBGE will spend 2 weeks in Bhutan leading a propagation and nursery work workshop. They will also finalise plans for developing the nursery that were developed by David Rae during his visit in May 2002.
Aug/Sept 2003	Dr Ugyen Tshewang, Director of the National Biodiversity Centre to visit RBGE to study botanic garden management, curation, education and conservation.
Sept/Oct 2003	Construction of propagation and nursery complex. This will be a modest, practical and 'low-tech' complex designed to meet the needs of the Garden.
Feb/Mar 2004	David Rae to Bhutan for 1 week to monitor progress and set priorities for 2004.
Feb/Mar 2004	2 staff from RBGE spend 3 weeks at RBG Serbitang improving quality of maintenance by direct work and by training staff. Specific objectives will include planting, redesigning areas, nursery work, training and landscape construction .
May 2004	Final development of the nursery complex
June 2004	3 staff from RBGE will spend 3 weeks in Bhutan working on an interpretation master plan along with staff from RBG Serbitang and leading an education workshop. Interpretation implementation will start now and continue into 2005.
Aug/Sept 2004	2 staff from Bhutan will visit RBGE for horticultural training. This will be achieved by on the job training with direct supervision and mentoring. Specific training demonstratiins will also be given once the standard of the staff has been assessed. Staff who complete the training programme successfully will be given a certificate of completion from RBGE.
Sept 2004	2 staff from RBGE will spend 3 weeks in Bhutan leading a plant records workshop
Sept 2004	Production of 500 plant labels using traditional painting by local craftsmen
Feb/Mar 2005	David Rae to Bhutan for 1 week to monitor progress and set priorities for 2005
Feb/Mar 2005	2 staff from RBGE spend 3 weeks at RBG Serbitang improving the quality of maintenance by direct work and by training staff. Specific objectives will include planting, redesigning areas, nursery work and training.
July 2005	2 staff from RBGE to visit Bhutan for 2 weeks to finish implementing the interpretation master plan

Aug/Sept 2005	2 staff from Bhutan to visit RBGE for 5 weeks for horticultural training
Sept/Oct 2005	Sangay Dema to visit RBGE for 2 weeks for specialist botanic garden management training

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

The exchanges and training of horticultural staff will visually improve the botanic garden, thereby increasing visitor numbers and in turn making it possible to impart the education, conservation and sustainability messages (Article 13 of the CBD). It will also facilitate effective curation of the living collection thereby increasing the potential to grow plants ex situ which links to Article 9 of the CBD. Effective communication of biodiversity issues in Bhutan- to residents and visitors will be achieved through the education and interpretation workshops and training. Correctly identified and labelled plants will be achieved through the curation and plant records workshop and training and also through the horticultural visits and exchanges.

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

PROJECT OUTPUTS		
Year/Month (starting April)	Standard Output Number (see standard output list)	Description (include numbers of people involved, publications produced, days/weeks etc)
Sept/Oct 2003	6A	Staff at RBG Serbitang to undergo a period of on-the-job training. Approx 6 staff to be trained for 3 weeks.
Aug/Sept 2003	6A	2 staff from RBG Serbitang to spend 5 weeks at RBG Edinburgh undertaking horticultural training
Aug/Sept 2003	6A	2 staff at RBG Serbitang to receive 2 weeks propagation and nursery work training/workshop
2003	6B	Total number of training weeks during 2003 to be 10 weeks
Feb/March 2004	6A	Staff at RBG Serbitang to receive horticultural training through on-the-job training. Approx 6 staff to be trained for 3 weeks.
June 2004	6A	3 staff from RBGE to lead a Botanic Garden Education Workshop and an Interpretation Workshop at RBG Serbitang for 2 weeks
Aug/Sept 2004	6A	2 staff from RBG Serbitang to spend 5 weeks at RBGE undertaking horticultural training
Sept 2004	6A	2 staff at RBG Serbitang to receive 2 weeks plant records training/workshop
2004	6B	Total number of training weeks during 2004 to be 13 weeks
Feb/Mar 2005	6A	Staff at RBG Serbitang to receive horticultural training through on-the-job training. Approx 6 staff to be trained for 3 weeks
Aug/Sept 2005	6A	2 staff from RBG Serbitang to spend 5 weeks at RBGE undertaking horticultural training
2005	6B	Total number of training weeks during 2005 to be 8 weeks
Sept 2004	12B	RBG Serbitang already has a plant records database but the project aims to enhance its use and effectiveness greatly during the 3 year project. In Sept 2004, however, there will be a plant records workshop during which the database will be enhanced greatly.
May 2003- April 2005	13B	The species reference collection at RBG Serbitang will be enhanced greatly throughout the duration of the project.
2003, 2004 & 2005	15A, 15B, 15C & 15D	It is planned to have 1 national and 1 local press release in each country, each year.
Sept 2003 & May 2004	20	Construction of nursery and propagation unit £12,000
By end of project	23	£73,435

MONITORING AND EVALUATION

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

Progress will be monitored on a day-to-day basis by Dema Sangay who is Head of the Botanic Garden and can manage all the project work as it progresses. On a yearly basis David Rae will visit the project to monitor progress. Additionally, Dema Sangay and David Rae will be in regular correspondence to check progress, evaluate outcomes and sort out problems as they arise. Training programmes will be monitored by work-based assessment. Specific outcomes such as the interpretation masterplan and nursery development will be carefully monitored as they progress and will be assessed jointly by David Rae and Sangay Dema to make sure they meet the needs of the whole project. It is essential that the outcomes truly meet their needs, if they don't then there will have been no point in doing them. The whole project has been carefully planned and therefore there is little likelihood that any element of the project will not be what is required. However, there are bound to be problems along the way and therefore good communication between Sangay Dema and David Rae is essential.

The different elements of the project have been clearly listed and so it will be very easy at the conclusion to ensure that everything has been done.

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

Sangay Dema, Head of the Botanic Garden and Dr Uygen Tshewang, Director of the National Biodiversity Centre will be involved in monitoring the project. The project is taking place within the Botanic Garden and so Dema Sangay, in particular, will have a very real input into monitoring the project. Each element of the project has been designed to contribute to the overall objective and so it will be clear if an element is not progressing well. If this is the case then Sangay Dema will be able to spot this quickly and will be able to discuss any problems with Dr Tshewang and with David Rae. Evaluation of each element will be important to ensure that it meets the needs it was intended to fulfil. Again Dema Sangay and Dr Tshewang will be fully involved in evaluation.

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

All project costs have been kept to a minimum and value for money will be sought at all times. Costs in Bhutan are very reasonable and subsistence rates for staff working at RBG Serbitang are low (about £12 per day). Costs for Bhutanese staff training and working at RBGE are higher but RBGE has a good relationship with small hotels and B&Bs in the vicinity and costs will be kept as low as possible. All flights will be routed through Dehli or Calcutta and the cheapest deals will be sought. I believe that the outcomes of the project will fully justify the cost and that it will certainly represent good value for money.

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

Report type	Period covered	Due date	REQUIRED?
Six month report	1 April 2003 – 30 September 2003	30 October 2003	Yes
Annual report	1 April 2003 – 31 March 2004	30 April 2004	Yes
Six month report	1 April 2004 – 30 September 2004	30 October 2004	Yes
Annual report	1 April 2004 – 31 March 2004	30 April 2005	Yes
Six month report	1 April 2005 – 30 September 2005	30 October 2005	Yes
Annual report	1 April 2004 – 31 March 2005	30 April 2006	Yes
Six month report	1 April 2006 – 30 September 2006	30 October 2006	No
Final report	1 April 2004 – project end date	3 months after project completion	Yes

LOGICAL FRAMEWORK

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

Project summary	Measurable indicators	Means of verification	Important assumptions
<p>Goal:</p> <p>To draw on expertise relevant to biodiversity from within the United Kingdom to work with local partners in countries rich in biodiversity but poor in resources to achieve</p> <ul style="list-style-type: none"> the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of the benefits arising out of the utilisation of genetic resources 			
<p>Purpose</p> <p>To build the capacity of the staff and facilities at RBGS so that they can use the resource of the living collections for education, conservation and, eventually, for research so that the institute can contribute effectively to the aims of the CBD and to sustainable development</p>	<p>Visually improved botanic garden landscape.</p> <p>Effective curation of the living collection.</p> <p>Effective communication of biodiversity issues in Bhutan- to residents and visitors.</p> <p>Correctly identified and labelled plants</p>	<p>Visual inspection by Minister of Agriculture, Director of NBC & Director of Hort at RBGE.</p> <p>Functional plant record system & efficient output from nursery.</p> <p>Interpretation plan and educational policy put into place.</p> <p>At least 500 plants correctly labelled</p>	<p>Residents and tourists visit the Botanic Garden either for recreation or information and leave having gained knowledge of Bhutan's biodiversity and the issues involved in its conservation</p>
<p>Outputs</p> <p>An Interpretation Master Plan indicating the most effective way of using the Garden to highlight important issues concerning Bhutan's Bio-diversity.</p> <p>A Plant Records database in place</p> <p>A functional nursery established with 2 staff capable of propagation plants from seeds and cuttings</p> <p>Traditionally printed plant labels installed</p> <p>An attractive, well maintained Garden with a well curated collection of plants (NB it must be noted that a fine garden with high standards cannot be fully created within 3 years</p> <p>An education policy</p>	<p>A Written Master Plan describing how best to implement an interpretation strategy in the Garden</p> <p>A Minimum of 2 trained staff in data entry and management, the Garden sub-divided into plant record zones and information on the collection entered into the database</p> <p>Plants grown from seed or cuttings survive and are grown in the Garden.</p> <p>At least 500 labels painted and installed. Plants correctly identified</p> <p>At least 6 staff given basic horticultural training.</p> <p>Number of plants in cultivation.</p> <p>At least 2 staff trained to use the</p>	<p>Physical evidence of interpretation materials, methods and techniques.</p> <p>Participant's attendance records.</p> <p>Database of Plant Collection</p> <p>Physical evidence of plants being propagated and grown on.</p> <p>Physical evidence</p> <p>Visible assessment using photographs over the 3 years of the project</p> <p>School groups visit the</p>	<p>Residents and tourists understand the components of Bhutan's Biodiversity and any important issues involved in conserving it.</p> <p>The Database is used to catalogue and manage the living collection</p> <p>The Nursery continues to be the main method by which new plants enter the collection.</p> <p>Visitors able to find out names of plants and basic information about them (e.g.) local names, distribution and uses.</p> <p>An attractive well-maintained garden with a well-curated collection of plants will attract visitors. Without visitors the Garden will not be able to reach it's educational objectives.</p>

<p>established defining ways in which the Garden can be used for biodiversity education.</p>	<p>Garden for educational purposes. A written policy describing ways in which the Garden can be used for educational activities</p>	<p>Garden for classes and events. Diary/Calendar of visits</p>	<p>School children residents and tourists understand the component of Bhutan's biodiversity and any important issues involved in conserving it.</p>
<p>Activities</p> <p>Workshops</p> <p>Staff exchanges to train horticultural staff</p> <p>Project management, monitoring and assessment</p> <p>Production of Interpretation material and map/leaflets</p> <p>Construction</p>	<p>Activity Milestones (Summary of Project Implementation Timetable)</p> <p>Year 1 Propagation and Nursery Work</p> <p>Year 2 1. Curation and Plant Records, 2. Education and interpretation</p> <p>For each of the three years of the project 2 staff from RBG Edinburgh will work in RBG Serbithang alongside staff to both improve the quality of Horticulture and help train staff. In addition two staff from Bhutan will visit Edinburgh and /or Benmore Botanic Garden to receive specialist horticultural training.</p> <p>D Rae to visit Bhutan each year to manage project and monitor progress. Dema Sangay to visit Edinburgh to manage project and receive Botanic Garden Management training. Dr Ugyen Tshewang to visit Edinburgh to study botanic garden management, curation, education and conservation</p> <p>Depending on the results of the Interpretation Master plan, information boards and other means of communicating biodiversity information to be produced. A map/leaflet to help visitors will also to be produced.</p> <p>Nursery complex to be constructed and developed</p>		