



Submit by 21 January 2005

DARWIN INITIATIVE APPLICATION FOR GRANT ROUND 13 COMPETITION:STAGE 2

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

1. Name and address of organisation

Name: Dr David Rae	Address: Royal Botanic Garden Edinburgh, 20a Inverleith Row, Edinburgh, EH3 5LR
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2. Project title (not exceeding 10 words)

Horticulture and education for conservation in Horticulture and education for conservation in Nezahat Gökyiğit Botanik Bahçesi, (Istanbul, Turkey)
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3. Project dates, duration and total Darwin Initiative Grant requested

Proposed start date: April 2005		Duration of project: 3 years			
Darwin funding requested	Total	2005/06	2006/07	2007/08	2008/09
	£132,013	£51,623	£41,615	£38,325	£450

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

The purpose of the project is to develop the horticultural and educational potential of Nezahat Gökyiğit Botanik Bahçesi so that it can contribute effectively to species conservation in Turkey. Delivered through a series of workshops, staff exchanges, hands-on practical work and field trips, and driven by local demand, the project will equip staff with the training and knowledge necessary to conserve plant species through horticultural techniques and educational programmes. The idea is that, through these programmes of training, capacity building and technology transfer, the Garden will be able to contribute effectively to the objectives of the Convention of Biological Diversity (CBD), the Global Strategy for Plant Conservation (GSPC) and to sustainable development.
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5. Principals in project. Please provide a one page CV for each of these named individuals

Details	Project Leader	Other UK personnel (working more than 50% of their time on project)	Main project partner or co-ordinator in host country
Surname	Rae		Güner
Forename (s)	David		Adil
Post held	Director of Horticulture		Director
Institution	Royal Botanic Garden Edinburgh		Nezahat Gökyiğit Botanik Bahçesi (NGBB)
Department	Horticulture Division		-
Telephone			
Fax			
Email			

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

Yes. SW China (1994-1997), Mauritius (1996-1997), Chile (1996-1998), Socotra (1997-2000), Ukraine (1997-2000), Chile (2001-2004), Peru (2001-2004), Bhutan (2003-2006).

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

Aims (50 words)

Activities (50 words)

Achievements (50 words)

8. Please list the overseas partners that will be involved in their project and explain their roles and responsibilities in the project. Describe the extent of their involvement at all stages, including project development. What steps have been taken to ensure the benefits of the project will continue despite any staff changes in these organisations? Please provide written evidence of partnerships.

The main institutional overseas partner is Nezahat Gökyiğit Botanik Bahçesi, Istanbul, Turkey. The main individual is Prof Adil Güner, Director of the Garden who has clearly identified the need for the project. Prof Güner has been the inspiration and driving force behind the Garden since it was designated a Botanic Garden in 2003. Prof Güner has been involved in this Darwin application from the start and has helped develop every element of the programme so that we can be sure that each element is required, is driven by local demand and will deliver training or capacity building that is genuinely required and necessary. This was developed through a one week workshop at the Garden in 2003 in which staff from RBG Kew, RBG Edinburgh and many botanists, conservationists and landscape architects from Turkey were invited. At the workshop ideas, plans and development strategies for the Garden were discussed and it was very clear from that meeting that there was strong local demand for the project. RBG Edinburgh and NGBB Istanbul will both exist and continue even if staff change. RBG Edinburgh has a long term commitment to Turkey which will endure even for many years after this project. This project should be viewed as one (very important) step in a continuing journey of science and conservation in Turkey by RBGE. Written evidence of partnership is included in the accompanying papers.

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

Considerable consultation took place with other stakeholders at the workshop mentioned above. At that meeting, which was very interactive, presentations, discussions and round table meetings took place with many individuals representing a whole range of professionals, academics and NGO representatives. Discussions have also been held with NGBB Istanbul's Friends' co-ordinator, Mrs Sevin Gül, and she has been able to represent the interests of the local community. RBG Edinburgh also hosted Mrs Gül and two staff from Istanbul for three weeks of practical horticultural experience and visits and during this time the proposed Darwin project in Istanbul was further discussed and refined. Again, from these discussions the views and interests of the local community were discussed and it was also possible to discuss the views, needs and aspirations of the actual horticultural staff. Consultation and discussion will take place throughout the duration of the project to modify or improve elements of the project in the light of experience and participant feedback. Mr Yakup Dost from the Turkish Government attended the workshop mentioned above.

PROJECT DETAILS

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

NGBB Istanbul was established as a park in 1995 and was subsequently designated a botanic garden in 2003. It is therefore strictly a development of existing work. However, it is so young and undeveloped that it can still be regarded as a new initiative. The staff are young and enthusiastic but lack training and the site is still only in its infancy. However, the potential is vast as it is a truly unique site with enormous potential and nothing like it exists in Istanbul or Turkey. To my knowledge there have been no similar (or indeed any) Darwin projects in Turkey.

11. How will the project assist the host country in its implementation of the Convention on Biological Diversity? Please make reference to the relevant article(s) of the CBD thematic programmes and/or cross-cutting themes (see Annex C for list and worked example) and rank the relevance of the project to these by indicating percentages. Is any liaison proposed with the CBD national focal point in the host country? Further information about the CBD can be found on the Darwin website or CBD website.

The whole point of the project is to assist the host country in its implementation of the CBD. There are very few conservation agencies in Turkey, yet the vegetation is very rich and threatened in many ways. NGBB Istanbul will be in a position to help the Government of Turkey fulfil its CBD responsibilities, but only if it is helped now in terms of training and capacity building. With its unique mix of natural, semi-natural and man made habitats within the environment of Istanbul NGBB Istanbul and this Darwin project will contribute to Article 8 (10%), Article 9 (20%), Article 12 (20%), Article 13 (30%) and Articles 16,17 & 18 (10% each). Relevant cross-cutting themes include Access and Benefit sharing, Biodiversity and Tourism and Public Education and Awareness.

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

Turkey has a National Biodiversity Strategy and Action Plan and also a National Plan on *in-situ* Conservation of Genetic Diversity which Prof Güner co-authored. The *in-situ* plan recognises the importance of *ex-situ* conservation and states that *in-situ* conservation measure need to be supported by *ex-situ* conservation programmes. Both plans highlight the importance of public education/awareness, the value of databasing plant information and the importance of conserving wild relatives of ornamental species, especially bulbs. All these measures fit in very well with the purposes and aspirations of NGBB and this Darwin proposal has been designed to help NGBB fulfil these priorities.

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

We could not claim that this project will contribute directly to sustainable livelihoods immediately or directly. However, the Garden will operate on sustainable principles wherever possible and it will employ local staff who, it is hoped, would want to live their lives as sustainably as possible considering they are working for a botanic garden which is involved in environmental and conservation issues. In addition the garden will, through its education programme, be informing visitors about sustainability issues and how to live their lives sustainably.

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

The impact will be threefold. First the visual quality of the Garden will be improved through training and capacity building. This in itself might not seem important from a CBD point of view but an unattractive garden will not encourage visitors to visit and therefore there will be little impact educationally. Conversely an attractive and well interpreted garden will encourage visitors who can then become engaged with conservation and sustainability through education. Improved

horticulture will also enable staff to grow and manage endangered species. Second, staff will be trained in horticulture, plant records and education techniques through staff exchanges and work experience. Third, there will be an impact on the actual vegetation in the natural and semi-natural areas of the Garden. All these impacts will combine into a major force for conservation which can then be deployed outside the Garden.

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

It will leave a lasting legacy through a greatly improved botanic garden, better trained staff, better plant records system, a range of policy documents in place to help long term management, from a collections policy and environmental policy to a policy for the management of natural and semi natural areas of the Garden. The legacy will therefore be evident in people, landscape and individual plants. It will start in the Garden but then spread out to conservation priority areas in Turkey. While the initial focus will be the Garden, the longer term vision is that the Garden and its staff will become a focal point for plant conservation and education thereby benefiting the whole of Turkey.

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

The relationship between RBGE and NGBB will continue after this Darwin Project because RBGE has a long term scientific interest in the vegetation of Turkey and SW Asia. Staff from RBGE who have been involved in the project will not suddenly 'drop' Turkey because the project has ended. Proof of this can be seen in the many other international projects (including Darwin projects) that RBGE is/has been involved in. This is achieved through institutional interest and personal commitment. Though staff exchanges staff develop personal friendships which frequently endure for many years. In this respect an exit strategy is not necessary as RBGE will continue to support NGBB and Turkey after the project has finished. Impact and legacy are achieved through training and capacity building and these are two strong elements of this project.

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

The Darwin Initiative along with its aims and objectives has already been explained to staff at NGBB. It will also be explained to all those participating in each element of the project and to government officials and journalists. The logo will be used in reports and literature and during conferences and meetings. No opportunity will be lost in explaining the value of the Darwin Initiative in delivering the objectives of the CBD. The project will always be advertised as a Darwin project at every meeting.

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

Yes, training and development constitute a large and important part of the project. Trainees will include all the staff at NGBB. There are so few staff that there need not be any criteria for selection – they will all get the opportunity. Content has been discussed with Prof Güner and other staff and workshops and training sessions will be tailor made for each individual/group of individuals. The conservation workshop and CBD Conference will include staff from outside of the Garden. Staff from Government departments, NGOs and Universities will be invited to attend, based on the recommendations of Prof Güner. The level and appropriateness of the training will be based on more than 20 years of training and teaching experience by Dr Rae and the quality, effectiveness and outcomes will be judged by attendees' feed-back sheets. Attendees will certainly be able to train others – this is an effective way of delivering training to a wider group than just those who attend. Timing and duration of training components are shown in Question 20.

LOGICAL FRAMEWORK

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

Project summary	Measurable Indicators	Means of verification	Important Assumptions
<p>Goal: To draw on expertise relevant to biodiversity from within the United Kingdom to work with local partners in countries rich in biodiversity but poor in resources to achieve</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 benefits arising out of the utilisation of genetic resources 			
<p>Purpose To develop the horticultural and educational potential of NGBG so that it can contribute effectively to species conservation in Turkey. Through specialist training and institutional capacity building the staff will acquire the skills and knowledge necessary to develop the garden, conserve species and inform the public. In this way the NGBG will be able to contribute effectively to the aims of the CBD and to sustainable development.</p>	<p>i) Visually improved botanic garden landscape</p> <p>ii) Effective curation of the living collection</p> <p>iii) Successful conservation of plant species in conservation zones</p> <p>iv) Effective communication of biodiversity issues in Turkey to residents of Istanbul and visitors</p> <p>v) Appropriate environmental management of site</p>	<p>i) Visual inspection by senior officials, Director of NGBG and Director of Hort at RBGE</p> <p>ii) Collections policy written, functional plant records system and efficient output from nursery</p> <p>iii) Botanical survey of conservation zones</p> <p>iv) Interpretation plan and educational policy put into place</p> <p>v) Environmental policy and environmental audits established</p>	<p>NGBG can become a major focus in Turkey for the conservation of plant species through horticultural techniques, a place for learning about biodiversity issues and a garden to enjoy plants and be inspired by nature. Visitors who visit the Garden will leave knowing more about biodiversity and conservation issues. In this way NGBG can contribute very effectively to the objectives of the CBD and to sustainable development. However, the designed landscape only covers 25% of the whole site and while it will be the focus for horticulture and visitors it does not represent the whole project. Other parts include 12 ha of oak conservation, a 12 ha 'managed' conservation site and a 12 ha 'un-managed' conservation zone. All these add to the unique mix of the Garden and will form part of the project.</p>
<p>Outputs <u>Botanic Garden</u> A botanic garden with a well curated collection of plants.</p>	<p>At least 6 staff given basic horticultural training.</p> <p>Number of plants in cultivation.</p>	<p>Visible assessment using photographs over the 3 years of the project.</p>	<p>An attractive species-rich garden will attract visitors. Without visitors the Garden will not be able to reach its educational objectives.</p>
<p><u>Nursery</u> A functional nursery established with 2 trained staff.</p>	<p>Plants grown from seeds and cuttings survive and are grown in the Garden.</p>	<p>Physical evidence of plants being propagated and grown on.</p>	<p>The Nursery is the main route by which new plants enter the collection and its development is fundamental to the success of the project.</p>

<u>Field trip</u> Staff receive training in collection techniques, data sources and seed cleaning & storage. New plants enter the collection.	Number of new species in the collection, especially endangered species, increases.	Physical evidence and verification in the plant records database.	Wild origin plants are vital for research and conservation. Field collecting requires special training to ensure the maximum benefit is derived from the work in terms of both cost and conservation gain.
<u>Database</u> An accurate plant records database in place.	A minimum of 2 staff trained in BG-BASE and in data entry & management.	Participant's attendance records. Database of plant Collection.	The database is used to catalogue and manage the living collection. This is a fundamental requirement of botanical collections and species management.
<u>Education</u> An Education Policy showing how to use the Garden for educational purposes.	A written Policy document resulting from a workshop describing the ways in which the Garden can be used for a variety of educational uses.	Physical evidence of the policy's existence. Workshop participant's attendance records.	There are very few urban greenspaces in Istanbul and the garden will be a primary focus for environmental education (both the designed and conservation areas of the Garden).
<u>Conservation</u> A management plan for the three conservation zones.	The workshop will discuss management, survey and recording techniques so that progress over time can be measured.	Physical evidence of the management plan.	The three conservation areas will be prime areas for conservation, education, training and research. They will also bring a strong science-based element to the project ensuring that conservation plans are strongly underpinned by science.
<u>Interpretation</u> An Interpretation Master Plan	A written Master Plan describing how best to implement an interpretation strategy in the Garden	Physical evidence of the Master Plan.	Residents and tourists understand the components and issues concerned with Turkey's biodiversity – why it is so rich, why it is threatened and how it can be conserved.
<u>Conference</u> Small conference on CBD and GSPC issues in Turkey.	Attendance of about 50 key government, NGO and conservation staff from all over Turkey.	Physical or photographic evidence of attendance.	The Darwin project will provide a good platform from which to hold a conference to discuss CBD and GSPC issues in Turkey. They will also provide strong evidence of the link between the CBD and the project.
Activities Workshops	Activity Milestones (Summary of Project Implementation Timetable) Year 1 Propagation and nursery work Year 2 Plant records, Education and Management of conservation areas Year 3 Interpretation		

Staff exchanges to train horticultural staff	For each of the three years of the project staff from RBG Edinburgh will work in NGBG alongside staff to both improve the quality of horticulture and help train staff. In addition, two staff from NGBG will visit Edinburgh each year to receive specialist horticultural training.
Project management, monitoring and assessment.	D Rae to visit NGBG each year for one week to manage the project and monitor progress. Prof Adil Güner to visit RBGE in year 2 to review progress and receive botanic garden management training.
Field trip	A short field trip is planned for year 1 of the project involving staff from both botanic gardens.
Conference	A three day conference will be arranged in year 3 of the project to discuss and review CBD and GSPC issues relevant to Turkey

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

Project implementation timetable		
Date	Financial year	Key milestones
May/June	Apr-Mar 2005/6	Management visit – David Rae to NGBB Istanbul
Oct/Nov	Apr-Mar 2005/6	RBGE staff to Turkey – horticultural techniques
Aug/ Sept	Apr-Mar 2005/6	NGBB Istanbul staff to RBGE – horticultural experience
July/Aug	Apr-Mar 2005/6	RBGE staff to Turkey – propagation workshop
Sept/Oct	Apr-Mar 2005/6	RBGE staff to Turkey for field trip with NGBB Istanbul staff
Feb/March	Apr-Mar 2005/6	RBGE staff to Turkey – plant record workshop
Feb/March	Apr-Mar 2005/6	Purchase <i>BG-BASE</i> (plant records database)
Feb/March	Apr-Mar 2005/6	Nursery facilities
April	Apr-Mar 2006/7	Management visit – David Rae to NGBB Istanbul
May/June	Apr-Mar 2006/7	RBGE staff to Turkey - horticultural techniques
Sept/Oct	Apr-Mar 2006/7	NGBB staff to RBGE - arboricultural experience
Sept	Apr-Mar 2006/7	RBGE staff to Turkey – education workshop
Feb/March	Apr-Mar 2006/7	RBGE staff to Turkey - conservation workshop plus invited attendees from Turkey (approx 10)
Nov	Apr-Mar 2006/7	Management visit – Adil Güner to RBGE
April	Apr-Mar 2007/8	Management visit – David Rae to NGBB Istanbul
Feb/March	Apr-Mar 2007/8	RBGE staff to Turkey – <i>ex-situ</i> and conservation techniques, horticulture work
Jan/Feb	Apr-Mar 2007/8	NGBB Istanbul staff to RBGE - horticultural experience
May/June	Apr-Mar 2007/8	RBGE staff to Turkey – interpretation workshop
Oct	Apr-Mar 2007/8	RBGE staff to Turkey – CBD Conference plus invited attendees from Turkey (approx 30)

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

PROJECT OUTPUTS		
Year/Month	Standard output number (see standard output list)	Description (include numbers of people involved, publications produced, days/weeks etc.)
May/June 2005	6A	Staff at NGBB to undergo a period of on-the-job training. Approx 6 staff to be trained for 3 weeks in landscape management
Sept/Oct 2005	6A	2 staff from NGBB to spend 5 weeks at RBGE undertaking horticultural training
Oct/Nov 2005	6A	2 staff at NGBB to receive propagation and nursery work training/workshop
Oct/Nov 2005	6A & 13A	2 staff from NGBB to join 2 staff from RBGE for 3 week field trip to receive training in collecting, recording, storage and field data techniques. As a result one collection will be enhanced.
May/June 2005	15A & 15C	1 national press release in Turkey and Scotland at start of project
2005	6B	Total number of training weeks during 2005 to be 13 weeks
Feb 2006	6A & 12A	NGBB already have a basic plant records database but are frustrated by its lack of sophistication. As a consequence the widely adopted and widely recognised system BG-BASE (1 database) will be installed and staff at NGBB will receive 2 weeks of specialist plant records training
Sept 2006	20	Cost of BG-BASE (plant records database) £6,903 (including VAT, installation and training)
March 2006	20	Cost of nursery facilities / pre-fabricated office £5,000
March 2006	23	Value of resources raised from other sources for financial year 2005/06 £24,830
April/May 2006	6A	Staff at NGBB to receive a period of on-the-job training. Approx 6 staff to be trained for 3 weeks in horticultural techniques
June/July 2006	6A	2 staff from NGBB to spend 5 weeks at RBGE undertaking horticultural training
Sept/Oct 2006	6A	3 staff from RBGE to lead a Botanic Garden Education Workshop at NGBB for 2 weeks
2006	6B	Total number of training weeks during 2006 to be 12 weeks
Feb/March 2007	6A	3 staff from RBGE to join with specialists from Turkey for a 1 week workshop in conservation techniques and planning
March 2007	6A	Prof Adil Güner, Director of NGBB, to spend 2 weeks at RBGE and other British botanic gardens studying botanic garden management
March 2007	23	Value of resources raised from other sources for financial year 2006/07 £29,705
April/May 2007	6A	Staff at NGBB to receive a period of on-the-job training. Approx 6 staff to be trained for 3 weeks in <i>ex-situ</i> horticulture and conservation techniques

June/July 2005	6A	2 staff from NGBB to spend 5 weeks at RBGE undertaking horticultural training
Sept/Oct 2007	6A	2 staff from RBGE to lead a Botanic Garden Interpretation Workshop at NGBB for 2 weeks
2007	6B	Total number of training weeks in 2007 to be 13 weeks
Feb/March 2008	6A	3 staff from RBGE to join with specialists from NGBB for a 1 week conference on CBD issues and practices in Turkey
Feb 2008	15A & 15C	One national press release in Turkey and Scotland at end of project
March 2008	23	Value of resources raised from other sources for financial year 2007/08 £27,115
2008	6B	Total number of training weeks in 2008 to be 1 week

MONITORING AND EVALUATION

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

First, and most importantly, partners from the host country will be included in monitoring and evaluation of the project throughout the period of the project. Dr Rae and Prof Güner will keep in close contact throughout and David Rae will visit NGBB each year with the express purpose of evaluating and monitoring progress (and planning next year's work). This will be done through informal discussion with Prof Güner and his staff and through trainee feed-back sheets. If training delivery techniques or content are not suitable or have not been well understood delivery and content will be changed as a consequence. The 'Means of Verification' given in the Logical Framework will be used extensively in the monitoring and evaluation process. The interpretation plan, education policy, environmental policy, botanical survey, participants' attendance records and physical evidence of factors such as the plant database will also provide evidence for monitoring and evaluation as will feed-back from external assessors after the yearly reports.