

## **DARWIN INITIAITVE**

### **FINAL REPORT**

#### **1) PROJECT DETAILS**

**Title:** Education Training and Materials for South African Botanic Gardens

**Contractor :** The Sir Harold Hillier Gardens and Arboretum

**Collaborating Institution:** Kirstenbosch Botanic Garden, Cape Town

**Grant Round:** 6 (I think!)

**Grant Value:** £12,790

#### **2) EXPENDITURE**

Attached

#### **3) PROJECT BACKGROUND**

During a visit to Kirstenbosch and Witwatersrand Gardens in 1996, Mary South became aware of the desperate shortage of suitable environmental education materials available for local communities.

This visit was part of a British Council project to provide environmental training for teachers, especially those from the Township schools,

Discussions with the Head of Education at Kirstenbosch Garden confirmed this need and the willingness of the National Botanic Institute (NBI) to be involved with a suitable project. One of the main considerations was the production of materials in more user friendly languages for local teachers and pupils.

South Africa is increasingly concerned with the maintenance and conservation of its rich heritage of floral biodiversity, particularly in the Cape Region. Therefore the project was seen as an important way to help raise awareness about the indigenous flora, especially in the local communities.

The materials produced would be made freely available to local school teachers through a series of training workshops to be provided at Kirstenbosch Garden.

#### **4) PROJECT OBJECTIVES**

- a) Three months training for an Education Officer from Kirstenbosch Garden, at the Sir Harold Hillier Gardens and Arboretum (SHHGA). Achieved.
- b) During this time to choose activities and teaching materials suitable as the basis for a teachers' pack. This was analysed on the basis of the new Outcome Based Education (OBE) curriculum established in South Africa. Achieved.
- c) To produce a teachers' pack based on Biodiversity for distribution through various organisations in South Africa linked with NBI. Achieved.
- d) That the pack should be produced in three languages - English, Afrikaans and Xhosa. Achieved.
- e) To look at the possibility of producing a simple short play which could be produced by the pupil environmental group in Cape Town. The script and costumes were

developed, but unfortunately the group in Cape Town, has become defunct. Since the materials are all at Kirstenbosch, there may be an opportunity in the future to use the idea. In the meantime, the script has been made available to local schools in Hampshire and it is hoped will form the basis of class activities there.

## 5) PROJECT OUTPUTS

- a) Training for Sindiswa Tyhokolo was successfully completed with activities drawn from the SHHGA schools education programme. These were analysed and linked to new programmes on biodiversity for Kirstenbosch Garden. These were to be used also as a format to integrate the concept of biodiversity into the context of the new curriculum, through teachers' workshops at Kirstenbosch.
- b) Press releases were produced, but disappointingly only taken up by local press and radio when Sindiswa was at the SHHGA.
- c) The project will be continuing in South Africa through Sindiswa's commitment to it with the ongoing programme of workshops for local schools and teachers.
- d) The launch of the pack at Kirstenbosch underlined NBI's support - they had arranged for the launch and ensuing teachers' workshop to be put on video. This was then sent to the environment TV channel for transmission. However, it must be said that no definite date had been set and that it could be many months before it is used by the programmers.
- e) Details of the pack have been put on the Kirstenbosch website. This has resulted in a lot of interest and requests for materials.

## 6) PROJECT MANAGEMENT

**Training:** Sindiswa Tyhokolo was selected by the Director of Education for NBI, Maureen Wolfson and the Head of Education, Ally Ashwell as being a suitable candidate to benefit from the training. This was done on the basis of her teaching skills, commitment to environmental education and the local community.

The timing was very relevant to the political situation in South Africa and the establishment of a new curriculum in schools. Prior to the application to DI she had already been tasked by Ally Ashwell, to research and develop new approaches to the Kirstenbosch programme using Biodiversity as the key concept.

During her time at SHHGA she participated in school visits, leading activities as a practical means of understanding their potential and the best ways of teaching each one.

A series of visits was arranged to other environmental teaching sites so she could explore a number of different approaches and gather a wide range of activities.

Visits to BGCI were also arranged and meetings and two one day conferences linked to the Botanic Gardens Education Network (BGEN). She also made a brief contribution to Kew's Botanic Garden Management course, which usually includes a visit to the education department at the SHHGA.

A copy of Sindiswa's report is attached.

**Problems arising:** The changing organisation of the South African school curriculum caused considerable delays which were not adequately communicated to SHHGA. At the outset of the new curriculum its aims and objectives had caused some alarm

amongst teachers and further considerable training was necessary, by the local education authority. Sindiswa needed to attend these sessions in order to ensure we had correctly interpreted our material and its relevance to Outcomes Based Education.

Further difficulties arose with the departure of Ally Ashwell from Kirstenbosch, which greatly increased Sindiswa's workload until a replacement was found.

Problems were also compounded because supposedly compatible computer programmes weren't. This resulted in double work, having to retype everything twice to make the pack consistent for all languages.

## **7) PROJECT IMPACT**

The project has to be seen as having a long term impact on the teaching of Biodiversity and its understanding in schools in the Cape area of South Africa. It is unlikely that this would have been undertaken so early in the development of the new curriculum without the funding from DI and the production of the teachers' pack. With greater appreciation of the role of biodiversity and its relevance to each individual, it is to be hoped this will enable local communities to participate more fully in the sustainability of their indigenous biodiversity.

Sindiswa's training was crucial to the project and already it is obviously paying dividends in her continuing role as Senior Education Officer at Kirstenbosch. Not only has she greater authority, clarity and commitment to the whole concept, but her teaching skills have been extended to embrace a wider range of activities and topics.

Despite difficulties of communication and the delays encountered along the way, it has to be said that the two education departments at each garden, are still committed to collaborate with one another, should the opportunity arise in the future.

## **8) SUSTAINABILITY**

The SHHGA contributed staff time, accomodation for Sindiswa Tyhokolo (including rent, rates, heating lighting and cleaning) which was estimated at £8,950.

The only other funding source was in kind from the collaborating garden - Kirstenbosch which provided Sindiswa's salary whilst she was in the UK for three months.

As previously noted workshops for community teachers and environmental teachers will be continuing at Kirstenbosch, based on the project pack. There are also plans to extend these to other centres. In particular these would take place at those centres which have already expressed an interest in distributing the pack viz;

It is anticipated that over time the pack will be a dynamic project being amended and updated as the curriculum continues to develop and, as teachers begin to use the materials themselves, incorporate new approaches and ideas. Kirstenbosch are committed to maintaining the impetus begun by the DI project.

## **9) OUTCOMES IN THE ABSENCE OF DARWIN FUNDING**

As already noted Ally Ashwell had set Sindiswa the task of exploring the concept of Biodiversity just prior to the project. However, this did not include packs of materials for schools, nor any local language materials. The aim was simply to explore greater use of the Kirstenbosch collection as a means of demonstrating biodiversity, for visiting

school groups. Therefore it seems very unlikely that any similar project would have been conceived without the intervention of SHHGA and the DI funding.

## 10) KEY POINTS

- *Success factors*

Commitment of main participants

Continuing moral support by SHHGA

Tolerance and support of DI staff

- *Problems encountered*

Communication once Sindiswa had returned to Cape Town - this was much more difficult than had been expected, even in this electronic age. There were often difficulties with the telephone system in CapeTown affecting fax, telephone and email. Exchanged computer discs were not compatible, even using apparently compatible programmes. As we were committed to producing camera ready material for printing, this caused more delays through re-writing.

Internal communication at Kirstenbosch was not always as complete as we would have liked.

The initial disbursement was slower than we would have wished, which caused problems with the initial funding for Sindiswa's flight to UK. This was mainly due to the project timescale commencing only three weeks after the award had been approved. This was unavoidable. Due to other work commitments at both establishments this was the only possible time scale.

There were difficulties with internal disbursement methods initially.

Pressure of work at both establishments for both Mary South and Sindiswa Tyhokolo did cause further delays, especially when compounded with the communication difficulties already noted. Whilst both gardens fully supported the project, neither were in a situation to be able to lighten the workload so that all materials had to be produced in addition to normal working requirements.

It should also be noted that during Sindiswa's training period, there were a number of occasions when it had been impossible to obtain relief staff to release Mary South from teaching commitments. Whilst this did not impinge on the training given, it did mean that less analysis of the teaching material, for OBE requirements, had been possible during her stay in the U.K.

- *Key Lessons*

Allow a lot more time than seems necessary! Possibly at least double the apparent timescale. If possible, allow time between the starting date and the potential award decision, unless there is another source of funding which can be used as an initial safety net.

Be prepared to be flexible e.g. the loss of the environmental group caused a rethinking of the drama idea.

Don't expect communication to be easy if part of the project relies on long distance co-ordination of material.

Keep DI informed, don't regard delays or other problems as symptoms of an impending project failure.

Listen to your collaborators, they are the people who will be continuing the project in the future. It must be in a suitable form for their needs.

Allow for cultural differences. We took the decision to use less than perfect english for the teachers' pack english version. Instead some phrases and words have been used in a way more familiar to local communities, rather than perfectly correct grammar. The intention was to produce something that was comfortable for those not using english as a first language.

Ensure that money systems are in place before the start of the project and everyone is quite clear how the systems work, especially those between different organisations. Lack of understanding can cause delays and frustrations.

- *Project arrangements*

From DI's point of view I would imagine that the arrangements are sufficiently well defined now. Difficulties with any project are bound to occur through no fault of the parties involved and it is unlikely there are any common causes directly attributable to either organisations involved in projects or DI itself. Organisations with increasing experience of arrangements, by involvement with a number of projects, will be able to anticipate possible difficulties. First time projects, especially those with small numbers of staff within the organisation directly involved, will no doubt (as we did) discover many unexpected pitfalls first hand.

## 11) PROJECT CONTACTS

### *Project Leader in the U.K.*

Mary South (address during project) The Sir Harold Hillier Gardens and Arboretum, Jermyns Lane, Ampfield, Romsey SO51 0QA

### *Co-ordinator in South Africa*

Ally Ashwell

### *Project trainee and schools co-ordinator*

Sindiswa Tyhokolo: Gold Fields Environmental Centre, Kirstenbosch Garden, Claremont, Cape Town South Africa

### *Other project beneficiaries*

Local schools - contacts listed at beginning of pack, but no addresses

Cape Town Teachers Centre, Claremont

Primary Science Project, Gugulethu

Karoo National Botanical Garden, Worcester

Boland Teachers Centre, Worcester

## **BREAKDOWN OF ALLOCATED EXPENDITURE**

### **Travel and subsistence:**

Sindiswa Tyhokolo	A0 0367117
	A0 0493202
Excess baggage	A2 8080904
Subsistence - Birmgham	A2 8080904
Coach fares Bmham - Nott	J7 3461336
Launch airfare	A0 0120138
Airfare S. Tyhokolo	A2 5501132
Car hire	J7 3461336
Total	

### **Postage, telephone and stationery**

Freight for completed packs	A0 0245761
Field Studies Council (books)	A0 0526821
(for S. Tyhokolo)	
Total	

### **Printing**

Translations	A9 8211205
Printing	J7 7391504
	J7 4078162
	J7 4078163
	J7 4079506

Total

### **Conferences, seminars**

BGEN conference	A0 0409332
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### **Staff cover**

At Kirstenbosch

3 months cover for S. Tyhokolo A2 5501132

Teachers workshops for pack development/launch  
A2 5501132

At SHHGA

17 days cover for M South @ 44.75 per day  
(not previously allocated against costs)

Total costs