



## *Darwin Initiative Annual Report*

Umthathi Africulture Project, Grahamstown, RSA

4<sup>th</sup> Annual Report 2008/9

Project: 14-050



**Garden@frica**

A Project implemented

in collaboration with

**Kew**

## Darwin Project Information

Project Ref Number	14-050
Project Title	Umthathi Africulture Project
Country(ies)	South Africa
UK Contract Holder Institution	GardenAfrica
UK Partner Institution(s)	Royal Botanic Gardens, Kew
Host country Partner Institution(s)	Umthathi Training Project, SANBI
Darwin Grant Value	£251,000
Start/End dates of Project	April 2005 – March 2009
Reporting period	1 April 2008 – 31 March 2009 (Annual Report 4)
Project Leader Name	Georgina McAllister
Project website	<a href="http://www.africulture.co.za">www.africulture.co.za</a>
Author(s), date	Georgina McAllister (GA), Michelle Griffith (UTP), Monique Simmonds (RBG Kew)

### 1. Project Background

The Project was initiated to address the loss of biodiversity within the Eastern Cape Province (Eastern Half of the Albany Centre of Floristic Endemism), focussing on conserving indigenous medicinal plant species. Many species are currently harvested illegally from the wild and are threatened by over-exploitation. Land use patterns have changed over the last decade in the Eastern Cape, with increasing areas devoted to game farming or private nature reserves stocking dangerous animals. This trend reduces access to many wild plant populations, increasing pressure on those populations which remain accessible. Indigenous medicinal plants are vital to traditional health care, with more than 80% of South Africans relying primarily on the informal sector for health provision. Innovative methods of supplying the market with medicinal plants are essential in conserving these species, and the traditional knowledge associated with them for future generations. Other species are also under threat due horticultural demand, or their value to the international market. By promoting alternative rural livelihoods based on the sustainable cultivation and utilisation of indigenous plant species, biodiversity conservation will be positively effected. A core assumption therein, hinges on the Project's successful facilitation of a shift from wild harvested to cultivated materials, and therefore forms part of planned outputs and related activities.

## **2. Project Partnerships**

### **Umthathi Training Project (UTP)**

#### Management

After an unsettling 2007/8 for the organisation, in April 09 UTP was extremely fortunate in identifying Marlene Mitchener to take on the role of Acting Director. Apart from filling many of the existing funding gaps, Marlene has worked tirelessly to build the confidence of staff, and ensure that salaries were increased in on a par with roles and responsibilities of the reduced team. Information 'silos' which existed around programmes have now been overcome, with staff integrated across all Umthathi programmes, and Africulture activities dovetailed into schools and home gardens. In addition, Marlene has been pivotal in developing a strong partnership agreement with Rhodes University which will greatly strengthen the Project and Umthathi more generally. We were all extremely pleased that Marlene accepted the role of Director in September 08.

Over this same reporting period, Theresa Eldermann, who has considerable experience working with NGOs in the Eastern Cape, was drafted in to assist with the development of a strategy to reorganise UTP training departments, review its training methodology, and resulting staff development programme. Theresa has now resigned from this temporary post to pursue a full time PhD at Rhodes.

As the DI will be aware, GA and UTP had its long-awaited agreement from the EU (via its LED fund) to provide £251,124. At the time of submitting the mid-year review (Oct 08), and very much at the eleventh hour, UTP received agreement from the Ackerman Foundation in South Africa for the requisite 10% fund matching (covered in more detail in section 5). This has enabled the Project to move forward on a number of fronts. Most important of which has been that Michelle Griffith has now taken up the role of Project Co-ordinator, which is the post which replaced Centre Manager. As a respected restoration ecologist, Michelle brings with her a new perspective on the Project, and is excited by the challenges and opportunities which lie ahead. Despite only joining in March 09, and with little time to spare, Michelle has been quick to pick up the intricacies of the Project and is already a well integrated and valued member of the small Project team.

Ken Mitchener, originally brought in as a consultant after rapid staff turnover, continues to provide excellent support, and clarity as Financial Manager, applying his creativity to balancing the demands of EU budgeting. We are all extremely grateful to Ken (and Marlene) for the many weekends and late nights which have been dedicated to the Project.

With a great deal of determination from UTP management, not to mention sturdy commitment from its new board, we are pleased to note Umthathi is now a stronger organisation, better able to fulfil its mission, and commitments both to donors and beneficiaries.

#### Project Partners / Collaborators

##### **Royal Botanic Gardens, Kew**

Kew remains a vital partner in this process, providing opportunities for connecting the Project more widely which would otherwise not be open to us. The solid support of Monique Simmonds has been of particular value to GardenAfrica. With a new team now firmly in place at UTP, we are confident that these opportunities will be more fully utilised and valued by the implementing team at UTP.

Kew's input on the Project has necessarily slowed, as activities and lack of expertise on the ground did not allow time for the final plant selection, and resulting extracts to be taken for fingerprinting in the UK. With Michelle Griffith now in place, this situation has changed. The final list is appended here, and extracts are now being collected. In consultation with Kew, GardenAfrica made an application to carry over the majority of Kew's DI budget for 2008/9 into the 6 months extension period, when these activities will now take place.

Ideally, around 50 extracts would come to Kew for fingerprinting, consisting of wild harvested and cultivated materials. But the cost of the Plant Bioprospecting permit system for exchange of plant extracts introduced in April 2008 would cost R1000 (£77) per species and currently takes over six months to obtain. Thus an alternative process is being proposed with the support of Rhodes University, and may include the use of plants already in Kew's Living Collection to begin the process. Of the 49 key species on the plants list, 24 are held at Kew and these will be used to start the chemical fingerprinting process, the chemical profile of the plants from South Africa will then be compared and if similar Kew will then develop the methods that can form the basis for a pharmacopeia monograph. During this reporting period, the Kew team have assisted with the translation of a number of plant lists, which are variously in Xhosa and Zulu, and have provided the information they have on propagation techniques for each. All have been checked and the binomial names added for clarification.

Furthermore, as part of Kew's Darwin 250th celebration, the Africulture Project was chosen to feature as one of the conservation walks that can be taken around Kew, with the DI logo, as well as partners, clearly marked on literature and signage.

## **GardenAfrica**

We remain steadfastly committed to this initiative, and all that it can achieve. Due to much of the information being lost to the Project in the midst of high staff turnover, the author of this report made an unscheduled visit to the Project in July 08 to orientate the new team to the Project, and brief them on activities and challenges to date. It was possible to transfer critical documentation, and go through our collective responsibilities under the remaining Darwin funding, in order to ascertain what could be achieved within the foundation phase. Further visits were made in October 08 and March/April 09, along with Monique Simmonds.

That the Project has now been reinvigorated, and activities restarted, it has been possible to assess progress against outputs. For the first time it has been possible for the Project to benefit from learning around some of the initial assumptions (discussed in more detail throughout), informing lively discussion and resulting in some corrective action, as with any project in its pilot phase. GardenAfrica is pleased to note that the relationship between all partners is stimulating and constructive, and will no doubt yield a programme which is more responsive to its' target recipients and stakeholders.

Assuming the relationship remains positive, and the UTP remains stable, the author would recommend to our board that GA continues to support UTP beyond this DI funded foundation phase (available funding allowing).

## **The South African National Biodiversity Institute (SANBI)**

Unfortunately the relationship with SANBI is currently in name alone. After numerous attempts, the Project has lost contact with Mandy Cadman. The foresight she provided in her advisory capacity on the Project Steering Committee has been sadly missed. We remain in contact with Neil Crouch who is advising on the delivery of advocacy issues, and SANBI materials which are under development specifically in relation to NEMBA legislation, and legal harvesting.

## **Rhodes University**

Although not a formal partner as listed under the DI funded phase, we have been delighted that UTP has progressed to form a collaboration with Rhodes, under its social responsibility mandate (initial July meeting also attended by GA). This has resulted in the involvement of various key departments and faculties providing critical assistance for UTP training programmes, and for the Africulture activities more specifically. Under the EU budgeting, it has been necessary to assess the value of Rhodes involvement, as funding in kind. The discussion document outlining roles and responsibilities is appended here ([appendix 4](#)). This agreement is now being finalised, and The Dept of Environmental Education, under Heila Lotz, has already begun work on the revision of training materials (discussed in more detail under Activity 2.1 and 2.2). Other Rhodes departments providing research students and expertise are the Institute of Social and Economic Research (ISER), Botany, pharmacy, and Rhodes Grounds & Gardens.

# **3. Project progress**

## **3.1 Progress in carrying out project activities**

### **1.1 Secure site and necessary authorisations for establishing a nursery and training facility**

This activity has been 100% complete since 2006.

### **1.2 Identify target species through research & engagement with THPs for input into the selection of target species**

The Project has continued to work with the formalised Makana THP Association, and Vukuzenzele, an informal association (not registered) to identify species useful for the treatment of patients. Having now gone through all the paper work relating to this activity, the new team has uncovered several lists, which have been requested by THPs at various points in the project. Some of those which were originally requested, were again put to THPs from both associations in July (meeting also attended by GA), in which they refined the list. It appears that some of those which had originally been requested, and therefore cultivated at the nursery, are more readily available than first suggested. Despite now having these available for distribution during training, these species have been removed from the final list ([appendix 5](#)) which will become the focus for the coming 6 months.

With 49 plants, the list is now 'complete' for the purposes of the foundation phase. Additional work to be undertaken is to establish the identity of those plants which have only Xhosa names (those harvested by THPs), and to check there is no duplication of species. This list is now in the process of being verified by Kew to ensure the correct nomenclature. The list will then be checked by Tony Dold of the Selmar Schonland Herbarium in Grahamstown to establish the current status of the plants featured, and to ensure that those species are included which also contribute to wider conservation objectives (IUCN Red List & the GSPC), before the list undergoes its final trimming.

The activity is therefore considered 95% complete, pending final confirmation from Tony Dold.

### 1.3 Establish 1ha nursery site (to secure a sustainable supply of medicinal plants for training)

With plant production now based entirely at the dedicated 1 ha Africulture nursery site, and producing plants required for training, the nursery is fully operational. This activity was considered 100% complete during the mid-term review (April 07).

Plans are now under discussion to extend the site across the remaining hectareage to provide space for plants rescued from mines and other developments taking place in the locale. This would be part of the Project's extension into restoration ecology, which provides excellent links with existing programme activities. This will be covered in more detail in section 7.

### 1.4 Supply cultivated stock for training

All the plants listed in [appendix 6](#) were grown from seed. The numbers occurring in the Africulture nursery are indicated in column 3 and Column 4 indicates the number of seeds/cuttings originally planted – between 2006 and 2008. Not all the planting records have been located, but it would appear that initially between 200 and 1000 seeds of each the species on the list were sown. A further list detailing plants in a recent inventory at the nursery can be found in [appendix 7](#).

Due to long delays at Department of Economic development and Environmental Affairs (DEDEA), the collection permit has now lapsed, despite an application for renewal being lodged in June 2007 and followed up in February 2008. This is now being chased, and once received will allow a continuation of collection. This activity will be headed by Michelle Griffith and supported by ex nursery manager, Philip Crous, who is now with Rhodes Grounds & Gardens. Under the Rhodes agreement, 5% of his time is to be seconded to the Project. Both will provide the additional training to nursery man Zolani Zondani in identification and harvesting techniques of wild species.

Despite the changing information from THPs about species that they are finding difficult to source, during the mid-year review, GA and Kew undertook a stock take at the nursery and counted over 6000 plants which had been successfully propagated, mostly from seed harvested during year 2. Some of these plants were propagated for horticultural and income purposes. As mentioned above, cultivation will now focus on the final target list of species, now agreed upon.

The following THP selected plant species have been grown in substantial numbers, and are ready for dissemination:

- *Buddleja saligna*
- *Bulbine latifolia* (L.f) Roem. & Schult.
- *Haworthia attenuata* Haw.
- *Olea europea subsp. africana*
- *Rapanea melanophloeos*
- *Rhoisissus digitata* (L.f.) Gilg & Brandt
- *Rhoicussus tridentata* (L.f) Wild & R.B. Drumm.
- *Silene undulata* Aiton
- *Tulbaghia violacea*

Due to the changing nature of the THP requests, and above related information on availability, we consider that this activity remains 60% complete to allow for propagation of the additional plants on the list.

Until the permit is received, project stocks remain low. To reduce the likelihood of high losses, propagation will resume when additional seed has been collected or acquired via the Millennium Seed Bank Project or from other sources.

### 1.5 Develop appropriate technologies for cultivation and propagation of target species

As seen in [appendix 8](#), it would appear that the survival rate of most plants is low, ranging from 0% to 88%, most however in the region of 7% to 21%. It is not known at what stage the plants died, but presumably most died at the seedling stage as the majority of the plants are still small. In addition, the method of watering the seeds may have been too vigorous, many of the seeds possibly being washed away with the first watering. In the future, seed trays will be watered from the bottom after placing the trays in containers of water. This will prevent seed loss.

Although cuttings were taken from the wild, none of these survived. A focus of the project is now to support Zolani more fully, to assist him to develop his propagation techniques, particularly around cuttings. He will also be invited on wild harvesting trip with THPs so that he can make an assessment of habitat in order that he can replicate conditions with a view to improving the success rate.

Access to seed is now critical so that experiments can continue. Where seed of particular species is difficult to source, Kew will assist by linking the project with its seed bank project in KwaZulu Natal, and will also provide additional information which they have on propagation techniques relating to plants on the list. As above - an application has been submitted to Department of Economic Development and Environmental Affairs (7 April 2009) to renew the permit to collect endangered plants and permission has been requested (21 April 2009) from the Makana Municipality to collect plant material from the Grahamstown Commonage.

The following 6 months will see the collation of propagation from other sources, including from Kew, based on the recently revised, and final target species list. This will enable trials to take place, and the findings to be inserted in the micro-nursery coursework.

This activity is considered 90% complete

## **2.1 Develop Cultivation Training Course with input from THPs and other key experts**

The mid-year review revealed collective concerns – held by the new UTP team, GA and Kew – about the quality of materials developed to date under Project People, the consultants engaged to develop training materials by the initial UTP team. There were a number of reasons which have come to light which contributed to this, but primarily that with no project manager, and an outgoing training manager, facilitator Ludwe Fani was left to his own devices to further develop materials from online research. As a horticulturalist, with no inclination or experience of facilitation, this did not take place. With no line manager in place to support or monitor progress, this did not take place.

The response has been to draw in the expertise of the Department of Environmental Education at Rhodes, headed by Heila Lotz. This process is now underway, beginning with a review of existing materials used for the first 3 pilot phases, and will also consider the applicability of GA materials developed and piloted on its other programmes in the region

As this coincides with a review of UTPs other training courses, within which a general cultivation course is generic to all, this process will prove of great benefit across the board. The variations which will apply specifically to the Africulture Project are those which relate specifically to plants (harvesting, seed collection, propagation and care) which feature on the target species list (as abovementioned). In the initial phase, key plants and concepts will be introduced, and covered in more detail within the nursery training course.

Two Rhodes EE students will assist with different aspects of the training. The first will accompany UTP facilitators and monitor delivery, whilst the other will focus on the asset-based approach, including the integration of new delivery techniques. This second, shadowing phase is planned for May and June, after which time they will present their findings and proposal to UTP staff. A collective Rhodes & UTP staff approach will be completed by the end of July.

Compliance with the National Qualifications Framework, via unit standards connected to the AgriSeta are not considered to be a priority at this point, but may be applied for at a later stage.

With the revision of materials underway, it is difficult to ascertain completion, and should therefore remain at 90%.

## **2.2 Develop Micro-nursery Course with input from THPs and other experts**

As above, some of this coursework will include information from the cultivation course. Materials will be collated from a collection of existing materials available, one of which is from GA. More specific information on the propagation, seed collections, sustainable harvesting and care for medicinal species on the plant list are being trialled prior to inclusion in the final materials.

Ongoing consultation with the main pilot group (the Makana Association) has revealed further issues may necessarily affect how the course is designed, and for whom. In July 08 it was possible to frame questions around how one cultivates in a culturally sensitive way to ensure that plants remain effective. This emerged out of discussions around harvesting practices, which requires calling upon the ancestors to ask for their approval. THPs were concerned that, if informal harvesters were to cultivate in a nursery as was previously assumed, then how would THPs know that it had been done appropriately? When asked what 'appropriate' meant in this context, no-one was able to answer - all agreeing that it was a new area to be explored. It was therefore suggested that if UTP was to deliver the technical expertise during the nursery & cultivation

training, then THPs would have to work closely with the Project to assist in defining what would constitute 'appropriate cultivation techniques'. This is an extremely interesting research area for the project to explore further.

Added to this, Makana's experience at their resulting garden at Settlers Day Hsp has revealed that although they have enjoyed learning about general cultivation, which has been an important step securing the land (provision of food for soup kitchen), they are unsure as to whether the medicinals will have been disturbed by the 'vibrations' of the many people coming and going from the garden. A 'garden' for such purposes may therefore have to be viewed separately from a 'nursery'.

Furthermore, it has also become apparent that despite many from Makana being involved in the cultivation training, that only perhaps 3 people regularly work in the resulting garden. The above poses an interesting question about how the approach may be more appropriately structured and targeted in the future.

- In order to endorse the process, would all THPs in an association need, or *want* to be involved in the 'general cultivation course' which was assumed would feed into the micro-nursery course?
- Given that concerns exist around those attending medicinals cultivation training, and how this would affect quality, THPs group could rather select 3-5 people from their own association. Whilst the resulting nurseries would therefore belong to each association, would there be greater buy-in for the materials cultivated, and ownership over the establishment of the resulting nursery?

Many questions remain, and will be addressed over the following 6 months. This activity is considered 20% complete, and will increase within the next week, once the questionnaires are received from the THPs.

### **2.3 Develop Agri-business Course by amending & consolidating existing course material with input from key experts**

UTP has permission from the South Africa Institute for Entrepreneurialship to use its AgriPlanner resource materials. This may provide an excellent framework for the business skills components for nursery management. However, valid concerns have been raised that the resource relates specifically to vegetable production (propagation & harvesting timeframes for sale), and would have to be revised in order to take into account various medicinals from the specific biomes, all of which grow at a far slower rate, particularly those from the forest biome. The value of these existing materials for this course are still very much therefore under consideration.

Once more information, required for the abovementioned courses, has been collected (particularly in propagation and conditions for care) and integrated with Makana's findings on how mature plants need to be before harvesting, this information can be integrated over the coming 6 month extension.

This activity is still therefore considered 20% complete.

### **2.4 Conduct pilot Cultivation Course**

The resignation of Africulture training facilitator, Ludwe Fani, was accepted in April 08, and he has not yet been replaced due to funding constraints. Instead, the integration of Africulture work across all UTP courses has enabled UTP to utilise its other facilitators, seconding them to the Project as required. This has dramatically reduced project costs, but has meant that UTP has absorbed some of these whilst Project applications were in progress.

Given the abovementioned rework of course materials, and despite phases 1-3 having already been piloted, it was agreed that Makana would simply receive a revised final phase (4) to complete their own process. Once this is completed, this activity will have been formally completed, and materials revised accordingly.

The fully revised course will be delivered to the next THPs association, which constitutes 2 association who have expressed an interested in combining forces, and have invited the Project to present both advocacy and training components. These 2 groups are costal, and are based at Port Alfred, and Bathurst. The different environmental conditions will be a test for the Project, which has thus far piloted in inland Makana. Further plants will no doubt be added to the list to take into account the needs of these THPs.

While this roll-out lies outside of the DI activities, it will very much add value to the findings undertaken as part of the DI funded foundation phase, given the agree extension.

With the pilot ongoing, at the time of writing this activity is still considered 75% complete

## 2.5 Ongoing monitoring and evaluation of training programmes to inform updated training materials

As already mentioned, contact with THPs involved in the Project is ongoing. Community Liaison Coordinator, Sicelo Dyira, continues to monitor progress and invites THPs for regular meetings to gauge responses to activities and provide support on advocacy related issues (see below).

Furthermore, phase 4 will be closely monitored in conjunction with Rhodes EE students before the roll-out to further groups. A questionnaire is currently with THPs, and is due to be returned at the time of writing. This activity could therefore be considered 75% complete.

### 3.1 Research key issues needing advocacy interventions with input from THPs and other experts

A raft of 5 advocacy issues, derived from consultation with THPs over the foundation phase, have been established. These will be delivered as individual sessions, and include:

1. Traditional Health Practitioners Act – implications for THPs
2. NEMBA legislation – issues around trade in materials & exemptions
3. Legal Harvesting – access to private land, applying for permits
4. Indigenous Knowledge Protection
5. Assistance with developing a constitution, registration (if requested), and access to available grants - provision of contact details for each LED and other depts. in their area. Benefits to registration (relating to issue 1, above) may therefore include:
  - o Access to grants from Bisho & local govt depts
  - o Permits for wild harvesting – assisted through UTP.

In addition, a series of 7 workshops have been piloted on HIV and TMs by Sunitha Shrinivas who, whilst away on sabbatical for much of this reporting period, has delegated to Clarissa Magadza (PhD student). Clarissa has is currently rolling these out with a further group of THPs. This includes:

1. Introduction to HIV – group discussion & questions – establishing existing knowledge and beliefs
2. Dispelling the myths – facts about HIV
3. Stigma, Recognising symptoms, ARVs, & Opportunistic infections
4. Recap on questions surrounding ARVs, facts about ARVs, how can THPs contribute.
5. Living with HIV/AIDS, government policy
6. ARVs, traditional medicine (TMs), alternative & complimentary medicines (CAM) – comparisons: Africa, China & India.
7. Difference between TMs and biomedicine, interactions between ARVs and TMs.

With all topics agreed by THPs as important for roll-out, this activity is considered 100% complete. Further work is now being undertaken to formalise the information gathered during this pilot, in order to develop an intervention strategy for roll-out (see Output 3 of 2.1 below).

### 3.2 Engage in advocacy issues including the Traditional Health Practitioners Act, legal harvesting on private land, and indigenous knowledge protection

Due to a fluid policy environment with regards to some of these issues, SANBI is being consulted on materials under development, specifically for the more contentious issues (NEMBA and IKS protection), to ensure that information can be delivered clearly and concisely, without causing alarm. Michelle Griffith is to enquire with Neil Crouch about whether it would be possible for SANBI to shadow Sicelo Dyira, or host a workshop for UTP staff (SANBI).

As above – issues relating to the TH Practitioners Act are being discussed with THP groups coming forward for training. However, THP structures are less formalised, and more fluid than previously thought. Contact with key decision-makers within THP associations (mostly unregistered) reveals that there is a perception that the introduction to formalisation through registration, and contact with institutional structures (Dept Health) may result in possible challenge to their leadership.

The issue of registration under the Traditional Health Practitioners Act of 2004, would seem to have been framed by the coordinator (supported by the secretary of the fully registered Makana Association, and UTP trustee Phyllis Mnyamana) in a way which prioritises it as a one of primary importance to Umthathi and the Project, and may even give the impression that it

is a pre-requisite to involvement in the Project. This is of course not the case, and therefore may require some corrective action in terms of how this is broached, and by whom.

Despite the HIV workshops being well attended, the same was not true for the other advocacy topics. To date, delivery of the various topics has been somewhat unstructured, moving from one subject to another within the same session, according to the questions and demands of THPs. During the introduction of the Project to the THPs, advocacy issues seem to be being discussed in more detail than may be required during the initial stages (such as registration). This may have resulted in few being willing to enter into the process with Umthathi, and would have a significant impact upon the Projects access to THPs in order to promote an acceptance of cultivated alternatives. Being aware of these critical challenges, alongside the original assumptions of the Project, there is now an opportunity to respond reflexively in order to meet both the conservation objectives of the Project, and some of the needs stated by the THPs (access to plants & information).

With support from Michelle Griffith, a more structured approach, with a clear schedule per topic, and issues to be covered in each, is under development. We expect that with more structured delivery, and each topic only being covered once, clearly identified during the two introductory 'sensitisation' sessions with associations (supported by hand-outs), that THP attendance levels will improve. This revised and more structured approach is being designed for introduction to the next group (Bathurst & Port Alfred), and will enable UTP to gauge the response. The importance of each topic, to understanding the implications on THPs and their ability to continue practicing, will be stressed in the introduction to what the Project can bring to each association, as will what the THP associations need to bring to the Project in order that it can be in a position to respond to their needs (such as sharing lists of plants that they would like to be included). This will culminate in a clear ToR being developed to guide the relationship between the association in question, and UTP, upon which activities can be planned and delivered.

This activity is considered 25% complete. Of the 5 areas agreed upon during consultation, only 1 (THP Act) has been covered in any detail. NEMBA and IK protection require close guidance from SANBI.

A Rhodes honors student has expressed an interest in investigating possibilities of how THPs can collect plants on game farms, which will likely yield further information on permits for legal harvesting. This is an area that THPs are keen to know more about, but one which fell away with the loss of the Project Manager in 2007. Ideally this study would result in the design of a presentation for THPs containing the latest information for applicants.

### **3.3 Generate and disseminate information around practice and safe use of medicinal plants**

Now that the final species selection list has been compiled in consultation with THPs and other experts, Kew is collating data from the literature which, thus far, has shown that none of the selected plants have been reported to the WHO as being associated with negative interactions when combined with the anti-retrovirals presently being used in South Africa. Kew is shortly due to complete a check of the plant chemistry of those on this list with the WHO pharma-vigilance committee to establish whether there have been reports of adverse responses. Once this is completed, it will be passed to Rhodes Pharmacy to check against South African sources.

As already discussed in 3.1 workshops have covered possible areas of concern, and to advise caution around combinations, and until such time as there is any clinical data available, the Project will continue using this mode of delivery.

A research study by Clarissa Magadza has been accepted by the Rhodes Ethics Committee as part of her PhD proposal (Faculty of Pharmacy). This research aims to design and implement an education intervention on HIV/AIDS for THPs in Makana district. It is focussing on health and illness, HIV/AIDS, concomitant use of ARVs and TMs, the African Traditional Medicine Bill, best practice, and home-based care. The aim of the intervention is to design a programme in which THPs are trained as facilitators, and can then extend best practice information to other THPs which lie outside of the association. One of the planned outputs, which is aligned to the Projects' own activities, will be to develop a best practice booklet with information on plants that THPs agree to be included. Clarissa has now commenced with the roll-out of these workshops.

Allowing for information which may come to light about various plants listed on the final target list, and a best practice booklet to be produced, this activity is considered to be 90 % complete.

### **3.4 Information sharing and awareness raising associated with the sustainable use of biodiversity**

Despite this activity being 100% complete against our initial target, information & awareness raising has continued.

Local Economic Development Forum (31 March 2009) Grahamstown. Marlene Mitchener & Michelle Griffith.

Project presented at numerous presentations at UK horticultural societies by GardenAfrica.

Project included by Kew at approximately 10 talks and presentation, and will be listed as part of the final apparancy documentation.

Information recaptured from 2007:

Wiersum, F., Husselman, M., Dold, T., & Cocks, M., 2007. Cultivation of medicinal plants as a tool for biodiversity conservation and poverty alleviation. SANPAD Conference. The Poverty Challenge: Poverty Reduction. (South) Africa, India and Brazil. 26-29 June 2007. Elangeni Hotel, Durban South Africa.

Cocks, M., Dold, T., Wiersum, F. & Husselman, M. 2007. Cultivation of medicinal plants as a tool for biodiversity conservation and poverty alleviation in the Amatola region. Natural Resource Management for Community Development Conference: Challenges, Opportunities and Benefits. 28th February – 2nd March 2007, Ridgeway Hotel, Randburg

Shava, S. An analysis of the representation of local community knowledge in plant use in selected texts in southern Africa. World Environmental Congress. Durban, South Africa. July 2007.

Shava, S. Transformations in the representation of indigenous knowledge in southern Africa. North American Association of Environmental Education Research Symposium. Cornell University, United States. 14-17 Nov 2007.

### **3.5 Chemical fingerprinting**

As already discussed under Section 1 (Project Collaborators), due to continued difficulties at SANBI, it has been a challenge to arrange for the transfer of genetic materials between South Africa and the UK. This situation coincided with a lack of expertise in this area within UTP, until the arrival of Michelle Griffith. Due to the cost implications of transferring numerous extracts, for those plants not already present in Kew's Living Collection, extracts are now in the process of being prepared, with in-house training for nurseryman Zolani, by Michelle. We expect this to progress in the next months. Work has started at Kew on samples of plants in the Kew collections.

The aim was to have fingerprinted 30 species and we would expect to have chemically fingerprinted at least 30 of the 49 targeted species by the end of the Sept 09.

This activity remains 25% complete

### **4.1 Measure the implementation of cultivation practices by trainees**

Monitoring of the phases (1-3) of the cultivation training already delivered under the pilot has been ongoing, with regular visits. The results have been relatively strong under the circumstances. Despite protracted period of drought, and delays in applications to Bisho (Provincial capital) for funding for additional inputs such as fencing and irrigation equipment, Makana continue to harvest food crops for their soup kitchen which have gone a long way to convincing Settlers Day Hospital to host their garden. During this period, and despite the drought, the medicinal plants provided by the Project in April 08 have thrived, though are still too young to harvest. This has encouraged Makana to extend the garden towards increased cultivation of medicinals, and even to consider establishing a small market outlet for cultivated medicinals. This would be an excellent result for the Project and, should it prove a viable source of income, may encourage more associations to come forward. For this reason, the Project is keen to establish whether exemptions within the NEMBA legislation (on the sale of genetic resources) will enable such an activity to take place (can we find out if this is the case before filing this report? MG?)

Once phase 4 is revised and delivered, it will be possible measure the process in its entirety. Added to which a questionnaire ([appendix 6](#)) has recently be given to all participating THPs to establish the value of the course to them, and what they are now cultivating – be it food or medicinals.

This activity can be considered 50% complete, and will shortly be complete once THP questionnaires are returned.

### **4.2 Measure uptake and use of cultivated materials by THPs**

As already commented upon, take-up of the plants available at the Project nursery has been good by those THPs engaged in the pilot, but the use of these is yet to be measured. This will take place once the THPs consider them mature enough for use. More plants will be distributed once these are ready for transfer from the nursery.

Uptake will be measured through monitoring the behaviour of THPs trained by the Project. This will also be ongoing. This will be built into workshops with THPs from the 1<sup>st</sup> roll-out year (2009), when base-line information on wild harvested species will be collected. As training progresses, it will be possible to monitor behavioural shifts to use of cultivated alternatives. Further information will be collated from the questionnaire which THPs now have, and the monitoring process used by UTP for its other programmes is in place for this Project.

Until the plants are mature enough for use, and this can be measured, this activity is still therefore considered 15% completed.

### **4.3 Survey to what extent cultivated materials have replaced wild harvested materials by trained THPs**

Given that those plants distributed are still too young to harvest, it is still too early to make an assessment in relation to this activity. Having established a firm relationship with those THPs involved in the project, it is expected that they will be willing to share information on the scale of wild materials they are still using. It is not expected that THPs will make a 100% shift to use cultivated plants as there are many cultural reasons why they use wild harvested material. This will assist in making an assessment of what may lie behind a failure to shift from *some* wild to cultivated species.

For the purposes of this phase of the Project, it may however be possible to establish which species those THPs already engaged in the project will accept as replacements for wild harvested.

As with 4.2 – Until the plants are mature enough for use, and this can be measured, this activity is still therefore considered 15% completed.

## **3.2 Progress towards Project Outputs**

### **1) Production of indigenous plants to secure a sustainable supply for training for growers and supply of stock to micro-nurseries**

The Project has progressed well in this regard, and remains on track to deliver against this output. With target species list nearing completion, many of these are under cultivation in significant numbers. Some are either under cultivation or awaiting spring propagation, whilst seed of the remainder are yet to be sourced. The only activity contributing to this output that has lagged behind, has been the wild sourcing of the remaining target species, due to staff-related constraints and the lapse of the permit.

The Project will continue to grow the site in accordance with available funding, which will allow greater capacity for the cultivation of target species, and to house rescued plants from mining and other developments towards a restoration programme.

Against indicators, the project team is on target to achieve this output by the end of the extension period. This output is therefore considered to be largely on track, being 89% complete.

### **2) Beneficiaries trained in indigenous plant cultivation pilot. Micro-nursery and agri-entrepreneurship courses developed.**

Funding and related staff constraints prevented the piloting of the final phase (4) of the general cultivation course. However, now it has been possible to discuss the value of the coursework, and having agreed to revise materials before finalising the pilot, it is possible to capture the process with Rhodes EE on board, adding significant value.

Findings from, and components of the materials leading from the pilot will greatly inform the development of the micro-nursery and business skills courses. Information on these two courses are now being collated from existing materials to prevent duplication, where these have been found to be successful, and the right to use them has been agreed. One such publication, called *Guidelines for the Cultivation of Selected Medicinal Plants in the Eastern Cape Province* by Tony Dold and Michelle Cocks.

From August 2009, components of the general cultivation course on ecology and medicinal plants will be delivered at UTP schools (est 40) over the year, with plants already being introduced from the Africulture nursery. Species considered less contentious (such as *Artemisia afra* and *Tulbaghia violacea* and *Bulbine latifolia*) have been agreed with the schools facilitators, and differ from those which have been requested by the THPs. This is due to the sensitivity of those plants, which are thought to be culturally inappropriate for general use. A guide to 22 medicinal plants for schools and communities is now under development by Michelle Griffith, supported by in-house training on these species for wider dissemination.

There is no doubt that general staff and funding shortages over this funding period have affected progress on all activities pertaining to this output – as can be seen in 6A & 6B of the standard output measures. With the recently implemented close integration of all UTPs courses, it is possible to second facilitators for the general cultivation course in the meantime. However, with funding now in place, UTP intends to advertise the post of Africulture facilitator to ensure that there is a specialist who can work specifically with THPs and medicinal plants, under the guidance of Michelle Griffith.

The Project is once again making progress against the related output indicators, and is nearly 56% complete, and remains on course for completion by the end of September 09.

### **3) Advocating sustainable traditional uses and appropriate recognition of plant based rights and practices**

Despite the lack of a Project Manager over the past two years to link the project with other initiatives and institutions, this output is showing progress in relation to advocacy with THPs. As already mentioned in activity 3.1, the approach is under revision to ensure the best possible response from THPs, particularly with reference to issues surrounding registration. Recognising that the needs of THPs will inevitably change as new legislation comes into being, advocacy issues (including THP concerns) have been primarily identified in consultation with three THP associations engaged (Makana, Intandoyabaphansi and Vukuzenzele) – with a significant amount of background research undertaken in the midst of an extremely fluid policy environment. Further information will be required from SANBI before approaching 2 of the 5 key advocacy areas. Introductions have now been made between Neil Crouch and Michelle Griffith in order to progress on this output.

Collaboration with Rhodes will see more research undertaken on specific areas, with proposals under consideration including research on harvesting from game farms, and ISER research on the economic impact on THPs of cultivating their own plants.

Throughout this foundation phase, the Project has received a good amount of media attention, and continues to be included in presentations and talks. It has also been chosen by Kew as one of the international conservation projects highlighted as part of its Darwin 250<sup>th</sup> celebration. Kew has so far been unable to publish any data from the Project but will ensure that monographs relating to the target species list are fed into the African Medicinal Plants Standards (AAMPS) which it is directly involved in. These will also feature on the Project website.

Against indicators, this output is 68% complete.

### **4) Information on changes in behaviour and plant use patterns arising from cultivation, training and advocacy activities**

Being the most important output in measuring the Project's success, it is still too early to make an assessment of achievements towards this output. Against indicators we still consider this output to be 27 % complete. However, as already indicated, THPs engaged in training have demonstrated a clear concern about the negative impact of present practices on biodiversity, and the resulting impact this will have on their work. All involved have demonstrated a general acceptance of cultivated materials, the details of which will become clearer once the questionnaires are returned. Despite the first group having commenced cultivation on their own site, these are still too young to harvest, so it remains unclear as to whether they will actually use these plants for their practice. When these are considered mature enough for harvest, it will be possible to measure implementation of practices, and to what extent they are able to replace wild harvested materials with those that they have cultivated for use.

Unfortunately the Peddie THP group which expressed an interest, previously reported on, was not followed up by then facilitator Ludwe Fani prior to his leaving UTP. Communities Co-ordinator Sicelo Dyira has since found contact with this group difficult, but will continue in his attempts to bring them on board. The 1<sup>st</sup> roll-out training will therefore be offered to the THP groups in Port Alfred and Bathurst, yielding more information on uptake of practices and ongoing use of cultivated materials.

Interestingly, the agreement from Settlers Day Hsp to allow the THPs from Makana to host their garden there, also demonstrates shifting behaviour with regards to how the allopathic health professionals increasingly see the value of integrating TMs to complement their own practice. The Palliative Care Unit at Settlers Day Hsp have expressed an interest in taking this association further, with some workshops on improving the level of referrals between sectors. While this lies outside of the remit of the DI grant, this will be explored, time allowing.

### 3.3 Standard Output Measures

DESCRIPTION		YEAR 1	YEAR 2	YEAR 3	YEAR 4	TOTAL
<b>Training Outputs</b>						
1A	Estimated 2 South Africans - via other funding	1	0	0	1	2
1B	Estimate 2 South Africans - via other funding	0	0	0	1	1
2	Estimate 2 South Africans - via other funding	0	0	0	1 (submitted)	1
6A	Estimate total of 1365 South Africans Trained	0	0	67	200	267
	Cultivation Training Course: est 60 in yr 3 / est. 60 in yr 4.	0	27	41	Extension activity	68
6B	Weeks actual contact training with each group ( <u>weeks 1&amp;4 at Centre and weeks 2,3&amp;5 on site</u> )	0	5	6	Extension activity	11
	<u>36 weeks non-contact training activities by participants</u>	0	0	8	Extension activity	8
	3 days (per group) interim field support during the non-contact training phase	0	0	12	Extension activity	12
	Kew training of 6 in authentication techniques – on site 4 ( <u>yr 3</u> )	0	0	0	Extension activity	0
	Training of all nursery staff and Umthathi Projects Manager in details of CBD and Biodiversity Act by SANBI and DEAET (15) <u>yr 3</u>	0	0	0	Extension activity	0
	In-house ongoing supplementary training of nursery manager, course facilitators and nursery workers	0	4	2	7	13
	<del>Silverglon courses in indigenous medicinal plant propagation y3</del> These are no longer offered	0	0	0	0	0
	Training of course facilitators and Project field volunteer in basic bio-diversity monitoring of select species <u>y3</u>	0	0	0	0	0
	<u>14 stakeholder workshops, involving 15 stakeholders per workshop</u>	30	27	8	5	70
7	3 x training manuals for facilitators	0	0	1	0	1
	3 x course material for participants	0	0	1	0	1
	3 x support workshop content lay-out for facilitators	0	0	1	0	1

<b>Research Outputs</b>						
8	8 weeks p/a	5	4	6	5	20
9	Dependent on species selection. Estimate input to <u>30 target species</u> management plans (or action plans) to be produced for Governments, public authorities, or other implementing agencies in the host country – y3	0	0	0	Extension activity	0
10	2 individual field guides/manuals to be produced to assist work related to species identification, classification and recording	0	0	0	Extension activity	0
11A	Kew authentication methods – 15 (yrs 3/4).	0	0	0	Extension activity	0
11B	Estimate 4 papers published in peer reviewed journals – SA. At least 3 – UK	1	2	1 submitted EDM-WHO	0	4
	Estimate 11 papers to be submitted to peer reviewed journals / At least 5 - UK	0	2	0 - (planned for yr 4)	Extension activity	2

<b>Dissemination Outputs</b>						
14A	4 x conferences/seminars/ workshops to be <b>organised</b> to present/disseminate findings	0	0	0	Extension activity	0
14B	8 x conferences/seminars/ workshops <b>attended</b> at which findings from Darwin project work will be presented/ disseminated.	6	29	48	10	93
15A	3 x of national press releases in SA	0	0	0	0	0
15B	10 x local press releases in SA	0	2	4	2	8
15C	4 x national press releases in UK	1	1	0	3	5
15D	4x local press releases in UK	0	2	0	0	2
16A	4 x electronic newsletters to be produced (annually)	1	3	2	1	7
16B	Est circulation = 500 through IPUF/SANBI	0	1500	2622	0	4122
16C	Est circulation of newsletter in the UK 5-7,000	0	2,962	3,569	2,606	9137
	Est 2 SA dissemination networks to be est	0	1	1	1	3
17A	Est. 10 SA dissemination networks to be <i>enhanced/ extended</i>	0	2	1	0	3
17B	Est 5 dissemination networks to be enhanced – UK/ <u>Int</u>	0	1	0	0	0

18A	Est 3 SA national TV programmes/features (2 news items, one video documentary in year 4)	0	1	0	0	1
18B	Est 3 national TV programmes/features (2 news items, one video documentary in UK)	0	4	0	0	4
18C	Est 5 x local TV programmes/features in SA	0	0	0	0	0
18D	Est 2 x local TV programmes/features in UK	0	0	0	0	0
19A	Est. 2 national radio interviews/features SA.	0	0	1 planned yr 4	Extension Activity	0
19B	4 national radio interviews/features p/a in UK	0	0	0	0	0
19C	Est 8 local radio interviews/features in SA	0	0	0	0	0
19D	4 local radio interviews/features in UK	0	1	1	2	4

Physical infrastructure						
20	Physical assets to be handed over to host = £71,635 (funds for building to be sourced separately)	0	45,701	0	0	45,701
21	<u>1 productive nursery producing indigenous target species for training</u>	0	1	0	0	1
	1 permanent educational / training / research facility / organisations to be established and continued after Darwin funding has ceased	0	0	under dev with EU yr 4 funding	Extension activity	0
22	Estimate <u>80</u> permanent field plots to be established during the project, and continued after Darwin funding has ceased ( <u>yr 3/4</u> )	0	0	6	4	10

Financial Inputs						
	Remaining funds secured	21,533	8,896	36,123	30,000	96,552

**Table 2: Publications**

NB: Recaptured from previous years

Type *	Detail	Publishers	Available from	Cost £
(eg journals, manual, CDs)	(title, author, year)	(name, city)	(eg contact address, website)	
Journal Medicinal and Aromatic Plants.	Wiersum, K.F., Dold, A.P., Husselman, M. & Cocks, M.L. 2006. Cultivation of medicinal plants as a tool for biodiversity conservation and poverty alleviation in the Amatola Region, South Africa. pp 43 – 57	Springer, Netherlands.	<a href="http://library.wur.nl/frontis">http://library.wur.nl/frontis</a> .	Now available online

**3.4 Progress towards the project purpose and outcomes**

The process of consultation contributing to this has been a key area under constant evaluation. The primary assumption driving the Goal and Purpose of this Project has always been the acceptance, by THPs of cultivated materials (and inherently, for harvesters, to motivate a change to cultivation practices) and that the Project would be in a position to affect such an important behavioural shift so as to affect biodiversity in a significant way. Without endorsement by THPs it would not be possible to service the project purpose – to *support and enhance plant-based livelihoods that are underpinned by biodiversity within the Eastern Cape*.

Despite capacity issues at local level, and as already discussed in sections 3.1 & 3.2, the Project has made sturdy progress in building relationships with the primary THP group engaged in the pilot and ongoing consultation. Three further, informal associations have been variously engaged throughout the consultation process. The introduction of the Project includes information on why wild sourcing is becoming increasingly difficult. This has thus far successfully encouraged interest from groups, but has fallen short of full engagement due to concerns about the need for registration with the DoH. From this, we have seen the clear recognition in the need to shift behavioural practices, as per the primary assumption of the Project from its inception. In turn the team has recognised the need to alter how it represents the importance of various issues, and in what order these may be presented to prevent misunderstanding and misinformation beyond the initial target group.

Plans to develop field plots have also seen some revision – due to learning during training. This will necessarily affect Standard Output Measure 22. Rather than home-based cultivation plots, as previously assumed, it became clear that THP associations involved would prefer to establish communal gardens and nurseries from which they could harvest, and perhaps market their materials. Added to which, it is considered by the project team that THPs may be more inclined to buy in to cultivation in practice if there were to be a restoration component. This is being explored and will be introduced during ongoing work with THPs groups.

Furthermore, it was assumed that having achieved a strong endorsement from THPs it would be important to shift the focus to harvesters, who are responsible for collecting large amount of wild harvested materials, so that they can be trained in cultivation and sustainable harvesting which will contribute towards building more sustainable plant-based livelihoods. However, further consultation with THPs has revealed a concern about the inclusion of harvesters, other than those which join their own association (as has been the case with Makana Assoc extending its own membership access). The project team will explore how this shift will alter the project implementation, which may conceivably focus more resources on support for THP association nurseries. In due course, these nurseries would then be in a position to sell their materials to harvesters, with THPs remaining confident in the quality of the cultivated alternatives from a cultural and technical perspective. In this way, the project would still have achieved its stated outcome.

### **3.5 Progress towards impact on biodiversity, sustainable use or equitable sharing of biodiversity benefits**

It is still too early to measure progress towards biodiversity impact, due to the unit of measurement being the shifting behavioural practices from the use of wild harvested species to cultivated alternatives. This will primarily be measured in consultation with the Projects' stakeholders, and will include harvesters and others trained. During the six month extension (to 30<sup>th</sup> Sept 09) monitoring will be conducted by the following activities:

*Measurement of the implementation of cultivation practices by trainees* – this measurement is ongoing, based both at the gardens where training groups have received their on-site training. Medicinals planted to date are thriving, indicating successful implementation at the Makana Assoc site at Settlers Day Hsp.

*Measurement of uptake of use cultivated materials by THPs* – Given that the THPs have not yet formally completed their pilot, it will take some time before commonly used species are ready for use. This process will gather pace once the medicinals planted by Makana THPs are considered mature enough to commence harvesting, and their garden is extended to include more species on the final list (now completed, and under being propagated and multiplied at the project nursery).

*Survey to which extent cultivated material has replaced wild harvested material by trained THPs* – a questionnaire has been developed for THPs to prompt discussion around this subject, and is due to be received by the Project at the time of writing.

That engaged THPs are increasingly strong advocates of the course, recommending it to others, to others is a good step towards achieving the project purpose, ensuring that impact of introducing cultivated alternatives, and creating a cultural shift in patterns of use. In reality, whether this will have an impact at market level will require an assessment beyond the life of the DI funded foundation phase as the project progresses with a roll out of training and support for more THPs groups, and would be reported to the DI Monitoring, evaluation and lessons

Project collaborations from SA and UK have met 3 times this year, to guide and support the more refined process by which to measure progress. The new project team and UTP management is more willing and able to utilise the logframe as a monitoring and reporting tool, which has improved clarity around targets and achievements. At each visit, it has also been possible to meet with the UTP board, members of which are also named on the project steering committee.

With the new team on board, GA put a number of conditions to the board in order that its concerns about the general health of the organisation (necessarily affecting the Project) were taken into consideration, without which GA could not sign up as a partner to the revised EU application it has co-authored. These included putting key members of staff in place, confirming Marlene Mitchener as director, with full decision-making authority, and a review of staff salaries. We were pleased to note that all these issues were duly resolved by the board. UTP management and board remain committed, with a keen sense of urgency to delivering against our collective commitments to stakeholders and donors alike.

The past year has seen an approach which is far more inclusive of all collaborating partner, and the expertise they bring to this initiative, enabling a more frank and open dialogue about the needs of the project to provide a more responsive and flexible approach to delivery issues. Time lost during previous years is now being quickly regained, and it is exciting to finally be in a position where lessons are being learned in relation to the project outputs and activities.

Lessons continued in 'Actions Taken' – covered in more detail below.

## **4. Actions taken in response to previous reviews**

With an entirely new PIT (still in progress), as well as new UTP management since the last end of year review, it has been important to refresh the institutional memory of the project, with much of the information lost, or misfiled. Michelle Griffith spent her first month going through documentation (hard and soft) and creating new files. GA visited the new team in Jun/July to aid this process when Marlene Mitchener came aboard. The new team recognised the need to focus on the DI funded activities, moving away from the larger ambitions of the project under the previous team, thereby reducing the scale of capital development planned for the 10ha site. This has had an impact on the revision undertaken with the regards to the EU application, and budgeting.

The focus of the reviews undertaken this year have been on advocacy, training and financial.

### Advocacy

It became clear as the new position was created for the Community Liaison Co-ordinator, that more could be done to encourage a more consultative approach with THPs, who were being asked questions about their knowledge, without a clear idea of what they would receive in return. THPs (meeting with GA and UTP in July) expressed concerned that the Project

was 'preaching' to them about issues which it knows little about – as their information is divined from the ancestors. This resulted in an atmosphere of suspicion, which needed to be overcome at every meeting with THPs. In addition to which, it also became clear that whilst the project could assist on matters relating to technical cultivation, it would depend upon THPs for cultural information on how to cultivate sensitively. This had not been requested of them before, and could significantly enhance trust. The response was for GA to develop a document outlining the roles and responsibilities of each party, to be translated into Xhosa by Sicelo Dyira, and given to THPs during the initial 'sensitisation' workshop.

### Training

As already discussed under activity 2.1, it became clear that the materials which had been developed were a) incomplete, b) of limited value, and c) did not constitute original material. The reason for this lay less with the consultants charged with this task, but on the terms that were agreed under the DI budget by the original project team, and without a skilled facilitator to take them forward and development them. The response has been to create more open links with Rhodes EE, as was initially intended (DI application) in order to benefit from the significant experience which exists in the department. This sea change in UTP has also led to the partnership agreement with Rhodes, to be overseen by its Ethics Committee.

### Funding

With the EU funding agreed, a critical area under discussion was to locate the 10% fund matching from within South Africa. During the mid-year review in October 08, the focus was therefore on the application for funding from the Ackerman Foundation. The Ackerman grant of R500,000 over 2 years has since been agreed, on the basis of ongoing activities that UTP programmes work towards the cultivation of organic produce, by its beneficiaries, for sale at the Grahamstown Pick & Pay. Despite this proviso, all funding was agreed specifically for the Africulture Project. This represents an exciting departure from charitable support from the private sector for community-based initiatives, to a partnership between an NGO and South Africa's largest supermarket chain, with a local, and socially responsible approach to sourcing produce. Furthermore, this agreement came at a critical time for the EU deadline, in theory allowing for the release of EU funding for the AC (which had been agreed upon in Dec 07).

Being one of the critical areas of focus over this reporting period, as discussed in the last report, we have had to come to grips with the demands of EU commitment, not to mention the quality of advice from the implementing body of the Local Economic Development grant – Thina Sinako (TS). When we first made the application, we were informed by TS that the call for proposals was primarily for projects with a focus on capital development, and that no staff salaries (only consultancies) would be permissible. The narrative of the grant (written by GA) focussed entirely on delivery of training connected to the DI outputs, as had excited TS during the concept note stage. However, at the eleventh hour, and without agreement from project partners, the then Director during that year (Mr Msomi) added a single line item to the budget in the main application, which committed the project to developing a R3 million centre. Once this became clear to UK partners, this led to concerns that the Project would have a fabulous centre, without the people to staff the activities (as required in the narrative).

After further discussions, and with the new team in place, headed by Marlene and Ken Mitchener (Financial Manager), this therefore became a focus of discussion during the intermediate July review between GA & UTP. The result was that TS agreed to *some* allowance for staff salaries. This budget revision therefore constituted the last revision permissible. Since this time, and on sending the final information, it was noted on the tick sheet for documents to be included, that VATable expenses would not be covered by the grant. This information had never been provided despite all the workshops and meetings attended since 2007 when the concept note was accepted, and leaves UTP in an impossible situation. It now appears that, despite having scaled down the cap ex to comply with the initial demands of the call, that all cap ex could have been removed, obviating *any* concerns about VATable expenditure.

Coming to the end of their tenure, TS are under independent review, and UTP have been interviewed about the process that they underwent. Needless to say the team undertaking the review were visibly shocked at the recounted fiasco, and are to report accordingly to the EU in Brussels. Nonetheless, we remain unsure as to how any of this will affect the project. Unless an agreement can be reached with the EU and/or TS that a further budget revision will be permitted, it would not be advisable to put the project or UTP under this strain. Despite numerous calls to TS, they are now inexplicably unobtainable – preventing UTP from gaining any clarity on this situation. The South Africa Revenue Service (SARS) has also been unable to formalise telephonic advice in writing to provide UTP with the necessary protection. The UTP board and steering committee was informed of the situation during our end of year review meeting, and is yet to make a formal decision on whether to accept the grant. UTP management has advised that it will make an application for upcoming calls, in order to progress on their own terms, and with a far greater understanding of the pitfalls. GA is naturally disappointed, as the time taken throughout this application process has had a significant impact on time spent on its other fundraising and project

management issues. This said, as primary applicant, and the organisation which is accountable for delivery and reporting against the EU grant, we would stand by UTP in its final decision.

## **5. Other comments on progress not covered elsewhere**

This has been adequately covered elsewhere in this document.

## **6. Sustainability**

With the R500,000 (£38,461) Ackerman Foundation funding, in place for 2009 and 2010, it is considered that the Project would be in a position to move forward, but at a reduced pace. The partnership with Rhodes is valued at an estimated R 733 000 (£56,000) per annum. Further funding has just been agreed by Misereor (R300,000 over 2 years) and the GEF (R83,000 over from 2008/9), and a request for repeat funding (R50,000) from the DG Murray Trust is being considered. With the above commitments (but without the EU funding) this would still allow key staff members (nursery wo/man and facilitator) to be employed and activities under the foundation phase. Additional funding would still be required for the project to become fully operational, and other upcoming EU calls would be applied for, if the current funding is not accepted by UTP.

Creating links with other UTP programmes increases sustainability, enabling staff time and resources to contribute to the Project, whilst reducing direct costs. The use of UTPs existing 'township' Extension 7 site, where there is a small nursery, and buildings for training, has not only reduced the immediate need for capital development at the main project site, it has brought this site alive to those who live around it, and has once again become an active and integrated part of UTPs programming and presence there.

Given that the area of the Africulture site is 10ha - currently only 1ha has been developed housing a greenhouse, stand out areas and a freight container sited for storage. Vegetable gardens and some locally indigenous plants, including medicinal plants have been planted in the area. Possible uses of the rest of the land and future developments include:

### **Restoration Ecology**

3ha of the remaining land could be used to house rescued plants from areas such as mines, new roads and housing developments etc. These plants can then either be returned to the area or seed/cuttings etc taken for cultivation for restoration. Areas that can be restored could include mines, roads, developments and other areas that are to be restored to natural areas. The relevant government departments that authorise and manage the applications now specify that indigenous rehabilitation must be done. This would be labor intensive, with search and rescue operations, planting in nursery, watering and other maintenance, and replanting for restoration, and would involve training a team as part of the project. But the benefit to the Project, both in terms of funding, and sourcing of plants for propagation, make this a very exciting proposition.

An extended site could also include beehives, managed as a small business. The successful Makana Meadery is within 1 km of the site, and could be involved to bring in additional income for the project, not to mention pollinators for the site. A variety of plants would be collected and housed, but the focus will be on restoration using plants that can be used by communities to encourage buy-in and protection of the biodiversity.

Companies such as Ceramic Industries Ltd, which have expressed an interest in this area, could provide funding for the restoration holding area or the THP collection garden and for the search and rescue or THP garden team, instead of establishing their own nursery and duplicating UTPs work. A meeting with Ceramic Industries Ltd is planned for June 09.

### **THP collection area**

An area of approximately 6ha planted with predominantly medicinal plants would provide a collection area for THPs. The area would be planted to replicate the natural ecology of the biomes in which the plants naturally occur. Forest areas could be created either by digging deep trenches or dongas to create the cool shaded areas required by forest species. Walls and/or a shade house could also potentially be used.

The area would be fenced and protected so that it remains as natural as possible for collection. It will be continuously replenished and monitored. Training will also occur continuously to ensure the THPs are harvesting sustainably, understand biodiversity and the legal issues. THPs would ideally pay an entrance fee to harvest and would be able to spend as much or as little time as needed. Fees would also be determined for THPs to enter for other reasons – ceremonies etc.

With a hand-over from Kew to Rhodes planned for the following phase, chemical fingerprinting of these plants would be regularly done to ensure their potency.

### Plant sales

It is still intended that the Project produces for sale. Plants used by its other programmes will be transferred to the Africulture budget. Plants for sale to the public are also a focus – both for the horticultural and spiritual market. This would be conducted in the existing 1ha area, and would require an additional shade house.

NB: Plants cultivated for the THPs would be kept separate and will be protected from the public.

### Requirements for the above

- Covered area containing a table for planting of seeds and cuttings and re-bagging.
- Irrigation for the nursery and stand out areas
- Office – simple wood cabin
- Additional staff – total 7:
  - Maintenance of vegetable gardens (1)
  - Clearing site of weeds and invasive alien plants (1)
  - Search and rescue and planting in the restoration area (3)
  - Planting in the THP collection area (2)
  - Restoration planting (3 same as for search and rescue)

### Dissemination

Kew is working with the African Medicinal Plants Standards (AAMPS) to provide botanical support to this important initiative and to assist with gathering phytochemical and pharmacological data so that AAMPS can produce African Herbal Pharmacopoeias that are of the standard of those in Europe, America, Japan and Australia. This will greatly assist in providing quality control and guiding the safe use of plant materials. It is planned that any appropriate data obtained in the Africulture Project would contribute to this initiative. Africulture data fed into the AAMPS project would be under strict agreement with the contributing communities, ensuring that suitable agreements are in place to cover the ownership of their traditional knowledge.

Greater emphasis needs now to be placed on the dissemination of project outcomes. With monographs underway at Kew, these can be disseminated via a wide international network. The data in these monographs can also be used to produce leaflets for the trainers and THP.

The Project's website is an excellent tool, but also now needs to be expanded to include data and other research findings. A volunteer from Rhodes Media Dept is being sought for this purpose.

Despite initial reservations of the original team in-country, greater connection with various departments within Rhodes are now being developed, which will enable greater involvement for research students and subsequent publication of resulting research.

In the UK, visitors to Kew will have an opportunity to learn about the project as they traverse the grounds, as did the Queen and Prince Phillip when they recently visited Kew. Monique Simmonds was able to discuss the project in some detail with Prince Philip, who was interested in plant-drug interactions, which he already knew something about.

## Project Expenditure

Item	Budget	Expenditure	Balance
Rent, rates, heating, overheads etc			
Office costs (eg postage, telephone, stationery)			
Travel and subsistence			
Printing			
Conferences, seminars, etc			
Capital items/equipment			
Other			
Salaries			
<b>TOTAL</b>			

Please find the above budget calculated after agreement to carry over £8,000 from the 'other' line, for Kew related activities (into extension period).

## Outstanding achievements of your project during the reporting period

The Africulture Project has been extremely fortunate to have found solid advocates in the new management team, who have worked tirelessly, and successfully to fill the significant funding gaps. With this funding, Michelle Griffith has finally been able to join the Project team, and has responded quickly to the related requirements, building a good relationship with the 2 key staff members dealing directly with the Project – nurseryman Zolani Zondani, and Community Liaison Co-ordinator Sicelo Diyra, who have ploughed forward with their work during this reporting period, without a line manager being in place. Their achievements in identifying what needed to be done is commendable. And with greater direction now coming from management, we expect them to flourish in their respective roles.

It has been no mean feat to keep the THPs on board, and feeding in to the processes that were still ongoing. The response of the THPs to the Project's key assumption, and the subsequent uptake of the cultivation of medicinal plants in their own garden remains extremely exciting, and drives the enthusiasm of all project partners, as does the research which will not come out of the project with Rhodes now fully on board.

The way in which the new team has picked up the reigns and remains remarkably unflustered by the extent to which the project still has to deliver in the remaining 6 months of the DI funding period has been outstanding, as has been the continued commitment of Kew, for which we are all extremely fortunate.



In-house training with UTP staff – Michelle Griffith  
With Sicelo Diyra (to the right)



Discussing the Africulture Project with Prince Phillip -  
Monique Simmonds and Royal visitors at Kew

## ANNEX 1: Report of progress and achievements against Logical Framework for Financial Year: 2008/9

•Project summary	•Measurable Indicators	•Progress and Achievements April 2008 - March 2009	•Actions required/planned for next period
<ul style="list-style-type: none"> <li>• <b>Goal:</b> To draw on expertise relevant to biodiversity from within the United Kingdom to work with local partners in countries rich in biodiversity but constrained in resources to achieve</li> <li>• The conservation of biological diversity,</li> <li>• The sustainable use of its components, and</li> <li>• The fair and equitable sharing of the benefits arising out of the utilisation of genetic resources</li> </ul>		<ul style="list-style-type: none"> <li>• Continued supporting and engaging with THPs</li> <li>• Final species list – near completion</li> <li>• Continued building plant stock</li> <li>• Distribution of plants – THPs &amp; schools</li> <li>• In-house training of UTP staff &amp; facilitators</li> <li>• Partnership agreement between Rhodes against specific outputs</li> <li>• Funding agreements</li> </ul>	<ul style="list-style-type: none"> <li>• Complete phase 4 of pilot cultivation</li> <li>• Continue to develop remaining courses</li> <li>• Expand stock for training against final list</li> <li>• Integration into schools</li> <li>• Small training &amp; staff facility built on site (pending agreement on EU funding)</li> <li>• Chemical fingerprinting &amp; authentication training</li> <li>• Roll out of cultivation training</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Purpose:</b> Support and enhance sustainable plant-based livelihoods that are underpinned by biodiversity within the Eastern Cape</li> </ul>	<ul style="list-style-type: none"> <li>• Input from beneficiaries to tailor project in each targeted area &amp; community</li> <li>• Behavioural change in related plant based practices in target area</li> <li>• Indigenous plants produced to secure a sustainable supply for training, growers and supply of stock to micro-nurseries</li> <li>• Beneficiaries trained in Indigenous Plant Cultivation course, Micro-nursery pilot, Agri- business courses Developed</li> <li>• Issues identified around the sustainable traditional uses and appropriate recognition of plant</li> </ul>	<ul style="list-style-type: none"> <li>• Relationship with 3 THP Associations in target area maintained</li> <li>• Support for establishment of first THP ex situ site</li> <li>• 70 % of required plants to supply training secured</li> <li>• Support for establishment of THP co-operative</li> <li>• Advocacy workshops around safe-use with THP delivered</li> <li>• Raft of advocacy issues fully consulted on, and agreed with THPs</li> </ul>	<ul style="list-style-type: none"> <li>• Expand consultation to build relationships, including Port Alfred &amp; Bathurst associations</li> <li>• Seed collection, propagation and stock expansion</li> <li>• Content development of Micro-nursery course</li> <li>• Content development of Agri-Entrepreneurship course</li> <li>• Complete pilot Indigenous Plant Cultivation Course</li> <li>• Further propagation and Cultivation of target species based on final list</li> <li>• Roll out cultivation training</li> </ul>

	<p>based rights and practices</p> <ul style="list-style-type: none"> <li>• Physical construction of nursery, processing, demonstration &amp; training areas</li> </ul>	<ul style="list-style-type: none"> <li>•</li> <li>• Maintenance of secure nursery site, housing project stock</li> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• Roll out of advocacy course</li> <li>• Incorporate ecology &amp; biodiversity section (ph 1) into schools training</li> <li>• Extend facilities at the nursery to include additional growing space (shade &amp; stand-out) &amp; training areas</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Output 1.</b> Production of indigenous plants to secure a sustainable supply for training for growers and supply of stock to micro-nurseries</li> </ul>	<ul style="list-style-type: none"> <li>• Purchase site</li> <li>• List of target species for training</li> <li>• Operational nursery</li> <li>• Inventory of 1000 seedlings of 10-15 different medicinal plant species supplied to participants</li> <li>• Appropriate cultivation technologies developed and documented for 30 target species</li> </ul>	<ul style="list-style-type: none"> <li>• With the more recent expansion of the list to 49 species (still undergoing final checks) seed collection and propagation will now need to be extended to include these species.</li> <li>• 1 ha nursery has been maintained to securely host collections and stock expansion to service training needs.</li> <li>• Propagation techniques trialled &amp; documented</li> <li>• Indicators remain appropriate. This output is 89% complete</li> </ul>	
<ul style="list-style-type: none"> <li>• <b>Activity 1.1.</b> Secure a site and necessary authorizations for establishing a nursery and training facility</li> </ul>		<ul style="list-style-type: none"> <li>• 100% complete. Site was purchased in year 1 and the environmental management plan has been approved.</li> </ul>	
<ul style="list-style-type: none"> <li>• <b>Activity 1.2.</b> Identify target species through research and engaging THPs for input into the selection of target species</li> </ul>		<ul style="list-style-type: none"> <li>• 95% complete. Target species list has undergone final consultation, and is now 'complete' for the purposes of the foundation phase. Final checks against changing nomenclature and conservation lists underway.</li> </ul>	
<ul style="list-style-type: none"> <li>• <b>Activity 1.3.</b> Establish 1 ha nursery site (to secure a sustainable supply of medicinal plants for training)</li> </ul>		<ul style="list-style-type: none"> <li>• 100% complete. Site is now complete – solar powered electrified fencing in place, 2 shade houses erected, and additional drainage to mitigate impact of storm water. Planting on site is ongoing to protect from prevailing wind &amp; other elements.</li> </ul>	
<ul style="list-style-type: none"> <li>• <b>Activity 1.4.</b> Supply cultivated stock for training</li> </ul>		<ul style="list-style-type: none"> <li>•</li> <li>• 60% completed – due to changing requests, and increased final species list.</li> <li>•</li> </ul>	
<ul style="list-style-type: none"> <li>• <b>Activity 1.5.</b> Develop appropriate technologies for cultivation and propagation of target species</li> </ul>		<ul style="list-style-type: none"> <li>• 90% completed with documentation of successes and failures.</li> <li>• Permit renewal required to increase stock, and other sources to be explored. before propagation is restarted</li> </ul>	

<ul style="list-style-type: none"> <li>● <b>Output 2.</b> Beneficiaries trained in Indigenous Plant Cultivation pilot. Micro-nursery and Agri-entrepreneurship courses developed.</li> </ul>	<ul style="list-style-type: none"> <li>● Peer-reviewed training material Indigenous Plant Cultivation, Micro-nursery and Agri-entrepreneurship course</li> <li>● Revisions to pilot training material</li> <li>● Pilot training conducted</li> <li>● Feed back of participants</li> <li>● Monitoring system in place</li> </ul>	<ul style="list-style-type: none"> <li>● Training material for Indigenous Plant Cultivation course has been largely developed</li> <li>● Revision of materials is now underway with Rhodes EE.</li> <li>● Participant feedback from pilot cultivation delivered is underway – with a questionnaire shortly to be received from all participants to inform the abovementioned revisions of phase 4 (general cultivation).</li> <li>● Facilitation materials and coursework for other courses are being collated to feed in to development process</li> <li>● Monitoring tools have been developed</li> <li>● Indicators remain appropriate. This output is 56% complete.</li> </ul>
<ul style="list-style-type: none"> <li>● <b>Activity 2.1.</b> Develop cultivation training course with input from THPs and other key experts</li> </ul>	<ul style="list-style-type: none"> <li>● 90% completed; training material for phase 1-4 have been developed</li> <li>● Revision of phase 4 with Rhodes EE.</li> </ul>	
<ul style="list-style-type: none"> <li>● <b>Activity 2.2.</b> Develop micro-nursery course with input from THPs and other key experts</li> </ul>	<ul style="list-style-type: none"> <li>● 20% completed; course has been broadly planned within the overall Africulture model – with some repetition from Gen Cult Course, and propagation information from nursery trials and other sources integrated with the final list now in place.</li> </ul>	
<ul style="list-style-type: none"> <li>● <b>Activity 2.3.</b> Develop agri-business course by amending and consolidating existing course material with input from key experts</li> </ul>	<ul style="list-style-type: none"> <li>● 20% completed; course has been broadly planned within the overall Africulture model – exploring the viability of specific materials against species selected.</li> </ul>	
<ul style="list-style-type: none"> <li>● <b>Activity 2.4.</b> Conduct pilot Indigenous Plant cultivation course</li> </ul>	<ul style="list-style-type: none"> <li>● 75% completed; phases 1-3 delivered .</li> <li>● Phase 4 under revision before completing pilot.</li> </ul>	
<ul style="list-style-type: none"> <li>● <b>Activity 2.5.</b> Ongoing monitoring and evaluation of training programmes to inform updating training materials</li> </ul>	<ul style="list-style-type: none"> <li>● 75 % completed; awaiting feedback from THPs (questionnaire in progress)</li> <li>● Phase 4 will be evaluated later.</li> </ul>	

<ul style="list-style-type: none"> <li>● <b>Output 3.</b> Advocating sustainable traditional uses and appropriate recognition of plant based rights and practices</li> </ul>	<ul style="list-style-type: none"> <li>● Identified key issues needing advocacy interventions</li> <li>● Agreements in place with research collaborators</li> <li>● Inventory of advocacy activities</li> <li>● Outcomes of advocacy activities</li> <li>● List of where and to whom information is disseminated to and which information is disseminated on information on practice and safe use pertaining medicinal plants</li> <li>● Publication and broadcasting of project activities and outcomes (50 items)</li> <li>● Number of species tested for chemical fingerprinting</li> </ul>	<ul style="list-style-type: none"> <li>● Advocacy issues have been identified in consultation with experts and THPs</li> <li>● Agreements are in place with Rhodes EE and Pharmacy, with contributing research projects underway.</li> <li>● Advocacy workshops around HIV and TMs have been delivered and outcomes monitored. Roll out is now underway.</li> <li>● Advocacy sessions are being planned, with information expected from SANBI on remaining topics.</li> <li>● With the final species list now nearing completion, extracts are being collected, with a protocol recently transferred from Kew to UTP. Kew will also begin with the corresponding extracts it already has in its living collection.</li> <li>● Against related indicators, this output is 68% complete.</li> </ul>
<ul style="list-style-type: none"> <li>● <b>Activity 3.1.</b> Research key issues needing advocacy interventions with input from THPs and other experts</li> </ul>		<ul style="list-style-type: none"> <li>● 100% complete; input on issues needing advocacy interventions gained from THPs in the pilot area, desktop research conducted on these issues</li> </ul>
<ul style="list-style-type: none"> <li>● <b>Activity 3.2.</b> Engage in advocacy issues, including the Traditional Health practitioners Act, legal harvesting on private land and Indigenous knowledge protection</li> </ul>		<ul style="list-style-type: none"> <li>● 25% completed against 5 topics agreed upon; workshop conducted on indigenous knowledge protection &amp; IKS protection are under design – awaiting information from SANBI.</li> </ul>
<ul style="list-style-type: none"> <li>● <b>Activity 3.3.</b> Generate and disseminate information around practice and safe use around traditional plants</li> </ul>		<ul style="list-style-type: none"> <li>● 90% completed; with THP workshops around information sharing &amp; dissemination on plant interactions &amp; HIV/AIDS piloted. Information on plant interactions is now underway against final species list.</li> </ul>
<ul style="list-style-type: none"> <li>● <b>Activity 3.4.</b> Information sharing and awareness raising associated with sustainable use of biodiversity</li> </ul>		<ul style="list-style-type: none"> <li>● 100%. Of 50 items to be published/broadcasted/presented on project activities and outcomes, and will continue into the extension period.</li> </ul>
<ul style="list-style-type: none"> <li>● <b>Activity 3.5.</b> Chemical fingerprinting</li> </ul>		<ul style="list-style-type: none"> <li>● 25 % completed; Extracts now being collected. Analysis due to get underway with 24 plants on the final species list of 49, already in Kew’s Living Collection.</li> </ul>

<ul style="list-style-type: none"> <li>• <b>Output 4.</b> Information on changes in behaviour and plant use patterns arising from cultivation, training and advocacy activities</li> </ul>	<ul style="list-style-type: none"> <li>• Number of trainees cultivating medicinal plants</li> <li>• Number of THPs trained using cultivated plant material</li> <li>• Number of THP stakeholders using cultivated plant material</li> <li>• List of wild harvested species which are now partly cultivated</li> </ul>	<ul style="list-style-type: none"> <li>• Deepening relationship with THPs in the pilot area;</li> <li>• Development of monitoring mechanisms to measure the implementation of cultivation practices by trainees,</li> <li>• Uptake of use of cultivated materials, and replacement of wild harvested to be assessed once plants are mature enough for use.</li> <li>• Indicators remain appropriate.</li> <li>• Approx 27% complete – with much of the previous outputs feeding into this, we expect to have completed this by the end of the extension period.</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Activity 4.1.</b> Measure the implementation of cultivation practices by trainees</li> </ul>		<ul style="list-style-type: none"> <li>• 50% completed;</li> <li>• Monitoring mechanisms now developed and in place.</li> <li>• Questionnaire now with THPs. Once received, this activity will be complete.</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Activity 4.2.</b> Measure uptake of use cultivated materials by THPs</li> </ul>		<ul style="list-style-type: none"> <li>• 15% completed;</li> <li>• monitoring mechanisms developed</li> <li>• Uptake of use cannot be measured until plants are mature enough for use/harvest</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Activity 4.3.</b> Survey to which extent cultivated material has replaced wild harvested material by trained THPs</li> </ul>		<ul style="list-style-type: none"> <li>• 15% completed;</li> <li>• monitoring mechanisms developed</li> <li>• Replacement of wild harvested cannot be measured until plants are mature enough for use/harvest</li> </ul>

-

**Project Goal:** The Conservation of biodiversity through the development of alternative supply of natural resources and local resource use practice

**Purpose:** Support and enhance sustainable plant-based livelihoods that are underpinned by biodiversity in the Eastern Cape

Project summary	Measurable Indicators	Means of verification	Important Assumptions
<p>Develop training and advocacy programmes to support and enhance sustainable resource management &amp; skills in the cultivation of traditionally used indigenous medicinal plants to reduce stress on wild plant populations; to supply cultivated indigenous plants; and to develop an infrastructure to generate project income for long term sustainability.</p>	<ul style="list-style-type: none"> <li>• Input from beneficiaries to tailor project in each targeted area &amp; community</li> <li>• Behavioural change in related plant based practices in target area</li> <li>• Indigenous plants produced to secure a sustainable supply for training, growers and supply of stock to micro-nurseries</li> <li>• Beneficiaries trained in Indigenous Plant Cultivation pilot, Micro-nursery, Agri- Entrepreneurship and Agri-Product Developed</li> <li>• Issues identified around the sustainable traditional uses and appropriate recognition of plant based rights and practices</li> <li>• Appropriate income generation streams created to reinforce project impact and contribute to long term project sustainability</li> <li>• Physical construction of nursery, processing, demonstration &amp; training areas</li> </ul>	<ul style="list-style-type: none"> <li>• Documented model for training &amp; outreach</li> <li>• Documentation of meetings &amp; reporting by stakeholders</li> <li>• Data collected indicating changes in behaviour and plant use patterns arising from cultivation, training and advocacy activities</li> <li>• Reports from partners &amp; service providers</li> <li>• Documentation of site development planning and the physical structures on site</li> <li>• Photographs of activities and outcomes</li> </ul>	<ul style="list-style-type: none"> <li>• Partners, stakeholders &amp; beneficiaries remain committed to the process</li> <li>• Broad acceptance of cultivated medicinal plants</li> <li>• Community ownership enhances project outcomes</li> <li>• Harvesters make the transition to cultivated materials</li> <li>• THPs understand the impact of current behaviour and are willing and able to move to more sustainable practices</li> <li>• Project is able to supply the demand for indigenous seedlings generated by courses until micro-nurseries can take over supply</li> <li>• Building work completed within existing physical, time &amp; financial constraints</li> </ul>

Outputs	Activity	Indicator	Verifier	% Complete
1. Production of indigenous plants to secure a sustainable supply for training for growers and supply of stock to micro-nurseries	1.1. Secure a site and necessary authorizations for establishing a nursery and training facility	1.1. Site	1.1. Title deed and authorizations	1.1. 100% complete
	1.2. Identify target species through research and engaging THPs for input into the selection of target species	1.2. List of target species	1.2. Minutes of meetings and workshops conducted with THPS; List of research docs and other orgs & institutions contacted	1.2. 95 % completed; awaiting final checks (Kew, Tony Dold)
	1.3. Establish 1 ha nursery site (to secure a sustainable supply of medicinal plants for training)	1.3. Operational nursery	1.3. Plant stock, materials, site development plan, contractors' appointment documents, infrastructure, staff	1.3. 100 % complete
	1.4. Supply cultivated stock for training	1.4. Inventory of 1000 seedlings comprising of 10-15 different medicinal plant species supplied to participants	1.4. 5 groups received stock (1000 seedlings of 10-15 different medicinal plant species) + photographs	1.4. 60% Due to changing requests & increased list.
	1.5. Develop appropriate technologies for cultivation and propagation of target species	1.5. Methods developed and documented for 30 target species	1.5. Training material is available for 30 target species	1.5. 90% completed – allowing for additional species yet to be sourced.
2. Beneficiaries trained in indigenous plant cultivation pilot. Micro-nursery and agri-entrepreneurship courses developed.	2.1 Develop cultivation training course with input from THPs and other key experts	2.1. Peer-reviewed training material	2.1. Document and course work material	90% completed; training material for phase 4 under revision.
	2.2 Develop micro-nursery course with input from THPs and other key experts	2.2 reviewed training material	2.2. Document and course work material	20% completed; with some repetition with Gen Cult Course & propagation info

Outputs	Activity	Indicator	Verifier	% Complete
	2.3 Develop agri-business course by amending and consolidating existing course material with input from key experts	2.3 Reviewed training material	2.3. Document and course work material	20% completed; course has been broadly planned within the overall Africulture model – from existing courses
	2.4. Conduct pilot cultivation course	2.4.1 revisions to training material 2.4.2. Pilot training conducted 2.4.3. Feed back of participants	2.4.1. Revised training material 2.4.2. Attendance register 2.4.3. Recorded feed back of participants	75% completed; phases 1-3 delivered
	2.5. Ongoing monitoring and evaluation of training programmes to inform updating training materials	2.5. Monitoring system	2.5. Evidence that the monitoring system is applied	75 % completed; system in place, awaiting feedback from THP questionnaires, before commencing phase 4.
3. Advocating sustainable traditional uses and appropriate recognition of plant based rights and practices	3.1. Research key issues needing advocacy interventions with input from THPs and other experts	3.1. Issues identified	3.1. Documentation of workshops and minutes with research collaborators	100% complete; input on issues requiring advocacy interventions agreed with THPs in pilot area, desktop research conducted on these issues
	3.2. Engage in advocacy issues, including the Traditional Health Practitioners Act, legal harvesting on private land and Indigenous knowledge protection	3.2.1. Agreements in place with research collaborators 3.2.2. Inventory of advocacy activities 3.2.3. Outcomes of advocacy activities	3.2. Agreements with research collaborators, documentation on advocacy workshops and activities	25% completed; workshop conducted on indigenous knowledge protection & related legislation yet to be undertaken – awaiting SANBI info & materials
	3.3. Generate and disseminate information around practice and safe use around traditional plants	3.3. List of where and to whom information is disseminated to and which information is disseminated	3.3. Documentation of information disseminated	90% completed; with THP workshops around information sharing & dissemination on plant interactions & HIV/AIDS
	3.4. Information sharing and awareness raising associated with sustainable use of biodiversity	3.4. Publication and broadcasting of project activities and outcomes (50 items)	3.4. Articles in journals and popular media, exhibitions presentations on conferences and public events	100% completed;

Outputs	Activity	Indicator	Verifier	% Complete
	3.5. Chemical fingerprinting	3.5. Number of species tested	3.5. Chemical profiles obtained	25 % completed; Analysis due to begin at Kew with KLCs, & awaiting MoU & extracts for remainder transfer to UK.
4. Information on changes in behaviour and plant use patterns arising from cultivation, training and advocacy activities	4.1. Measure the implementation of cultivation practices by trainees	4.1. Number of trainees cultivating medicinal plants	4.1. Number of trainees cultivating medicinal plants after 12 months	50% completed; Mechanisms in place, and awaiting response from THPs in questionnaire
	4.2. Measure uptake of use cultivated materials by THPs	4.2.1 Number of THPs trained using cultivated plant material 4.2.2. Number of THP stakeholders using cultivated plant material	4.2.1 Number of THPs trained using cultivated plant material after 12 months 4.2.2. Number of THP stakeholders using cultivated plant material after 12 months	15% completed; Mechanism in place – awaiting plant maturity.
	4.3. Survey to which extent cultivated material has replaced wild harvested material by trained THPs	4.3.1. List of wild harvested species which are now partly cultivated	4.3.2. Baseline and post intervention research report and photographs of cultivated plants	15% completed; Mechanism in place – awaiting plant maturity.