

CEPF FINAL PROJECT COMPLETION REPORT

I. BASIC DATA

Organization Legal Name: University of Cape Town, The Leslie Hill Institute for Plant Conservation

Project Title (as stated in the grant agreement): *Namaqualand Restoration Initiative: Bringing Mining, Biodiversity, and Local Communities Together*

Implementation Partners for this Project: University of Cape Town, Plant Conservation Unit, Namaqualand Restoration Initiative

Project Dates (as stated in the grant agreement): January 1, 2005 – December 31, 2007

Date of Report (month/year): September 2008

II. OPENING REMARKS

Provide any opening remarks that may assist in the review of this report.

CEPF funding initiated and catalysed the Namaqualand Restoration Initiative (NRI). After protracted process, this led to co-funding by De Beers and extended the project by 1 year (co-funding by mining operators was planned for this project since inception – necessary for mining operators to value the outcomes – but translating initial in principle commitments into funding was not easy).

By and large the NRI has achieved what it set out to achieve. Knowledge and understanding of ecological restoration in the Namaqualand lowlands has been brought together from a variety of sources (including experiential knowledge of practitioners), collated, tested and integrated with new understanding from research, and developed into novel practical methods for the implementation of restoration. A greater understanding of restoration, and of the importance of biodiversity, is being gained by mining operators and others in Namaqualand (at least by some mining operators and others); and a greater understanding of mining operations and structures has been brought to the biodiversity sector (particularly practical understanding of processes that operate at mine or landscape level). Implementation of the ecological restoration of previously sites, under contract from mining operators has begun. The first business has been started that is entirely owned and run by people from Namaqualand communities. The aim now, in the most ambitious terms, is to develop a restoration and biodiversity based economy in the region. However, the implementation of this restoration is technically complex, and the viability of implementation dependent on sound business models.

CEPF has started to catalyse a project entitled 'Ecological Solutions for Landscapes & Livelihoods' which will provide the support and continuity needed beyond the NRI, and will create a Namaqualand-based ecological support & advice entity (with qualified ecologists who will be further mentored themselves). Ecological Solutions for Landscapes & Livelihoods will operate along business principles within 18 months, and will develop business systems for itself and for the restoration businesses, to ensure continuity and sustainability of these entities, and the implementation of ecological restoration, independent of donor funding.

III. ACHIEVEMENT OF PROJECT PURPOSE

Project Purpose: *To establish a restoration bench mark, and develop new and effective regional protocols based on sound ecological dynamics for the achievement of near-natural biodiversity restoration, while giving a cross-section of the regional community a greater role in restoration, and through active service-driven engagement with mining operators and other land users to fundamentally change the way they perceive their roles and responsibilities with regard to biodiversity conservation and restoration.*

Planned vs. Actual Performance

Indicator	Actual at Completion
Purpose-level:	
<p><i>1. All mining operators and a significant proportion of other land-users implement ecologically effective strategies in achieving biodiversity restoration, within a year of completion of this project.</i></p>	<p>The NRI's engagements have ranged from broad discussions, to building strong relationships, and collectively workshopping plans for improving restoration protocols with mining operators at a range of levels. The key has been understanding the mining processes and business environment in order to integrate better biodiversity practices. We have established a strong partnership and relationship with De Beers, the largest mining operator and mining leader in Namaqualand, and have negotiated funding for the project in excess of that contributed by CEPF, which will allow the project a four year duration. This indicates some commitment by De Beers to its biodiversity responsibilities. Namakwasands continues to implement some responsible rehabilitation, and we continue to engage with their restoration implementors, however, interactions with Namakwasands were initiated disproportionately by the NRI. We continue to engage with Transhex, their consultants, and government regulating departments regarding their operation on the west coast. However, Transhex has long since ceased mining at this operation, and continue to try and obtain closure without adequate rehabilitation. As long as closure continues to be denied, we develop techniques for restoration and prove their implementation, their position will become less tenable. The Namaqa Diamond Company (NDC) has ceased operations but has implemented high quality restoration on all its sites, and a few others in addition. We believe that the strong engagement of the NRI with NDC contributed to the high standard of rehabilitation implementation, even after ceasing mining operations. Towards the end of the project we engaged with two new small mining operators in the larger Namaqualand region, and will make our restoration methods available to them in various usable formats. We have good engagements with many other land-users and will similarly make our restoration methods available to them.</p> <p>Good relationships and an improved understanding of and responsibility for ecological restoration and biodiversity issues has been established with the management of De Beers, Namakwasands and to some extent Alexkor, mining operations. Experimentation and/or restoration benchmark sites have been established in De Beers & NDC areas, and by Namakwasands themselves, and generate significant interest within the mining industry and beyond. Baseline and other information is fully documented and the foundations have been laid for the continuity of monitoring beyond this project.</p>
<p><i>2. Within a year of completion of the project, all mining operators aim for the return of 40-80% of the</i></p>	<p>Engagements of numerous kinds continue with mining operators and other land-users. However,</p>

<p><i>natural plant diversity, a high proportion of animal diversity, and a high level of ecosystem functioning on new restoration projects.</i></p>	<p>mining operators are not strongly concerned with the return of species diversity in a narrow sense. Mining operators are concerned with an end-state and evaluating this. We are incorporating measures of species diversity in monitoring and evaluation methods (although the issue is complex).</p> <p>The awareness of, and responsibility for ecological restoration and biodiversity has been greatly increased in all mining operations (with the likely exception of Transhex). Thus far the recommendations of the NRI have been sought for Environmental Management Plans of De Beers, Alexkor & Namakwasands. Restoration understanding has also been sought for various legal proceedings, EIAs and for closure plans, and often the necessities of restoration have been able to guide these processes. Mining operators are not strongly concerned with the return of species richness in the narrow sense. The NRI has emphasised the return of ecological functioning, resilience and landscape stability (species diversity is an aspect of achieving these).</p>
<p>3. <i>Within a year of completion of the project, all mining operators implement long-term monitoring and evaluation programs for large-scale restoration projects.</i></p>	<p>Engagements have ranged from broad discussions, to building strong relationships, and collectively workshopping plans for integrating monitoring and evaluation protocols into other operating and reporting structures with mining operators and consultants at a range of levels. Developing integrated monitoring and evaluation systems emerged early in the project as a priority for driving effective restoration strategies in mining operations. There is often good agreement and cooperation on this issue with mining operators but we struggle to engage the Department of Minerals and Energy (DME) meaningfully, despite their clear responsibility for evaluation.</p> <p>The awareness of, and responsibility for ecological restoration and biodiversity has been greatly increased in all mining operations (with the likely exception of Transhex). The management of De Beers and Namakwasands are engaged in the use of monitoring and evaluation methods for restoration. However, the monitoring and evaluation is usually not performed by the mine itself, but is outsourced. An entity has been established that can perform these tasks and integrated systems are being established for its implementation. Unfortunately little progress seems possible for DME playing a role in monitoring restoration at an ecological level.</p>
<p>4. <i>Small regional businesses are up and running, and can offer a restoration implementation service to mining operators and other land-users, within 1 to 3 years of the completion of this project.</i></p>	<p>The management of operational mines, and some other land-users, were enthusiastic about contracting trained teams from regional communities to implement restoration projects. We formed links between members of regional communities, those with an interest in restoration, mining operators, and researchers. This became a major focus of the project (and beyond), and was increasingly be expanded and formalised.</p>

	<p>The implementation of restoration is now viable in all aspects. More than 50 people from Namaqualand have been trained in restoration implementation. An entirely Namaqualand owned and managed restoration business, comprising 15 - 20 people, has been started and contracted by De Beers. Further training and business development will take place in future at De Beers and a other mining operations. Comprehensive systems are being established to mentor and support restoration implementation, following business principles. Implementation of restoration by people from the region has been massively expanded beyond the original vision of this project. This aspect should achieve the biggest impact on biodiversity beyond the project, and ensure continuity of the purpose of this project. The management of the four largest mining operations (with the likely exception of Transhex and possibly Alexkor), now go considerably further than considering restoration; the service is readily available to them, and supporting systems are being developed (by the Ecological Solutions for Landscapes & Livelihoods project) to integrate it into operations.</p>
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Describe the success of the project in terms of achieving its intended impact objective and performance indicators.

The project has been successful in meeting its purpose (in meeting all of the objectives contained in the purpose statement).

Were there any unexpected impacts (positive or negative)?

As the project progressed we were able to broker opportunities to create and significantly expand the regional businesses that can offer ecological restoration as a service to mining operators and other land-users. These opportunities were aggressively pursued in order to develop them into viable businesses and viable business prospects. These businesses offer the greatest prospect of going beyond the purpose of this project and actively implementing the ecological restoration of the Namaqualand lowlands. However, the future of these businesses and of this ecological restoration depends primarily on the commitment of mining operators to their environmental responsibilities. Ultimately civil society is the most important actor in ensuring mining operators continue, and expand, their commitments, particularly as mines are down-sized and are sold (government has proven to be a poor actor in this regard).

IV. PROJECT OUTPUTS

Project Outputs:

Planned vs. Actual Performance

Indicator	Actual at Completion
<p>Output 1: A mining forum has been established, communication and the profile of restoration and other biodiversity issues among mining operators, and those concerned with the environmental responsibilities of mines and other land-users, has been enhanced; and funding has been secured from mining operators to contribute to this project (and potentially to future projects that provide biodiversity and restoration research and services for mining operators).</p>	
<p><i>1.1. Meetings with the management and those with a responsibility or interest in biodiversity and restoration at each of the major mining operations in coastal regions (strandveld and sandveld) of the two priority areas. Additional visits to others in the region with a strong interest or experience in restoration.</i></p>	<p>We are actively built relationships with those concerned with environmental responsibilities at a range of levels at De Beers, NDC and Namakwasands. Transhex did not engage meaningfully with the project. The NRI has engaged Alexkor by participating in other procedures including the land claim court case, acting for the Richtersveld community, and compelling DEAT to take action with Alexkor in terms of the environmental legislation. This engagement has yielded a number of commitments from Alexkor and government departments (see below)</p> <p>The NRI also engaged with, communicated and participated in projects & processes with a range of ecologists, restoration practitioners, farmers, conservation organizations, other land-manager, agricultural specialists, conservation NGOs & parastatals, Namaqualand communities, legal specialists, consultants, land-use planners, social and economy specialists, universities etc. We also entered into formal MOUs with BIOTA, CI and the Millenium Seedbank Project.</p> <p>One interesting and valuable outcome of this engagement is a paper combining legal and ecological understanding of the process of mining which will be published in the South African Journal of Environmental Law & Policy in 2008.</p>
<p><i>1.2. Email and telephonic queries are being received and are answered with quality advice.</i></p>	<p>Telephone and email queries and discussions were frequently held with mining operators, and other researchers, implementors and actors in the region, nationally & internationally.</p>
<p><i>1.3. Obtain commitments from individual mining operators and/or their parent companies to co-fund this project.</i></p>	<p>Initially all mining operators stated that this was a project that they would support financially. De Beers, NDC and Namakwasands were engaged formally about co-funding. Negotiations with De Beers then most advanced, but were multi-faceted and concerned also De Beers Southern Africa, Conservation International, and SANParks. After protracted negotiations De Beers Namaqualand Mines (NM) agreed to fund the NRI towards it's goal & purpose in July 2006. NM have committed to more than matching the total funding from CEPF and this will allow the project to continue to the end of 2008 (four years in total). De Beers - a mining operator - and CEPF - a conservation NGO - then formed the</p>

	<p>principle partners for the NRI.</p> <p>Catalyst funding has also been secured from CEPF, through SKEP, for the Landscapes & Livelihoods project that will start an Ecological advice and support entity in Namaqualand to provide continuity beyond 2008 (end of NRI), and will provide comprehensive systems and support for restoration implementation, within business systems. Contracts & partnerships will then be initiated with individual mining operators to sustain this entity and support future monitoring of restored sites.</p> <p>Funding has been secured from the state to initiate training and a restoration business with the Richtersveld community for the Alexkor area.</p>
<p>Output 2: Information has been synthesized on the extent to which restoration initiatives have been implemented in the focus areas, the success of the various restoration initiatives implemented to date, and the areas that remain to be restored.</p>	
<p><i>2.1. Extensive site visits to areas of previous restoration projects, and interviews with those who have undertaken restoration, at various scales, in the region. Additional meetings with spatial data managers on mines, and obtaining spatial data.</i></p>	<p>A large literature database has been established incorporating scientific and grey literature that relates to ecological restoration after mining in similar or arid areas and conditions, and ecological understanding that is relevant.</p> <p>Semi-structured interviews and site visits were conducted concurrently with a process of identifying all those non-scientists (practitioners) with knowledge or experience relating restoration in the region. We completed 24 interviews, throughout lowland Namaqualand, with farmers, mine managers and other practitioners.</p>
<p><i>2.2. Synthesise information relating to previous restoration projects, assess their success, and draw lessons. Assess the extent of land that has been degraded or transformed and has not been restored.</i></p>	<p>All interviews have been translated, transcribed (over 200 pages), analysed using a novel system coding and prioritising statements. The results have hugely informed the restoration methods that we have developed, in some cases dramatically. Among others, the results were presented at the 2006 Arid Zone Ecology Forum, winning a best presentation award, and has been published in the journal 'Biological Conservation' in 2008.</p>
<p>Output 3: A detailed economic understanding of the costs involved in each stage of the restoration process has been collected and developed into models that will enable managers and implementors to plan and compare restoration strategies effectively.</p>	
<p><i>3.1. Search the international literature (including grey literature), for costs relating to the various stages and activities involved in restoration in arid environments.</i></p>	<p>Numerous literature searches have been performed. There appears to be little information available in the literature that details the costs directly. Information was sourced from costing calculations by consultants for similar restoration and mining closure scenarios.</p>
<p><i>3.2. Engage with mine management, restoration implementors, and other contractors and access data on costs of the various stages and activities involved in restoration.</i></p>	<p>Discussions have been held with mining operators, consultants and contractors regarding costs of various activities that relate to restoration. And detailed reviews of restoration costing models have been undertaken.</p>
<p><i>3.3 Synthesise the costs data in a spreadsheet or GIS model, and draw</i></p>	<p>Costs involved in each stage of rehabilitation and restoration have been synthesised in a spreadsheet</p>

<i>conclusions from modelling current restoration projects and practices, and possible future projects</i>	and are being used to inform the practices, scale, contracts and incentives for establishing restoration businesses.
Output 4: A monitoring and evaluation system for restored sites has been developed and made available to mining operators and other land-users. This will set out criteria for establishing the success of restoration projects at set time-scales after the initiation of projects.	
<i>4.1. Hold a small focussed workshop with restoration ecologists and implementors to identify testable criteria by which the restoration of biodiversity and ecosystem function can be assessed.</i>	Research and Monitoring Advisory Workshop held in Cape Town with 10 experts in the restoration and ecology of the west coast.
<i>4.2. Contract small specialist studies on groups for which little data exists, e.g. non-vascular plants (biogenic crusts), mycorrhizae, arthropods, reptiles etc.</i>	The NRI has conducted vegetation surveys on 14 undisturbed sites, and is surveying and monitoring restoration on a large number of previously degraded sites. In 2006, led a specialist field trip with 12 specialists (incl. NRI); designed and structured a uniform sampling protocol for sites at various stages of recovery; mentored report writing to ensure quality, parity and delivery of reports; which resulted in comprehensive specialist reports for: Bacteria, Fungi, Nematodes, Arthropods, small mammals, vertebrate signs, vegetation, and soil crusts. All of this information was used to develop a monitoring & evaluation system specifically for the Namaqualand lowland ecological system.
<i>4.3. Review the international restoration and ecological literature relating to methods for monitoring and assessing restoration success.</i>	Reviewing the literature indicates that the best Monitoring and evaluation methods for restoration have been developed by a number of researchers and organisations in Australia. We are investigating and trialing adaptations of these to Namaqualand conditions. The review of the literature revealed that monitoring and assessing biodiversity have not been developed that are applicable to our situation. We developed a largely novel M&E system, and repeatedly tested, verified and further developed the system in the field. Held an intensive one-day Advisory and Specialist Workshop held with 9 ecologists, specialists and restoration practitioners was highly successful. Attendees were strongly supportive of the M&E system, and indicated that it was a significant breakthrough, aspects of which could be used in other M&E systems.
Output 5: Novel, low cost and effort, ecologically sensible, intervention methods have been developed that will restore mixed species communities, and ecological functioning, both to areas that are currently being mined or transformed by other means, and to areas that have previously been mined or transformed by other means.	
<i>5.1. From the available literature, develop an understanding of the dynamics and processes of restoration, and broader ecology, in arid ecosystems, and the Succulent Karoo in particular, concentrating particularly on recent ecological and ecophysiological work.</i>	A large literature database has been established. The understanding gained from reviewing the literature and other engagements has been shared in numerous fora, including many formal presentations and was published in a paper in the Journal of Arid Environments in 2007.
<i>5.2. Hold a small focussed workshop with restoration ecologists and implementors to</i>	A Research and Monitoring Advisory Workshop was held in Cape Town with 10 experts in the restoration

<p><i>identify and agree on common ecological gaps in restoration projects, and to suggest new directions for testing restoration methods in both areas currently undergoing degradation, and in areas degraded in the past.</i></p>	<p>and ecology of the west coast. The workshop was highly successful and the outcomes were used to inform research designs.</p>
<p>5.3. <i>Plan and initiate focussed, small-scale studies and experiments to test how key ecological dynamics are utilisable in the restoration process, and test creative solutions to bottle-necks in ecological recovery</i></p>	<p>In 2005, the initiation, monitoring and data collection on a large (84 plot) set of factorial experiments, both at DBNM and NDC took place throughout the winter, spring and summer seasons. Other studies primarily concerned soil conditions.</p> <p>In 2006 we set up our large and multi-factorial Restoration Pack Trial at NM using a team of seven, including three with only basic skills from Namaqualand communities. The trial involves about 1300 plots each with a total of about 1500 seeds of 16 species. It tests various soil amelioration methods (slow-release nutrients and water-holding gels), soil conditions, seeds, layout methods, transplants etc. In addition we conducted comprehensive experiments in the lab (growth chambers) and in the glasshouse involving bioassays on various soils, germination trials and methods for breaking seed dormancy.</p> <p>In 2007, germination trials were conducted on seeds collected in the 2006-2007 year. Soil amelioration trials were also conducted in the glasshouse. These two trials have involved an additional ecologist part-time. A small decomposition and nutrient cycling study was initiated. The second very large scale restoration pack trial (third round experiment) was set up, and involved a number of part-time ecologists in preparation, an additional part-time ecologist and four workers from Namaqualand communities. The second restoration pack trial consists of about 1300 trial plots on eight restoration sites covering the range of (primarily soil) conditions experienced, in the Koingnaas area. Monitoring and re-applying treatments continued for first (seedling exp.) and second (restoration pack trial 1) year experiments. The decomposition and nutrient cycling study, and the soil amelioration glasshouse studies were concluded in 2007. No new large-scale studies will be initiated under the NRI project. However monitoring, sampling and analysis will continue throughout 2008 and beyond, on the three major experiments. Monitoring, sampling and analysis will also continue on a number of permanent observation site, primarily 8 sites in the NDC mining area.</p>
<p>5.4. <i>Analyse and publish the results of the studies and experiments, and use them to construct the restoration protocol (output 7)</i></p>	<p>Complex analysis of the first years factorial seedling experiment has been completed, and the report has been completed. Two years of results of the second year's restoration pack trial have been analysed, and the initial results of the third year's experiment have been analysed. The results of these and the other studies & experiments have been presented in numerous formal seminars, conferences & meetings. The results of all studies and experiments are used comprehensively and extensively to construct and guide restoration protocols, training manuals and the 'best practice book' (output 8). In addition the studies</p>

	and experiments will continue to be analysed and published in reports, an MSc thesis, and peer-reviewed publications.
<p>Output 6: People from communities within the priority areas have been trained in restoration methods and implementation, and been made aware of the benefits of restoration. A small team of people (c. five) will be trained while being employed, to collect material for restoration packs, make restoration packs, and carry out the restoration of at least two 'bench mark' sites (ouput 7). (It is hoped that these people will increasingly become advocates for restoration and that they will be able to offer the service of restoration to land managers.)</p>	
<p><i>6.1. In partnership with those with common interests (e.g. Departments of Labour and Minerals and Energy, and mining operators) conduct a short training programme.</i></p>	<p>The training and establishing of restoration businesses component has been massively expanded. In a tough but ultimately a break-through meeting with the top management of De Beers Namaqualand Mines (in February 2007), NM committed to the employment, in 2007/2008 and beyond, of teams that are trained and mentored by the NRI. We are very pleased with this break through after a long period of enthusiastic responses but no firm committment.</p> <p>Numerous discussions and meeting have been held to generate committment and contribute to establishing and contracting restoration businessess, primarily with project partners at NM and Matlafalang. Adverts for restoration business owner-managers were widely distributed including four Namaqualand newspapers. About 40 applications were received, 9 applicants were interviewed in three interview sessions.</p> <p>After numerous meetings with NM and the National Union of Mine Workers etc. to understand the desires of all parties, advertising for workers to apply for training for restoration businesses primarily targeted Soebatsfontein, Spoegrivier & Hondeklipbaai (Koinгнаas & Kleinzee residents were also eligible). Visits were made to each town, numerous discussions held including explaining the process to prominent members and Community Development Workers in each town. Advertisements were put up and application forms made available. Applicants were short-listed based on the merit of application forms, and all short-listed applicants were reference-checked. From 150 applicants almost 50 were invited to come for training; 3 failed, but 14 were given distinctions at the end of the intensive training week (7-12 October 2007).</p> <p>(Commitment and funding had been obtained from the Richtersveld community and the National Department of Public Enterprises to conduct training and roll-out a pilot rehabilitation project. This will begin in 2008, for a team of six for one year, in the Alexkor mining area. Resources for further training, development and research for restoration implementation has been committed to by DPE in</p>

	the settlement agreement with the Richtersveld community.)
<p>6.2. <i>Employ a small team and thoroughly explain the aims of each task as they implement the restoration at the two sites.</i></p>	<p>A number of meetings and discussions have been held with Legal experts (LRC) and restoration implementors or landscapers (Principally Vula Environmental) in order to develop realistic targets, schedules, management structures, costing units, contracts and means of verification for the implementation of restoration by small teams. These have informed the business case, business plan and schedule for restoration implementation.</p> <p>After an extensive interviewing and selection process three owner-managers (one other failed security clearance, and another withdrew at the end of the process) began on 17 Sep to set up a restoration business (facilitated by the NRI, Matlafalang & NM). The three managers selected 15 of the successful trainees to begin working full-time for the business.</p>
<p>6.3. <i>Identify partners with common interests, broker specific skills training by individual partners, and facilitate continued mentoring by the partners after completion of this project.</i></p>	<p>Training, mentoring, supervision & assesment was intensive for the last months of 2007, and involved: NRI, Matlafalang, NM & existing restoration practitioners e.g. KGR Rehabilitation (based at Namakwasands).</p> <p>Comprehensive support systems have been put in place for the restoration business by the NRI. On-site mentoring and guidance forms the largest component; setting restoration protocols for each site, and monitoring & evaluating the restoration at each site are other substantive components. Processes for developing these supporting functions into business systems has begun in order to ensure the continuation of these restoration business, and the creation of new ones beyond 2008. Technical, productivity & business protocol support is well developed & provided. Partner organisations, Matlafalang has provided support for business skills, and KGR & Namakwasands provided further netting training, however. Provision of non-technical skills (business & life skills) would benefit the business and the managers, as would the identification of the specific skills and needs required by the managers themselves.</p> <p>(A Namaqualand based ecological mentoring and advice entity has been established by the NRI to provide continuity, particularly for the restoration businesses beyond the life of the NRI – more details in Opening Remarks.)</p>
<p>Output 7: At least two ‘bench mark’ sites in the two geographic priority areas have been restored, using technologically simple methods (but incorporating cutting-edge ecological understanding), and implemented primarily by local people with no previous specialised skills in restoration. These previously degraded lands are set to have a high proportion of the original species diversity and ecological functioning restored, and are ‘bench mark’ examples of the level of restoration that can be achieved.</p>	

<p><i>7.1. Plan the restoration protocol specifically for each site. Collect material, make restoration packs and set out restoration packs in suitable microhabitats at the two sites. (First phase restoration)</i></p>	<p>This output progressed ahead of schedule; both seed and non-seed material were sourced, restoration packs designed and set out in a large restoration pack trial in 2006. The second large scale restoration pack trial was set out from 2007. Setting up of these trial & demonstration sites involved a number of part-time ecologists in preparation, an additional part-time ecologist, four workers from Namaqualand communities, and the occasional assistance of NM workers for the duration of the setting-up period. Each of restoration pack trials consists of about 1300 trial plots on seven or eight restoration sites covering the range of (primarily soil) conditions experienced.. The restoration packs should begin or accelerate the process, and contribute to the restoration of these sites. Field seed collection continued through the spring and summer seasons for each of the restoration pack trials and involved part time workers from Namaqualand. The first and second restoration pack trials continue to be monitored and evaluated.</p> <p>One Namaqualand based business has been started, and is implementing the restoration of a number of sites in the 2007-2008 season. For each area that is to be restored, detailed restoration protocols are specified by the NRI, and a Namaqualand-based entity has been started to integrate the provision of this technical understanding into future comprehensive restoration systems (see Opening Remarks). Processes for starting more businesses in 2008 have begun.</p>
<p><i>7.2. Disseminate new restoration protocols, techniques, and examples.</i></p>	<p>New and existing restoration protocols are captured in training, training manuals, and in the 'best practice book' (output 8). Seven articles on the new restoration businesses and protocols were published in the popular press in the second half of 2007. Protocols covering all aspects of preparing, setting-out, monitoring and maximising the benefit of restoration pack form the main activities of the training manual for restoration teams, and will be included in the 'best practice book'. Restoration packs, their potential role in restoration, and the restoration pack trial, have been profiled in a number of presentations at various fora. More importantly, the restoration pack trials are now being opportunistically show-cased by others, particularly De Beers, and generating excitement beyond the NRI.</p> <p>The protocols of restoration for each site have been recorded in detail. Monitoring continues at these sites and De Beers has been engaged to support future monitoring. This information will also be available to other parties to monitor and assess restored sites in future, e.g. Plant Conservation Unit, SAEON etc.</p>
<p>Output 8: Simple 'best practice' restoration guidelines, and monitoring and evaluation guidelines, specifically for mine managers, environmental officers, farmers and other non-specialist land managers, have been developed,</p>	

published and made available to mining operators and other land users.	
<p><i>8.1. Draft the restoration, and evaluation and monitoring guidelines, being informed by the needs arising from output 1, and integrating the results from outputs 2,3,4,5, and lesssons learned from output 7.</i></p>	<p>Writing of the guidelines booklet has been delayed by 6-12 months as it needs to incorporate the results from the other outputs toward the end of the project (the project has been extended by one year, funded by De Beers). Drafts of all the chapters of the book were completed by July 2008, and are going through various phases of review.</p>
<p><i>8.2. Have the guidelines document reviewed, finalised, printed and distributed.</i></p>	<p>The 'best practice book' has been developed using the training manual that was finalised in Oct 2007 as a foundation. It be published in early 2009, and will then be distributed partners, various land managers in the region etc.</p>

Describe the success of the project in terms of delivering the intended outputs.

The project has been successful in meeting all of its intended outputs. The project has been extended by one year with additional funding from the mining industry, and this allowed some of the outputs to be expanded.

Were any outputs unrealized? If so, how has this affected the overall impact of the project?

Output 8, the publication of a 'Best Practice' restoration guidelines book has not been completed, but will be completed in the additional year of the project and will be available in 2009. The extension of the project has allowed it to have a greater impact, and has allowed us to expand some outputs, e.g. the development of a formal training manual.

V. SAFEGUARD POLICY ASSESSMENTS

Provide a summary of the implementation of any required action toward the environmental and social safeguard policies within the project.

N.A.

VI. LESSONS LEARNED FROM THE PROJECT

Describe any lessons learned during the various phases of the project. Consider lessons both for future projects, as well as for CEPF's future performance.

The nature of engaging with stakeholders has emphasised for us that the process is continuous and primarily involves building quality human relationships. This applies both to partners within the environmental community, partners in mining and other land managers, and to others in government and civil society. Perhaps one of the greatest lessons learned is the need to build relationships at a great number of levels. Frequent communication is key. However, to reach our biodiversity objectives it was frequently necessary to directly challenge mining operators to reach environmental standards, and to sustain the relationships it was necessary to develop the environmental solutions that were needed.

Project Design Process: (aspects of the project design that contributed to its success/failure)

A key factor in the success of the project was spending a lot of time developing a detailed strategy and project design (this is difficult and risky because the development process is not typically funded). A number of different, but complimentary, outputs were developed to meet the project's goal. These outputs addressed the problems from different angles, sought outcomes that were beneficial to both biodiversity and to the mining operators needs (or future needs), and produced solutions. The more typical awareness raising approach was avoided, and we feel our approach was more successful.

Project Execution: (aspects of the project execution that contributed to its success/failure)

Aspects that contributed to the success of project execution were: gaining a full understanding of the problem, i.e. understanding the mining operation process and the mining business processes, and developing methods for its solution within this context; having our team engaged full-time in all aspects of this project, and having the same people understand the problem, research methods to solve it, and develop, package and distribute those methods or services (solutions) for non-specialists to use.

VII. ADDITIONAL FUNDING

Provide details of any additional donors who supported this project and any funding secured for the project as a result of the CEPF grant or success of the project.

Donor	Type of Funding*	Amount	Date Received	Notes
BIOTA	A	\$ 15 000	2005 - 2006	
De Beers	A	\$ 317 247	2006 - 2008	
		\$		
		\$		
		\$		
		\$		
		\$		
		\$		

****Additional funding should be reported using the following categories:***

- A*** *Project co-financing (Other donors contribute to the direct costs of this CEPF project)*
- B*** *Complementary funding (Other donors contribute to partner organizations that are working on a project linked with this CEPF project)*
- C*** *Grantee and Partner leveraging (Other donors contribute to your organization or a partner organization as a direct result of successes with this CEPF project.)*
- D*** *Regional/Portfolio leveraging (Other donors make large investments in a region because of CEPF investment or successes related to this project.)*

Provide details of whether this project will continue in the future and if so, how any additional funding already secured or fundraising plans will help ensure its sustainability.

The progress achieved so far will be continued by a new project ('Ecological solutions for Landscapes & Livelihoods' see Opening Remarks) to implement the protocols for restoration developed in the NRI project. Additional funding has been secured to develop businesses for restoration:

CEPF has provided \$ 109 100 funding to catalyse the Ecological Solutions for Landscapes & Livelihoods project.

The South African Government is providing \$ 185 700 to the Richtersveld community for research, training, development and the running a restoration business for the Alexkor mining area for one year as a result of participation and proposals developed by the NRI. In terms of the agreement the government has committed increased funding for each of a further three years.

De Beers is providing in excess of \$ 185 700 to the first restoration business for the first year for contracts with, and the establishing of, the business. De Beers are likely to continue the contracts in future years. De Beers is also likely to commit further funding to training, developing and contracting further businesses in future years, and to Ecological Solutions for Landscapes & Livelihoods for the business development, technical training and mentoring of these businesses.

VIII. ADDITIONAL COMMENTS AND RECOMMENDATIONS

VIII. INFORMATION SHARING

CEPF is committed to transparent operations and to helping civil society groups share experiences, lessons learned and results. One way we do this is by making programmatic project documents available on our Web site, www.cepf.net, and by marketing these in our newsletter and other communications.

These documents are accessed frequently by other CEPF grantees, potential partners, and the wider conservation community.

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