



The Rufford Small Grants Foundation

Final Report

Congratulations on the completion of your project that was supported by The Rufford Small Grants Foundation.

We ask all grant recipients to complete a Final Report Form that helps us to gauge the success of our grant giving. We understand that projects often do not follow the predicted course but knowledge of your experiences is valuable to us and others who may be undertaking similar work. Please be as honest as you can in answering the questions – remember that negative experiences are just as valuable as positive ones if they help others to learn from them.

Please complete the form in English and be as clear and concise as you can. We will ask for further information if required. If you have any other materials produced by the project, particularly a few relevant photographs, please send these to us separately.

Please submit your final report to jane@rufford.org.

Thank you for your help.

Josh Cole, Grants Director

Grant Recipient Details	
Your name	Sue Milton
Project title	RENU-KAROO’: Developing indigenous seed orchards and local skills to restore mining and grazing damage in arid Karoo rangeland
RSG reference	21.08.07
Reporting period	2007.09.09-2008.09.08
Amount of grant	5,000 pounds Stirling
Your email address	sukaroo@telkomsa.net
Date of this report	2008.08.31

1. Please indicate the level of achievement of the project's original objectives and include any relevant comments on factors affecting this.

Objective	Not achieved	Partially achieved	Fully achieved	Comments
Collection of indigenous seed from roadsides for use in ecological restoration in arid Karoo rangeland			X	During 2007 and 2008 2 full time and two temporary employees collected a total of 80 kg of seven species indigenous forage plant seeds along roadsides. ^0 kg of these seeds was sold to a total of three landowners for improvement of damaged rangelands. Advice on sowing was supplied with the seeds, and one of the sowing sites received follow up monitoring.
Establishment of an indigenous seed orchard		X		Two hectares of land was planted with three species of locally indigenous forage plant seeds. We attempted to irrigate this using a furrow system. This proved inefficient and a dripper system was installed in June 2008. For this reason, plants established in August 2007 did well in only about 25% of the area. These plants set their first seed crop in August 2008. Following installation of the dripper system in June 2008, the remainder of the area was re-sown and is now well covered with seedlings of forage plants
Production of indigenous plants			X	52 species of indigenous plants (see website for a list) are now being offered for sale in our nursery. These include 10 species of trees, 24 species of succulents and 18 species of small shrubs and herbs. A shade-net structure to protect young plants from harsh conditions is under construction near the seed orchard.
Establishment of restoration field trials.		X		A pilot experiment was established on a sandy footslope in 6 blocks each 20 x 20 m on historically overgrazed land in the Renu-Karoo property in August 2008. As yet no seeds have germinated. Larger-scale trials need to be established on a variety of soil types in autumn and winter. For this we will require student assistance.
Employment of local people to collect and grow seeds of indigenous plants			X	Two previously unemployed local people were employed on a full-time basis throughout the funding period and trained to collect indigenous seed, to make up soil mixes, sow and transplant seeds and to make cuttings.
Make ecological restoration with locally indigenous plants a sought-after service in the Central Karoo		X		To meet this objective we developed and expanded our website, drew up reseeding guidelines that were placed on the website, placed advertisements for our seeds and services in a local newspaper, and in six issues of an environmental management magazine as well as in a farming magazine. We donated 500 indigenous tree

				seedlings for a village woodlot. We also promoted the seed and restoration businesses at an arid ecosystem conference in August 2008.
Involvement of school learners and students	X			Plans to involve students in restoration research and provide training days for school learners were not fulfilled.

2. Please explain any unforeseen difficulties that arose during the project and how these were tackled (if relevant).

The establishment of the irrigation system and seed storage / work shed facility were more expensive than originally anticipated. Minor vandalism necessitated the building of a higher fence around the nursery facility and adding security bars on all doors and windows of the storage and work shed.

3. Briefly describe the three most important outcomes of your project.

Training of staff to identify, collect seeds, and to propagate indigenous plants from seeds and cuttings. These trained people will form the nucleus of a team that will be able to offer seeds and restoration services to farmers, construction companies and mining companies in the area

Establishment of an indigenous seed orchard as this will enable us to supply seed annually in a climate where seeds are produced in only one of three years. We are the only suppliers of indigenous plant seeds of the central Karoo (an area of 20,000 square kilometers), and one of only three businesses supplying this type of service in South Africa.

Successful marketing of our services will ensure the sustainability of the business and thereby the availability of appropriate indigenous seeds and plants for rangeland restoration in the central Karoo.

4. Briefly describe the involvement of local communities and how they have benefitted from the project (if relevant).

Renu-Karoo is a very young business in a small and isolated rural town (7,500 people, 120 km to the next village) where there are few employment opportunities and few skills (40% unemployment). Financial support received from RSG in September 2007/8 and from the Plant Conservation Unit of the University of Cape Town in March 2007 and March 2008, has enabled us to develop the infrastructure for the restoration business and to employ three previously unemployed people on full-time staff basis while training them in a variety of skills that will be marketable outside our project.

5. Are there any plans to continue this work?

Renu-Karoo Veld Restoration cc is a registered business that intends to become fully self-sustaining within 3-5 years. For this reason, we intend to expand our seed collection efficiency, product range and knowledge base as well as improving marketing. We also intend to provide an opportunity for experiential training of technical college students. We envisage accommodating and training 1-2 students annually from colleges that require that agriculture, forestry and nature conservation students

spend the 2nd year of a four-year course gaining work experience. We also plan to arrange day outings for local schools that will incorporate staff and students. These outings will be used to generate awareness of careers in biodiversity-based businesses (including rangeland restoration, horticulture, ecotourism, conservation), to teach them more about local biodiversity and nature's services, and to demonstrate connections between individuals and environmental issues concerning the village (sewage disposal, composting, recycling, food security).

6. How do you plan to share the results of your work with others?

We plan to periodically update the restoration guidelines posted on our website (www.renu-karoo.co.za) as we gain more knowledge. In 2009 we will include technical college students in their experiential training year (see Section 5 above) in our team so that they can gain practical experience of the local flora, indigenous plant propagation and restoration in a semi-desert environment, and we will provide open days for school groups. We plan to write short articles on approaches to restoring the Karoo rangelands with locally indigenous plants for the local newspaper, for popular magazines such as Veld & Flora, Environmental Management and Farmers Weekly, and to send a news item to "Restore" the newsletter of the Society for Ecological Restoration. We will also continue to advertise our services and products by word of mouth and in agricultural and environmental magazines.

7. Timescale: Over what period was the RSG used? How does this compare to the anticipated or actual length of the project?

The RSG funds were used between October 2007 and August 2008. During this time the funds were used to install a drip irrigation system in the seed orchard, purchase a chipper to make compost for growing indigenous plants, buy uniforms for seed and nursery workers, place advertisements in Environmental Management and ProAgri journals and to install a composting toilet at the storage shed facility. The facilities required for the Renu-Karoo seed, nursery and restoration business facilities will take another six months to complete.

8. Budget: Please provide a breakdown of budgeted versus actual expenditure and the reasons for any differences. All figures should be in £ sterling, indicating the local exchange rate used.

Item	Budgeted Amount	Actual Amount	Difference	Comments
Orchard workers/seed collectors (2 x R2500/month x 12)	£4,060.36	£0.00	£4,060.36	Fully paid by Plant Conservation Unit, University of Cape Town
Infrastructure (Storage shed, flush toilet, storage tanks, irrigation)	£9,271.17	£2,449.10	-£6,686.72	RSG covered costs of toilet and irrigation. Renu-karoo covered costs of the erection of the storage shed. The water tanks have not yet been purchased.
Tools and equipment (Compost chipper, spades, watering cans)	£2,070.79	£2,089.48	£18.69	

Travel and accommodation for seed collection	£2,503.89	£345.20	£2,158.69	Travel was less than predicted because 2007 was a dry year with little seed available for harvest along roadsides. The nursery and orchard were established during this time.
Temporary employees for seed collection	£1,218.11	£0.00	£1,218.11	See above.
Advertising	£0.00	£203.02	£203.02	Advertising costs were not budgeted but later considered necessary for promoting the product
TOTAL	£18,988.97	£5,086.80	£13,902.17	

9. Looking ahead, what do you feel are the important next steps?

Completion of the storage and work shed and shade net propagation area, professional training in propagation for all staff, increasing the density of plants in the seed orchard and experimenting with the timing of watering so as to synchronise flowering and dry seed production, establishment of restoration and reseeded experiments on a range of soil types, introduction of an experiential training and school education component in the project, further develop collaboration with the local municipality in biomass and sewage sludge waste reduction, compost making, community woodlot and vegetable gardens and spatial development planning to protect sites of high conservation value from housing development. In addition we intend to obtain conservation status for 80% of the Renu-Karoo property that includes a quartz field floodplain that is habitat for rare endemic succulent plants (*Bijlia dilitata*, *Lithops terricolor*, various species of *Aloe*, *Anacampseros*, *Astroloba*, *Avonia*, *Crassula*, *Haworthia* and many Mesembryanthemaceae) and to develop tourism and educational walking trails to educate local people and visitors about the extraordinary biodiversity of the area.

10. Did you use the RSGF logo in any materials produced in relation to this project? Did the RSGF receive any publicity during the course of your work?

The RSG received publicity in one radio interview, one local newspaper article, and in two conference presentations. The RSG logo was used in the two conference presentations. The RSG logo also appears on the sponsors page of our website.

11. Any other comments?

Actual expenditure on the project in the period Sept 2007-Aug 2008 was **£22,048.73**. We received £5000.00 from RSG. The difference was made up by a donation of £4000.00 by the Plant Conservation Unit (UCT) and by consulting funds generated by Renu-karoo Veld Restoration cc.