

**ZCSD's Implementation Plan
for the
Dukuduku Homestead Food Gardens
Project sponsored by DAEA**

Submitted by:

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COMPANY PROFILE

COMPANY DETAILS

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VISION

To be the preferred providers of Sustainable Community Development in Africa, addressing job creation, food production, through skills transfer and intensive mentorship.

MISSION

To provide excellence in Sustainable Development for our clients, by using sound management techniques in a cost effective and environmentally friendly manner.

OBJECTIVES

- Provide a support centre for Sustainable Rural Development in South Africa which will be used to develop previously disadvantaged communities.
- To ensure that skills are transferred to the local community through an intensive and ongoing education training and mentorship approach.
- Provide accredited training.
- Develop rural communities to enable them to utilise available resources and skills to provide an income.
- Develop sustainable community projects through the establishment of Agri-Villages in South Africa.
- Transfer valuable skills among different communities to allow them to develop into entrepreneurs.
- The establishment of a network of sustainable infrastructures will be used at the ZCSD training centre to demonstrate the process through a hands on practical approach.
- To facilitate the establishment of Joint ventures between community and commercial operations

BACKGROUND AND APPROACH

In early 2002, the Zululand Centre for Sustainable Development was formed as a section 21 company, the details of the directors is found below. ZCSD established a training and

demonstration and support centre which is situated at the old Empangeni water works overlooking Lake Nsese.

Much of ZCSD's experience in the tourism, conservation, biomass and development industry has been hard earned at the "coal face" through ZCSD's implementation of and participation in conservation and environmental projects, establishment of SMME's, project management of and training for community driven projects.

In all our projects a holistic environmentally friendly approach is key to developing sustainable solutions and successful implementation. Where appropriate our project planning provides for cutting edge solutions in respect of waste management, recycling and environmental rehabilitation through our established linkages with leading research and educational institutions. We are proud of the fact that our solutions are practical and implementation orientated and ZCSD is therefore frequently retained to manage the implementation of projects.

ZCSD combines the skills of our associate professionals, who are all experts in their respective fields, to ensure that the appropriate mix of skills and experience is made available to the client. ZCSD is an equal opportunities company, which aims to transfer real capacity to members of the previously disadvantaged communities.

ZCSD is totally committed to building long term business relationships with its clients on the basis of providing a professional and efficient service. ZCSD prides itself on its client base which includes the national Department of Environmental Affairs and Tourism, Tourism KwaZulu Natal, the European Union, WWF-SA, IPS, CHL, Mondi Forests, the National Roads Agency, Ithala Development Bank, Zululand Chamber of Business Foundation, Richards Bay Spatial Development Initiative, Welani Rural Development Trust, RBM, DOA, and many more.

The ZCSD is now fully functional with various demonstration systems including:

- ✓ Permaculture and organic farming
- ✓ Alternative energy and appropriate technology
- ✓ Integrated waste management systems
- ✓ Craft from natural resources
- ✓ Traditional medicinal plants and herbs
- ✓ Aquaculture and Aquaponics
- ✓ Biomass to power
- ✓ Agri-village demonstration unit

A training centre is operating and can accommodate 35 trainees at a time. These courses are registered with the relevant SETA's. ZCSD is currently offering certified courses in the following.

- ✓ Basic Business Skills (including bookkeeping, office management, business types, shareholding, accounting, corporate governance etc.)
- ✓ Permaculture
- ✓ Integrated Waste Management and Recycling
- ✓ Alien Weed Eradication
- ✓ Agri –village design and implementation
- ✓ Micro Enterprises development and management
- ✓ Craft Development
- ✓ Aquaculture and Aquaponics
- ✓ Animal husbandry
- ✓ Biomass harvesting

SERVICES

ZCSD has three key service divisions:

- Natural Areas and Resource Management;
- Projects; and
- Sustainable Systems & Training

Natural Area Management

- Natural resources identification and management planning;
- Social responsibility programmes with neighboring communities;
- Development planning in the fields of tourism, conservation, rehabilitation, waste management and recycling;
- Ongoing holistic management of natural areas for the maximum return to the resource owners;
- Asset management- land maintenance, rehabilitation and erosion control, alien weed eradication,
- Waste management and recycling;
- Skills transfer and capacity building;
- Administration and payroll services.

Project Services

- Preparation of business plans;
- Project management of development projects;
- Environmentally friendly infrastructural services (waterless toilets, enviro-laundries, water purification);
- Feasibility studies and associated research;
- Implementation of alternative energy solutions;
- Strategy and SWOT analysis;
- Fund management;
- Financial structuring and sourcing of funds;
- Establishment and financing of appropriate SMME's;
- Mentoring for SMME's;
- Community liaison, facilitation and capacity building.

Training

- Skills assessment and selection of trainees;
- Sustainable food production;
- Integrated waste management and recycling;
- Rural based eco tourism (guides, cooks, cleaning staff, maintenance, management)
- Crafts from waste and available natural resources (frequently using the timber harvested from alien plant eradication)
- Sustainable forest biomass harvesting;
- Promoting the sustainable use of and propagation of traditional medicinal plants;
- Establishment of SMME's and associated training;
- Good governance procedures;
- Practical Project Management for community projects;
- Community committee training.
- Agri-village design

PROJECT AIMS

Project Goal

To increase household food security, nutritional “incomes” and create self employment opportunities within the target community of Dukuduku.

Project Objectives

- ✘ To train 400 households in sustainable organic agriculture and the principles of permaculture;
- ✘ To supply 400 households with tools, fruit trees, herbs, vetiver grass and seeds required for each household to establish a productive organic home food garden;
- ✘ To create a model integrated agricultural system capable of providing for at least basic nutritional needs of a household.

Activities to achieve Objectives:

A key factor that will lead to the success of the project is the integration of the community garden with traditional crops, fruit & nuts, herbs and muthi plants. In order to achieve these objectives the following activities will be undertaken:

- ✘ Train farmers/gardeners to produce nutritious vegetables, fruit and medicinal herbs which can be consumed by their family.
- ✘ Train participants in sustainable living, permaculture and integrated waste management.
- ✘ Promote organic farming with small-scale farmers making use of permaculture principles that produce a diversity of organic vegetables, fruit and nuts.
- ✘ Promote the integration of general waste in the process, i.e. using tyres for soil conservation structures, erosion control, planting beds and using organic waste for compost production or animal feed.
- ✘ Address water conservation and maximisation in areas which do not have running water, through simple concepts of water harvesting.
- ✘ Promote traditional medicinal systems like basic muthi planting and using natural herbal remedies.
- ✘ Promote the protection of natural water purification filters like wetlands.
- ✘ Establish a hardy indigenous seed source for vegetable crops, including maize, cucumbers, madumbis, cassava, pumpkins, spinach, tomatoes, etc.
- ✘ Encourage composting, natural pest control, inter cropping, crop rotation and companion planting, and
- ✘ Promote nutritional awareness in food selection, preparation, preserving, hygiene and dealing with the elderly, sickly and children who have different nutritional needs.
- ✘ Supply the tools and equipment in a branded carry bag which will be used continuously to store and cart the tools around.
- ✘ Supply ongoing mentorship and support to ensure tool packs are used effectively and to assist with garden implementation.
- ✘ Develop and disseminate information to relevant stakeholders in terms of lessons learned and duplicate to other municipalities, districts.

Training and Mentorship Programme

In order for the Integrated Agricultural project to be sustainable and successful, intensive initial training followed by ongoing mentorship is recommended. Too often communities are

given expensive tools and equipment, inappropriate training is provided, and participants are left to their own devices without any support. All too often community members will undergo a **5 day training course** simply to get the tool pack which is promptly sold at the nearest pawn shop for cash to cater for immediate needs.

The following training recommendations are made based on existing training modules offered by the Zululand Centre for Sustainable Development (ZCSD).

Training Programme

An intensive 5 day residential course will be conducted at each site (local community hall). This course covers in detail all aspects pertaining to the operation of the integrated agricultural cluster including:

- § Ecology – learning from nature
- § Garden design to maximize benefit from natural resources (sun, water, aspect, etc.)
- § Soil fertility – managing and developing the soil
- § Water management – making maximum use of water and reducing evaporation and runoff.
- § Pest management – various natural methods of controlling pests and making your own cocktails
- § Disease management – natural methods of controlling plant disease and making your own cocktails
- § Weed management – natural methods to avoid weed problems
- § Planting schedules – proper planning and timing of planting and harvesting produce
- § Nursery and seed care – managing a plant nursery for seedling production and harvesting and storing seeds.
- § Nutritional benefits of eating organic foods and basic preparation
- § Making compost, compost teas and green manures
- § Pruning trees
- § How to use and care for your tools

Mentoring and Monitoring

Once the community members have undergone their training, a mentoring programme will take place back at their gardens. This mentoring is undertaken by a dedicated mentor. The mentorship programme should continue for **12 months** after training, to ensure the learned skills are being implemented.

Sample homesteads will be chosen at central locations as part of the monitoring process and homestead gardens will be clustered to enable mentorship visits to be easily undertaken.

The monitoring and evaluation programme will ensure that problems at the household level can be picked up early and responded to. Formative evaluation on a monthly basis by the mentor, will include meetings with groups, assessment sheets, and interviews with participants, based on site assessments and sampling. Soil samples and nutritional values of crops will be taken and measured during the entire process to monitor the changes.

Summative evaluation will take place at the end of the project to assess the level of progress and this will take place in the form of assessment sheets, evaluation workshops, interviews, sampling and comparison with ground level nutritional “incomes”.

This Agri-pack will include the following:-

Size Pack	Item Description	Units	Unit Price	Total
	T-shirt (145g , 3 color)	1	38.4	38.4
	Farmers Hat (Branded)	1	50.5	50.5
	Farmer hand file	1	29.4	29.4
	Spade	1	99.2	99.2
	Hoe	1	44.2	44.2
	Hoe Handle	1	30.2	30.2
	Garden Rake	1	63.9	63.9
	Garden Fork	1	141.5	141.5
	Plastic Twine	1	25.2	25.2
500ml	Insecticide Spray Organic	1	70.2	70.2
200ml	Fungal Spray Organic	1	32.8	32.8
50 gram	Insecticide Spray for Caterpillars Organic	1	38.5	38.5
30dm	Compost	1	12.2	12.2
10kg	Fertilizer Organic	1	56.0	56.0
	Spray Bottle - 1Lt	1	33.8	33.8
	Grass Slasher	1	32.3	32.3
	Watering Can	1	46.9	46.9
	Rain Gauge	1	30.1	30.1
	Secateurs	1	25.4	25.4
	Wheel Barrow	1	390.0	390.0
1kg	Maize	1	20.9	20.9
1kg	Dry Beans	1	34.2	34.2
100g	Green Beans	1	18.0	18.0
20g	Cabbage	1	12.0	12.0
10g	Lettuce	1	20.2	20.2
20g	Onions	1	16.2	16.2
20g	Turnips	1	8.7	8.7
10g	Tomatoes	1	15.2	15.2
20g	Pumpkins	1	9.7	9.7
20g	Green Peppers	1	8.7	8.7
20g	Carrots	1	8.7	8.7
20g	Beetroots	1	9.4	9.4

Size Pack	Item Description	Units	Unit Price	Total
20g	Chillies	1	12.5	12.5
Seedlings	Moringa (protein tree)	10	3.5	35.0
Seedlings	Vetiver Grass (erosion control)	30	2.8	82.5
1m	Fruit trees	5	28.0	140.0
Bagged	Herbs	5	14.5	72.5
	Packing bags, storage and deliveries,	1	60.0	60.0
	Branding of wheel barrow, spray bottle, watering can, Rain gauge	1	125.0	125.0
	TOTAL Cost of Agri-pack (Excl VAT):-			2000.0

NB. All tools and products are branded with your corporate branding as well as the two large carry bags which gives our client a very visual impact

Implementation Plan

The Implementation Plan for the Permaculture Homestead Gardens – Phase 1 (400 Homesteads), which incorporates the above agri-pack, is attached herewith. The Implementation Plan includes the following:-

- Scope of Works and associated Project Deliverables
- Project Budget
- Project Programme
- Project Cash Flow

Conclusion

For a rural community, the cost of getting chemical fertilizers and pesticides to their household plots is economically unviable. Farming using organic and permaculture principles can effectively reduce input costs to a minimum. The system is based on low input agriculture and is poison free. This form of agriculture is ideally suitable for the community garden as is dependent on few external inputs and helps to improve the local environment. The demand for organic produce is increasing. From a health point of view, organic produce is increasingly being recognized as superior in nutritional value to conventionally or commercially grown vegetables, which use pesticides and chemical fertilizers.

The costs savings and health benefits for rural communities will only be realized if a programme of mentorship is provided after the intensive training programme. With the correct training and mentoring, as well as integration with poultry and other activities, community gardens run on organic farming principles have the potential to succeed, initially at a subsistence scale but growing sustainably into a commercial scale of operation.

This programme has the potential to be replicated throughout South Africa, and provided a mentorship programme is an integral part of the project, will succeed in addressing the very real threat that rural communities face daily, that of poor nutrition, followed by inadequate development of physical, mental capacity, particularly in our children.

By developing further the existing network of NGO's operating in the field of permaculture, and working with community structures, the nutritional needs of the next generation can be met at household level and ultimately begin contributing to the local and regional economies as skills develop and higher productivity is realized.

But the model is not applicable only to rural communities, as within our "urban" precincts there exists a massive need and large rural communities that rely on home grown vegetables to put food on the table daily.