DEPARTMENT OF ECONOMIC DEVELOPMENT & TOURISM
AGRI-BUSINESS DIRECTORATE

BUSINESS PLAN FOR THE DEVELOPMENT OF ORGANIC FARMING IN KWAZULU-NATAL

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Glossary

CGIAR	International Agricultural Research Centre
DAEA	Department of Agriculture & Environmental Affairs
DEDT	Department of Economic Development & Tourism
DLA	Department of Land Affairs
DoL	Department of Labour
EFTA	European Free Trade Area
EU	European Union
FAO	Food and Agricultural Organisation
IFOAM	International Federation of Organic Agriculture Movements
IWMI	International Water Management Institute
KZN	KwaZulu-Natal
LRAD	Land Redistribution for Agricultural Development
NMPLC	Newlands Mashu Permaculture Learning Centre
PAETA	Primary Agriculture Education and Training Authority
SGG	Small Grower Group

1. INTRODUCTION

This business plan for the "Development of Organic Small Grower Groups" (SGGs) has been prepared for the Agri-Business Directorate of the Department of Economic Development & Tourism (DEDT), who having piloted two projects in Umbumbulu and Ndwedwe for SGGs, now intend to roll out a major development programme for organic SGGs in KwaZulu-Natal.

This initiative follows the identification of the latent potential of largely uncontaminated prime rural land that can be harnessed for the development of organic produce, and, that simultaneously provides much needed socio-economic development to these predominantly marginalised communities. This broad scale initiative is intended to bring prosperity to many emerging farmers who have historically struggled to access the market place. With strategic support, they will be able to obtain the recognition of the worldwide movement in organic products.

This business plan is considered a major catalyst for the motivation of the Dube Trade Port since much of the organic produce from SGGs can be targeted for both the export and local markets. The business plan initially concentrates on the development of SGGs around the periphery of eThekwini Municipality and adjoining municipalities. Should this initial business plan succeed in its objectives and also identify an ongoing need for the expansion of this initiative, then further business plans can be prepared for other SGGs both within the existing target areas for development and areas further afield.

This business plan initially outlines a vision for the development of organic SGGs and then provides a supporting market analysis for organic products. Thereafter, some project experiences from the pilot initiatives are discussed as a means for determining an appropriate development process for organic SGGs. The potential SGGs around the periphery of Durban are then identified in order to highlight the reality of local resources. A development strategy for organic farming in KZN is then outlined. This follows with the presentation of a development programme, budget and funding requirements. The development impact and key performance indicators are then used to motivate the benefits of implementing this business plan. Finally, some programme packaging recommendations are made.

2. DEVELOPMENT VISION FOR ORGANIC FARMING IN KWAZULU-NATAL

The low input costs and clean environmental attributes of organic farming and Permaculture are currently being more widely acknowledged as a leading example of sustainable development. Worldwide, organic products are highly sought after as the general public is becoming increasing conscious of healthier lifestyles and diets. Retailers and wholesalers have also recognised the growth in the organics market, and some of them (such as, Woolworths and Pick-n-Pay) are actively engaged in sourcing organic produce from suppliers.

However, not all land is suitable for organic production since conventional agriculture has laid barren many good lands through overuse of chemical fertilizers and pesticides which are absolute no nos in organic farming. The restoration of conventional farm land for organic production will

sometimes take up to 7 years, if at all, to achieve, thereby making it almost impossible for conventional farmers to afford. Very little pristine land is now available for immediate use for organic production, except for the land used by rural communities on predominantly traditional authority areas. In these areas, there is vast potential to bring together a traditional farming lifestyle with unpolluted land and the availability of nearby sophisticated infrastructure and skilled production and marketing support services and mentors. Organic farming and Permaculture have relatively low external input costs, since no chemical fertilizers and pesticides are used. Organic farming is therefore very attractive and affordable for low income communities to adopt. This opportunity is has been realised by DEDT who have initiated two organic vegetable development projects in Umbumbulu and Ndwedwe which are benefitting the beneficiary communities.

The opportunity now exists to expand the development of SGGs in predominantly traditional authority areas around the periphery of Durban, from Umzumbe down the south coast, inland to Cato Ridge, and northwards to Groutville. Some 60 SGGs have been identified with potential for organic farming. The development of these SGGs will bring much needed socio-economic upliftment to these rural \ peri-urban communities, and make use of the rapidly developing local and world markets for organic produce.

Although the market for organic products has taken some time to establish itself in KZN, the way has been paved for a rapid growth phase as consumers increase demand for organic products. Very few commercial organic framers exist in KZN, and these have taken some time to establish their market linkages. However, almost all organic farmers simply cannot supply enough organic produce to meet demand. To this end, there are now many opportunities for outgrower partnership schemes between commercial organic farmers and SGGs in order to increase supply to the markets, especially, the export markets which are starting to materialise.

The Dube Trade Port has identified the growth in the organics market as a major contributor towards the demand for export air freight to Europe and elsewhere. It has been suggested that an 80 ton load of organic products per week is a target that will improve the viability of the Dube Trade Port. This business plan shows how the development of organic farming in KZN will contribute substantially towards supplying organic products for export.

In developing a bold vision for organic farming in KZN, a prerequisite is the co-operation and partnerships required between commercial organic farmers and SGGs in order to form a stronger bargaining entity against market agents, organic packhouses, retailers and wholesalers. In fact, an organised legal entity representing all organic growers will provide much sought after leadership in an industry wherein good organic control mechanisms are not only essential, but its only comparative advantage against conventional farm products.

Lastly, the growth of the organics market is such that supply cannot meet demand, therefore, there should be no competition amongst organic growers, but rather, co-operation and market intelligence to ensure that all organic growers achieve the best prices for their products.

3. MARKETING ANALYSIS OF ORGANIC PRODUCTS

The market for organic produce has grown rapidly, not only in Europe and the United States, but also in Japan, Australia, Canada, China and more recently, South Africa and other developing countries. Production worldwide is responding to the international pulls of the market, as well as to the push from farmers themselves, away from the use of poisons and cruelty to animals, and towards conservation agriculture and farming with nature. Profile studies of the target market show that 60% of organic products are purchased by only 4% of consumers. A relatively small group of people are very strongly convinced that by supporting organic farmers, they contribute to poverty alleviation, rural development, environmental conservation and the health of their own families. They are willing to pay up to 20% extra for organic produce, provided that they are convinced that it really has been produced organically, and that the farmers are being paid a fair price.

3.1 World Market Trends

At the end of 2002, 23 million ha of land was farmed organically, and half as much again is certified "wild harvesting of plants" (Yussefi and Mitschke, 2003; General Overview of Organic Agriculture). The market for organic products is growing, not only in Europe and North America (which are the major markets) but also in many other countries, including many developing countries. Official interest in organic agriculture is emerging in many countries. The report of the International Federation of Organic Agriculture Movements (IFOAM), based on a survey conducted between October and December 2002 makes reasonably accurate data available for the third year (Yussefi and Willer, 2003; The World of Organic Agriculture: Statistics and Future Prospects). The editors comment that information is now more accessible, although the situation in Latin America, Asia and Africa is still difficult, except where the state is showing an interest in organic agriculture. Until recently, there was wide-spread scepticism towards organic agriculture from international and national scientific organisations, but recently the Food and Agricultural Organisation (FAO) has committed significant resources to the development of organic agriculture, and highlighted its market potential.

Leading countries in organic production are Australia (10.5 million ha), Argentina (3.2 million ha), Italy (1.2 million ha), United States (1 million ha), United Kingdom (0.7 million ha), Uruguay (0.7 million ha), Germany (0.6 million ha), Spain (0.5 million ha), Canada (0.4 million ha) and France (0.4 million ha), according to Yussefi, 2003: Development and State of Organic Agriculture World-wide.

The Global Challenge on Water and Food (launched by the Consultative Group on International Agricultural Research (CGIAR), led by the International Water Management Institute (IWMI)) has found major financial support from the Global Environmental Fund for projects which combine economic, social and environmental considerations, and many of the projects supported are organic community-based agricultural projects, which incorporate strategies for using water more productively. Since organic farming does not make use of water-soluble fertilisers or poisons, it causes far less pollution than conventional agriculture, and water managers are now recognising the importance of these environmental benefits.

The world market in organic produce is currently estimated at US$ 30 billion per year (Kortbech-Olsen, 2003: The World Market for Organic Produce), with the United States market accounting for US$ 13 billion, Europe for US$ 11 billion and Canada for US$ 1 billion. The market in Japan has grown rapidly, but until 2002, sales of "green products" were reported, lumping organic produce with produce from "reduced use of poisons and fertilisers". In 2000 this market was worth US$2 billion. In 2001, the new Japanese Organic Standards were introduced, and sales of certified organic produce for 2003 were estimated at about US$ 400 million. Australia has by far the largest area of certified organic agriculture, but much of this (like South Africa) is extensive grazing land. Total retail sales in Oceania for 2003 are estimated at about US$ 100 million.

3.2 Organic farming in Africa

Charles Walaga of the National Organic Movement of Uganda, reviews organic agricultural development in Africa (2003: Organic Agriculture in Africa). Although his estimate for South African organic agriculture is out of date (45,000 ha in February 2003, whereas it was actually 205,000, after 180,000 ha of extensive grazing in the Karroo was certified organic in 2002), what is of major importance is the shift in policy of governments. Walaga comments "The 'Green Revolution' has had limited success in much of rural Africa, and the use of agrochemicals has remained low in sub-Saharan Africa. Even though for some products (e.g. cotton in Zimbabwe) agrochemicals are used, it can generally be assumed that much of the agricultural production can easily be converted to meet the documentation requirements for organic agriculture. Presently this production is rarely certified, and it is mostly sold on conventional national markets. This probably explains why there is hardly any statistical material for Africa.

"In Africa there is, however, a growing interest in organic farming. The following reasons are given;-

- Disappointment with the technology of the 'Green Revolution', including resource degradation.
- Without state subsidies, even the more promising of the 'Green Revolution' technologies are out of reach for the large majority of farmers.
- When introducing organic farming, indigenous knowledge can be built upon.
- The growing world-wide environmental movement has raised the awareness of the people in Africa, and organic farming is practised to fight erosion and desertification. Organic agriculture practices, where introduced, have reversed resource degradation and resulted in improved land productivity.
- The international market for organic products, with premium prices, is an opportunity for farmers to increase their incomes.

"Organic production is rarely certified, but this year more figures than in previous years [were] obtained. Organic farming is increasing in Africa, especially in the southern countries .... More than 200,000 ha are now managed organically {plus 200,000 ha of extensive land in South Africa - Ed}. Additionally 23,351 ha are certified "wild harvested plants" (Walaga, 2003).

In North Africa, the major producer is Sekem Farms in Egypt, which brings together many small

scale producers, and has pushed certified organic land in Egypt up to 15,000 ha, much of this producing organic cotton and herbs. In Uganda, over 28,000 farmers now farm 122,000 ha organically, producing coffee, cotton, pineapples, bananas, sesame, dried fruit and avocadoes. Morocco has also rapidly increased certified organic production, with 555 farmers producing mainly dried fruit, vegetables and herbs on about 12,000 ha. Zambia and Tanzania recently became more organised by developing their certification capacity, and each country now has over 6,000 ha certified organic. In South Africa, the number of certified producers grew from less than 100 in 1995, to about 250 in 2001, and to about 300 in 2003 (with over 200,000 ha certified organic).

3.3 Trends in Europe

Willer and Richter (Organic Agriculture in Europe, 2003) report that string growth of the organic market continues in Europe in spite of many predictions that organics would never grow beyond a small niche market. They report:

"Since the beginning of the 1990s, organic farming has developed very quickly in almost all European countries. This strong growth is continuing in the new century.

"According to the Swiss Research Institute of Organic Agriculture (FiBL), by the end of 2001 in the 15 EU-countries, 4,442,875 ha were managed organically on 142,348 farms. This constitutes 3.24 percent of the EU agricultural area and 2.04 percent of EU farms.

"If the accession countries and the EFTA countries are included, the number of farms is over 175,000 and the land under organic management totals over 5 million ha. Compared to the previous year this is an increase of 17 % in the organic land area in the EU, and 25% in the EU/accession countries.

"Since the 1990s the strongest growth is found in Scandinavia and the Mediterranean countries. Recently in Germany, and in the United Kingdom, strong growth is also taking place".

See graphic below from Willer and Richter - Development of land under organic management and of organic farms in the European Union 1985 to 2001, Source: FiBL.

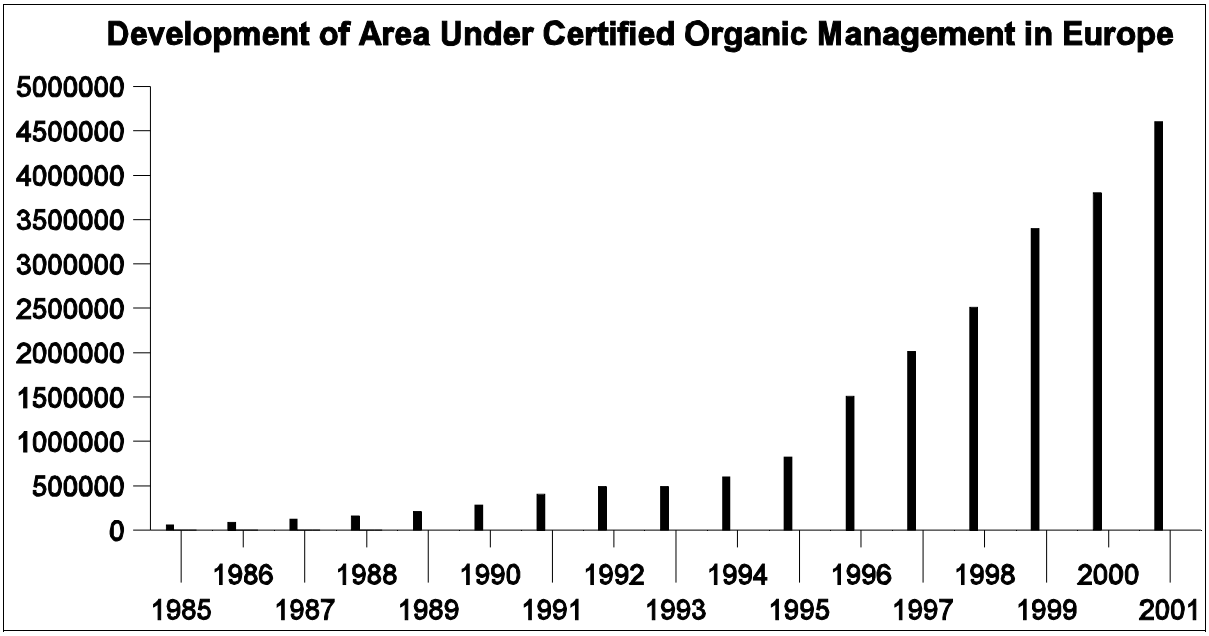
IFOAM Director for International Relations, Bernward Geier, comments that market growth in Europe continues to be strong, and that most European countries import much of their organic food (Germany 50%, UK 70%). Geier summarises the situation by commenting that Austria, Switzerland and Sweden already have more than 10% of their land organically certified, and that Germany's Minister of Agriculture has set a 20% target by the year 2010; Sweden is trying to achieve this goal by 2005. "The EU's 'Action Plan for Organic Agriculture' is taking shape and has the potential to make a significant positive impact on the further development of the organic sector. The European example shows that a favourable political environment, including subsidies for organic farmers, can help to attain substantial percentages of agricultural land."

"A favourable political environment also includes a clear definition of organic agriculture with

legal enforcement. Organic laws are not only important for export, but also for strengthening consumer confidence and building local markets. Therefore the state should set the framework so that regulation is defined, but the specific rules of organic agriculture should be developed and controlled by the private sector.

"In many countries, especially those where organic farming is only beginning to emerge, the lack of credibility of organic products needs to be tackled. Unfortunately there are some cases of deception that lead to uncertainty among consumers. The organic movement faces the challenge of preventing these harmful occurrences" (Geier, 2003).

Figure 3.1 - European trends of organic farmland



Source: After Willer and Richter: Development of Land under Certiied Organic Management in the European Union from 1985 to 2001 (FiBL, 2002).

3.4 South Africa

According to IFOAM President Gunnar Rundgren (2002), South Africa, like Uganda, has a well developed organic sector. South Africa (uniquely in Africa) has a substantial domestic market. Rundgren suggests that this market is ripe for expansion if the confidence of South African consumers can be improved, and if there is government support for the sector. He points out that organic regulations have still not been finalised, and that price premiums for organic produce have not been as substantial as in other countries. This has meant that many South African farmers have concentrated on export markets.

Auerbach (Rainwater Harvesting, Organic farming and Landcare: A vision for uprooting rural poverty in South Africa, 2004) has argued that if South Africa wishes to address rural poverty, strategies have to be developed to tackle food insecurity as well as to develop commercial organic family farms. He proposes that by the year 2050, a million food gardeners should be feeding

themselves from organic gardens in South Africa, while half a million commercial organic farmers should be producing food in a way which is economically profitable, socially equitable and environmentally sustainable. He proposes that water efficient organic farming should become the major thrust of the National Landcare Movement, and that vocational education for farmers, for rural high school students and for agricultural officers should aim to equip these people with the skills that can help them to become world-class farmers. The strategy has already seen courses developed and accredited, and these are being used in the DEDT pilot projects, as well as forming the basis for training of Landcare specialists in three provinces of South Africa. The National Organic Training Group is working with the Primary Agriculture Education and Training Authority (PAETA) to develop an inclusive National Agricultural Education Framework, which will provide accredited training courses at levels One to Five of the National Qualifications Framework.

DEDT has been a lead agent in supporting the development of Pilot Organic Farmers Groups in KwaZulu-Natal, and the co-operation of the South Eastern Region of the KwaZulu-Natal Department of Agricultural and Environmental Affairs (DAEA) has meant that these pilot activities have the potential to grow into a mainstream developmental thrust which can benefit small scale farmers as well as food-insecure households.

Organic SGGs around Durban's periphery already include a well established group at Umbumbulo. This group was certified organic in 2001, then numbering 27 members, and began to supply supermarkets initially with *madumbes*, sweet potatoes and cocktail potatoes. The group set up an effective Internal Control System, and by 2002 had grown to 49 members. By 2003 a total of 160 members were involved in certified organic production. With support from DEDT and the University of Natal, this group has been able to deliver to a local certified packhouse, and gradually expand their production from subsistence to semi-commercial, and soon hopefully some of the farmers will become full-time commercial farmers, supported by the profits from their organic farming enterprises.

In summary, pilot activities have seen the development of courses by Rainman Landcare Foundation (RLF) and Newlands Mashu Permaculture Learning Centre (NMPLC) as part of a national organic farmer training initiative, the development and accreditation of training courses in conjunction with PAETA, the piloting of these courses in three provinces for Agricultural Officers, the establishment and training of two groups of farmers under DEDT's Organic SGG initiative, and the growing interest of the DAEA in organic farming, in recognition of the DEDT's capacity building achievements and pioneering of the market potential.

3.5 The importance of branding

The organic market is a rapidly growing and relatively new market sector. Consumers are often confused about organic certification, and even where they wish to support organic farmers by buying organic produce, they are often unsure of the meaning of the wide range of labels claiming that food products are "natural", "ecological", "biological", "poison-free", "free of Genetically Engineered products" or "produce using Good Agricultural Practices".

Consumer research has shown that leading brands, such as Coca-Cola, Mercedes or Microsoft, are recognised the world over. It is interesting that the same research shows that the word "Zulu" calls up for millions of people around the world the picture of African courage, nobility and strength. The association of these qualities with the people of KwaZulu-Natal and their agricultural practices could form the basis of an effective branding campaign.

For most businesses, the Demand Factor poses an extremely high risk. The Demand Factor includes Product Recognition, Derived Demand and perceived Price/ Benefit ratios. At present, it is difficult to recognise organic products, and the development of a simplified Organic Brand could alleviate this difficulty. Derived Demand is defined as the demand for business-to-business products, which is based on Retailers recognising a niche market, and attempting to source appropriate products to meet this demand. Perceived Price/ Benefit ratios are a way of measuring the commitment of consumers to a particular product characteristic. These three factors were examined in order to develop the branding proposals for KwaZulu-Natal which follow.

The above analysis of market trends and proposals on strategies for support of producers show that markets exist and production capacity could be expanded dramatically. It would be irresponsible to invest in promoting organic production and marketing support infrastructure without a well-thought-through strategy for securing a significant market share.

Currently, the supply of organic produce cannot meet the demand - the UK imports 70% of its organic products, Germany imports at least 50%. Areas such as the US and Norway where formal marketing of organic products has been carried out have experienced the largest market growth. However, winning market share as a new entrant to such a market requires a good understanding of the nature of the market, and of the risks associated both with consumer demand and with perceptions which may affect the consumer's choice of product.

Food from Africa is often seen by European and American consumers as "possibly unhygienic", "subject to profiteering by middle men", and "perhaps unreliable regarding marketing claims". The risks associated with fickle consumer prejudices affect the Demand Factor dramatically, and an effective branding strategy will need to re-assure consumers that any produce associated with a Kwa-Zulu Natal branding campaign fulfils the requirements of the so-called "triple bottom line" - not only is the price competitive (economic bottom line), but the social and environmental bottom lines can also be relied upon. This would mean that a campaign would need to emphasise that small scale farmers are actually benefitting from the price premium which consumers are paying for their organic products (as the popular "Fair Trade" brand already does in Germany). It would also be important that consumers become confident that by supporting these small scale farmers, they will also be benefitting Africa's environment. This means that the organic certification should clearly determine that production practices increase biodiversity, improve animal welfare, use water effectively, conserve soil and avoid the use of poisons, chemical fertilisers and Genetically Engineered products.

If a branding campaign can attract loyal consumers who buy the product because they believe in its quality, wish to support the Zulus in Africa and hope that by doing so they will benefit the African environment, then the fickleness factor will be less likely to give rise to major swings in

demand.

If consumer loyalty can be built up so that a recognisable brand is in demand, then the Derived Demand will increase rapidly. Importers, wholesalers and retailers will be looking for the products which meet the requirements of consumers. Initially, it is suggested that an undifferentiated approach should be used, which simply launches one "Zulu Organic" brand. Possibly, once this brand is established, individual SGGs may develop their own recognisable brands. Stimulating Derived Demand will require a strategy which integrates consumer awareness campaigns with the building of a wholesaler network, including arrangements for financial guarantees, Letters of Credit, efficient management of import requirements, recognition of the equivalence organic certification requirements, and competitive transport rates, which also address consumer requirements on ecologically appropriate forms of transport..

The above requirements have price implications, and a major part of an effective marketing strategy will be convincing both consumers and wholesalers that the produce is landed at a competitive price. While it will not be the cheapest produce available, marketers will need to convince buyers that the products represent value for money. The value to the consumer will include their feeling of solidarity with small scale producers ("I am contributing to poverty alleviation in Africa by building the rural economy of KZN"), solidarity with the environment ("My choice is good for the African environment, and for my Global Village") and investment in a healthy lifestyle ("This product of sunny South Africa is good for my family - it will keep us healthy, and is a sensible investment in cost-effective health care").

In summary, an effective marketing strategy will build a brand based on convincing consumers that "Zulu Organic" means that this product benefits small scale farmers, alleviates poverty, is good for the environment, comes from sunny South Africa where the Rainbow Nation is working together for Peace and Justice, and in particular, is a product of the courageous, noble and strong Zulu nation, and is based on their indigenous agricultural knowledge, and on sustainable traditional practices, monitored by efficient inspection and certification and supported by good science.

4. PROJECT EXPERIENCES IN THE DEVELOPMENT OF ORGANIC SMALL GROWER GROUPS IN KWAZULU-NATAL

This section is designed to show the comparative experiences of two pilot initiatives by DEDT in developing organic SGGs in KZN. In so doing, an appropriate best practice process for the development of SGGs can be charted that also refines how limited resources can be best deployed. It should be noted that the Ndwedwe project is still being implemented whilst the momentum of the Umbumbulu project is being continued by private sector commitment.

Table 4.1 - Comparison between the Umbumbulu and Ndwedwe projects

Activity	Umbumbulu	Ndwedwe
Training	No formal training in organic farming skills.	Formal training in Permaculture and organic farming skills.
Infrastructure	Relatively larger portion of budget spent on fencing.	Relatively smaller portion of budget to be spent on rainwater harvesting systems, fencing and initial seed and plant material.
Institutional Capacity Building	Formation of Farmers Association with bank account. Limited marketing and logistics exposure.	Farmers Association to be established. Exposure to organic markets and logistics has been scheduled.
Mentoring	Farmers have been mentored prior to DEDT initiative, and, have also received ongoing support after completion of DEDT budget.	Limited to budget available from DEDT. No other mentoring resources have been leveraged.
Support by Municipality	No support received from eThekwini Municipality.	Funding motivation has been tabled with Ilembe District Municipality but no response yet.
Support by DAEA	No support received from DAEA.	A business plan for funding from DAEA is being prepared.
Support by Private Sector	Funding received for training of internal organic inspectors and research from University of Natal.	No support yet from organic suppliers.
Infrastructure Budget	More than R142,000	R142, 000
Beneficiaries	Has grown from 27 in 2001 to 160 in 2003.	The first two SGGs numbered about 40 each with a further interest shown by neighbours and surrounding communities. The development of the next two SGGs has just started and a similar number of beneficiaries is anticipated.

A simple comparative analysis of the two projects, will show that the leverage of external resources is critical since this ultimately decides the balance between budget spent on infrastructure and training \ mentoring. In other words, with commitment of external resources,

one can afford to embark on a good training and mentorship programme. However, with no external funding commitment, the best balance is perhaps spending a greater amount on infrastructure to the expense of training and mentoring. It suffices to conclude that the best of both projects is perhaps the ideal solution. However, this means that the initial R500,000 provided by DEDT is insufficient to provide the necessary key deliverables. The discussion of appropriate resources is discussed in the next section.

5. DEVELOPMENT PROCESS FOR ORGANIC SMALL GROWER GROUPS

The aforementioned comparison of project experiences of DEDT funded projects for organic small scale farmers has charted a development process which can be adopted for each SGG. This standard development process simplifies the tender procurement of service providers and the leverage of resources from other stakeholders. It also shows how DEDT still acts as the major initiator and co-opts other stakeholders to continue the development process. This standard development process also enables one to track the development process of SGGs and assess how they are performing against each other by comparison of service providers, community dynamics, geophysical and climatic factors, transport logistics and access to markets, etc. Finally, this standardisation facilitates the understanding of stakeholders towards provision of resources when required.

This standard development process is presented in Table 4.1 below together with proposed funding and budget parameters per task. The detailed budget estimate of objectives has been described as "scope of works" in Schedule 1 in Appendix B. It should also be noted that the budget parameters are based upon the development of two SGG at a time within each area in order to achieve economies of scale for service providers. Each SGG will ideally comprise 20 lead growers from a community group, but may expand by at least twofold as family members and other interested locals start to participate in the on-site support provided during the establishment of the initial infrastructure and institutional capacity building process. Each grower collective is therefore estimated to comprise at least 60 beneficiaries. This expansion of the grower collective will in turn assess the demand for developing additional SGGs within specific areas in future years.

Table 5.1 - Proposed development process for each SGG

#	Task	Objectives	Funding	Budget
1	Preliminary assessment of potential SGG	• To engage potential organic SGGs and disseminate information about organic farming • to undertake a preliminary assessment of organic opportunities for specific SGGs.	DED	R5,000

#	Task	Objectives	Funding	Budget
2	Project packaging for specific SGGs	• To undertake a more detailed site assessment; to consult and secure commitment from the Municipality, Inkosi (PTO) and SGG • To schedule the organic development programme	DED	R10,000
3	Training and orientation programme	• To undertake formal and accredited training in Permaculture \ organic farming techniques • To visit prime examples of Permaculture \ organic farming in order to broaden the learning experience	Do	R36,000
4	Site planning	• To prepare a holistic long term business plan for each SGG in accordance with existing funding policies. • To identify a Phase 1 infrastructure project in terms of the long term plan for each SGG	DED	R25,000
5	Infrastructure development - Phase 1	• To implement the Phase 1 infrastructure • To plant first crops for harvest	DED	R100,000
6	Institutional arrangements	• To assist the SGG to elect a leadership structure and a constitution • To assist the SGG to establish a farmers association with bank account • To assist the farmers association to create an identity, loan account, and bookkeeping system	DED	R17,500
7	Certification	• To train local inspectors for internal monitoring of organic processes • To seek certification by a recognized organic standards body	DED	R28,000

#	Task	Objectives	Funding	Budget
8	Marketing and logistical arrangements	• To take the farmers association to meet organic packhouses \ organic vendors and make necessary supply contracts • To assist with planning of logistics regarding the supply of produce to various markets	DED	R70,000
9	Infrastructure development (Traditional areas) - Phases 2 onwards	• To implement the Phase 2 infrastructure, such as, major rainwater harvesting systems, keyline irrigation systems, wind breaks, etc. • To establish plant nurseries for seedlings and trees	DAE	R400,000
10	Infrastructure development (freehold areas) - Phases 2 onwards	• To implement the Phase 2 infrastructure, such as, major rainwater harvesting systems, keyline irrigation systems, wind breaks, etc. • To establish plant nurseries for seedlings and trees	DL	R400,000
11	Learnership programme	• To undertake a one learnership programme in organic farming	Do	R120,000
12	Mentorship and support	• To provide SGGs \ farmers associations with ongoing dedicated mentoring and support services to deal with issues such as, disease and pest control, improvements and maintenance of infrastructure, market intelligence, etc.	DAE	R180,000
Typical funding package for each SGG of 20 members (note - either 9 or 10				**R991,500**

The above development process for each SGG of 20 farmers is estimated to cost an average R991,500. This budget makes provision for all the project packaging, training, site supervision, site establishment of Phase 1 and 2 infrastructure, institutional arrangements, marketing and logistical arrangements, organic certification, and mentoring.

Tasks 9 and 10 make provision for the minimum entry level of R20,000 grant funding per farmer (20 x R20,000 = R400,000) from either DAEA or DLA / LRAD for the Phase 2 infrastructure

after DEDT has provided the initial R100,000 for the whole SGG. Both the DAEA and DLA / LRAD schemes make provision for expansion up to R100,000 grant funding for a matching R400,000 equity contribution. Herein the likes of the Land Bank and Ithala could play an important role in providing loan finance \ equity contribution. However, this business plan ignores the additional grant funding beyond the initial R20,000 and any possible loan \ equity gearing since these become individual initiatives by each farmer and do not form part of the initial development thrust designed to establish an organic SGG. Nevertheless, the business plan is designed to provide the initial catalytic impetus to SGGs so that they may accelerate the individual development for each farmer.

It should be stressed that the omission of any of the above tasks will compromise the development of potential organic SGGs. In other words, the development process is only as strong as its weakest link. At this stage, none of the two DEDT projects in Umbumbulu and Ndwedwe have undergone the above full development programme, the reason being, there has been very little leverage of funding for site infrastructure from the likes of DAEA and DLA, nor has there been any dedicated mentorship by experienced farmers since this programme has yet to be implemented by DAEA. Nevertheless, the above development process for organic SGGs demonstrates what should be possible if all the funds available can be leveraged.

6. IDENTIFICATION OF SMALL GROWER GROUPS AROUND THE DURBAN PERIPHERY

This section identifies the extent of SGGs around the periphery of Durban that have been exposed to, and\or, have the potential for development into organic growers. The identified SGGs are all located in rural \ peri-urban areas who have access to at least half a hectare each. Although numerous SGGs have been exposed to Permaculture \ organic farming techniques in urban areas, such as, Cato Manor, Umlazi and KwaMashu, these urban areas have been excluded since it is felt that organic certification will be more difficult to achieve than in the rural \ peri-urban areas. The SGGs identified range from Umzumbe on the south coast, inland to Cato Ridge, and, KwaDukuza on the north coast, as outlined in Table 6.1 below and the map in Appendix A.

Table 6.1 - Identification of potential organic SGGs around the Durban periphery

#	Area	Potential Organic SGGs	No. of SGGs
1	Umzumbe	The area inland from Umzumbe \ Hibberdene has long been identified as a development area for small scale farmers. Although much of the area is dominated by sugar cane, there are pockets in between that have potential for organic farming, especially the traditional authority areas. There is potential for the development of at least 4 organic SGGs from this area.	4

#	Area	Potential Organic SGGs	No. of SGGs
2	Vulamehlo	This area is centered around Dududu which is located inland from Umkomaas. Although the area is very hilly, the terrain lends itself towards the establishment of good rainwater harvesting systems. An integrated housing and local economic development project has been initiated in this area by Project Preparation Trust, with particular focus on homestead agriculture. The area also boasts several agricultural initiatives which have been established by DAEA. There is potential for development of at least 4 organic SGGs from Vulamehlo.	4
3	Hull Valley \ Roseneath	There are several well established small scale farmers in Hull Valley who cultivate land on the southern side of the Umkomaas River. These farmers all abstract water from the Umkomaas River for irrigation. However, these farmers do not practice any sustainable farming methods, for example; they cultivate land into wetland areas; use steep land which is not suitable for agriculture; plough perpendicular to contours; and, do not practice any erosion control. Nevertheless, these farmers are enterprising and have managed to establish irrigation systems, even though they denude the landscape. Even though these farmers should be reprimanded for their poor farming practices, they should be given an opportunity to make redress by conversion to organic farming before any more damage is done to the landscape and farming becomes impossible. The major aspect that needs to be addressed is erosion control and the establishment of good rainwater harvesting systems and keyline irrigation systems. There is at least one SGG that can be developed from Hull Valley and one other from nearby Roseneath.	2
4	Umgababa	Representatives from 2 traditional authorities around the Umgababa Dam area have been trained at NMPLC and are thus familiar with Permaculture \ organic farming techniques. The Umgababa Dam is virtually unused and has major potential for an irrigation scheme linked to organic farming. There is potential to develop at least 4 organic SGGs from around this dam.	4

#	Area	Potential Organic SGGs	No. of SGGs
5	Umbumbulu	DEDT has recently piloted an organic development project in this area. The number of farmers who have joined the Ezemvelo Farmers Association has now grown to some 140. All that is now required is to formally develop the new intake of farmers and also prepare business plans for ongoing infrastructure needs. To this end, at least 4 SGGs can be formally developed.	4
6	Maphumalanga	Rainman Landcare Foundation has been instrumental in establishing several community gardening schemes and small scale farmers in the greater Maphumalanga area, in particular, the Umlazi River catchment. There are at least 4 SGGs that have potential to be developed into organic farmers from within this greater area.	4
7	Shongweni	Although fairly steep in places, there are several aspiring community gardening initiatives in the general Shongweni area. These initiatives have potential for the development of 2 organic SGGs.	2
8	KwaXimba	There are several agricultural initiatives alongside the Umsindusi River in the KwaXimba area. The Valley Trust has also exposed some of these initiatives to organic farming techniques. There is potential to formally develop at least 4 SGGs from this area who can add value to existing agricultural schemes.	4
9	Inanda Dam	There are several agricultural initiatives alongside the Umgeni River in the Valley of a Thousand Hills leading to and including the western side of Inanda Dam. The Valley Trust has initiated many agricultural projects in this area using Permaculture \ organic farming techniques. There is potential to add value to all existing agricultural projects by developing at least 6 SGGs from this area.	6

#	Area	Potential Organic SGGs	No. of SGGs
10	Mhqawe (Inanda Dam, near Umzinyathe)	Representatives from 8 gardening clubs have been trained in Permaculture \ organic farming techniques at NMPLC. Further on site investigations indicated a further 8 gardening clubs in the area. An agricultural Development Plan has been prepared for these 16 gardening clubs as part of the Mhqawe integrated rural housing programme. Many of these gardening clubs are located next to or in close proximity of Inanda Dam, whose water can be abstracted for irrigation. Although all 16 gardening clubs have the potential for development into organic SGGs, it is proposed that only 8 SGGs are developed at this stage, the balance being developed in subsequent years.	8
11	Tea Estate	eThekwini Municipality has recently completed a feasibility study for a pilot organic farm in this area. There should be at least 4 SGGs from this area that can be developed into organic farmers.	4
12	Ndwedwe	DEDT is currently developing 2 SGGs from this area. Ilembe Municipality has also counter funded this initiative for another 2 SGGs. Officials from DAEA have also been trained in Permaculture \ organic farming techniques and are now trying to extend organic farming ideas throughout Ndwedwe. There is potential for at least another 4 SGGs from Ndwedwe to be developed into organic farmers.	4
13	Tongaat	There are several successful small scale farmers in the Tongaat area, especially along the coastal R102. It is felt that the expanding organics market will stimulate at least 2 SGGs from Tongaat undergo conversion to organic farming.	2
14	Groutville	The Chief Albert Luthuli Land Reform Upgrade Project has recently granted freehold title to some 3600 beneficiaries in the Groutville area. Some 1100 of these beneficiaries are situated on 2 ha average sites and are already practicing agriculture. There is huge potential to add value onto the land reform project since beneficiaries now own their land and will feel encouraged to invest in agriculture. There is potential for at least 8 SGGs to be developed as organic farmers from Groutville.	8
		Total number of potential SGGs	**60**

This business plan focuses on the development of the above potential SGGs. Needless to say,

each SGG will be carefully evaluated prior to being approved for development. Furthermore, it is envisaged that should this business plan be successfully implemented, then this initial group of 60 will be expanded with new SGGs sought from within existing areas and also further afield.

7. DEVELOPMENT STRATEGY FOR ORGANIC FARMING IN KWAZULU-NATAL

This business plan has thus far recapped on project experiences initiated by DEDT in order to chart a methodology for the development of organic SGGs. Some 60 odd potential organic SGGs around the periphery of Durban have then been identified in order to demonstrate the real opportunity that exists for a broad scale development programme for small scale organic farmers.

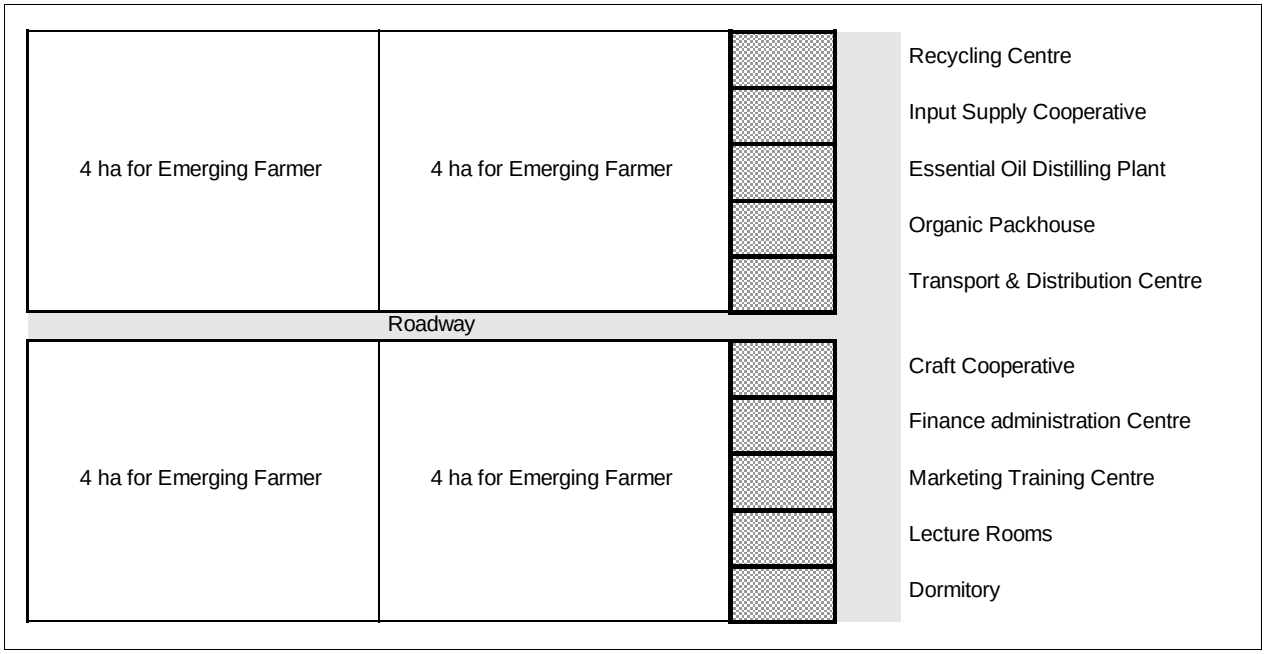
However, this broad scale development programme for SGGs cannot stand alone and will be dependent on several parallel initiatives in order to ensure its successful implementation, in particular, the establishment of the Pilot Organic Farm and related support systems at the proposed Dube Trade Port. More specifically, if the organic industry is to develop in KwaZulu-Natal, and provide the support needed to help local rural people to use their land profitably and sustainably, it will require a hub around which farmers can organise themselves, knowing that certain infrastructure and services are available to ensure that input supplies are available, packhouse facilities function efficiently, market development and diversification takes place as opportunities become available, and cost-effective assistance with transport of produce and input supplies is in place.

The new proposed Dube Trade Port lends itself to a combination of such an infrastructural hub with an organic training farm. Plans for such a hub were included in the business plan for the King Shaka Airport where the Dube Trade Port is located. The pilot organic farm could be divided into perhaps four organic farming units leased to farmers for five years at a time, where these farmers will produce with a little guidance initially, supplying the packhouse and providing a venue which can be visited by aspirant organic farmers, and where economic models can be tested in practice. These farms would combine livestock and crop production to form viable organic units, and would be set up to maximise the benefits of harvesting rainwater from the runways, parking areas and airport building roofs, ensuring that all runoff water is properly purified by incorporating wetland reedbeds in the design (see Concept Design Sketch in Figure 7.1).

The organic farms could be leased for 5 years to historically disadvantaged farmers who will be trained initially and should thereafter be self sufficient with ongoing mentoring. Towards the end of the 5 year lease, arrangements will be made, through the likes of the LRAD programme, to place these farmers on their own suitable commercial organic enterprises, thereby making way for the entry of new historically disadvantaged farmers to take up a 5 year lease.

DEDT has also recently organised a number of sector forums with commercial organic farmers, essential oil producers, cut flower producers, apiarists and crafts people. These forums have

Figure 7.1 - Proposed concept layout for pilot organic farm at Dube Trade Port



highlighted the perceived needs of producers, and the potential for building partnerships between existing commercial organic farmers and emerging small commercial Zulu organic farmers. Furthermore, the forums also identified a leading role that the public sector can provide by establishing an infrastructural hub with a market intelligence component that can facilitate the export growth of agricultural products.

The broad scale development programme for SGGs will need to be carefully co-ordinated and resources co-opted from various funding sources. These development strategies and objectives are now presented below.

Table 7.1 - Development strategies and objectives for organic farming in KwaZulu-Natal

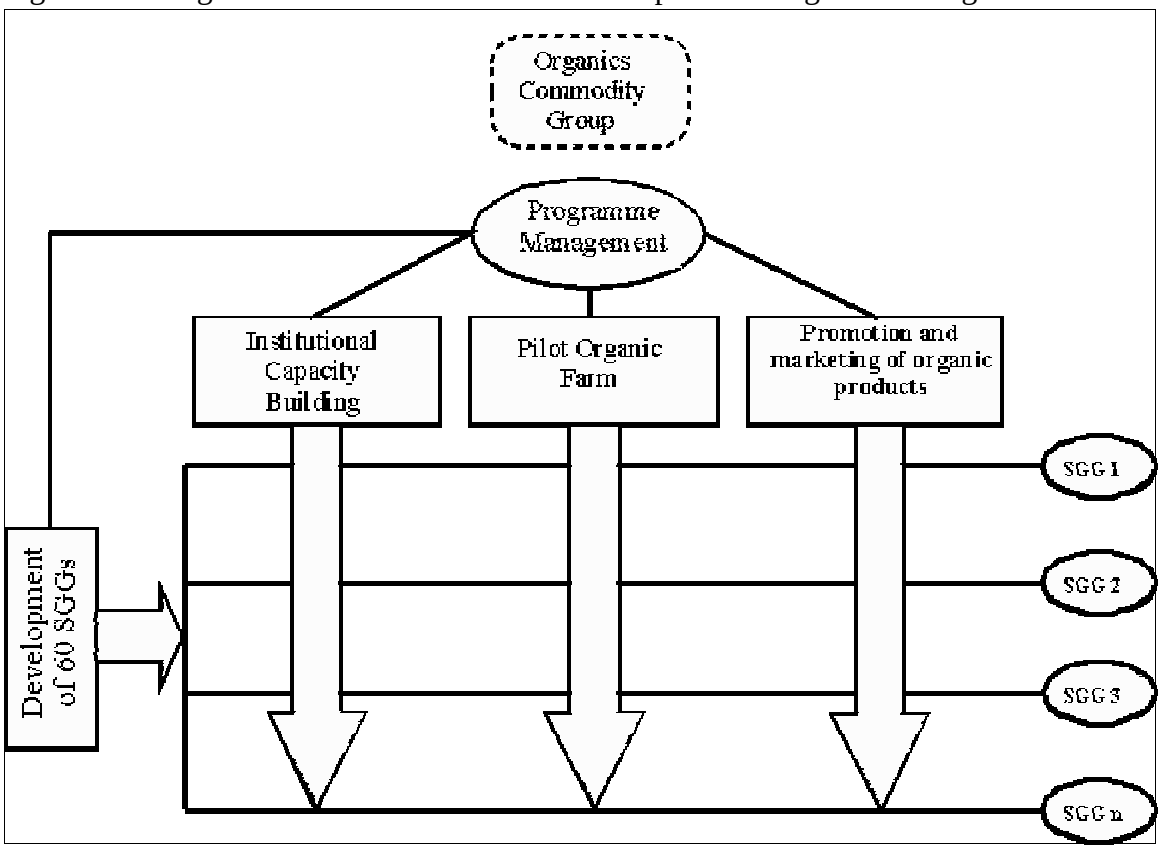
#	Strategy	Fundamental Outputs
1	Development of 60 SGGs around the periphery of Durban	• In-principle support followed by a memorandum of co-operation agreement amongst stakeholders, such as, DAEA, DoL, Municipalities, and, donor agencies, which commit resources to this initiative. • Expansion of data base of service providers and organic farmers who are prepared to undertake mentorship roles for historically disadvantaged small scale farmers. • The adoption of the development approach for SGGs encompassing the following tasks;- training, provision of basic infrastructure, certification, site support, institutional support, extension of infrastructure, learnerships, and, mentorship.
2	Establishment of an Organic	• Preparation of feasibility study and development business plan.

#	Strategy	Fundamental Outputs
	Pilot Farm and related support systems at Dube Trade Port	• Establish several small and adjacent organic demonstration farms which should be operated on a semi-commercial \ commercial basis for trainee farmers who undergo skills training in Permaculture \ organic farming. • Establish an Organic Packhouse, which would receive produce from around the province and process and package this according to the requirements of local supermarkets and overseas clients. • Establish a Finance and Administration Centre to assist with payment for exports and to keep track of deliveries from farmers and payments to them. • Establish an Input Supply Co-operative, where farmers could collect organic fertilisers, seeds, biological pest and disease control agents, literature on organic farming, etc. • Establish a Recycling Centre manufacturing compost and organic fertilisers from city waste. • Establish a Marketing Training Centre, where farmers can learn about the requirements of the market in terms of certification, traceability, packaging, labeling, food safety and pricing. • Establish a Transport and Distribution Centre, which can manage collection and distribution of organic produce and inputs. • General management of the above facilities during planning, site establishment and operation thereof.
3	Promotion and marketing of organic products	• Sensitization of small scale farmers about Permaculture \ organic farming techniques. • Promotion and awareness of organic products amongst local retailers \ wholesalers and the consumer. • Promotion of organic products for the export market in Europe, Asia, USA, etc. • Market intelligence to guide organic farmers towards niche markets and expanding product lines.
4	Institutional Capacity Building	• Establishment of an Organics Commodity Group, representing both small and large scale organic farmers and government officials, which is to take a leadership role in the development of the organics industry in KZN. • Training of officials, especially from DAEA and LED officials from Municipalities, about Permaculture \ organic farming techniques in order to expand capacity for extension services and project packaging. • Institutional support to small organic farmers associations \

#	Strategy	Fundamental Outputs
		co-operatives to assist with financial and general management. • Resourcing of dedicated programme management capacity to assist with the overall management of this initiative.

For the successful unfoldment of the above development strategy for organic farming in KZN, a high degree of institutional co-ordination will be required. In particular, the roles and responsibilities for achieving each strategy need to be clearly delineated. To this end, a matrix driven programme management structure is proposed as shown in Figure 7.2 which encompasses a great deal of public \ private sector partnerships. The programme management component is an entity that is envisaged to grow arising from the institutional capacity building, but will be led by DEDT in partnership with DAEA. In time, the Organics Commodity Group ought to be established as a Section 21 Company, or, KZN Organic Farming Co-operative, which should then become the institutional vehicle for the roll out of the organic farming development in KZN.

Figure 7.2 - Organisational structure for the development of organic farming in KZN



8. PROGRAMME, BUDGET AND FUNDING REQUIREMENTS

A time frame of 5 years is envisaged for the development of 60 SGGs, the Organic Pilot Farm and related support functions. However, the identification and development of additional SGGs further afield, and\or, from within the Durban periphery, should continue beyond the initial 60 SGGs. The support systems for the development of further SGG will then be in place to ensure economies of scale.

The detailed programme, budget and resource distribution for this business plan is contained in Appendix B - Schedules 1, 2 and 3, whilst extracts therefrom are provided below. It should be noted that all budget estimates and resource distributions are in constant prices, that is, inflation has not been factored for distributions. The budget summary is contained in Table 8.1, the funding summary in Table 8.2, and, the funding resource distribution summary in Table 8.3.

Table 8.1 - Budget summary

#	Programme	Budget	% Budget
1	Development of 60 SGGs around the periphery of Durban	R59,490,000	67.6%
2	Establishment of an Organic Pilot Farm and related support systems at Dube Trade Port	R15,418,000	17.5%
3	Promotion and marketing of organic products	R4,920,000	5.6%
4	Institutional capacity building	R8,240,000	9.3%
	Total	**R88,068,000**	**100.0%**

Table 8.2 - Funding summary

#	Funding Source	Funding	% Funding
1	Department of Agriculture & Environmental Affairs (DAEA)	R30,000,000	34.1%
2	Department of Economic Development & Tourism (DEDT)	R32,470,000	36.9%
3	Department of Land Affairs (DLA)	R4,800,000	5.5%
4	Department of Labour (DoL)	R9,860,000	11.2%
5	Department of Trade & Industry (DTI)	R10,938,000	12.3%
	Total	**R88,068,000**	**100.0%**

Table 8.3 - Funding resource distribution summary

#	Funding Source	Total Funding	Year 1	Year 2	Year 3	Year 4	Year 5
			2004\2005	2005\2006	2006\2007	2007\2008	2008\2009
1	DAEA	R30,000,000		R3,840,000	R14,976,000	R7,296,000	R3,888,000
2	DEDT	R32,470,000	R4,156,600	R17,012,700	R5,795,100	R2,820,000	R2,685,600
3	DLA	R4,800,000		R960,000	R2,880,000	R960,000	

4	DoL	R9,860,000	R1,580,000	R2,520,000	R4,320,000	R1,440,000	
5	DTI	R10,938,000	R1,614,000	R3,425,000	R5,899,000		
	Total	**R88,068,000**	**R7,350,600**	**R27,757,700**	**R33,870,100**	**R12,516,000**	**R6,573,600**

The programme and budget is led by initiatives funded by DEDT, which primarily acts as a catalyst for the gearing of other government funding to be spent in accordance to established policies for agricultural development and training schemes. However, should other government funding not materialise, the development programme will need to be curtailed. Alternatively, the entire development programme may be funded by DEDT, which will be somewhat less bureaucratic to implement, but, it may also raise the ire of some government departments.

9. DEVELOPMENT IMPACT AND KEY PERFORMANCE INDICATORS

Should this business plan be implemented, the full projected development impact will only be realised towards the end of the fourth year. By this time, 60 fully fledged SGGs ought to be producing organic products to a growing public and making good income therefrom. A major assumption for the realisation of this vision, is that the Pilot Organic Farm at Dube Trade Port will be established and operational. This Farm will therefore be able to provide a support service to the 60 SGGs and organic commercial farmers. At the same time, a major promotional and marketing initiative of organic products, and, the institutional capacity building of stakeholders involved with the organic farm industry, will also facilitate the growth and expansion of the organics market.

The full spectrum of development impacts and key performance indicators are contained in Appendix C - Schedule 4. For ease of reference, the development impacts are highlighted below in Table 9.1

Table 9.1 - Summary of development impacts

#	Programme	Development Impacts
1	Development of 60 SGGs around the periphery of Durban	By the end of Year 2, when the Phase 1 infrastructure is installed and formal organic development complete, the 60 SGGs will initially be farming 300 ha of land certified for organic products that yield an average net income of R30,000 per ha, or, R9,0m total. The average income per small grower is estimated at R7,500 pa. The volume of organic products produced by the 60 SGGs after Year 2 is estimated to be about 300 tons per annum, or, 25 tons per month based on an average conservative yield of 1 ton per ha. By the end of Year 4, when the Phase 2 infrastructure is installed, the 60 SGGs will be farming a total of 1,500 ha of land certified for organic products that yield an average net income of R30,000 per

#	Programme	Development Impacts
		ha, or, R45,0m total. The average income per small grower is estimated at R37,500 pa. The volume of organic products produced by the 60 SGGs after Year 4 is estimated to be about 1,500 tons per annum, or, 125 tons per month based on an average conservative yield of 1 ton per ha. By the end of Year 2, the total number of people benefitting from the development of 60 SGGs will be, the 1,200 lead growers who have been formally developed, and, an additional 2,400 assistants \ helpers who would have gleaned Permaculture \ organic farming skills through the installation of site infrastructure and on-site mentoring.
2	Establishment of an Organic Pilot Farm and related support systems at Dube Trade Port	By the end of Year 3, the Pilot Organic Farm should be fully operational and become the hub of the organic farming industry in KZN. The Farm will have 12 ha of demonstration farms, an organic packhouse and training facilities. The Farm will also co-ordinate logistics amongst organic growers, the organic packhouse, retailers, wholesalers, and the envisaged PTMO for exports. The organic packhouse should be geared to process all the produce from the 60 SGGs, that is, at least 1,500 tons by the end of Year 4, assuming that an equivalent volume from commercial organic farmers is reaching the market via other means. This broad assumption provides flexibility for SGGs and commercial farmers to process their produce via the organic packhouse at the Pilot Organic Farm or via any other means.
3	Promotion and marketing of organic products	By the end of Year 2 there will be a greater public awareness about organic products in general, and, a growing demand for organic products in KZN and South Africa. SGGs will also be better informed about the advantages of Permaculture \ organic farming techniques. The engagement of marketing specialists will also be able to secure good orders for the growing export and local organics market.
4	Institutional Capacity Building	By the end of Year 2, the organic farming industry in KZN will be well represented by all organic growers through a legal entity that is able to provide good leadership and facilitate the ongoing development of the industry. Officials from DAEA and municipalities will also be more skilled to assist the development of organic SGGs.

Whilst it is difficult to compare the development impact of this business plan with any similar initiative, some development benchmark comparisons are made in Table 9.2 below. This table

compares two sets of development benchmarks, namely, against the total development programme (Budget = R88,068,000), and, against only the development programme for the SGGs (Budget = R59,490,000). The benchmarks for the total development programme are naturally higher, but then, the spinoffs are expected to assist not only the SGGs, but also the commercial organic farmers. Therefore, one should only really use the lower benchmarks for assessing the worth of this programme in creating sustainable jobs amongst rural communities.

Table 9.2 - Development benchmarks

#	Item Compared	Unit Quantity	Development Benchmarks		Benchmark Units
			Per SGG Development Programme	Per Total Development Programme	
1	Budget Comparison		R59,490,000	R88,068,000	Budgets
2	No. of SGGs	60	R991,500	R1,467,800	Budget per SGG
3	No. of Lead Growers	1,200	R49,575	R73,390	Budget per Lead Grower
4	No. of Grower Collectives (1 Lead + 2 Assistants)	3,600	**R16,525**	R24,463	**Budget per Grower Collective**
5	Total hectares cultivated after Year 4	1,500	R39,660	R58,712	Budget per hectare
6	Total Volume in tons after Year 4	1,500	R39,660	R58,712	Budget per ton
7	Total Net Income per annum per Lead Grower after Year 4	R37,500	1.59	2.35	Ratio : Budget per Lead Grower's Income
8	Total Net Income per annum per Grower Collective after Year 4	R12,500	4.76	7.05	Ratio : Budget per Growers' Income

From a development funding perspective, the development benchmark number 3 - Budget per Lead Grower of R49,575, may be compared to the government housing programme of approximately R33,000 per household, which is made up of the housing subsidy of R26,000 and a grant of R7,000 for bulk services. One may argue that rural areas have been marginalised insofar as benefitting from the government's housing delivery programme, hence the intervention of this business plan to improve the socio-economic well being of rural folk and stem the tide towards urbanisation.

Benchmark 4 - Budget per Grower Collective of R16,525 is perhaps the most important factor

since this amount indicates the cost of creating a sustainable job in a rural community.

Another interesting benchmark, number 5 - Budget per hectare of R39,660, may become a unit standard for quickly assessing the development budget for similar schemes. In other words, a budget of approximately R40,000 per hectare may be used for estimating development at full term. However, the R40,000 per hectare is only reached when the impact of the Phase 2 site infrastructure from DAEA, and\or, DLA / LRAD is included, since by this time the support systems have allowed an expansion of physical resources. If the impact of the Phase 2 site infrastructure is omitted, then a budget of approximately R83,000 per hectare can only be achieved, as evidenced in the R500,000 DEDT funded Ndwedwe project which is only developing 6 hectares of land.

It should noted that the aforementioned development impacts and benchmark analysis is conservative and should apply in the event that only the Development Programme for SGGs is undertaken. However, should the parallel development of the Pilot Organic Farm, the Promotions and Marketing of Organic Products, and, the Institutional Capacity Building programmes be undertaken, then the SGGs are expected to increase productivity and associated income levels. In fact, the development of the last three programmes will establish a long term support system for the continued growth of the organic farming industry in KZN.

10. RETURN ON INVESTMENT ANALYSIS

There are many assumptions that make up this business plan, in particular, the amount of government funding that can be committed and the production estimates \ net incomes from SGGs. It is also more than evident that the scale of this development will not only benefit the SGGs, but also commercial organic farmers who will use the proposed facilities at the pilot organic farm and the marketing intelligence network. For this reason, the return on investment analysis from a government viewpoint may be somewhat difficult to verify since no estimates are possible from the private sector at this stage that this type of broadscale development programme can leverage. Nevertheless, an attempt is made to show the investment returns against two yardsticks, namely, against the development of SGGs only, and, against the total programme.

However, as background, some rate of return definitions are required before the investment analysis is presented. The investment analysis is a screening tool to assess the viability of projects and is the “bedrock” on which most project decisions are grounded. Accurate costs are essential to determining a project’s current or future levels of profitability. Moreover, profit maximizing decisions depend of projections of cost at other untried levels of output. From a macro analysis approach, accounting profit is the difference between revenues obtained and expenses incurred, whilst economic profit is the difference between revenues and all economic costs explicit and implicit, including opportunity cost. The concept of opportunity cost focuses explicitly on a comparison of relative positives and negatives. Opportunity cost is measured by the benefits forgone in the next best alternative.

Given this theoretical background and the nature of this development plan, the most appropriate

approach to assess the viability of this project is from an economic profit viewpoint. This means that government funding is not capitalised since it's capital cost is "paid for" from other sources, namely, tax payers. In simple terms, the estimated net income earned by SGGs is used as "positive cash flows" and government funding as "negative cash flows" to assess the return on investment of this development programme. The analytical tools used in this investment analysis uses three methods, namely, the "payback period", the "internal rate of return", and, the "net present value" methods.

The **payback period** is simply the total time in years it takes for the income to equal the total capital cost. However, the simplicity of this method is flawed in that the opportunity cost of capital over time is not taken into account.

A more sofisticated method than the payback period is the **net present value** (NPV) which calculates the net present value of an investment by using a discount rate and a series of future payments (negative values) and income (positive values). A positive NPV indicates the true value of a project after discounting cash flows at a desired rate of return.

The **internal rate of return (IRR)** is another method which calculates the discount rate at which the project's cash flows have a NPV of zero. In short, the internal rate of return is the interest rate received for an investment consisting of payments (negative values) and income (positive values) that occur at regular periods.

Given the above definitions, the investment model is contained in Appendix D wherein Schedule 5 shows the investment raw data whilst Schedule 6 shows the investment results. The latter is also included hereunder as Table 10.1

Table 10.1 - Investment analysis

	Investment analysis against SGG Development only			**Investment analysis against Total Programme**		
	Net Present Values against SGG Development only		**Internal Rate of Return against SGG Development only**	**Net Present Values against Total Programme**		**Internal Rate of Return against SGG Development only**
Period	Social investment discount rate of 6%	Commercial investment discount rate of 20%		Social investment discount rate of 6%	Commercial investment discount rate of 20%	
Year 1	-R523,585	-R462,500	-100.0%	-R4,811,887	-R4,250,500	-100.0%
Year 2	-R14,216,625	-R11,146,875	-100.0%	-R25,511,157	-R20,401,681	-100.0%
Year 3	-R14,817,373	-R11,560,938	-100.0%	-R35,057,712	-R26,981,600	-100.0%
Year 4	R13,146,702	R5,464,525	45.5%	-R9,327,342	-R11,316,090	-100.0%
Year 5	R43,867,980	R21,986,516	85.0%	R19,387,100	R4,126,618	-34.0%
Year 6	R75,591,204	R37,056,925	99.7%	R51,110,324	R19,197,027	9.7%
Year 7	R105,518,774	R49,615,599	105.4%	R81,037,894	R31,755,701	31.8%
	Payback period is 5 Years			**Payback period is 7 Years**		

The investment analysis uses the three aforementioned rate of return methods to assess the

viability of this development programme against two yardsticks, namely, against the against the development of SGGs only, and, against the total programme. From the analysis, all three rate of return methods indicate that the development programme is viable, as summarised in Table 10.2 below.

Table 10.2 - Summary of investment analysis

Rate of return method	Investment analysis against SGG Development only	Investment analysis against the Total Programme
Payback period	Payback period is 5 years	Payback period is 7 years
Net Present Value (NPV)	Positive NPVs at both 6% and 20% from Year 4	Positive NPVs at both 6% and 20% from Year 5
Internal rate of return (IRR)	Positive IRR of 45,5% from Year 4	Positive IRR from Year 6.

The results show a consistent trend in that once government funding has been spent to establish the SGGs and the support components, a platform is set for ongoing income generation without any further government intervention, save for the continued development of new SGGs.

From a purely financial point of view this project is obviously financially viable and attractive to the conservative private sector, which is risk averse. From an economic costing point of view this project is even more attractive. In short, the incomes made by the SGGs go back to the people. Other spinoffs are the economic benefits arising from the many business that will by default start once there is more money circulating in these marginalised rural communities.

11. PROGRAMME PACKAGING

The benchmark analysis highlights that the initial funding provided by DEDT is the catalyst that can leverage other infrastructure funding at economies of scale since much of the ground work in establishing organic SGGs will already have been undertaken. This alone is a huge incentive that demands the counter funding of other government funded programmes, and, the conclusion of partnership agreements of co-operative governance. The implementation of this business plan will also realise more specific budget allocations by government departments who buy into this development programme. In other words, preparation of funding plans immediately starts to become easier since a large amount of funding will be dedicated to this major initiative.

The implementation of this business plan of almost R90,0 million should not be taken lightly, especially given the level of co-operative governance that is required. As a way forward towards the adoption of this business plan, the following steps are recommended;-

- Discussion of this business plan with other government stakeholders, such as, DAEA, DoL, DLA and municipalities, in order to secure endorsement by all stakeholders.

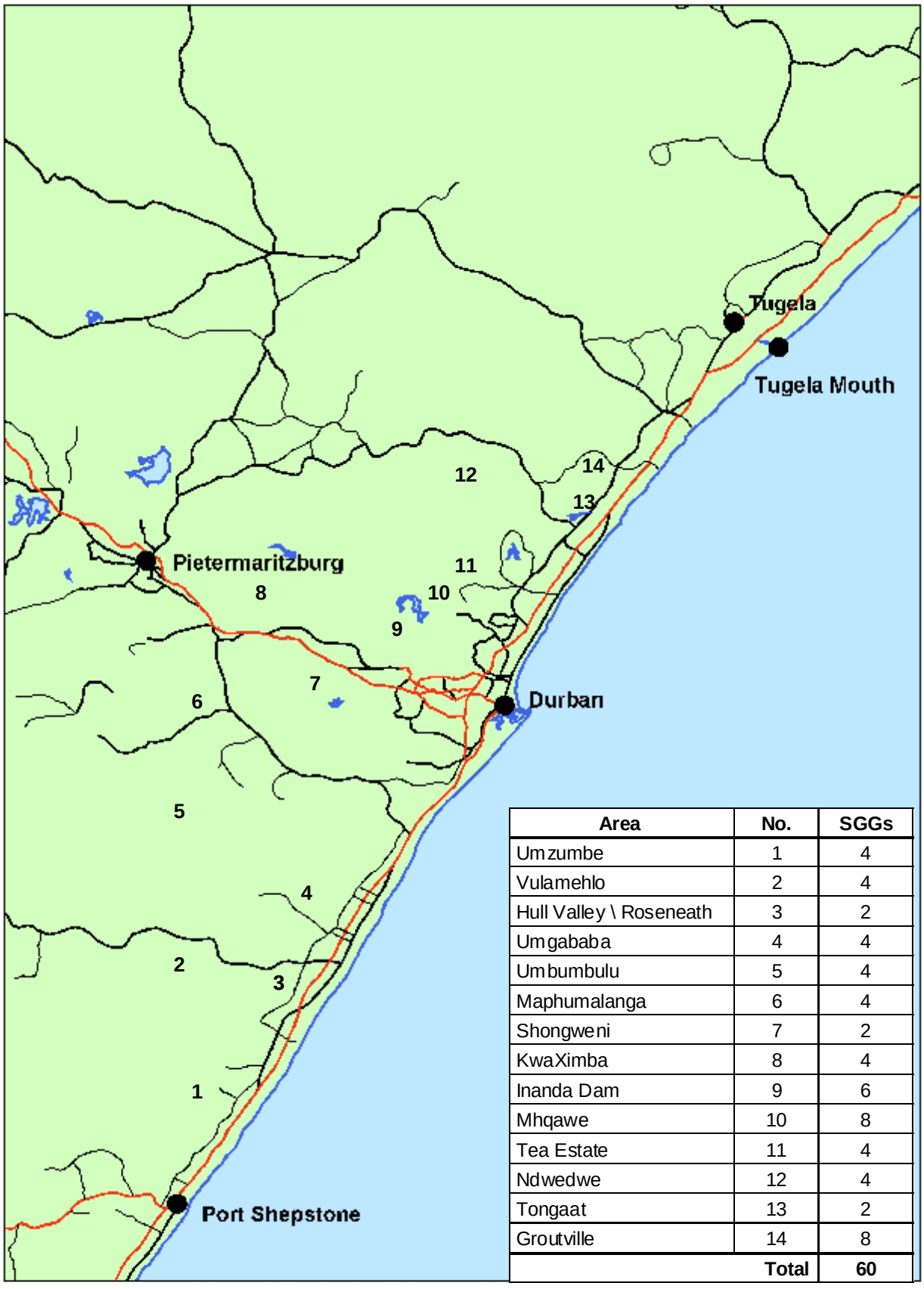
- The adoption of a stakeholder memorandum of agreement that locks in the commitment, especially funding, of government departments. The agreement, however, should stipulate that funding approvals will still need to be properly motivated and approved via normal systems, thereby ensuring adherence to tender and financial control systems.

- Streamlining tender procurement systems through the establishment of a data base of service providers, failing which, there is a real risk that the implementation of the business plan will become very bureaucratic and will take much longer to implement than expected.

Much has been said about co-operative governance, especially since funding form various sources needs to be leveraged. However, the entire development programme may also be funded by DEDT, which will be somewhat less bureaucratic to implement, but, it may also raise concern from some government departments about duplication of policy implementation.

File Name :- C:\Data\DEDT_AB\DEDT_BPs\Organics\DEDT_Organics_BP2.wpd

Appendix A
Locality map of potential organic small grower groups



Area	No.	SGGs
Umzumbe	1	4
Vulamehlo	2	4
Hull Valley \ Roseneath	3	2
Umgababa	4	4
Umbumbulu	5	4
Maphumalanga	6	4
Shongweni	7	2
KwaXimba	8	4
Inanda Dam	9	6
Mhqawe	10	8
Tea Estate	11	4
Ndwedwe	12	4
Tongaat	13	2
Groutville	14	8
	Total	**60**

Appendix B

Programme, budget and resource distribution schedules

Schedule 1 - Budgets and Funding Sources

#	Programmes	Scope of Works	Unit	Quantity	Rate	Budget	Proposed Funders
1	**Development of 60 SGGs around the periphery of Durban**						
1.1	Preliminary assessment of SGG potential	Allowance of 2 days @ R2,500 pd for initial meeting with SGG & prelim. assessment.	SGGs	60	R 5,000	R 300,000	DEDT
1.2	Project packaging for specific SGGs	Allowance of 5 days @ R2,500 pd detailed assessment & scheduling of activities per SGG.	SGGs	60	R 10,000	R 600,000	DEDT
1.3	Training and orientation programme	Provision of 5 days training and 1 day visitation of organic farms @ R5,000 pd plus R1,000 transport pd per SGG.	SGGs	60	R 36,000	R 2,160,000	DoL
1.4	Site planning	Allowance of 10 days @ R2,500 pd for preparation of long term business plan & phase 1 infrastructure per SGG.	SGGs	60	R 25,000	R 1,500,000	DEDT
1.5	Infrastructure development - Phase 1	Provision of R100,000 for fencing, soil preparation, rainwater harvesting systems, keyline irrigation system, and, seed & plant material per SGG.	SGGs	60	R 100,000	R 6,000,000	DEDT
1.6	Institutional arrangements	Allowance of 7 days @ R2,500 pd for workshops and establishment of farmers association per SGG.	SGGs	60	R 17,500	R 1,050,000	DEDT
1.7	Certification	Allowance of R10,000 for organic certification and 3 days training of inspectors @ R6,000 pd per	SGGs	60	R 28,000	R 1,680,000	DEDT
1.8	Marketing and logistical arrangements	Allowance of 20 days @ R2,500 pd + R20,000	SGGs	60	R 70,000	R 4,200,000	DEDT
1.9	Infrastructure development (Traditional areas) - Phases 2	Allowance of R20,000 per farmer in accordance with DAEA infrastructure grant x 20 farmers per	SGGs	48	R 400,000	R 19,200,000	DAEA
1.10	Infrastructure development (freehold areas) - Phases 2 onwards	Allowance of R20,000 per farmer in accordance with LRAD grant x 20 farmers per SGG	SGGs	12	R 400,000	R 4,800,000	DLA
1.11	Learnership programme	Allowance of 20 days advanced training @ R6,000 pd per SGG.	SGGs	60	R 120,000	R 7,200,000	DoL
1.12	Mentorship and support	Allowance of 2 days per month for 3 years @ R2,500 per SGG	SGGs	60	R 180,000	R 10,800,000	DAEA
					Sub-Total 1	**R 59,490,000**	**67.6%**

Schedule 1 - Budgets and Funding Sources

#	Programmes	Scope of Works	Unit	Quantity	Rate	Budget	Proposed Funders
2	**Establishment of an Organic Pilot Farm and related support systems at Dube Trade Port**						
2.1	Preparation of feasibility study and development business plan	Feasibility study & development business plan @ R400,000	sum	1	R 400,000	R 400,000	DEDT
2.2	Establish small demonstration farms	Land clearing & rainwater harvesting system @ R6,600/ha; stablizing plants @ R18,800/ha; composting @ R10,000/ha; 200 trees @ R35 each; seedlings & plant material @ R2,400/ha; prorata borehole @ R6,000; 5kl tanks @ R5,000; keyline \ sprinkler irrigation system @ R50,000/ha; container @ R12,000; tools & equipment @ R20,000; sprayer @ R12,000; 6x4m nursery @ R5,000; fencing @ R50,000; animal traction systems @ R30,000; 1,200 labour days @ R60 pd; and, 60 days management & supervision @ R2,500 pd - for a 2 ha demonstration farm is approximately R538,000 per 2 ha farm, or, R269,000/ha.	ha	12	R 269,000	R 3,228,000	DTI
2.3	Establish an Organic Packhouse	Provision of 600m2 packhouse, including cold rooms & office space @ R2,500/m2, plus equipment @ R500,000.	sum	1	R 2,000,000	R 2,000,000	DTI
2.4	Establish a Finance and Administration Centre	Provision of 200m2 office building @ R3,000/m2	sum	1	R 600,000	R 600,000	DTI
2.5	Establish an Input Supply Co-operative	Provision of 400m2 warehouse @ R2,000/m2 + equipment @ R250,000.	sum	1	R 1,050,000	R 1,050,000	DTI
2.6	Establish a Recycling Centre	Secure a 2000m2 area @ R200/m2, covered area of 400m2 @ R1,500/m2 & small 30m2 office @ R2,000/m2, plus equipment @ R500,000.	sum	1	R 1,560,000	R 1,560,000	DTI
2.7	Establish a Marketing Training Centre	Provision of 400m2 building with training rooms and office space @ R3,000/m2 plus equipment @ R250,000.	sum	1	R 1,450,000	R 1,450,000	DTI
2.8	Establish a Transport and Distribution Centre	Provision of 400m2 warehouse @ R2,000/m2 + equipment @ R250,000.	sum	1	R 1,050,000	R 1,050,000	DTI
2.9	General management of Organic Pilot Farm	Employment of 3 senior professionals @ R250,000 pa for first 3 years, 3 junior managers @ R120,000 pa for year 2 and 3, and thereafter at half rates on a semi-commercial basis for 2 years.	sum	1	R 4,080,000	R 4,080,000	DEDT
					Sub-Total 2	**R 15,418,000**	**17.5%**

Schedule 1 - Budgets and Funding Sources

#	Programmes	Scope of Works	Unit	Quantity	Rate	Budget	Proposed Funders
3	**Promotion and marketing of organic products**						
3.1	Sensitization of small scale farmers about Permaculture \ organic farming	Allowance of 2 days @ R4,000 pd per SGG.	SGGs	120	R 8,000	R 960,000	DEDT
3.2	Promotion and awareness of organic products	Allowance of R20,000 pm for 4 years	months	48	R 20,000	R 960,000	DEDT
3.3	Promotion of organic products for the export market	Marketing specialist @ R30,000 pm for 3 years	months	36	R 30,000	R 1,080,000	DEDT
3.4	Market intelligence research	Market research team @ R40,000 pm for 4 years	months	48	R 40,000	R 1,920,000	DEDT
					Sub-Total 3	**R 4,920,000**	**5.6%**
4	**Institutional Capacity Building**						
4.1	Establishment and secretariat of an Organics Commodity Group	Allowance of 120 days pa @ R3,000 pd for 4 years	days	480	R 3,000	R 1,440,000	DEDT
4.2	Training of officials in Permaculture \ organic farming techniques	Training of 200 officials in 10 groups for 10 days @ R50,000 per group	groups	10	R 50,000	R 500,000	DoL
4.3	Institutional support to small organic farmers	Allowance of 1 day per month @ R2,500 for 2 years per SGG	SGGs	60	R 60,000	R 3,600,000	DEDT
4.4	Programme management of overall Organics Development Programme in KZN	Allowance of 1 senior project manager @ R300,000 pa for 5 years & 2 junior project managers @ R150,000 pa for 4 years	sum	1	R 2,700,000	R 2,700,000	DEDT
					Sub-Total 4	**R 8,240,000**	**9.4%**

Total		**R 88,068,000**	**100.0%**
Total Budget per Funder	34.1%	R 30,000,000	**DAEA**
	36.9%	R 32,470,000	**DEDT**
	5.5%	R 4,800,000	**DLA**
	11.2%	R 9,860,000	**DoL**
	12.4%	R 10,938,000	**DTI**

Schedule 2 - Gantt Chart & Resource % Distribution

#	Programmes	Budget	Proposed Funders	Year 1				Year 2				Year 3				Year 4				Year 5				Total Resources
				2004\2005				2005\2006				2006\2007				2007\2008				2008\2009				
				Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	
1	**Development of 60 SGGs around the periphery of Durban**																							
1.1	Preliminary assessment of SGG potential	R 300,000	DEDT		50%	50%																		100.0%
1.2	Project packaging for specific SGGs	R 600,000	DEDT		25%	25%	25%	25%																100.0%
1.3	Training and orientation programme	R 2,160,000	DoL			25%	25%	25%	25%															100.0%
1.4	Site planning	R 1,500,000	DEDT				25%	25%	25%	25%														100.0%
1.5	Infrastructure development - Phase 1	R 6,000,000	DEDT				10%	25%	25%	25%	15%													100.0%
1.6	Institutional arrangements	R 1,050,000	DEDT					10%	25%	25%	25%	15%												100.0%
1.7	Certification	R 1,680,000	DEDT					10%	25%	25%	25%	15%												100.0%
1.8	Marketing and logistical arrangements	R 4,200,000	DEDT					10%	25%	25%	25%	15%												100.0%
1.9	Infrastructure development (Traditional areas) - Phases 2 onwards	R 19,200,000	DAEA							10%	10%	15%	15%	15%	15%	10%	10%							100.0%
1.10	Infrastructure development (freehold areas) - Phases 2 onwards	R 4,800,000	DLA							10%	10%	15%	15%	15%	15%	10%	10%							100.0%
1.11	Learnership programme	R 7,200,000	DoL							10%	10%	15%	15%	15%	15%	10%	10%							100.0%
1.12	Mentorship and support	R 10,800,000	DAEA									8%	8%	8%	8%	8%	8%	8%	8%	9%	9%	9%	9%	100.0%
	Sub-Total 1	**R 59,490,000**																						
2	**Establishment of an Organic Pilot Farm and related support systems at Dube Trade Port**																							
2.1	Preparation of feasibility study and development business plan	R 400,000	DEDT	50%	50%																			100.0%
2.2	Establish small demonstration farms	R 3,228,000	DTI			15%	35%	30%	20%															100.0%
2.3	Establish an Organic Packhouse	R 2,000,000	DTI					5%	5%	10%	30%	30%	20%											100.0%
2.4	Establish a Finance and Administration Centre	R 600,000	DTI					5%	5%	10%	30%	30%	20%											100.0%
2.5	Establish an Input Supply Co-operative	R 1,050,000	DTI							5%	5%	10%	30%	30%	20%									100.0%
2.6	Establish a Recycling Centre	R 1,560,000	DTI							5%	5%	10%	30%	30%	20%									100.0%
2.7	Establish a Marketing Training Centre	R 1,450,000	DTI							5%	5%	10%	30%	30%	20%									100.0%
2.8	Establish a Transport and Distribution Centre	R 1,050,000	DTI							5%	5%	10%	30%	30%	20%									100.0%
2.9	General management of Organic Pilot Farm	R 4,080,000	DEDT		5%	6%	6%	6%	6%	6%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	100.0%
	Sub-Total 2	**R 15,418,000**																						
3	**Promotion and marketing of organic products**																							
3.1	Sensitization of small scale farmers about Permaculture \ organic farming	R 960,000	DEDT	40%	40%	10%	10%																	100.0%
3.2	Promotion and awareness of organic products	R 960,000	DEDT					5%	5%	5%	5%	5%	5%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	100.0%
3.3	Promotion of organic products for the export market	R 1,080,000	DEDT									7%	7%	7%	7%	9%	9%	9%	9%	9%	9%	9%	9%	100.0%
3.4	Market intelligence research	R 1,920,000	DEDT					7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	5%	5%	5%	5%	5%	5%	100.0%
	Sub-Total 3	**R 4,920,000**																						
4	**Institutional Capacity Building**																							
4.1	Establishment and secretariat of an Organics Commodity Group	R 1,440,000	DEDT					7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	5%	5%	5%	5%	5%	5%	100.0%
4.2	Training of officials in Permaculture \ organic farming techniques	R 500,000	DoL	10%	30%	30%	30%																	100.0%
4.3	Institutional support to small organic farmers	R 3,600,000	DEDT					10%	12%	13%	13%	13%	13%	13%	13%									100.0%
4.4	Programme management of overall Organics Development Programme in	R 2,700,000	DEDT	2%	3%	4%	5%	6%	6%	6%	6%	6%	6%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	100.0%
	Sub-Total 4	**R 8,240,000**																						
	Total	**R 88,068,000**																						

Schedule 3 - Budget Funding Distributions

#	Programmes	Budget	Proposed Funders	Year 1	Year 2	Year 3	Year 4	Year 5
				2004\2005	2005\2006	2006\2007	2007\2008	2008\2009
1	**Development of 60 SGGs around the periphery of Durban**							
1.1	Preliminary assessment of SGG potential	R 300,000	DEDT	R 300,000	R 0	R 0	R 0	R 0
1.2	Project packaging for specific SGGs	R 600,000	DEDT	R 450,000	R 150,000	R 0	R 0	R 0
1.3	Training and orientation programme	R 2,160,000	DoL	R 1,080,000	R 1,080,000	R 0	R 0	R 0
1.4	Site planning	R 1,500,000	DEDT	R 375,000	R 1,125,000	R 0	R 0	R 0
1.5	Infrastructure development - Phase 1	R 6,000,000	DEDT	R 600,000	R 5,400,000	R 0	R 0	R 0
1.6	Institutional arrangements	R 1,050,000	DEDT	R 0	R 892,500	R 157,500	R 0	R 0
1.7	Certification	R 1,680,000	DEDT	R 0	R 1,428,000	R 252,000	R 0	R 0
1.8	Marketing and logistical arrangements	R 4,200,000	DEDT	R 0	R 3,570,000	R 630,000	R 0	R 0
1.9	Infrastructure development (Traditional areas) - Phases 2 onwards	R 19,200,000	DAEA	R 0	R 3,840,000	R 11,520,000	R 3,840,000	R 0
1.10	Infrastructure development (freehold areas) - Phases 2 onwards	R 4,800,000	DLA	R 0	R 960,000	R 2,880,000	R 960,000	R 0
1.11	Learnership programme	R 7,200,000	DoL	R 0	R 1,440,000	R 4,320,000	R 1,440,000	R 0
1.12	Mentorship and support	R 10,800,000	DAEA	R 0	R 0	R 3,456,000	R 3,456,000	R 3,888,000
	Sub-Total 1	**R 59,490,000**		**R 2,805,000**	**R 19,885,500**	**R 23,215,500**	**R 9,696,000**	**R 3,888,000**
2	**Establishment of an Organic Pilot Farm and related support systems at Dube Trade Port**							
2.1	Preparation of feasibility study and development business plan	R 400,000	DEDT	R 400,000	R 0	R 0	R 0	R 0
2.2	Establish small demonstration farms	R 3,228,000	DTI	R 1,614,000	R 1,614,000	R 0	R 0	R 0
2.3	Establish an Organic Packhouse	R 2,000,000	DTI	R 0	R 1,000,000	R 1,000,000	R 0	R 0
2.4	Establish a Finance and Administration Centre	R 600,000	DTI	R 0	R 300,000	R 300,000	R 0	R 0
2.5	Establish an Input Supply Co-operative	R 1,050,000	DTI	R 0	R 105,000	R 945,000	R 0	R 0
2.6	Establish a Recycling Centre	R 1,560,000	DTI	R 0	R 156,000	R 1,404,000	R 0	R 0
2.7	Establish a Marketing Training Centre	R 1,450,000	DTI	R 0	R 145,000	R 1,305,000	R 0	R 0
2.8	Establish a Transport and Distribution Centre	R 1,050,000	DTI	R 0	R 105,000	R 945,000	R 0	R 0
2.9	General management of Organic Pilot Farm	R 4,080,000	DEDT	R 693,600	R 938,400	R 816,000	R 816,000	R 816,000
	Sub-Total 2	**R 15,418,000**		**R 2,707,600**	**R 4,363,400**	**R 6,715,000**	**R 816,000**	**R 816,000**
3	**Promotion and marketing of organic products**							
3.1	Sensitization of small scale farmers about Permaculture \ organic farming	R 960,000	DEDT	R 960,000	R 0	R 0	R 0	R 0
3.2	Promotion and awareness of organic products	R 960,000	DEDT	R 0	R 192,000	R 230,400	R 268,800	R 268,800
3.3	Promotion of organic products for the export market	R 1,080,000	DEDT	R 0	R 0	R 302,400	R 388,800	R 388,800
3.4	Market intelligence research	R 1,920,000	DEDT	R 0	R 537,600	R 537,600	R 460,800	R 384,000
	Sub-Total 3	**R 4,920,000**		**R 960,000**	**R 729,600**	**R 1,070,400**	**R 1,118,400**	**R 1,041,600**
4	**Institutional Capacity Building**							
4.1	Establishment and secretariat of an Organics Commodity Group	R 1,440,000	DEDT	R 0	R 403,200	R 403,200	R 345,600	R 288,000
4.2	Training of officials in Permaculture \ organic farming techniques	R 500,000	DoL	R 500,000	R 0	R 0	R 0	R 0
4.3	Institutional support to small organic farmers	R 3,600,000	DEDT	R 0	R 1,728,000	R 1,872,000	R 0	R 0
4.4	Programme management of overall Organics Development Programme in KZN	R 2,700,000	DEDT	R 378,000	R 648,000	R 594,000	R 540,000	R 540,000
	Sub-Total 4	**R 8,240,000**		**R 878,000**	**R 2,779,200**	**R 2,869,200**	**R 885,600**	**R 828,000**
	Total	**R 88,068,000**		**R 7,350,600**	**R 27,757,700**	**R 33,870,100**	**R 12,516,000**	**R 6,573,600**

DAEA	R 30,000,000	34.1%	R 0	R 3,840,000	R 14,976,000	R 7,296,000	R 3,888,000
DEDT	R 32,470,000	36.9%	R 4,156,600	R 17,012,700	R 5,795,100	R 2,820,000	R 2,685,600
DLA	R 4,800,000	5.5%	R 0	R 960,000	R 2,880,000	R 960,000	R 0
DoL	R 9,860,000	11.2%	R 1,580,000	R 2,520,000	R 4,320,000	R 1,440,000	R 0
DTI	R 10,938,000	12.4%	R 1,614,000	R 3,425,000	R 5,899,000	R 0	R 0
Total	**R 88,068,000**	**100.0%**	**R 7,350,600**	**R 27,757,700**	**R 33,870,100**	**R 12,516,000**	**R 6,573,600**

Appendix C

Development impacts and key performance indicators

Schedule 4 - Development impacts and key performance indicators

#	Programmes	Key Performance Indicators	Development Impact
1	**Development of 60 SGGs around the periphery of Durban**		
1.1	Preliminary assessment of SGG potential	Preliminary assessment of 60 SGGs or 1,200 individual growers who will involve at least 2,400 assistants through the development process.	By the end of Year 2, when the Phase 1 infrastructure is installed and formal organic development complete, the 60 SGGs will initially be farming 300 ha of land certified for organic products that yield an average income of R30,000 per ha, or, R9,0m total. The average income per small grower is estimated at R7,500 pa. The volume of organic products produced by the 60 SGGs after Year 2 is estimated to be about 300 tons per annum, or, 25 tons per month based on an average conservative yield of 1 ton per ha.
1.2	Project packaging for specific SGGs	Packaging of development itinerary for 60 SGGs or 1,200 small growers.	
1.3	Training and orientation programme	6 Days formal training and orientation in Permaculture \ organic farming for each SGG which amounts to 7,200 training days and certificates for 1,200 small	
1.4	Site planning	Business plans for 60 SGGs that delineate the Phase 1 and Phase 2 infrastructure requirements.	
1.5	Infrastructure development - Phase 1	Minimum Phase 1 infrastructure of 5 ha per SGG, or, 300 ha in total.	By the end of Year 4, when the Phase 2 infrastructure is installed, the 60 SGGs will be farming a total of 1,500 ha of land certified for organic products that yield an average income of R30,000 per ha, or, R45,0m total. The average income per small grower is estimated at R37,500 pa. The volume of organic products produced by the 60 SGGs after Year 4 is estimated to be about 1,500 tons per annum, or, 125 tons per month based on an average conservative yield of 1 ton per ha.
1.6	Institutional arrangements	Establishment of 60 farmers associations with operational bank account and constitution.	
1.7	Certification	60 SGGs certified as organic growers.	
1.8	Marketing and logistical arrangements	Linkage to markets and logistical arrangements thereto for each SGG.	
1.9	Infrastructure development (Traditional areas) - Phases 2 onwards	Minimum Phase 2 infrastructure of 20 ha per SGG, or, 960 ha in total for 48 SGGs located in traditional authority areas.	
1.10	Infrastructure development (freehold areas) - Phases 2 onwards	Minimum Phase 2 infrastructure of 20 ha per SGG, or, 240 ha in total for 12 SGGs located on freehold property.	By the end of Year 2, the total number of people benefitting from this development of 60 SGGs will be, the 1,200 growers who have been formally developed, and, an additional 2,400 assistants \ helpers who would have gleaned Permaculture \ organic farming skills through the installation of site infrastructure and on-site mentoring.
1.11	Learnership programme	20 Days advanced learnership training per SGG, or, 1,200 training days in total.	
1.12	Mentorship and support	72 Days mentorship per SGG, or, 4,320 mentorship days in total.	

Schedule 4 - Development impacts and key performance indicators

#	Programmes	Key Performance Indicators	Development Impact
2	**Establishment of an Organic Pilot Farm and related support systems at Dube Trade Port**		
2.1	Preparation of feasibility study and development business plan	Feasibility study & development business plan.	By the end of Year 3, the Pilot Organic Farm should be fully operational and become the hub of the organic farming industry in KZN. The Farm will have 12 ha of demonstration farms, an organic packhouse and training facilities. The Farm will also co-ordinate logistics amongst organic growers, the organic packhouse, retailers, wholesalers, and the envisaged PTMO for exports. The organic packhouse should be geared to process all the produce from the 60 SGGs, that is, at least 1,500 tons by the end of Year 4, assuming that an equivalent volume from commercial organic farmers is reaching the market via other means. This broad assumption provides flexibility for SGGs and commercial farmers to process their produce via the organic packhouse at the Pilot Organic Farm or via any other means.
2.2	Establish small demonstration farms	6 x 2ha fully functional organic demonstration farms complete with all soil improvements, rainwater harvesting systems, keyline irrigation system, fencing, trees, plant material, store room and tools.	
2.3	Establish an Organic Packhouse	600m2 packhouse, including cold rooms, office space and equipment.	
2.4	Establish a Finance and Administration Centre	200m2 office building.	
2.5	Establish an Input Supply Co-operative	400m2 warehouse and equipment.	
2.6	Establish a Recycling Centre	2000m2 secured area, covered area of 400m2, small 30m2 office and equipment.	
2.7	Establish a Marketing Training Centre	400m2 building with training rooms, office space and equipment.	
2.8	Establish a Transport and Distribution Centre	400m2 warehouse and equipment.	
2.9	General management of Organic Pilot Farm	Engagement of a dedicated full-time project team for the first 3 years and thereafter on a semi-commercial basis to operate the Pilot Organic Farm and support systems for the organic farm industry in KZN.	
3	**Promotion and marketing of organic products**		
3.1	Sensitization of small scale farmers about Permaculture \ organic farming	Permaculture \ organic farming awareness workshops with 120 SGGs, or, 60 SGGs and 60 urban based gardening clubs.	By the end of Year 2 there will be a greater public awareness about organic products in general, and, a growing demand for organic products. SGGs will also be better informed about the advantages of Permaculture \ organic farming techniques. The engagement of marketing specialists will also be able to secure good orders for the growing export and local organics market.
3.2	Promotion and awareness of organic products	Monthly articles and advertising about organic food.	
3.3	Promotion of organic products for the export market	Engagement of market specialists to secure orders for the export and local market.	
3.4	Market intelligence research	Engagement of market specialists to provide market intelligence about niche products.	

Schedule 4 - Development impacts and key performance indicators

#	Programmes	Key Performance Indicators	Development Impact
4	**Institutional Capacity Building**		
4.1	Establishment and secretariat of an Organics Commodity Group	Establishment of and secretariat to a formal entity for organic growers with representation from SGGs, commercial farmers and government.	By the end of Year 2, the organic farming industry in KZN will be well represented by all organic growers through a legal entity that is able to provide good leadership and facilitate the ongoing development of the industry. Officials from DAEA and municipalities will also be more skilled to assist the development of organic SGGs.
4.2	Training of officials in Permaculture \ organic farming techniques	Training of 200 officials Permaculture \ organic farming techniques.	
4.3	Institutional support to small organic farmers	24 Days managerial assistance per SGG, or, 1,440 days assistance in total to 60 SGGs.	
4.4	Programme management of overall Organics Development Programme in KZN	Engagement of dedicated programme management team to assist DEDT with the overall implementation of the business plan.	

Appendix D

Investment analysis model

Schedule 5 - Investment model raw data

Period	Government Funding		Net Income for SGGs		Net Cash Flows per annum		Cumulative Net Cash Flows	
	Funding of SGG Development	Total Programme Funding	Annual Income for SGGs	Cumulative Income for SGGs	Against SGG Development	Against Total Programme	Against SGG Development	Against Total Programme
Year 1	-R 2,805,000	-R 7,350,600	R 2,250,000	R 2,250,000	-R 555,000	-R 5,100,600	-R 555,000	-R 5,100,600
Year 2	-R 19,885,500	-R 27,757,700	R 4,500,000	R 6,750,000	-R 15,385,500	-R 23,257,700	-R 15,940,500	-R 28,358,300
Year 3	-R 23,215,500	-R 33,870,100	R 22,500,000	R 29,250,000	-R 715,500	-R 11,370,100	-R 16,656,000	-R 39,728,400
Year 4	-R 9,696,000	-R 12,516,000	R 45,000,000	R 74,250,000	R 35,304,000	R 32,484,000	R 18,648,000	-R 7,244,400
Year 5	-R 3,888,000	-R 6,573,600	R 45,000,000	R 119,250,000	R 41,112,000	R 38,426,400	R 59,760,000	R 31,182,000
Year 6			R 45,000,000	R 164,250,000	R 45,000,000	R 45,000,000	R 104,760,000	R 76,182,000
Year 7			R 45,000,000	R 209,250,000	R 45,000,000	R 45,000,000	R 149,760,000	R 121,182,000
Total funding	-R 59,490,000	-R 88,068,000						

Schedule 6 - Investment analysis

Period	Investment analysis against SGG Development only			Investment analysis against Total Programme		
	Net Present Values against SGG Development only		Internal Rate of Return against SGG Development only	Net Present Values against Total Programme		Internal Rate of Return against SGG Development only
	Social investment discount rate of 6%	Commercial investment discount rate of 20%		Social investment discount rate of 6%	Commercial investment discount rate of 20%	
Year 1	-R 523,585	-R 462,500	-100.0%	-R 4,811,887	-R 4,250,500	-100.0%
Year 2	-R 14,216,625	-R 11,146,875	-100.0%	-R 25,511,157	-R 20,401,681	-100.0%
Year 3	-R 14,817,373	-R 11,560,938	-100.0%	-R 35,057,712	-R 26,981,600	-100.0%
Year 4	R 13,146,702	R 5,464,525	45.5%	-R 9,327,342	-R 11,316,090	-100.0%
Year 5	R 43,867,980	R 21,986,516	85.0%	R 19,387,100	R 4,126,618	-34.0%
Year 6	R 75,591,204	R 37,056,925	99.7%	R 51,110,324	R 19,197,027	9.7%
Year 7	R 105,518,774	R 49,615,599	105.4%	R 81,037,894	R 31,755,701	31.8%
	Payback period is 5 Years			Payback period is 7 Years		