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**Master of Science
in
Investment Promotion and Economic Development**

**The Agrarian Model: “Ringfencing” Risks of
Complex Modernisation
Of Rural South African Region,
Challenges of Building up Canola Production
Analysed by Way of SWOT Analysis**

by

Hans-Friedrich Schmeding

October, 2009

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**Thesis submitted in partial fulfilment
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Abstract:

The South African province of the Eastern Cape is at the threshold of a major rural development phase. A lot of investment is being undertaken by a Special Purpose Vehicle (SPV), called AsgiSA-EC with the mandate to develop the basis for long-term sustainable rural developments in agriculture, forestry, energy production and other activities. Amongst the promising ventures is canola production as part of the dry-land cropping range of projects. In this dissertation it was investigated which risk elements are to be reckoned with be it from the structural side of decision making structures and what can be learnt from other programmes. It can be underlined that considerable progress has been made in the development of AsgiSA-EC concept in comparison to a pre-cursor and still parallel rural production and development programme.

The challenges of the human component have been filtered out in this research as one of the critical factors for development as well as for undertaking efforts to contain possible risks. In wide range of interviews the workings of the pre-cursor programme, Massive Food Programme have been studied to get a basic understanding of AssgiSA-EC's environment and challenges.

In another element of this research rural inhabitants and potential future participants at some of these programmes were contacted to conduct research via questionnaires in order to establish to what extent there is a natural curiosity as well as affinity to any of the development structures, about interest in new cultivars or what the priorities are for these villagers.

Synergies between other programmes could be noticed and should be used to make processes more cost effective. There are risk elements which may be underestimated at present or at least not emphasised. The attempt is undertaken to point out which of them are seen as most relevant.

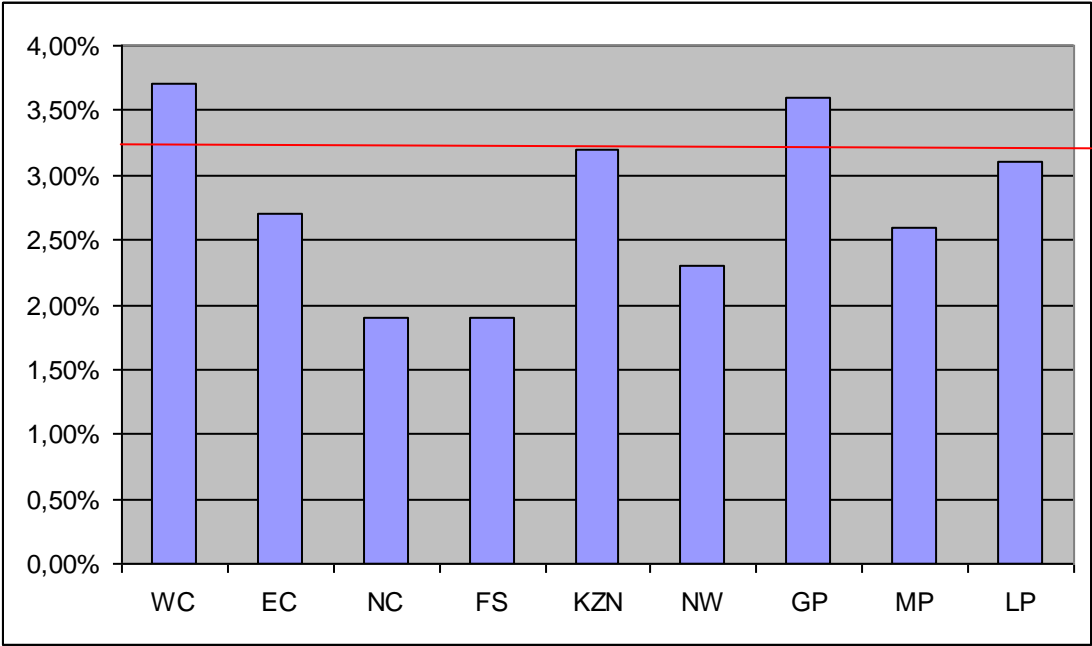
1. Introduction

1.1 Historical and Regional Setting

South Africa is the country with the strongest economic performance on the African continent. It's GDP in 2008 is reported with Rand 2185 bn¹ (US\$264 bn). In 2005 terms, South Africa's economic position relates to 47,2% of the sub-Saharan Africa GDP². South Africa in a 2009 "best estimate" has a population of 49,32 million³.

However, the generally positive picture of a strong regional economic player is not reflected in all South African provinces in an even manner. Whereas the more industrialised/diversified provinces Gauteng (GP) and Western Cape (WC) have been successful in increasing or stabilising their share of GDP from 1996 to 2006 levels, i.e. Gauteng: 33,6% (33,6%, 2006) and W Cape 14,3% (14,6%, 2006) in the year 2006 to Gauteng 33,6%, KZN 16,3%, W Cape 14,6%, the Eastern Cape (EC) province is one of those where the GDP level was falling of this period from 1995 of 8,5% to 7,8% in 2006⁴. The provincial annual growth performance is presented in Figure 1.1.1

Figure 1.1.1: Average annual economic growth 1996 – 2006

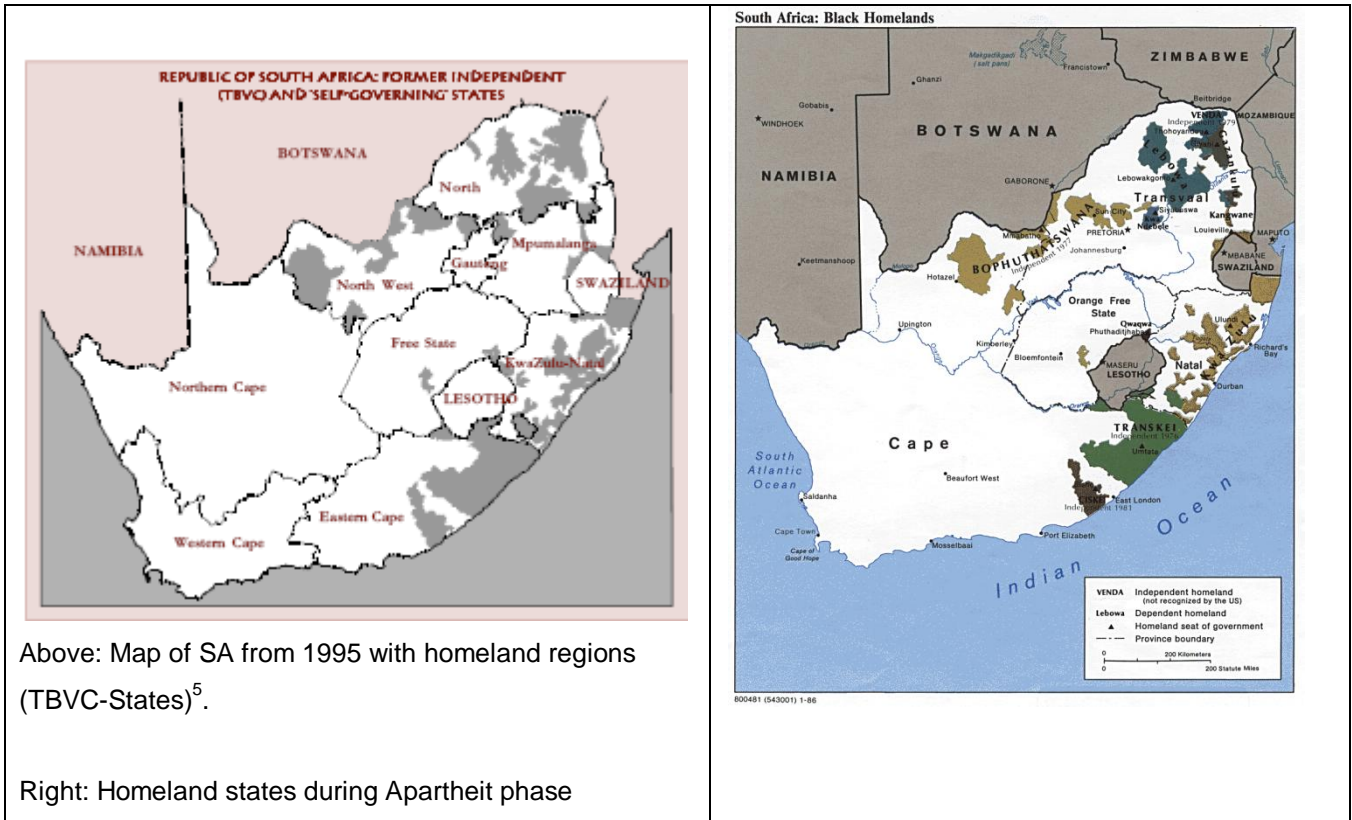


Red Line: National average at 3,2%

Source: Statssa 2007

¹ SA Reserve Bank 23 August 2009
² Source: World Economic Indicators 2005
³ Statistics South Africa, Mid-year population estimates 2009, Statistics South Africa Release P0302, 27 July 2009
⁴ Statistics South Africa Statistical Release P0441; GDP Annual estimates 1993 – 2006, Annual estimates per region 1995 - 2006 Third Quarter 2007 <http://www.statssa.gov.za/PublicationsHTML/P04413rdQuarter2007/html/P04413rdQuarter2007.html>

Figure 1.1.2: Political Maps of South Africa before 1995 and afterwards w. TBVC Regions



The province of the Eastern Cape is a creation of the post-Apartheid South Africa. In 1995, this province was carved out of the previous Cape province to contain the two Bantustans Ciskei and Transkei homeland territories. This implied that the new province was to inherit a host of burdens of failed politics, neglect, under-development, lack of long-term and consequent rural and industrial sustainable development planning as well as implications of African traditions. Coming from an economically much weaker position of an agrarian society with only few urban areas, basically in formerly ‘white’ regions outside the homelands it was challenged beyond the task of getting re-organised on top by the increasing pressures of the South African economy being opened up to globalisation and reduced import protections.

Other aggravating factors pushed up unemployment even further or prevented improvement in the rural settlements as they were deindustrialisation / massive closure of firms in the province in the 1990, mining industry retrenchments in the Johannesburg region, uncertainty about land ownership rights, very small farm sizes to name but a few.

⁵ <http://www.plaas.org.za/publications/books/at-the-crossroads/Section%201%20%28part%201%29%20%20The%20impact%20of%20land%20and%20agrarian%20Reform%20on%20livelihoods.pdf> page 113

In a situation which had turned from a bad level in 1995 of unemployment in the Eastern Cape, having to deal with 41% unemployed (29% on national level)⁶ to worse in 2001 when the then census revealed unemployment in many rural areas of the province to be above 70% levels it needed just another spark to ignite / develop the essential urge for appropriate action programmes. The spark factor was growing concern about food security for large parts of the population following to a drought-induced crop failure in 2001/02

These were to then be developed in the form of the 'Massive Food Production Programme' (MFPP) in 2003 and more recently the provincial developmental effort institutionalised by the formation of the AsgiSA-EC organisation (2008). It is these programmes or parts of them which this paper is going to focus upon. That the generally depressing economic situation had not changed in the province and its rural regions even another 5 years later is shown in an assessment presented as part of the Provincial Growth and Development Plan (PGDP)⁷ which was leading to the formation of AsgiSA-EC, indicating that "nearly seven out of ten people are still living in poverty"; originating "from structural factors that confine the province's residents to a life of perpetual deprivation".

1.2 Agricultural Potential and Political Interventions

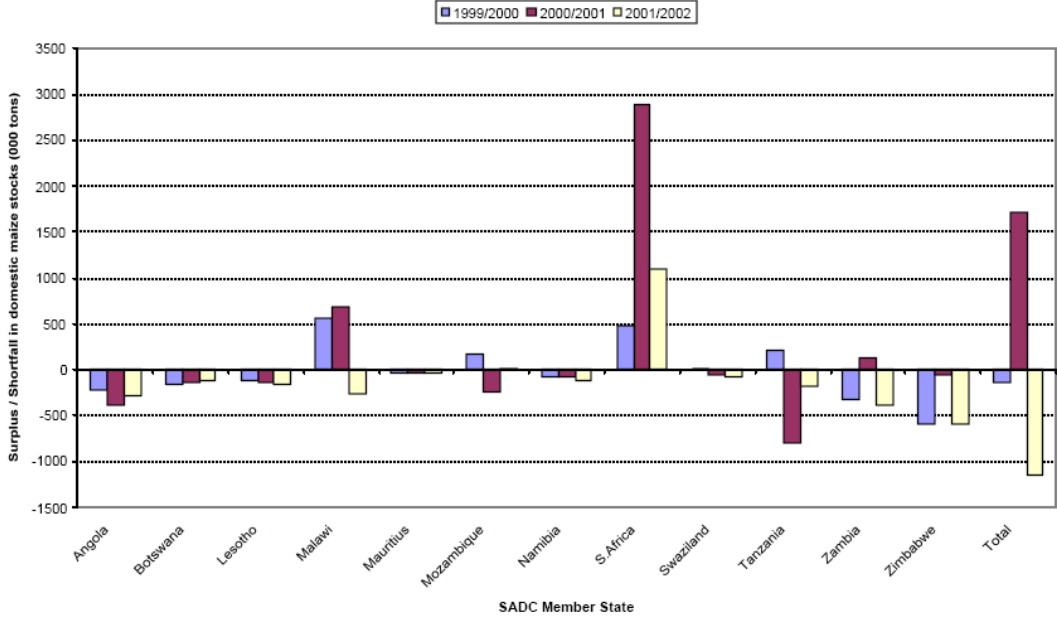
As the urgency of developing successful steps towards overcoming rural and provincial poverty is undisputed, what is the agricultural potential of the region forming the operational basis for success or failure of any programme in the region and the province?

In agricultural terms, South Africa is also one of the few countries in this region which has the potential to produce surplus harvests in its major crop, maize, as can be seen from the underneath graph showing results from the years 1999/2000, 2000/2001 and 2001/2002

⁶ Living in the Eastern Cape, Selected findings of the 1995 October household survey CSS Central Statistics 1998 Dr FM Orkin, Head

⁷ Assessment of the Eastern Cape PDGP review facilitated by ECSECC, July 2008

Figure 1.2.1: Domestic maize surpluses / shortfalls within SACD:
1999/2000, 2000/2001 and 2001/2002 marketing years



Source: SADC, 2000, SADC, 2001, SADC, 2002⁸

The provincial performance in the Eastern Cape is very much in line with the national average agricultural performance (see Figure 3). However, this has not been a significant increase, i.e. only 1.2% percent increase per annum. Other provinces have been much more successful in increasing their agricultural sector GDP far more (values 1996 – 2007 at constant 2000 prices), such as Kwazulu-Natal (10.1%), Western Cape (21.1%), Limpopo (52.1%). Estimates of the EC Department of Agriculture are claiming that some 500.000 ha are high potential agricultural land in previously underdeveloped areas⁹. Whereas at the time of the estimate only 50.000 tonnes of maize were produced locally, there was a potential to produce in excess of the 650.000 tonnes per annum for the province.

That there is still a vast untapped potential to be developed can be taken from the fact that other provincial estimates¹⁰ indicate that from the potentially arable cropland of close to 1500.000 ha currently only 1/3 (520.000 ha) is being used. Of these additional 1 mill ha more than 720.000 ha could possibly be reactivated in the three more attractive municipal district regions Amatole, Chris Hani and OR Tambo districts (attractive re climate and soil fertility reasons).

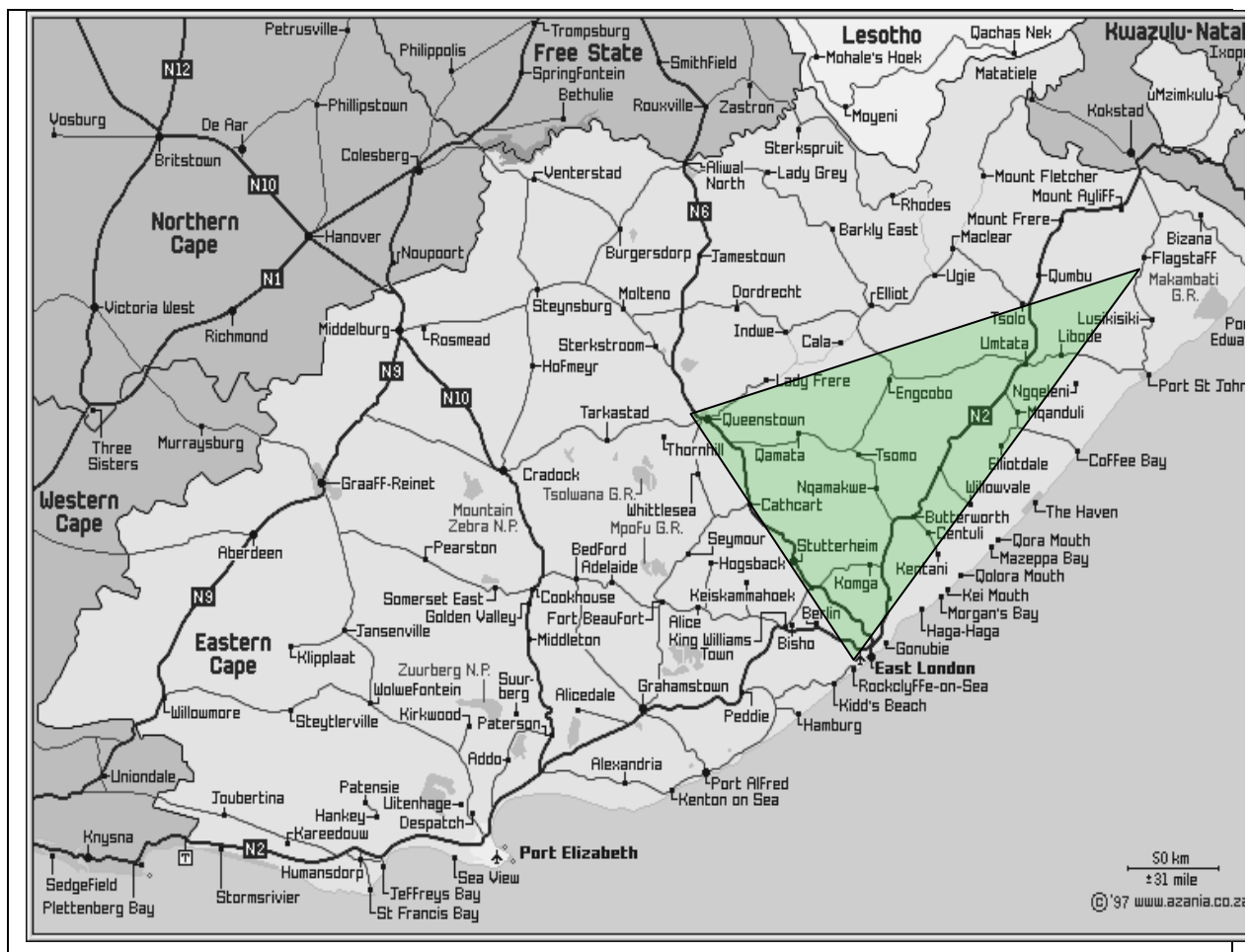
⁸ Watkinson, Eric, (Naledi), Makgetla, Neva, (Cosatu) for National Labour Development Institute (Naledi) July 2002 South Africa's food Crisis
⁹ Massive Food Production Programme Report 20-10-2004, entitled: Massive Food Scheme (Internal document - unpublished)
¹⁰ Felix Hopson, Eastern Cape Potential Land Areas and Crop & Livestock suitability per district, municipality and ward. Internal document, unpublished, July 2009

While under the agro-processing pillar 500.000 ha are to be developed as dry-land agriculture, one essential element within it is to enlarge the existing crop structure primarily focussing on maize by adding oil crops, one of which being canola. The latter is forming the feedstock basis of a bio-diesel plant to be set up near East London.

1.3 Theme of this paper:

Figure 1.3.1.

The Region selected for Canola Production



In the context of the agro-processing leg of the 6 AsgiSA-EC “High Impact Priority Programmes” one particular objective is to introduce oil crops to be included into traditional maize oriented farming practices and to be added as part of a new crop rotation. Particularly new to the provincial farmer is the canola crop which so far has only been commercially planted in the Western Cape. This new crop is to form the backbone of bio-diesel production from an investment case planned to become operational in 2011. It is the purpose of this paper to investigate whether possible synergies from existing rural development schemes

have been fully recognized and taken into account in the selection of possible participants in the programme. Secondly, have sufficient safeguarding mechanisms against possible risk factors been incorporated in the programme and lastly are these plans contributing to the long-term sustainable development of rural income and the industrial investment case.

Introduction to the problem:

The topic investigated can be compared to an interface merging interests many disciplines from social, business and biological science sectors. It touches the interests and future prospects of many people in the province, cuts across the efforts of political and departmental institutions and always involved financial interests of government departments, banks and investors from inland and foreign sources alike.

Most parties if not all are united by the same goals: They want to maximise economic benefits, see their future develop in a sustainable manner and minimise expenditure in the process. All parties will therefore try to assess their individual and mutual risks when they are beginning to start moving into new directions which in some of the investigated issues here are definitely seeing new processes started which do not have precedents in the province.

Significance of the Study.

The Eastern Cape province is one of the two poorest provinces in South Africa, with a poverty level of over 60% compared to a South African average of 46,8% ¹¹ A recent Assessment of the Eastern Cape PGDP, commissioned by the Office of the Premier¹² still states that "nearly seven out of ten people are still living in poverty". Due to the importance of circumspection being applied when new processes are to be launched which are supposed to prepare the way for innovative but sustainable income perspectives for farmers, particularly emerging and previously disadvantaged farmers it is highly advisable to ask the right questions from the outset and from thereon create a stable base for developments lasting for decades in the agricultural community of the province.

Purpose of the Study.

During this decade the governments and responsible ministers of the province have taken various initiatives to combat rural poverty, to ensure food security and reverse standstill situations in the rural communities. This implies that even if a new institution has been

¹¹ UN, SA Institute of Race Relations, quoted on p24 in SA 2007-8 South Africa at a Glance, Editors Inc, Greenside, South Africa

¹² Assessment of the Eastern Cape PGDP review facilitated by the ECSECC, July 2008 and referred to in AsgiSA - EC (Proprietary) Limited "Working towards sustainable rural development", Strategic Business Plan, 7Nov.2008 v13, p 18

created, i.e. AsgiSA-EC, it is not starting in a vacuum, it is not starting without experience of individuals and institutions.

It is the purpose of this study to give answers in the context of an individual objective within the dry-land cropping range of issues covered under the agriculture HIPP of AsgiSA-EC, specifically the cultivation of canola. Which are the major drivers in the decision making process? Are possible bottlenecks in the planning process the crucial factors, is it questions of skills and training or are economic questions giving the essential answers. Therefore the following questions are being investigated

1) Are the conditions met for the production of canola in the Eastern Cape? In particular is being investigated whether sufficient risk factors are being taken into account in the 'Agricultural Model' currently been applied for the introduction of a new crop in the province which has an appealing potential.

2) Are the most important structural issues/ prerequisites met for expanding canola production from small level to large scale production?

3) MFP and canola cultivation: Are there any synergies to the AsgiSA-EC programmes and will canola production benefit? Here the study is investigating the existing infrastructure in a wider sense, the skills levels, motivation elements of individual farmers by way of asking farmers and traditional rural community leaders adequate questions by way of questionnaires. However, also general operational, financing, agricultural, environmental and developmental policy aspects are being investigated. However, from the successful handling of this complex issue involving a new crop being planted in the province decides on the long-term viability of an expensive industrial investment case. The study is to contribute to forming a better decision making basis for managers in involved administrations, the financing sector and from the side of potential investors.

General approach and limitations:

As research method the SWOT analysis has been chosen to evaluate the critical issues of the business case. The investigation process consisted of interviews to key managers involved in the development of the Massive Food Programme and decision makers of AsgiSA-EC, the major instrument for the re-animation of rural development. In a second step farmers from possibly interested communities were contacted and asked questions by way of questionnaires as well as traditional leaders of those communities were given additional questions to be able to see supportive trends.

It should be kept in mind that the researcher is posted in Germany and only had time to spend locally in the Eastern Cape over a two week period and thus had only limited exposure to the region.

2. Literature Review

The literature review has to do justice to the two tiered dimensions under which this case will be looked at: the development political dimension with its historic-political and sociological characteristics, and secondly the economic dimension where market forces and organisational matters are the determinants.

2.1 The Time Horizon:

The timeframe covered in this investigation is not only determined by mandate the major acting institution, AsgiSA-EC, has been given is to reflect the magnitude of the task of transforming a region's long-term development: up to 25 years in the agro-processing priority programme elements. This period has only begun in 2008 with the establishment of AsgiSA-EC. The problems it has to address have their roots in the early developments of the 20th century, however, most of it stem from the second part of the century.

2.2 Geographical/Environmental Features

In agriculture topographical and climatic features can be very critical. The wide variance of particular climatic and soil fertility factors essential for successful farming is described to some extent by Kwaru and Gogela¹³. It is outlined that the rugged country seas a North-South gradient in altitude with three altitude levels described as follows: "The coastal plateau has an altitude of 300 – 500 m, the Midland Plateau with an altitude of 1000 -1500 m and a Highland Plateau of an altitude of 1500 m. Mountain ranges separate these plateaus...".

Rainfall levels are rising from lowest in the Western Cacadu District (101-200 mm) and highest rainfall of over 1001 mm in parts of Engcobo and Elundi municipalities. Likewise, the Mtata region is described with 1000 mm in the higher regions of North and West, but 700-800 mm in the Highland Plateau¹⁴. Important: it should be noted from a European observer's position that potential evaporation levels with 1300 – 1400 mm are much higher than actual precipitation levels. In the cross section region between low to medium altitude plateaus and average 600 mm rainfall levels 1 million ha have been classified as suitable for rain-fed cropping systems¹⁵. In three districts, i.e. Chris Hani, Amatole and OR Tambo, out of this 500.000 ha are classified as high potential production land often with soil depth of 600 mm

¹³ Kwaru, V V and Gogela, P S. Report of a National Strategy on Education and Training in Agriculture and Rural Development, Eastern Cape Province, Final Version 21 November 2002

¹⁴ Simpungwe, E. Water, Stakeholder and Common Ground, Challenges for Multi-Stakeholder Platforms in Water Resource Management in South Africa, 19 Dec2006, p76&77

¹⁵ Kwaru, V V and Gogela, P S Ibid p 8

suitable for the production of canola, as indicated by an independent private agricultural consultancy on behalf of the ECDO¹⁶.

In addition, statistical long-range surveys for the locations of East London over 30 years from 1961 – 1990 as well as for Umtata over 25 years covering the years 1976 – 1990 giving indications on the monthly average precipitation and other climatological data.

2.3 Development Policy Discussion

Policy makers are advised that there are no simple solutions in the Eastern Cape due to regional differences. This is one of the guidelines given in documents prepared for cabinet decision makers in preparation of the Provincial Growth and Development Plan by scholars from Fort Hare University, notably Leslie Banks¹⁷. The authors are arguing against the many cases of top down approaches in introducing new programmes as the province had seen them in the form of the “Betterment” and “Rehabilitation” programmes in the past.

This leads right into the centre of the agricultural policy debate in South Africa which has been taking place since the end of apartheid. Regardless whether more market oriented approaches with developmentalist focus as advocated by World Bank (working in stages from small- through medium to large-scale) or a redistribution and restitution focussed approach is favoured addressing equalitarian issues and unsolved land ownership issues. Regardless preferences of the day of a respective administration an important reference is made to James¹⁸ view of corresponding relationships between rural and urban places and not as antagonistic or separate places. Her notion “That those who might be stakeholder in the rural areas might equally ‘hold stakes’ in the city”¹⁹ should not be limited to the immediate questions of small scale farming being viewed as failures or the rural areas as zones for retirement mining jobs but rather in a larger economic context that migration pressures are influenced by national economic performance trends. They can, however, just as well be influenced favourably if a global surge for raw materials also creates a better climate for agricultural commodities as experienced in the years from 2005 onwards with their increased demand in bio-fuels.

¹⁶ Was mentioned in an interview with a sen. ECDA representative.

¹⁷ Fort Hare Institute of Socio Economic Research, Eastern Cape Agricultural and Rural Livelihoods Study, October 2003

¹⁸ James, D. 2001. Land for the Landless: Conflicting images of Rural and urban in South Africa’s land Reform Programme, *Journal of Contemporary African Studies* 19(1)

¹⁹ *Ibid* p 104

But would regional rural infrastructure and farmer be prepared to benefit even from such favourable global trends? Bank and Minkley²⁰ conclude that a 1% (of Eastern Cape provincial budget) investment rate into land reform and agricultural development be by far too little to stop or reverse rural disconnection from urban development. They rather call for a much more active state involvement, for adopting a “new ‘Prussian path’ where opportunities for wealth creation and rural improvement are prioritised” through high level of investment.²¹ The opposite direction is described as the ‘American road’ of neo-liberalism and proposed by many donor organisations.

From 2001 onwards, the national Minister of Agriculture, Ms Toko Didisi, set a new trend for providing support more for commercial and emerging farmer development and de-emphasising the need of the poor. In line with this trend the EC government first developed the Massive Food Programme and recently also mandating AsgiSA-EC with its six projects both fostering sustainable farming practices (MFP) or focussing predominantly on large-scale commercial principals (Asgisa-EC).

2.4. Legal Foundations:

Land Ownership and Rights for Transfers:

One of the critical questions in the process of endowing rights for land use in an environment where traditional land tenure are practiced is that of who and under what circumstance is entitled to transfer user rights to individuals. The national government as foremost owner of all non-private land, in 2004 passed the Communal Property Association Act in order to give rural ‘communities’ adequate security for tenure “to allow them to enter partnerships with private individuals and concerns for the development of their land”²². This is the legal basis for necessary partnerships which AsgiSA-EC is going to enter with partnering communities for the development of dry-land agro-processing programmes.

PPP Structures: Legal basis of Establishment,

National Treasury PPP Manual Module 1 South African Regulations for PPPs, NATIONAL TREASURY PPP PRACTICE NOTE NUMBER 02 OF 2004 lists several possible categories of PPPs in accordance to the Public Finance Management Act section 76 (4) (g)

The current status of AsgiSA-EC is that of a private company fully owned by the provincial government as shareholder, represented by the OTP, Office of the Premier. It will be

²⁰ Bank, L., and Minkley, G. Going Nowhere Slowly? Land, Livelihoods and Rural Development in the Eastern Cape 2005

²¹ Ibid p 34

²² Bank, L., and Minkley, G. Going Nowhere Slowly? Land, Livelihoods and Rural Development in the Eastern Cape 2005 p 9

financed from a Provincial Revenue fund. The company is not yet authorised to become a (stock) listed company until National Treasury finds the relevant conditions met. Particularly a track record will have to be given about own revenues being generated.²³

2.5. Development Schemes in Focus:

Massive Food Production Programme (MFPP)

To achieve the goals of reviving abandoned agricultural production, giving income perspectives to small holder farmers, developing some to emerging farmer and if possible some of which even to commercial farmer levels, but most urgently assure food security element to prevent starvation and malnutrition two programmes were established since 2001 which will be compared in this paper to some extent. In 2002, MFPP was initiated to stop food insecurity and reverse the backwardness of rural development in the Province by starting a rejuvenation process of dwindling food production. This programme is featured by internal and external documents. Already as a first reference the Fort Hare report for the PGDP, 2003,²⁴ reflects on a possible conflict of interests between collective (state) interests and individualist private party interests. The authors, judging from numerous case studies, give out a warning that like a common denominator for many problems of agricultural and social problems issues of ownership and control of land use are fundamental.

The programme subsequently has seen a number of modifications due to its adaptive development character as is described another external source in the MSc Dissertation of Dirk Lange²⁵ or is finally documented in an evaluation paper presented to ExBo of ECDA in 2009²⁶. Conditionality is one of the conceptual cornerstones of MFP, another one covers control elements to complete the checks and balances concept. It consists of input conditionality linked to geographical or procedural requirements. And so it includes output conditionality. The Scheme Administrator has to be satisfied in order to pay invoices. The conditionality factors are materialised in the form of a contract between farmers and the Department from 2004²⁷.

²³ AsgiSA-EC (Pty) Ltd Five Year Business Plan-Year Ending 2010 – 2014 October 2008 p 12

²⁴ Fort Hare Institute of Socio Economic Research, Eastern Cape Agricultural and Rural Livelihoods Study, October 2003, p xxvii

²⁵ Lange, D. Top-Down Development Interventions with an Adaptive Approach – The Case of the Eastern Cape Massive Food Programme, South Africa, Dissertation prepared in partial fulfilment of the requirements for the M.Sc. in Applied Development Studies Programme, September 2006

²⁶ Report of the Performance of Siyakhula/Massive Programme in Terms of Crop Yields with Regard to the Objectives of the Programme and the Result from course Corrections in the Programme. Internal report: Eastern Cape Department of Agriculture – March 2009

²⁷ Massive Food Production Conditional Grant Contract for Field Crop Production, from 04.2005

In order to overcome the inertia of a basically collapsed production infrastructure which had already left their marks in the rural society which was relying on state grants instead of their own hands' work a strong pull factor had to be presented to the farmers. The justified argument of "lack of funds" for even buying the most basic input materials and services was matched by way of the farmers "paying" deposits towards the next season's crop inputs to be granted Uvimba Bank (Land Bank) providing input funding over a four year period in a scaled down approach: Only 25% of input cost of the first year had to be paid back from the returns of that year's yield. In the 2nd year 50% and 3rd year 75% as well as in any subsequent years – thus resulting in a 25% input subsidy for the time of the programme.

The latest modification of the programme shows that the risk elements for qualifying farmers were still not yet sufficiently covered. The current format of the scheme provides for a 90% input subsidy element: in first year only 10% has to be paid back. The scale of the following years is 25%, 50% and 75% as previously practiced. The limits of the programme will be discussed in more detail in chapter 4. The scheme makes provision for larger scale farming (emerging farmer) also named Siyakhula ("we grow") and a poverty eradication component named Siyazondla ("we feed ourselves"), a communal gardening programme as well as., involves an external auditor and is funded by Uvimba, a government owned agricultural and rural development bank.

Asgisa-EC

Dragging rural developments by 2007 led to the understanding amongst political leadership of the Province that broader agrarian strategies and more diversification strategies were required. Due to the brief existence of the programme, available literature is limited to the Five Year Business Plan²⁸ previously mentioned. AsgiSA-Ec was formed and given the mandate to develop six pillars amongst which only the first is of relevance for this study:

- Agriculture and agro-processing
- Forestry development
- Water resource development
- Hydro-power and alternative energy
- Tourism development
- Addressing unsustainable human settlement patters in the province.

The operation structure is forming the so-called "Agribusiness Model" centred around a public (administration) side formed by the Eastern Cape Province agricultural administrative institutions, ECDA and Asgisa-EC (formally privately structured entity, see above) as

²⁸ of Eastern Cape Agriculture, -Year Ending 2010 October 2008

controlling / core entity and on the private business sector side a larger number of entities operating in various capacities. On the producing side so-called outgrowers such as farmers are being supported by agribusiness SPEs (special purpose entities) and other inner-most 'strategic partners' including financial institutions. Value addition or further processing activities and other key customers for Asgisa-EC produced goods are forming the next outer level of 'strategic partners' – see An Illustrative Structure – The Agribusiness Model²⁹

Common to Agribusiness Model of AsgiSA-EC and MFP is the strong focus on checks and balances. Whereas many of the input-related decisions steps are still being undertaken from Asgisa-EC core-unit, a tighter and but differently organised checks and balancing structure has been put into operation not stressing on the staffing capacity of Asgisa-EC. This allows it to focus on its core mandate functions with a slim structure.

Other Programmes:

There is a host of other programmes available including local infrastructure development, mechanisation assistance, skills development or marketing training and the more. In the context of this research reference to only two more programmes is given due to their stronger links to either MFP or AsgiSA-EC activities:

Infrastructure / Fencing:

It has been an ongoing effort of ECDA to assist farmers with the protection of their crop lands by investing in fencing at large scale. For 2002 the Livelihood Study³⁰ reports about 2300 km of fencing being set up. Likewise for the financial year 2006/07 an amount of R12 million was budgeted or approximately 530 km of fencing as compared to a demand indicated with 1816 km at required investment of R41 million³¹. For the financial year 2008/09 provision of 715 km of fencing is reported.³² The pivotal importance of fencing as a basis for the cry-land cropping activities of AsgiSa-EC is documented in the 5 year strategic production plan where for each year a fencing target has been set of 20000 km. In 2008/09 period 6300 ha had been completed.³³

²⁹ Ibid p71

³⁰ Fort Hare Institute of Socio Economic Research, Eastern Cape Agricultural and Rural Livelihoods Study, October 2003, p xv

³¹ Budget Vote tabled by MEC of Eastern Cape Agriculture, Mr Gugile Nkwinti, 2006/07, 9 March 2006

³² Budget Speech 2009/10 by MEC of Eastern Cape Agriculture, Mr M Sogoni, 18 June 2009

³³ AsgiSA-EC (Pty) Ltd Five Year Business Plan-Year ibid p 39

Tractor and Implements/LRAD:

The ECDA has a tool for granting access to tractors for two types of groups of applicants:

- Contractors under a conditioned finance scheme by granting subsidised credits. Applicants need to present (a) service contract(s) to deliver their tractor services to farmers of rural communities which are participating in the MFP (could be applied to AsgiSA-EC activities as well). The scheme is also known as “Massive Food Tractor Programme”
- In some cases, tractors are said to have been awarded to individual farmers. In more recent years there are provisions worked out for newly settled farmers under the LRAD scheme standing for “Land Redistribution for Agricultural Development”. Under the LRAD scheme cases of land purchases are being assisted financially if the applicant is able to provide substantial personal financial means.

2.6 Food Insecurity

The extent of poverty in the Province required a rising awareness of the political institutions of rising threats of famine and malnourishment, in literature commonly grouped under the term food insecurity. In 2000, after a year of severe drought it was an apparent problem to secure enough food for the very poor. 2002, Rose & Charlton³⁴ report that 43% of the South African population was reported as suffering from food poverty. Watkinson and Makgetla³⁵ (2002) alarm the public of the enormous extent of small-scale farming done solely for or as supplementary source for securing food stability in the Eastern Cape and Limpopo Provinces. The authors quantify the number of household with 600,000. See for more details in

Figure 2.6.1 The Percentage of households that farm in order to supply food for the household

³⁴ Rose, D., & Charlton, K.(2002). Prevalence of household food poverty in South Africa: Results from a large, nationally representative survey. *Public Health Nutrition* 5(3), 383-389

³⁵ Watkinson, Eric, (Naledi), Makgetla, Neva, (Cosatu) for National Labour Development Institute (Naledi) July 2002 South Africa’s food Crisis

Source: Stats SA 2000

<i>Province</i>	<i>Total number of households</i>	<i>Number of households farming for main source of food</i>	<i>% of households farming for main source of food</i>	<i>Number of households farming for supplementary food</i>	<i>% of households farming for supplementary food</i>
Western Cape	1,067,117	3,241	0%	12,900	1%
Gauteng	3,082,113	17,338	1%	51,329	2%
Northern Cape	191,287	4,569	2%	8,291	4%
North West	784,633	14,591	2%	52,544	7%
Free State	693,196	30,219	4%	65,450	9%
KwaZulu-Natal	2,047,498	111,249	5%	315,062	15%
Mpumalanga	643,221	54,511	8%	85,550	13%
Eastern Cape	1,434,280	169,765	12%	277,322	19%
Limpopo	1,001,423	195,402	20%	272,568	27%
Total	10,944,768	600,885	5%	1,141,016	10%

Source: Watkinson and Makgetla

MFP and AsgiSA-EC programmes have specifically been established or mandated to contribute to improving food security in the Province. Hendricks and Fraser³⁶ report of estimates of ECDA of a need for maize imports of 600 000 tonnes for a total demand of 700 000 tonnes annually. Hopson³⁷ (2009) reports that MFP was responsible for maize production levels of between 52,000 and 58,000 tonnes in the three years up to 2007/08 as an active contribution to food security in the Province. That this challenge is not one isolated to a drought year can be seen from recent paper by Heady and Fan³⁸ analysing price increases of 2008. They conclude that maize prices in constant US\$ terms increased 50% over the previous low price level of 2004 season.

The above programmes seem to be taking effective steps in the right direction whereas one other possible tool, i.e. land reform, according to Valente³⁹ gives reason for doubts. She analyses that many beneficiaries of land redistribution are not experiencing lower food insecurity and suspect this to be due to a number of additional costs incurred from relocating

³⁶ Hendricks, F. and Frazer, G., *Obstacles to Agricultural Development in the Communal Areas of the Eastern Cape*. Report for the Eastern Cape Provincial Growth and Development Plan, January 2003

³⁷ Hopson, F. *Report on the Performance of Siyakhula/Massive Programme in Terms of Crop Yields with Regard to the Objectives over the Programme and the Result from Course corrections in the Programme*. (Internal Report: Eastern Cape Department of Agriculture – March 2009)

³⁸ Heady, D., and Fan, S., *Anatomy of a Crisis, The Causes and Consequences of Surging Food Prices*, International Food Policy Research Institute, IFPRI Discussion Paper 00831, December 2008

³⁹ Valente, C. (2009) *Food (In)Security Impact of land Redistribution in South Africa: Microeconomic Evidence from National Data*; The University of Nottingham, UK; World Development (2009), doi:10.1016/j.worlddev.2009.01.005

to the countryside, higher transport cost to work (or to the countryside for working on the plot of land) input cost for which cash is needed or which may be lost with bad yields etc.

2.7 Tenure

In South Africa as whole restitution of land has made very little progress since 1994 when 87% of the land was owned by whites. CDC⁴⁰ estimates that since then approximately 4,7% of land has been transferred to black owners by government intervention, another 2,1% through private sales from white to black people. This does not affect the situation in previous homeland areas where traditional communal tenure rights were practiced leaving the vast majority of rural inhabitants without land titles in the books of the registrar of deeds. Only these titles give creditors the necessary assurance of assets for requested loans.

In this context MFP and AsgiSA-EC overcome the calamity of outdated homeland practices – although Hendricks and Frazer⁴¹ still report on such practices earlier in the decade - such as Permission to Occupy (PTO) or Certificate of Occupation by entering into a five year lease agreement⁴² on land with the respective communities for the purpose of participating in the Siyakhula / MFP. This way, for the time being practical approaches are found despite of emotionalised debates are being made as Ben Cousins⁴³ reports about former President Thabo Mbeki referring to the challenge of integrating two disconnected economies.

2.8 Oil crops and the biofuel question

In 2008, when the commodity price spiral was reaching a peak Ewing and Msangi⁴⁴ were indicating a long-term upward price trend of 20% for vegetable oil in the year 2014 resulting from the combined effects of three major market regions were setting. The US, EU and Canada in recent years have made biofuel blending mandatory. Some researchers foresee negative effects on food security for countries with high level of biomass vs fossil fuel consumption in their energy balance. This rates them high on the GHI Global Hunger index.

⁴⁰ Centre for Development and Enterprise, Land Reform in South Africa, Getting back on track. CDC research report 16 May 2008

⁴¹ Hendricks, F. and Frazer, G., Obstacles... *ibid* p15

⁴² Sample agreement can be found in the Annex.

⁴³ Cousins B. A (2005) Agrarian reform and the 'two economies': transforming South Africa's countryside "The Land Question in South Africa in South Africa: the challenge of transformation and redistribution", edited by Ruth Hall and Lungisile Ntsebeza

⁴⁴ Ewing M., Msangi S., Biofuels production in developing countries: assessing tradeoffs in welfare and food security, International Food Policy Research Institute. Environ. Sci. Policy (2008), doi: 10.1016/j.envsci.2008.10.002

South Africa finds itself in a moderate position of relatively low GHI vs biomass/fossil fuel ratio. It also benefits in the Eastern Cape from the paradox that large areas of land are underutilised. This can be utilised for the benefit of exporting biofuels if so available in excess to the large market regions in line with country categories as Brazil, Malaysia, Argentine and others. In a long-term perspective Mathews⁴⁵ foresees the potential of “the South” being able to produce the bio-ethanol volume of 18 Brazils over the next decade due to higher biological productivity.

However, not scenarios but real market forces are forging realities. The South African government in a recent strategy paper⁴⁶ has proposed a B2 and E8 target to be reached by 2013 meaning blending ratios of 2% biodiesel (from soybeans, canola and sunflower) and 8% bio-ethanol (from sugar cane and sugar beet) to the respective fuel products. No mandatory off-take in the initial phase in period has been proposed as currently there is insufficient local production of biofuels. In pursuing a policy of investment incentives and possible fuel levy exemptions for bio-ethanol (of up to 100%) and biodiesel (of 50%) SA government leaves much of the developments to the flow of international markets and lacks the type of commitment as is found in Europe, the US and Canada which have passed mandatory blending policies.

Farmers are feeling these market risks and are shying away from commitment to sign production contracts for sugar beet for the Cradock project. As Esterhuizen reports⁴⁷ farmers will change to sugar beet only with the perception that it is more profitable than existing production. Without production contracts no investment.

2.9 Canola Production in an Eastern Cape Context

Traditional maize plantation practices in the Eastern Cape / South Africa is maize monoculture in large scale production or intercropping with vegetables in homestead environments. In monoculture cropping a full year of fallow appears in year 6. Oil seeds can be used as winter crops to work in several variants of crop rotation. In all of them two aspects are of interest to the farmer. One is that a year of fallow in yr 6 can be avoided. Secondly, canola can be used as grazing pasture during the first 8-10 weeks after planting in February /

⁴⁵ Mathews, JA. Biofuels: what a Biopact between North and South could achieve. Energy Policy 35 (2007) 3550-3570

⁴⁶ Biofuels Industry Strategy of the Republic of South Africa, Department of Minerals and Energy, December 2007

⁴⁷ Esterhuizen, D., South Africa Biofuels Annual Report, USDA Foreign Agricultural Service, GAIN Report 28 May 2009

March before being regularly harvested in about October. According to Fouché⁴⁸ an additional dry matter harvest during this period was indicated with 3,4 t / ha as compared providing a good feed source for cattle. Dr W. Hoffmann and Prof. Theo Kleynhans, University of Stellenbosch are said to quantify profit increases with wheat-canola crop rotations of between R 1000 and R 1500 /ha benefits, canola-maize-wheat rotations in the order of R2000 / ha and additional fodder value with about R3000 /ha (or R900/t @3,4 t DM).

Reference is necessary according to Fouché to a rising demand in proper agricultural practices when including canola in the rotation, e.g. observation of withholding periods of herbicides used previously is pointing towards necessity of thinking in different patterns. Particularly so, if low tillage practices extend withholding periods even longer. As a possible prevention from such problems Acworth et al.⁴⁹ Australian report on experience with GM seeds as not only effective amount of applied herbicides is reduced significantly but also encouraging moves toward low tillage practices as intended in Eastern Cape for reasons of erosion control.

2.10 Individualism vs Collectivism

These market realities also apply for AsgiSA-EC farmers of which the principal model favouring outgrower over the estate farming configuration is suggested by Ewing and Msangi. The expected benefits spread to a wider community will not, however, be essential for decisions of the individual. The income structure of Transkei livelihoods are not dominated by agriculture - as expressed in the Livelihood Study⁵⁰ - but by remittances, wages, pensions and grants! It is therefore not collective farming practices but individual, family based identities forming the mindsets of rural inhabitants which are said to be very sceptical to top down regulated 'cooperation'⁵¹. Andrew is quoted in the same source warning that MFP would be expected to face many difficulties as it would enforce consolidation and commercialization of agriculture. Critical issues would be the rights the of individual farmers, i.e. ownership and control of land use, farming operations and harvests. This is to be kept in mind when the same report comments on higher friction potential due to the decline of cultivation resulting in less control of livestock as discouraging factor for arable farming.

⁴⁸ Fouché, P., Canola promises grain rejuvenation, Farmers Weekly, 16 January 2009

⁴⁹ Acworth, W., Yainshet, A., and Curtotti, R. Economic impact of GM crops in Australia, Report 08.4 May 2008, abare.gov.au

⁵⁰ Fort Hare Institute of Socio Economic Research, Eastern Cape Agricultural and Rural Livelihoods Study, October 2003, p xxiv

⁵¹ Ibid p xxv

Husbandry is likened to an army of “shock troops countering rotational grazing”⁵², uncontrollable to those who want to fight a battle against engrained patterns of thinking of those which effectively re-communalised land – and consider this their right.

Cousins⁵³ stresses that the majority depends on a multitude of income sources similar to the above. Attempts to quantify such income range from Adams et al.⁵⁴ R 5535 (1998) - equal to R9814 (2008)⁵⁵ to R12000 in Shackleton⁵⁶ (2002), the latter taken from the Eastern Cape. In a cash oriented society without notable financial reserves every Rand counts even to the extent that no neighbours should be preferred if the individual farmer might feel entitled to the same benefits. Thefts of maize in distant fields just as well as damage from roaming cattle have been reason for many farmers to discontinue planting distant fields⁵⁷. Other reasons may be given by land tenure disputes with a long history as reported by Cousins (1999)⁵⁸

2.11 Environmental Effects

Many Eastern Cape regions are suffering from phenomenal soil degradation and soil erosion as consequence of combined effects of overstocking, low fertilisation, monoculture and low returns from fields to due long distances, insufficient fallow periods as Andrew⁵⁹. High population density often leads to high stock levels on communal grazing land to supplement which easily can result in soil erosion. As early as 1984 Bembridge⁶⁰ estimated that Transkei was 28 percent overstocked.

In the case of MFP and AsgiSA-EC programmes both have made provisions for conservation / minimum tillage practices.

⁵² Ibid p xxxii

⁵³ Cousins B. A (2005) Agrarian reform and the ‘two economies’: transforming South Africa’s countryside “ ibid p9

⁵⁴ Adams, M., Cousins, B., Manona, S. Land Tenure and Economic Development in Rural South Africa: Constraints and Opportunities, Working Paper 125, Overseas Development Institute, Dec. 1999

⁵⁵ Reserve Bank South Africa, own calculations

⁵⁶ Shackleton, C.M., Shackleton, S., Buiten, E., Bird, N. The importance of dry woodlands and forests in rural livelihoods and poverty alleviation in South Africa, Forest Policy and Economics 9 (2007) 558 - 577

⁵⁷ Andrew, M. Case study report No 1 Willowvale, Provincial Growth and Development Plan – Eastern Cape, 2003 p xxvi

⁵⁸ Ibid p 19

⁵⁹ Andrew, M., Case study report No1 Willowvale, Provincial growth and development Plan – eastern cape October 2003

⁶⁰ Bembridge, T.J., 1994 A systems approach study of development problems in Transkei. Unpublished Ph D Agric thesis, University of Stellenbosch, Stellenbosch

2.12 Sustainability and Profitability

In the long run a system or strategy can only be sustainable if investment by the investor, state or private, is generating returns in similar order or of higher magnitude than the initial investment. For MFP provincial cabinet in September 2002 approved a five year budget of R350 million⁶¹. Lange reports⁶² of the underlying expectation / idea of the management of the MFP that through increase in mechanised crop production would achieve an increased maize production from initially 50,000 to 500,000 tonnes a year by 2008. The value of possible turnover was quantified at a level of R352 million per annum⁶³ to be achieved by 2008. This amounts to a 4,66 times the production area and 10 times the anticipated yield actually reached at the target period. But as John Allwood is quoted in the Livelihood Study⁶⁴ that for agricultural planning a minimum of 20 years should be an acceptable period.

For farmers themselves the perspective is a different one. Due to the poverty levels they live in, in a majority of households pensions, grants and child allowances are the only cash income. They are not able to invest without access to financing channels but they have also become risk averse. This is seen a limiting factor for those which “are made to sign contracts which make them personally responsible for debts” (ibid pxvii). Profitability therefore has to be convincing and fast to achieve as they can’t afford to fail.

⁶¹ For both, the Food Production and Mechanization Programmes.

⁶² Lange, D. Top-Down Development Interventions with an Adaptive Approach – The Case of the Eastern Cape Massive Food Programme, South Africa, Dissertation prepared in partial fulfilment of the requirements for the M.Sc. in Applied Development Studies Programme, September 2006

⁶³ Ibid p37 Assuming a maize price of R1,000 per ton and a yield of 5 tonnes/ha, it would require production on 70,000 ha.

⁶⁴ Fort Hare Institute of Socio Economic Research, Eastern Cape Agricultural and Rural Livelihoods Study, October 2003, p xvi

3. Research Methods

At the core of interest of this study is the functionality of the agribusiness model with specific attention given to a particular sub-sector of activities in particular canola production. Primary and secondary sources have been used for this study. A close-up investigation of the main topic will only be meaningful as long as other fundamentals for this special line programme component have been studied.

3.1 Secondary Data/Sources: Historical and contemporary records

Secondary sources have been used to come to an understanding of the economic development of the region, of rural development in particular and about development programmes used in the Eastern Cape province such as the MFP and tractor and implements programme. Also it was necessary to study in the international environment of agro-processing and bio-fuel developments due to the strong interdependencies of global markets. As source for South African prices SAFEX (South African Futures Exchange) records have been used.

Secondary sources were used to describe the main geographical features, the soil quality and meteorological features of the region investigated.

3.2 SWOT-Analysis and Criteria with MFP and AsgiSA-Ec Schemes

MFP – SWOT Analysis

The criteria are based upon risk factors identified in the internal report presented to ECDA⁶⁵, comments received during interviews and other parties or the dissertation by Dirk Lange⁶⁶. They have been put together by the author:

⁶⁵ Report of the Performance of Siyakhula/Massive Programme in Terms of Crop Yields with Regard to the Objectives of the Programme and the Result from Course Corrections in the Programme. Internal report: Eastern Cape Department of Agriculture – March 2009

Fig. 3.2.1 MFP – SWOT Analysis

Strengths	Opportunities
<ul style="list-style-type: none"> • Rekindling agricultural production • Improving food security • Conditionality • Sustainable production • Conservation agriculture • Developing Emerging Farmers • Financing solutions for input with down-payment obligations • Requires community involvement 	<ul style="list-style-type: none"> • Opening up credit lines for farmers • Entrepreneurial skills can be revitalised for farmers • Land leases provide revenues for land owners & communities • Skills development programmes • By-passes tenure problems by demanding accord w. local communities
Weaknesses	Threats
<ul style="list-style-type: none"> • Top down approach • Bureaucratic, totally new structures & dependencies • Success of control mechanisms depends on integrity of Extension Officers • “semi-commercial” crop production w. welfare functions • Limited agricultural knowledge makes EFs dependent on EOs & third parties • Fencing and maintenance • Seen as government project in which rule are not respected 	<ul style="list-style-type: none"> • Abuse & collusion • Political influence can override regulations • Funding levels subject to budgets (thus political overruling of rules not excluded)

⁶⁶ Lange, D., Top-Down Development Interventions with an Adaptive Approach – The Case of the Eastern Cape Massive Food Programme, South Africa, Dissertation prepared in partial fulfilment of the requirements for the M.Sc. in Applied Development Studies Programme, September 2006

Fig. 3.2.2 AsgiSA-EC SWOT Analysis including Canola Proposal (CP)

Strengths	Opportunities
<ul style="list-style-type: none"> • Commercialised farming structures t.b. established (large scale) • Utilising fallow land • AsgiSA-EC with private structure • Requires accord with communities • Strong conditionality • External field audits; field scales, weigh bridges • Controlling & service functions relayed to private parties • Monetary incentives for all participant levels • Input funding tools available • (CP) winter crop, broadens income and animal feed source options • (CP) improves yields of following crop • (CP) tool in containment of soil erosion 	<ul style="list-style-type: none"> • Secure markets for products • Extending value chain for region • Involvement of many private partners secures professional approaches & allows slim structure of AsgiSA-EC • Building of storage silos for crops • Re-activation for railway line improves transport infrastructure • (CP) in 1 out of 4 to 5 years gives 2nd harvest per year • (CP) market secured: strategic partner, once plant operational
Weaknesses	Threats
<ul style="list-style-type: none"> • Still a parastatal • Without full control over finances • High levels of coordination required • Natural processes require quick decision making processes, particularly for 2 harvests / year • Senior contractors without instruction authority over sub-contractors • Racial bias: white (senior contractors) vs black sub-contractors • Strong local movers/skills required to secure position of sub-contractors in 	<ul style="list-style-type: none"> • AsgiSA without access to capital markets yet • Without ownership no entrepreneurship • Strong public funding required for infrastructure (fencing, storage silos) which could be in jeopardy in financial strain years • Political influence possible • Livestock / fencing can get out of control • Very small staffing level: high level of

<p>communities</p> <ul style="list-style-type: none"> • Fencing requires maintenance • Little integration of existing & demanded mechanisation • Sub-contractor possible outsider to rural community • Success of sub-contractor depending on skills profile and external mentors • (CP) oil crops – steep learning curve necessary • (CP) strong communication policy required with slim staffing level • (CP) Private mentors have no network into EO-system of ECDA 	<p>integrity & professional skills required</p> <ul style="list-style-type: none"> • Individual interests can jeopardize success of community advantages • (CP) high organisational skills demands of farmers will force investor to deal with commercial farmers only, or in other provinces • (CP) Existing plans may require too steep expansion levels of canola production vs available maize area • (CP) investment will be postponed
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3.3 Primary data

Methodology:

Interviews were conducted over a short period of two weeks during the last 10 days of July 2009 when the author was visiting the Province. This served to obtain first hand information on the MFP and AsgiSA-Ec operations and get an understanding of the concepts behind the schemes as well as adequate understanding on how the organisations or concepts were handled. A second part involved contacting farmers in 6 rural communities across 3 municipal districts of the Province.

Fig. 3.3.1 Stakeholder / Instrument Analysis

Stakeholder Group	Research Instrument Used	No Analysed
Farmer Groups	Q	64
Traditional Leaders of Municipalities & Wards	Q	8
EC Dept of Agriculture: Junior and Senior Management	I	6
AsgiSA-EC, Senior Management	I	2

Q = Questionnaire; I = Interview

Validity and Representativeness of Data:

The information received from individual interview partners was compared to information from other sources and then contributing to form a comprehensive understanding of respective situation. For triangulation, unfortunately, no opportunities were given as many of the interviewees were giving no further feedback as would have been desirable in two cases. Telephonic interviews were also not granted by AsgiSA-EC management after departure from South Africa.

Cluster Analysis

Regarding interaction with the farmer's, the village groups were selected according to the following criteria:

- They were to operate in the municipal districts of Chris Hani, Amatole and OR Tambo which had been identified as preferential region for AsgiSA-EC dry-land cropping regions
- should at least involve crop farmers
- have participated in one of the MFP categories (small scale or large scale)

Due to this pre-selective approach no random sample is given but rather cluster sampling.

3.3.2.3. Respective farming communities were selected and contacted by the Senior Manager: Agricultural Extension Officer, ECDA as well as his regional EOs responsible for the respective rural communities. EOs accompanied the author on his trip to all 6 visited rural communities and acted also as translators where necessary.

Deviations from standard sample patters:

In the course of the visits two of the visited farmer groups could deviated from the other 4 sites. (1) In Umtata village 3 time constraints force the author to limit time for necessary explanations of reasons for the survey and could also not collect the questionnaire sheets direct. They were forwarded to him by way of email correspondence later-on. It was therefore checked whether the three Umtata communities were comparable and could be merged and evaluated as one joint sample. (2) In Idutywa the first visited community was busy harvesting maize and

also due to delays in arrival only two farmers were present one of which did not fill in any information on the questionnaire sheet. The data of the farmer were therefore included into the data of Idutywa 2 village. Thirdly, in the Idutywa region one of the three feedback sheets from traditional / community leaders was identical to one of the others. It was therefore discarded.

Determination of population size:

In 2002, a number of 316738 farmers were reported in the Eastern Cape. For 2007/08 season John Allwood in a presentation on Food Security – Eastern Cape referred to approximately 8000 crop land users within the MFP. This number has been taken as estimate for total population size.

3.4 Questionnaires

A double set of questionnaires was developed: one to farmers and one to local community/ traditional leaders in order to test inter-linkages and mutual support within the rural setting.

	Questionnaires to Emerging Farmers	Questionnaires to Traditional Leaders
Personal & Financial	<ul style="list-style-type: none"> Your final grade when leaving school Have you got family and parents to take care of? How many people? Have you been solely farming or have you also other / and occasional jobs in other places Would you need credit for buying fertilizer and seeds for sowing the next spring crop? Do you have a cell phone? Do you have a bank account? 	General data
		<ul style="list-style-type: none"> For how many people are you responsible in this area? How many people lived in this village when Transkei became part of South Africa again (in 1995) and how many live here to-day? For many years maize production and that of other field crops was down in this region. How did it affect your village? (People leaving) How far away is the next school for the children? Is there any training possible also for young people who want to become farmers?
Current farming	<ul style="list-style-type: none"> How much land do you currently farm? What crops have you been farming With what equipment do you farm / plough / harvest? Have you already been driving tractors and used larger ploughs / equipment on other farms? Do other family members help you with some farm work / harvesting? Who helps you with ploughing? 	Involvement in regional Programmes
		<ul style="list-style-type: none"> Has any of the farmers got tractors / or received tractors in recent years under the Massive Food Programme in the last 2 – 3 years? Have your small holder farmers participated in the Massive Food Programme? In the past 2-3 years, prices of maize and other crops were improving. In addition, AsgiSA-EC

<p>Business Development</p>	<hr/> <ul style="list-style-type: none"> • Would you be interested to farm more land and use machinery for doing so (if you would get assistance with financing?) • What do you think of planting new crops such as soy bean or canola? What would be necessary for you do to so? • How far away is the nearest mechanic shop for tractors etc? 	<p>has been formed to improve farming and cattle production. Do your farmers/ does your village want to be included in their programme to produce a range of field crops again at a large scale?</p> <ul style="list-style-type: none"> • AsgiSA-EC has plans which need large farm areas of several hundred ha. Do you think that there are capable farmers in your village which would like to farm big farms of 250 ha or larger with maize and some new cash crops? • How do you determine these one or two of these farmers and assign this large area of land to him? • Would you be interested to participate even if there is nobody from your own village interested or capable and somebody from outside would come here to farm the area? (he would have to rent the land? What steps would you undertake (Project Steering Committee?) to come to a decision? • There plans discussed from AsgiSA-EC that new crops should be grown here such as canola and soybean. What do you think would be necessary that this would be acceptable to your farmers? <ul style="list-style-type: none"> ○ It has to be profitable ○ Farmers need right
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		<p>training</p> <ul style="list-style-type: none"> ○ Farmers want to learn from experienced colleague who is farming these crops ● Would your small farmer families also want to be participating to grow more maize (and also other crops) if the price is right? ● Has anybody experience with handling bees for the production of honey? ● Have you asked the extension officers to arrange for organization and financing of ploughing, organization of seed and fertilizer advance financing?
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Questionnaire Design

Except on for two variables (farm size and dependents) no exact figures were asked for but rather open questions. School leaving grades were grouped in classes. It might have helped for generalisability of data if age (groups) and gender would have been included in the survey as well. Piloting was impossible due to shortness of stay during the visit to SA. In some cases rather one than two questions at a time would have given clearer answers. It was, however, not intended to arouse suspicion by asking too sensitive questions to a level of preciseness as does the General Household Survey GHS re age of children under 15 year of age which represents the limit for receiving child grants. Dependants also include parents, often receiving old age pensions (women from the age of 60 and men from the age of 65 years on).

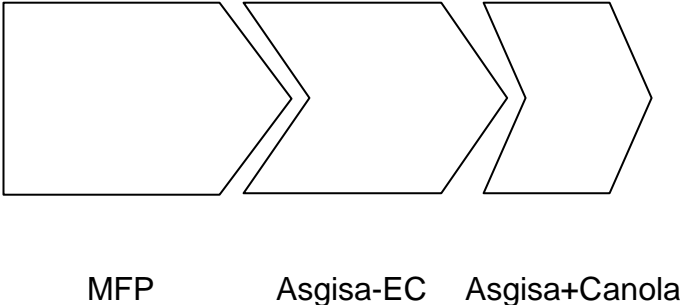
However, for the purpose of finding appropriate partners for the AsgiSA-EC development drive reliable partnership requires strong integration and support from

the community level. In light of this requirement the feedback from community leaders gives valuable information with regard to the confidence in the process, infrastructure and process mechanisms and details conducive for commercial maize/ canola production.

3.5 Data Analysis

The analysis will be undertaken in three tiers: re SWOT analysis a comparison from the outside pole, i.e. Massive Food Programme as regional reference tool to the inner or core programme with the actual hypothesis re AsgiSA-EC activities together with the canola question which is visualised in the flow diagramme in figure 3.5.1

Figure 3.5.1



In this process answers to questions 1 (sufficient risk factors taken into account?) and 2 (prerequisites for fast expansion of canola production given?)

Tier two is to analyse the micro-level of community environments as possible candidates for the AsgiSA-EC programmes. Are the desirable processes and important prerequisites in place or would other programmes be more advisable for certain candidates.

In tier three, the above SWOT analysis under 3.2.2 is then to be compared to adopted strategies as outlined in the Five Year Report⁶⁷, information as received from interviewees, as well as to results from the questionnaires. In the second tier

⁶⁷ AsgiSA-EC (Pty) Ltd Five Year Business Plan-Year Ending 2010 – 2014 October 2008 p 40-42

this context, the MFP and Asgisa-Ec agricultural model are discussed under the viewpoint of synergies.

Variables and Regressors

Variables of interest in the statistical part based on the questionnaires to farmers are farm size in ha, skill factors such as last year of school as well as number of dependants.

These can then be combined with regressors of peculiar interest, the binary variable *interest in more land*, or *interest in trying oil crops such as canola and tractor skills*.

4 Analysis

During the interviewing phase with senior managers in the agricultural administration of the Province it became clear how crucial the human element is to be taken for the development of each move into new directions, for establishing new principles or new organisations. What are key drivers for developments in the region? Motivation and control, traditions and skills, finance and innovation.

One of the trends referred to in literature⁶⁸ from case studies was confirmed by the findings: Strong increases in rural population. Although none of these observations in themselves should be taken as representative, the median of the received results was an increase of population by 25,9%. This figure is not including the indication of the most senior Chief amongst the interviewed Ngcobo regional chiefs, responsible for 130.000 people. In his statement the population had even doubled as compared to 1995. Such results are only emphasising the stepped up pressure on Provincial authorities and institutions for the successful implementation of programmes to bring about sustainable development for the economy.

4.1 Interviews

Human Nature Factor:

The extent of poverty in the Province which have been referred to earlier as being estimated at a 70% level in rural areas (Chapter 1.1). It has been aggravated by a loss of jobs for many in wide regions of the Province since the early 1990s, for example in the Butterworth / Idutywa area. This situation also became apparent in the questionnaire survey: From the four contacted communities in Umtata and Idutywa region only one out of 45 farmers reported to have income from additional jobs! The central Northern location of Engcobo / Ngcobo 45% were reporting to have additional jobs. Although the Ngcobo and Idutywa farm sizes showed similar patterns, both were three to four times larger than the homestead gardens of the Umtata farms, the employment opportunities gave the Ngcobo farmers a much better financial standing and independence. Thus they were able to buy seed and other input material for a new cropping season from own resources without having to ask for credit from a

⁶⁸ Andrew, M., Case Study Report No 1 Willowvale, Provincial Growth and Development Plan – Eastern Cape p x;

public organisation or private bank. Such independence makes farmers be more self-determining.

The most crucial motivation element is personal benefit, or as one interviewee put it, the “greed factor”. Here counts in particular short term benefit as compared to the less obvious. He warned, however, about a long tradition of “hand outs” in the Province leading to the expectation of many for something for free from the government. As a general rule of thumb it can be said that individuals react positively towards new developments, technologies, introduction of new products or services

- If the process has any benefit to the me of the individual
- If it appeals to the feeling of greed /to one’s own advantage.

Social processes under these conditions are very time consuming, very costly and often get manipulated.

The bias in expectation from government prevails to be for “free hand outs” and can thus severely undermine the implementation of programmes which are not meant to be for free. The “Mechanisation Programme” through which tractors and agricultural implements will be made available to qualifying black farmers was said to have been used by politicians for the status value of tractors. If more than 2/3 of tractors were not granted as tools for economic reason then the impression can easily develop that rules can be bent.

Such “traditions” and experience patterns have contributed to difficulties of the MFP as well.

Government Factor

In public experience, government institutions’ operations are characterized by

- bureaucratic approach
- long decision making processes
- political influence possibilities (in some cases)

Exactly these characteristics reduce effectivity if it comes to economic decision making requirements. MFP and AsgiSA-EC structures have in common that they are either located in a government structure (MFP) or as with AsgiSA-Ec it has been established as a “Special Purpose Vehicle” (SPV). This SPV has more operational freedom than an authority, it still suffers from the time consuming drawbacks of being subject to similar expenditure and decision making control mechanisms as the public sector and long decision making processes from involved government stakeholders.

Whereas MFP has been operated to a very large extent from ECDA government structures with only the farmers, contractors and other service partners operating on the private side, the private component has been much expanded upon with AsgiSA-EC, which is trying to keep structures slim and to delegate many functions to external partners.

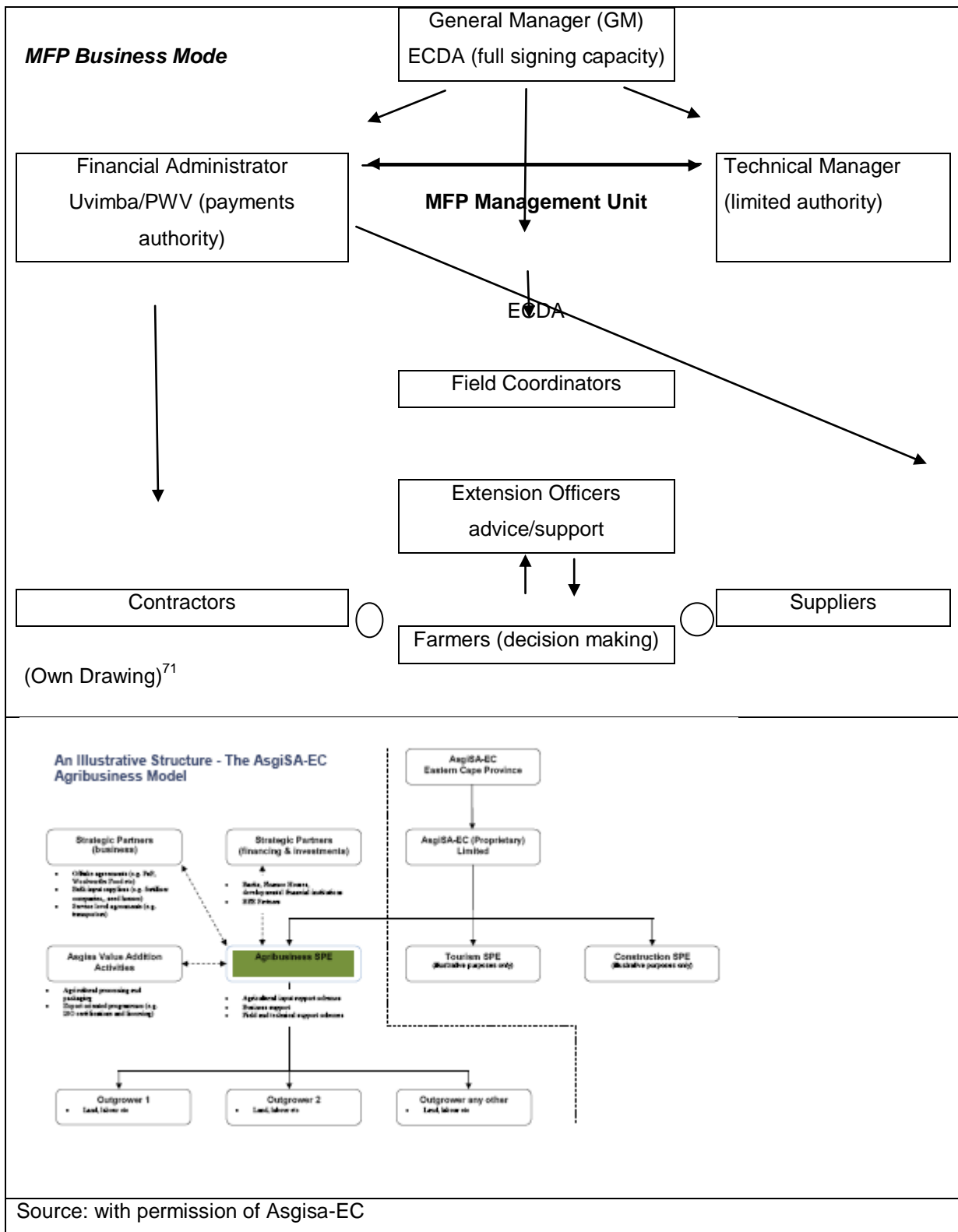
Government organizations are run by staff with various qualifications and motivations. As referred to under Human Nature paragraph programmes with best intentions can fail if some internal or external actors are driven by problematic motives. Lack of traditional influence, integrity or other factors lead some “controlling parties” in the form of EOs to open up for sorts of abuse and collusion. Other forms of low judgement on some EOs are reported by Ainslie⁶⁹ (“whose commitment is highly questionable”) for the Eastern Cape. Whereas Mosse⁷⁰ in more general terms on ‘rent seeking behaviour’ points out that EOs could be considered an ‘uncertain’ factor as they were less controllable.

A better understanding of the respective structures can be gained from figure 4.1.1 overleaf.

⁶⁹ Ainslie, A., Case Study Report No 4 Nqushwa Municipality, Peddie, Eastern Cape, Provincial Growth and Development Plan – Eastern Cape p lvii;

⁷⁰ Mosse, D. (1998:25) Process-oriented approaches to development practice and social research, in: Mosse, D., Farrington, J. Rew, A. (eds.). Development as process. Concepts and methods for working with complexity. Routledge, London

Figure 4.1.1 Comparisons of Business & Decision Making Structures of MFP and AsgiSA-EC



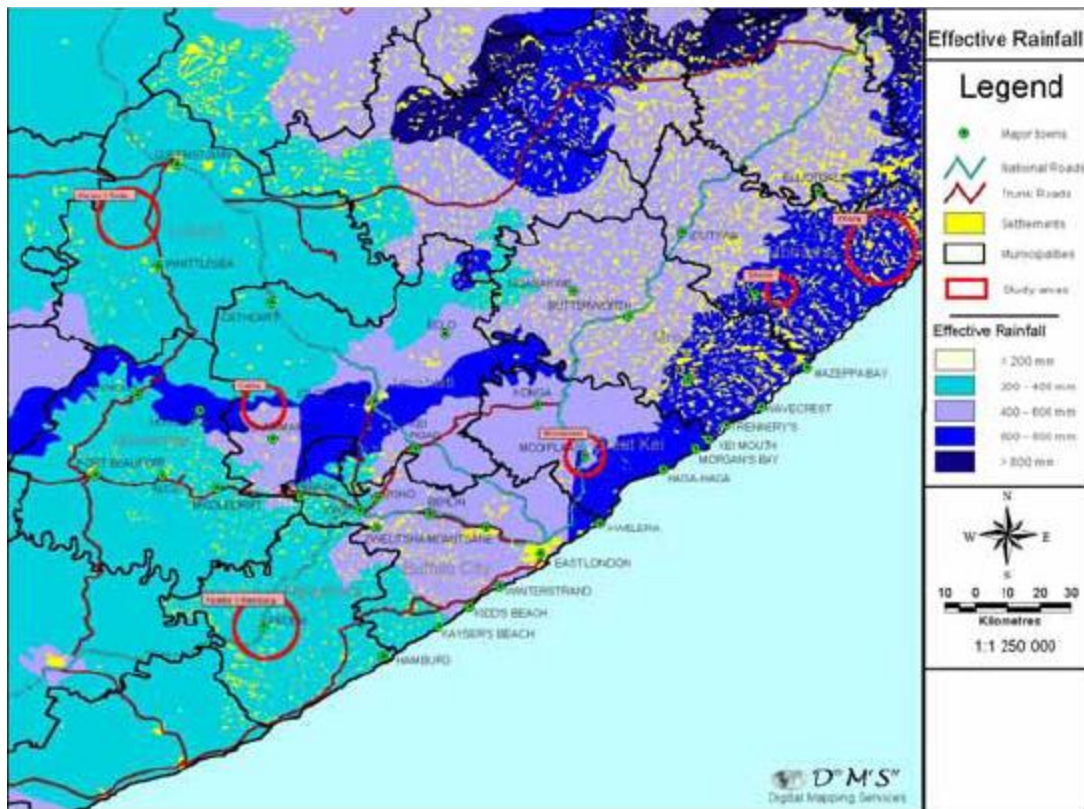
Source: with permission of AsgiSA-EC

⁷¹ In analogy to drawing from Lange, D. Top-Down Development Interventions with an Adaptive Approach – The Case of the Eastern Cape Massive Food Programme, South Africa, Dissertation prepared in partial fulfilment of the requirements for the M.Sc. in Applied Development Studies Programme, September 2006

Environmental Factors:

The quality of soil will in a dry-land cropping project still needs another major partner to be productive, favourable weather conditions. A wide area rated as suitable for MFP and AsgiSA-EC cropping purposes are situated in a saddle /pan-like location with lower rainfalls as the costal hillsides and more inland hilly and mountainous regions towards Free-State and Lesotho. From the visited municipalities Ngcobo to the North is based in a higher precipitation region. Umtata is in the saddle and Idutywa not yet quite out. The current year has seen much less rainfall than is long-term average for the Eastern parts of the Province / East of East London. Early sowing in February / March is imperative in regions of uncertain rainfall as then it is closer to the summer rainfall season. The author visited a canola project field near Willowvale which was sown in rather late in March. More details on the average precipitation levels are featured in figure 4.1.2

Fig. 4.1.2 Rainfall patterns in parts of the Eastern Cape Province



Source: Digital Mapping Services⁷²

⁷² As published in Ainslie, A., Case Study Report No 4 Nqushwa Municipality, Peddie, Eastern Cape, Provincial Growth and Development Plan – Eastern Cape

4.2 SWOT-Analysis

MFP vs AsgiSA-EC

The SWOT analysis goes back to initial publications of Learned⁷³ et al. In a first comparison for the purposes of this study, positive development can be seen in AsgiSA-EC over MFP structures.

Strengths:

Conditionality, accord with communities improving on food security of the participants are common strengths in these programmes. AsgiSA-EC is following stricter private sector principles by way of relegating advisory capacity, provision of services and more control functions to its strategic partners (financing & investment) and on the agribusiness SPE (Special Purpose Enterprises). These two elements have received more authority for handling their responsibilities independently from the central functions of AsgiSA as compared to MFP. More intensive field checking mechanisms, additional (winter) crops such as canola and different funding processes strengthen the general position of the company. Future stock listing is an option. A. is having a remuneration structure of a range of instruments including a project management fee from the farmers in relationship to achieved yields. Income is therefore growing with levels of extension of cropped land as well as experience of its farmer members. Canola would even be a crop of no immediate use for human consumption, therefore theft would be unlikely.

Opportunities:

Secured markets and market development even for maize is improving the comparison over MFP. In case of canola perspectives on a 2nd harvest once every 4-5 years including grazing opportunities for cattle during certain growth phases sets AsgiSA-EC apart from MFP positively. There could be competition amongst candidate communities be turned to the favour of AsgiSA-EC to select the more suitable partners and thus securing better starting positions for the organisation and improve on own income base.

⁷³ Learned, E.P. Christensen, C.R., Andrews, K.E., Guth, W.D., 1965. Business Policy: Text and Cases. Irwin, Homewood. IL.

Weaknesses:

Certain governmental control mechanisms are impediments for operational activities as there are long decision making processes not matching with requirements of entities which are operating in a natural environment where certain decisions depend on weather conditions and have to be dealt with when conditions require them. However, it seems to be a big step forward that senior contractors as experienced farmers are advising sub-contractors in a more qualified form than to some extent possible with EOs under MFP. Systems are only working as good as their members. Production skills on all involved levels are therefore crucial for success of developments – the human element. Good communication skills required from the senior contractors. The author received word from amongst contacted EOs that there is still bias against some white South African farmers from the black farmer community.

Planned growth process is not organic but incremental in big steps. This requires big efforts from all sides also called “steep learning curve” and qualified staff at the right times. With regard to canola production the anticipated pace is even higher due to large quantities required from planned refinery partner once the plant is becoming operational. It is not clear in what way integration in rural communities is going to be achieved – as the organisation is still very young and without any track record.

Threats:

Many developments require infrastructural steps to be mastered successfully: fencing under control including close monitoring. Human nature – due to conflicting interests - may always bring up conflicting situations which could lead to severe losses in crops or assets. Human nature is the element which can be controlled the least and therefore requires highest efforts.

For the canola project, organisational skills of involved parties are to be stepped up against maize production as winter crops require much narrower harvest to renewed seed times, different practices for disease control (use of pesticides). For rapid

extension of canola production there may not be enough experienced senior contractors available. Refinery plant investment can also be postponed. In this case large scale canola production may not be profitable enough due to more distant markets.

Synopsis

A synopsis of comparisons amongst the SWOT elements is the main target of such an analysis process and can be often demonstrated in a TOWS structure. In this case, for better transparency an organisational TOWS of AsgiSA-EC has to be separated from one of canola production and – although canola production is inherently connected to AsgiSA processes - will be presented in two steps.

Fig. 4.2.1

TOWS Analysis of AsgiSA-EC

	<p>Strengths AsgiSA-EC with private structure Commercialised farming structures Conditionality Input funding tools available</p>	<p>Weaknesses Parastatal without full financial control High levels of coordination Senior contractors with strong communication skills vs. sub-contractors Black – white bias Fencing & maintenance Low levels of mechanisation infrastructure Foreign sub-contractor & friction pot. to community Mentors & subcontractors require high skills profile</p>
<p>Opportunities Private partner involvement possibility Extending value chain for region Storage silos f. crops financed by A. Private partners f. services secured markets f. maize</p>	<p>Privatisation t.b. pursued Participation of local & external investors t.b. investigated (services and value addition activities)</p>	<p>Create structure f. private Investors for new & streamlined efficiency Strengthen role of sen. contractors Reduce B& W bias Use synergy potential f. existing mechanisation in region</p>

<p>Threats AsgiSA without access to capital markets yet Political influence due to public funding Without ownership no entrepreneurship Livestock / fencing can get out of control Slim A. staffing level: high level of integrity & professional skills required Individualism vs community interests</p>	<p>Give experimental space by limited endowments Develop / improve local communal pasture land More direct involvement of individuals & share of dividends</p>	<p>Experimental space by limited endowments Leave onus of food security with state (& its funding) & MFP Include local university graduates f. programmes Ensure funding continuity by good track record Include EOs in communication offensive & familiarise them to new crops</p>
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Fig. 4.2.2

TOWS Analysis of Canola

	<p>Strengths (CP) winter crop, broadens income and animal feed source options (CP) improves yields of following crop (CP) tool in containment of soil erosion</p>	<p>Weaknesses (CP) Oil crops – steep learning curve necessary (CP) Strong communication policy required with slim staffing level (CP) Private mentors have no network into EO-system of ECDA (CP) More rain sensitive than maize</p>
<p>Opportunities (CP) additional harvest revenues (CP) secured market</p>	<p>Participation of local & external investors t.b. investigated (services and value addition activities) Bee keeping</p>	<p>Strengthen role of sen. contractors (CP) adopt slower pace (CP) familiarise by regional piloting</p>
<p>Threats (CP) Commercial farmers preferred vs EFs or in other provinces (CP) Steep expansion levels of canola production vs available maize area (CP) investment will be postponed</p>	<p>(CP) Local stock owners to benefit via canola grazing sharing principle (CP) adopt slower pace (CP) EF not t.b. excluded but integrated by local skills development steps (CP) discuss investment plans openly with all options</p>	<p>(CP) Invite foreign sen. contractors to soften B&W bias (CP) Include local university graduates f. programmes Include EOs in communication offensive & familiarise them to new crops Combine erosion protection & pasture dvpt with (CP) grazing (&control process)</p>

4.3 Field Data Analysis

Research with questionnaires was conducted in six locations of different regional characteristics. Common traits were that they were all conducted in a similar manner with only one exception as described in section 3.3.2.4. All farmers were of Xhosa background, had been involved. Differences amongst the communities were apparent but not always of relevance to the agricultural results.

Representativeness of sample:

From a population size of estimated 8000 emerging farmers (according to John Allwood)⁷⁴ the probit of N= 64 represents close to 1,5 % of the population (with N= 65). Calculation tool used Sample Sizer⁷⁵.

Schooling:

The highest education level was found amongst the farmers in Ngcobo which also happened to have large farms. But the community without any farmers in the age group 9-2 onwards did have the largest farms, Idutywa. A graph in Figure 4.3.1 will describe the situation..

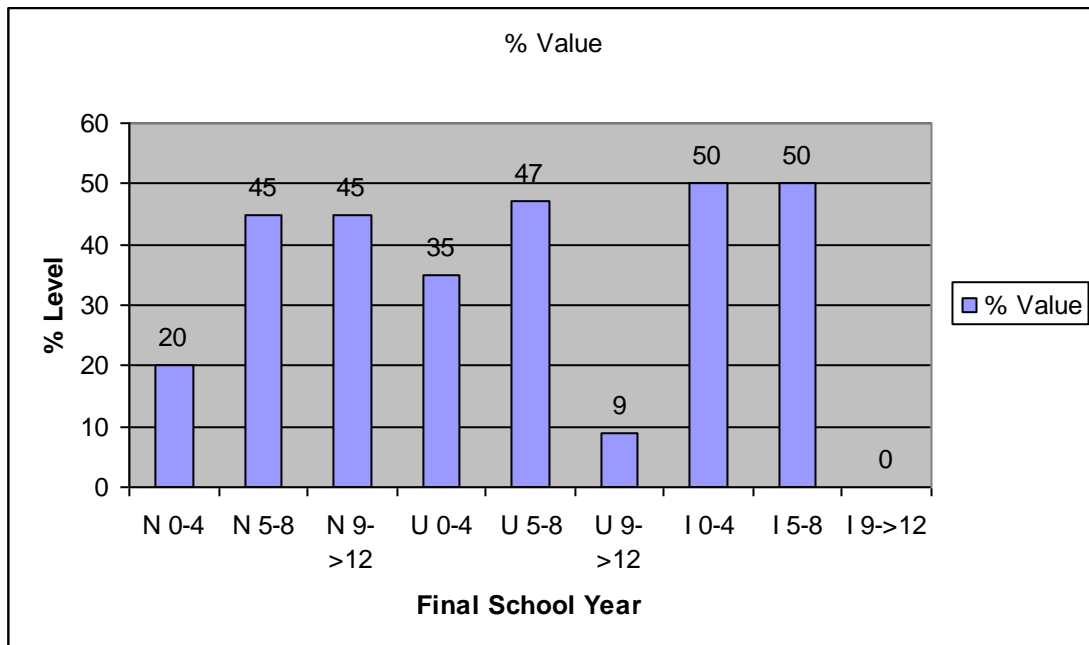
Figure 4.3.1 Final School Levels of Farmer Communities in Ngcobo (N), Umtata (U) and Idutywa (I)

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⁷⁴ Allwood, J. Presentation on Food Security – Eastern Cape 2007/2008 not published.

⁷⁵ Christian Reinbrot, Sample Sizer, <http://www.statistikberatung.eu/files.html>

Fig. 4.3.1 Final School Year



Farm Sizes:

The data of the farmers in Umtata were combined to one group values as the most important category was believed to be the size of farm operations. In this region it was enormously homogenous 31 out of 34 farms were of a 1 ha size, the other three farms varied between values of 1.5 and 2.5 ha, bringing it to an average value of 1,06 ha / farm over 34 farms.

From the 60 values received for farm sizes the following values were calculated:

$$\Sigma = 196,2 \text{ Ha}$$

$$\Sigma^2 = 2214.94$$

$$\text{Av.} = 3,27 \text{ ha}$$

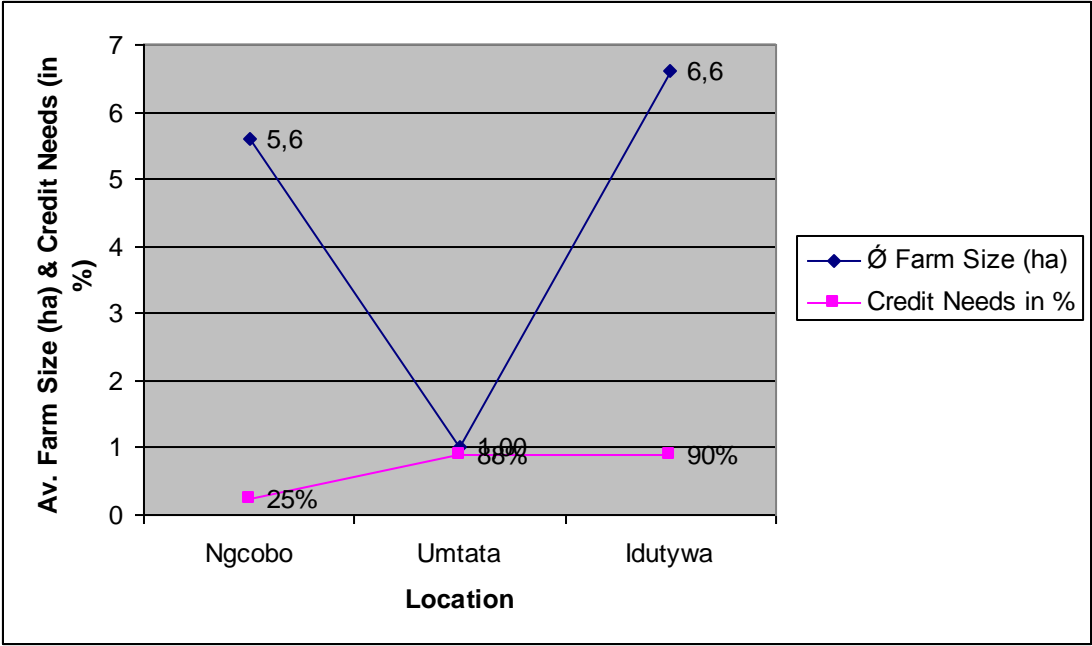
$$\sigma_{xn} = 5,12 \text{ ha}$$

$$n = 60$$

According to Sample Sizer used 34 samples would be sufficient for achieving the confidence level of 95%. Interval width +/- 0,03. The sample is representative for our purposes.

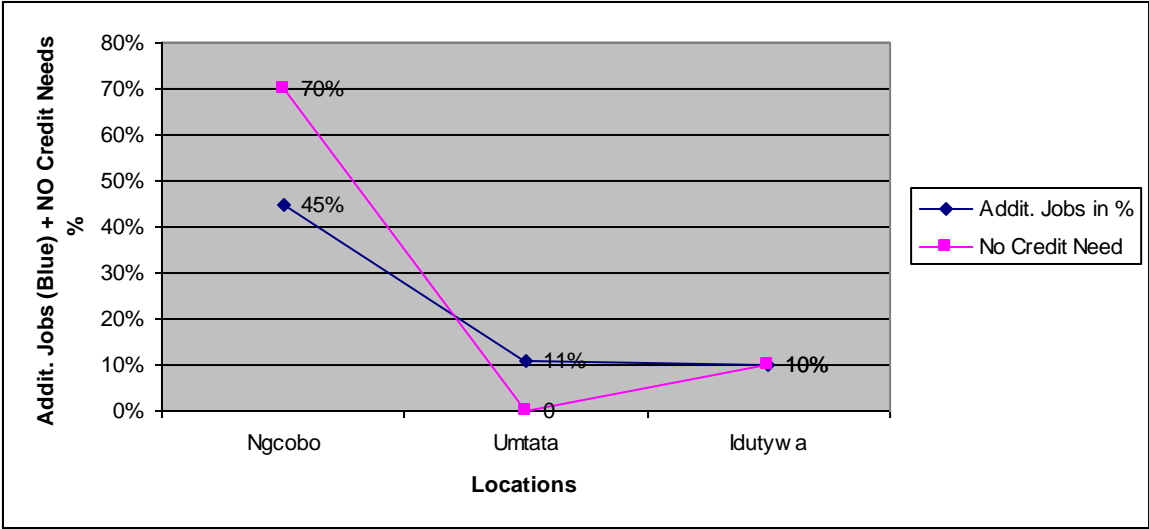
Regarding test question "Is Farm size a decisive factor for credit needs per location" with regard to buying seed input for next season.

The answer is. There is no correlation between the two factors as can be taken from the following graphics 4.3.2 Relationship of Farm Size vs Credit Needs Per Location Fig. 4.3.2



In a comparison of “Additional Job” and “NO Credit Needs” one find a strong correlation as can be seen from the following graphics 4.3.1

Graphics 4.3.3 Additional Job + No Credit Needs per Location



From the existing data the impression is that the two areas with the larger farming areas have the better chances to get involved with AsgiSA-EC in their dry-land projects. This is taking into account the farm size, inclination, synergy potential and other factors.

Fig. 4.3.4 Summary: Evaluation From Quest. Of Tradit. Leaders

	Summary: Evaluation From Quest. Of Trad. Leaders					
	Farm size	Financial Stability	Tractors Interest received ca.	MFP experience	Bee keeping	
Ngcobo	X	X	20%	X	20%	X
Umtata		0	0 67%	0 X		
Idutywa	X		0 60%	X	X	XX

It should be understood that bee keeping can bring major progress in pollination of the plants improving yield results significantly as indicated by Delaplane and Mayer⁷⁶ and many others.

Canola Production cycles

According to European experiences canola crop rotations are only advisable every four years due to possible soil-bound diseases. Virgin soils where no species from the cabbage family of plants (brassicaceae) have been planted can stand closer rotations but that should be done under good observation of phytosanitary principles. Examples of such rotations should be compared to traditional agricultural patterns which are based either on maize monoculture at field cultivation level or in a homestead environment on intercropping approaches. 2 examples of canola rotations for large scale, commercial applications are given hereunder (Fig. 4.3.3):

Figure 4.3.5 Canola Crop Rotation Examples⁷⁷

Canola Rotation Options: Maize-Canola-Maize-Maize-Can				Canola Rotation Options wheat-canola sorghum			
yr1	Oct	Maize	1. Harvest (1.H.)	yr1	July	Wheat	1. Harvest
yr2	Jne/July	Harvest			Dec.		(1.H.)
yr3		Fallow		yr2	Feb/Mch	Canola	Seed
	Febr/Mch	Canola seed	Seed		in first 8-10 weeks		Animal
	in first 8-10 weeks		Animal Grazing		Oct.		Grazing
	Oct	Harvest Can.	(2.H.)	yr3	Fallow 4 months		(2. H)
	Oct	Maize	Seed	yr4	Oct.	Maize	Seed
yr 4	Jne/July	Harvest	3. Harvest		Jne/July	Harvest	(3. H)
		Fallow			Fallow 6 months		
yr 5	Oct	Maize		yr5	Feb/Mch	Canola	Seed
	Jne/July	Harvest	4. Harvest		Oct.		(4. H)
		Fallow		yr6	Feb/Mch.	Sugar-graze sorghum	
yr6	Febr/Mch	Canola seed	Seed		as yr1		
2 canola harvests in 6 yrs				2 canola harvests in 5 years			

⁷⁶ Delaplane K. and Mayer D.: Crop pollination by bees, CAB International, USA, 2000
⁷⁷ Fouché, P., Canola promises grain rejuvenation, Farmers Weekly, 16 January 2009

Intensification of crop rotations will be interesting from a business point of view. But farmers have to be vigilant to prevent possible diseases be built up.

Figure 4.3.6 Stepping up of Canola Production, Scenario

Planned Stepping up of Farmed Land Per Type of Crop				
Cropping Hectares				
Year ending	Maize	Canola	Careful Canola Phase-in	possible Canola planting, assumptions
March 2010	12.000	800	800	
March 2011	24.000	1600	1600	
March 2012	36.000	24.000	6000	6000
March 2013	48.000	32.000		10-12.000
March 2014	60.000	40.000		16-20.000
Source Asgisa-EC 5 Yr Busin. Plan & own assumptions				

The perceived gap between AsgiSA-EC model in canola production increase depends totally on the risk approach taken. The author is not expert enough to say it would be impossible. However, it seems unrealistic from a phytosanitary point of view and perhaps also from a production point of view to step it up at a high pace. The production systems will have to be learnt by the practitioners.

5 Discussion and Conclusion

AsgiSA-EC is a young organisation seeing just its second year of operation in current financial year 2009 / 2010. It has a mandate covering a period of 25 years. In analogy to the adaptive and hybrid approach taken with the MFP – according to Uphoff⁷⁸ - a holistic approach has been taken combining *analysis [adaptive]* principle with *synthesis [top-down blueprint] principles*. To take a holistic approach is important due to the complexity of social and developmental issues at stake and thus combines a “both-and approach (which) includes either-or analysis”⁷⁹. If Brinkerhoff and Ingle⁸⁰ call this approach “structured flexibility” they underline the requirements for a strategy of a young organisation to “achieve short-term performance and also long-term sustainability. Early successes build stakeholder confidence and commitment, which is critical for sustaining the program over time”. processes and organisational structures will still be under scrutiny of its governmental principals in the Province until a reasonable track record will have been established. This puts AgsiSA-EC under pressure to provide short-term measurable success in a (still) bureaucratic environment with its budgeting strings attached.

This sets the course for A. to make decisions according to the following principles:

- Focus upon regional strengths and minimise risks

Agricultural essentials are centred around maize extension following the rainfall patterns of the Eastern part of the Province. Areas of average higher precipitation are being started with from the coastal strip to the South of Butterworth & Idutywa to expand to central and Eastern parts of Umtata in 09/10 period to be expanded into Northern regions over the 5 year period to 2013. Each expansion step has a maximum of 20.000 ha /annum. (As taken from early development planning on “Proposed Maize Production Areas 2009-2010”⁸¹).

⁷⁸ Uphoff, N. learning from Gal Oya. Possibilities for participatory development and post-Newtonian social science, IT Publications, London (2nd edition), 1996

⁷⁹ Ibid p284

⁸⁰ Brinkerhoff, D., Ingle, M., Integrating blueprint and a process: a structure flexibility approach to development management, in: *Public Administration and Development* 9, pp 487-503 (1989)

⁸¹ Annexure A to current version of AgsiSA-EC (Pty) Ltd Five Year Business Plan-Year Ending 2010 – 2014, summer 2009 edition, unpublished document provided to the author by AgsiSA-EC

- A competitive selection process

This can be applied as currently applications from communities in the order of 60.000 ha are said to have been received⁸². This guarantees an emphasis on the more likely successful production locations making good reference projects and good prospective returns. The currently large interest also allows to set a focus on poverty stricken regions which are also found predominantly in the Eastern parts of the Province.

- Flexible handling of canola expansion:

There are indications that plan figures for moving into canola production are handled flexibly according to a variety of circumstances. Whereas the 2008 5 year plan makes provisions for 800 ha of canola production, information provided in the September 2009 website⁸³ of A. indicates 500 ha of canola production were planted under contract with biodiesel plant investor. Other winter oil crops such as soya bean and sunflower give A. enough flexibility to select amongst oil crops regardless when a decision for the construction of the biodiesel plant will be taken. As long as neither the biodiesel investor or AsgiSA-EC are not making more decisive steps to invest into systematic regional cropping experiments wherever maize production is being started it will be left to circumstances developing once the go ahead decision to build the biodiesel plant is being taken.

To answer the question whether conditions are given for Canola Production in the Eastern Cape the following is to be kept in mind which have been referred to in the TOWS analysis of canola to a good extent under section 4.2:

- Discussions will have to deal with developmental dimensions first before discussing mere “production technical” issues from an agricultural point of view. Current agricultural practices in typical Xhosa-dominated regions are often falling behind most other neighbouring regions in other provinces. In the case of Ntabankulu community near Lady Frere - planned in for the AsgiSA-EC programme during its 5 year target - the Human Science Research Council (HSRC) in 2006 identified this area as having the poorest human development index in South Africa⁸⁴. According to Craig Schwabe, CEO of HSRC their

⁸² Verbal information received from AsgiSA-EC management in July 2009.

⁸³ http://www.asgisa-ec.co.za/proj_temp.php?type=agri ; dated 27 September 2009

⁸⁴ http://www.hsrc.ac.za/HSRC_Review_Article-36.phtml, website of Human Science Research Council, dated 27 09 2009

circumstance was preventing local residents “to lift themselves out of poverty”. Starting an AsgiSA-EC project involvement in such an area will have to be carefully planned to avoid isolated large-scale projects without any stimulation of surrounding local community farming. Additional MFP activities might add positively to impacts of an AsgiSA project.

- There are certainly no principal barriers or reasons why canola should not be cultivated in the Eastern Cape. Climatic conditions suggest that canola makes a good winter crop to abandon traditional maize monoculture, even putting farmers in a position to get rid of a full year of fallowing the land – as was traditionally the case. This gives farmers applying Asgisa concepts the opportunity for notable income gains. Here the spill-over effect will play an important role if proper communication principles will be applied suitable for the regional context.
- Agriculture is a practical discipline based on skills and experience. Big steps ahead can most likely be made in an AsgiSA project, if such expertise is hired either from within of South Africa or from regions abroad where canola cultivation is commonly exercised. However, rushing into a vast build-up of a new crop does not appear to be the best option in the AsgiSA context. Rather an incremental approach, step by step. As practiced by pockets of white farmers Eastern parts of the EC Province it is not the questions whether good practice is possible in the region but how to achieve at a level of Emerging Farmers (EF). If senior contractors (SC) are to play the decisive part in this development, the other important role will be the careful selection of EF partners who are to be seconded by SCs. It should be the goal to strengthen their operational scope freedom by (1) reducing negative impacts of B&W bias and (2) operational limitations of long decision making processes when quick decisions are imperative.

The last point leads to the question whether important structural prerequisites are met for expanding canola production from small to large scale levels. The question is not limited to canola production but refers to the current organisational limitations of AsgiSA organisation.

- At medium term level further privatisation of A. by broadening the shareholder structure will play a major role. AsigSA- Ec will see in the coming production seasons how the start of maize production is going to unfold. There is a strong interest in all communities for an extension of production. Developing a positive

track record for A. is therefore an important step forward in widening its business scope.

- In the short term, the application of new financing tools should be investigated and whether this can be done without the current long communication and decision making routes within the regulations of public auditing. Using forward sales contracts for securing loans for input financing should be opened up for the purposes of sub-contractors as well as finding “business angels” for subcontractors to enable them faster reactions and have SCs be able to play a role in this may be conducive in individual cases. This is one of the suggestions received at the interviews made during on-site research in the Province.
- Human element is crucial in several respects. Skills development on the one side is a major task of responsible staff for HR internally and for the farmers level. Secondly, fraud prevention. The coming years will also show whether all mechanisms that AsgiSA-EC has in place in principle to prevent fraud and reduce risks of other natures will be functional. Judging from the experience of Massive Food Programme unpleasant surprise situations should rather be expected.

The goodwill factor of the Eastern Cape government is imperative for the development of AsgiSA-EC. Can it be guaranteed?

MFP and canola cultivation: Are there any synergies?

The most direct synergy potential can be seen with the mechanisation programme which has been linked to MFP. As could be seen from the interviews in Ngcobobeni and Idutywa in both cases tractors had been made available and thus are assets of the communities and regional service providers for future programmes and business opportunities.

Secondly, MFP activities should be regarded as complementary for Asgisa activities. They are reducing economic gaps from local small scale farmers to large-scale farming. It should also be valued as possible multiplication & communication tool. Even for developing other services and activities (transport, rental of equipment, bee-keeping) MFP is complementary. Bee keeping should be encouraged. More than 10-15% of higher canola yield can be expected by having honey bees pollinate the

fields. Mandl⁸⁵ under Austrian conditions rates the positive effect of bee pollination with canola can reach a level of 1 tonne per ha.

Many factors come into play which cannot be fully planned for: To have qualified personnel will not be easy in South Africa. An alternative may be to source experienced farmers from foreign countries. They will, however, be unfamiliar to the environment and will also have to go through a learning curve. It may be interesting from a white-black bias point of view. There is the chance that foreigners may be seen more neutral and less emotionally opposed from some in the black farming community as opposed to traditional Boere / Afrikaaner farmers.

There remains a big production gap as a possibility. This matter will have to be taken into consideration by the investor. Therefore it may be advisable for this firm to

- look for alternative production partners, e.g. in neighbouring provinces of the Western Cape and Free State.
- Senior contractors together with the investor & Asgisa should look for a closer mentoring programme for black regional farmers. This could include MFP farmers with soils which have never been cultivated with canola. From the current around 30.000-50.000 ha under the MFP, more farmer partners could be motivated to look into canola production. This would have to be communicated professionally and carefully taking into account that many Emerging farmers are primarily interested in producing maize.

Conclusion:

It is important for a rural turn around of the Province to continue with the investment process to develop sustainable agriculture. Canola can play a very prominent role if one does not rush into an adventure which could ruin the reputation at an early stage. One should have close discussions with the investor and see whether a few years' postponement in the order of two to three years would make sense. In this time a more gradual phasing in and introduction of this cultivar new to the region would make sense and rather prepare the region for more steadfast start into a new era. Risks are there to be first understood and then be contained. This is the

⁸⁵ Mandl, S. „Düngewirkung der Honigbiene“, PhD Dissertation , 2008, Vienna University, Universität für Bodenkultur Wien

opportunity AsgiSA-EC and the investor can benefit from by learning from the synergy potential and learn to utilise it to mutual benefit.

A canola programme can certainly contribute a lot to a positive development of rural development if it is done with circumspection.

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